AGENDA
REGULAR BOARD MEETING OF THE
SAN ELIJO JOINT POWERS AUTHORITY
MAY 19, 2026 AT 8:30 A.M.
SAN ELIJO WATER CAMPUS – BOARD MEETING ROOM
2695 MANCHESTER AVENUE
CARDIFF BY THE SEA, CALIFORNIA

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1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. ORAL COMMUNICATIONS/PUBLIC COMMENT PERIOD (NON-ACTION ITEM)

5. NEW HIRES, AWARDS AND RECOGNITION

   Recognition

   Ritwik Bandyopadhyay – Operator II – Education
   Palomar College Associate's Degree in Wastewater Technology
   Palomar College Associate's Degree in Water Technology

   Miguel Becerra – Mechanic II – Certification
   California Water Environment Association - Mechanical Technologist III Certification

   Joshua McTaggart – Operator in Training – Certification
   State Water Resources Control Board – Grade I Wastewater Treatment Plant Operator

6. * **CONSENT CALENDAR**

7. * APPROVAL OF MINUTES FOR APRIL 21, 2026 MEETING

8. * APPROVAL FOR PAYMENT OF WARRANTS AND MONTHLY INVESTMENT REPORTS – APRIL 2026

9. * WASTEWATER TREATMENT REPORT – MARCH 2026

10. * RECYCLED WATER REPORT – MARCH 2026

11. * REPORTABLE MEETINGS

12. * AWARD OF CHEMICAL CONTRACTS FOR SODIUM HYPOCHLORITE AND ALUMINUM SULFATE FOR FISCAL YEARS ENDING 2027-2029

13. * SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) UPGRADES CONTRACT

14. * SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2026-27 RECOMMENDED BUDGET UPDATE

15. * UPDATE ON EMERGENCY REPAIRS (APRIL) TO RECYCLED WATER PIPE ON SAN ELIJO WATER CAMPUS

16. * NOTICE OF EMERGENCY SITUATION AND AWARD OF CONSTRUCTION CONTRACT FOR REPAIRS TO RECYCLED WATER PIPELINE ON THE SAN ELIJO WATER CAMPUS AT EAST ENTRY GATE

17. * ITEMS REMOVED FROM CONSENT CALENDAR

Items on the Consent Calendar are routine matters and there will be no discussion unless an item is removed from the Consent Calendar. Items removed by a "Request to Speak" form from the public will be handled immediately following adoption of the Consent Calendar. Items removed by a Board Member will be handled as directed by the Board.

REGULAR AGENDA

17A. NOTICE OF EMERGENCY SITUATION AND AWARD OF CONSTRUCTION CONTRACT FOR REPAIRS TO RECYCLED WATER PIPELINE ON THE SAN ELIJO WATER CAMPUS AT NORTH BIKE TRAIL (SUBJECT TO TWO-THIRDS VOTE OF THE SAN ELIJO JOINT POWERS AUTHORITY BOARD)

1. Review and Confirm this Emergency Condition pursuant to San Elijo Joint Powers Authority's Resolution 2022-01 "Purchasing Policies and Procedures" and Public Contract Code 22050, and ratify the General Manager's execution of an emergency repair agreement with Burtech Pipeline for repairs to buried recycled water pipeline at the San Elijo Water Campus (North Bike Trail); and

2. Discuss and take action as appropriate.

Staff Reference: Deputy General Manager

18. EFFLUENT PUMP AND MICROFILTRATION PUMP REBUILDS

1. Authorize General Manager to execute Agreement with Brax Company, Inc. for rebuild for four vertical turbine pumps in the amount of $164,275.98; and

2. Discuss and take action as appropriate.

Staff Reference: Deputy General Manager

19. BURIED RECYCLED WATER PIPE REPLACEMENT STRATEGY

No action required. This memorandum is submitted for information only.

Staff Reference: General Manager

20. SAN ELIJO OCEAN OUTFALL 2025 INSPECTION REPORT

1. Accept and file the San Elijo Ocean Outfall Year 2025 Inspection Report prepared by Marine Taxonomic Services, Inc; and

2. Discuss and take action as appropriate.

Staff Reference: Director of Operations

21. GENERAL MANAGER'S REPORT

Informational report by the General Manager on items not requiring Board action.

22. GENERAL COUNSEL'S REPORT

Informational report by the General Counsel on items not requiring Board action.

23. BOARD MEMBER COMMENTS

This item is placed on the agenda to allow individual Board Members to briefly convey information to the Board or public, or to request staff to place a matter on a future agenda and/or report back on any matter. There is no discussion or action taken on comments by Board Members.

24. CLOSED SESSION

The Board will adjourn to Closed Session to discuss item(s) identified below. Closed Session is not open to the public; however, an opportunity will be provided at this time if members of the public would like to comment on any item listed below. (Three-minute limit.) A closed session may be held at any time during this meeting of the San Elijo Joint Powers Authority for the purposes of discussing potential or pending litigation or other appropriate matters pursuant to the "Ralph M. Brown Act".

CONFERENCE WITH LABOR NEGOTIATORS (Government Code 54957.6)
Agency designated representatives: Michael T. Thornton, General Manager
Unrepresented employees: SEJPA Employee Group

25. ADJOURNMENT

The next regularly scheduled San Elijo Joint Powers Authority Board Meeting will be Tuesday, June 16, 2026 at 8:30 a.m.

NOTICE:

The San Elijo Joint Powers Authority's open and public meetings comply with the protections and prohibitions contained in Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C Section 12132), and the federal rules and regulations adopted in implementation thereof. Any person with a disability who requires a modification or accommodation, including auxiliary aids or services, in order to participate in a public meeting of the SEJPA Board of Directors, may request such modification or accommodation from Michael T. Thornton, General Manager, (760) 753-6203 ext. 72.

The agenda package and materials related to an agenda item submitted after the packet's distribution to the Board are available for public review in the lobby of the SEJPA Administrative Office during normal business hours. Agendas and minutes are available at www.sejpa.org. The 2026 SEJPA Board meetings schedule is available at SEJPA Board Meeting Dates.

AFFIDAVIT OF POSTING

I, Michael T. Thornton, Secretary of the San Elijo Joint Powers Authority, hereby certify that I posted, or have caused to be posted, a copy of the foregoing agenda on the SEJPA website at www.sejpa.org, and in the following locations:

- San Elijo Water Campus (formerly known as San Elijo Water Reclamation Facility), 2695 Manchester Avenue, Encinitas, California
- City of Encinitas, 505 South Vulcan Avenue, Encinitas, California
- City of Solana Beach, 635 South Highway 101, Solana Beach, California

The original agenda was published on Thursday, May 14, 2026, at least 72 hours prior to the meeting, in accordance with Government Code Section 54954.2(a). This revised agenda is being submitted following the SEJPA Board Meeting on May 19, 2026 to reflect the inclusion of Agenda Item Number 17A* (as approved by a two-thirds vote of the San Elijo Joint Powers Authority Board) in accordance with Section 54954.2(b) emergency provisions of the Brown Act.

Date: May 19, 2026

Michael T. Thornton, P.E.
Secretary / General Manager

Agenda Item No. 07

SAN ELIJO JOINT POWERS AUTHORITY
MINUTES OF THE BOARD MEETING
HELD ON APRIL 21, 2026
AT THE SAN ELIJO WATER CAMPUS

Luke Shaffer, Chair — David Zito, Vice Chair

A meeting of the Board of Directors of the San Elijo Joint Powers Authority (SEJPA) was held Tuesday, April 21, 2026, at 8:30 a.m., at the San Elijo Water Campus.

1. CALL TO ORDER

Board Chair Schaffer called the meeting to order at 8:32 a.m.

2. ROLL CALL

Directors Present:

Board Chair	Luke Shaffer
Vice Chair	David Zito
Board Member	Jim O'Hara (8:44 am)
Board Member	Kristi Becker

Others Present:

General Manager	Michael Thornton
Deputy General Manager	Thomas Falk
Director of Operations	Christopher Trees
Director of Finance and Administration	Kevin Lang
Administrative Coordinator	Vanessa Hackney

SEJPA Counsel:

Snell and Wilmer	Adriana Ochoa

City of Encinitas/San Dieguito Water District:

General Manager	Isam Hireish
Senior Management Analyst	Ashlee Stratakis

3. PLEDGE OF ALLEGIANCE

Board Chair Shaffer led the Pledge of Allegiance.

Board Action: Vote to include Agenda Item No.18 - NOTICE OF EMERGENCY SITUATION AND AWARD OF CONSTRUCTION CONTRACT FOR REPAIRS TO RECYCLED WATER PIPELINE ON THE SAN ELIJO WATER CAMPUS (SUBJECT TO TWO-THIRDS VOTE OF THE SAN ELIJO JOINT POWERS AUTHORITY BOARD) *

Upon request from the General Manager Michael T. Thornton, the Board voted to include a non-agendized item related to the declaration of an Emergency Situation and subsequent contract award related to repairs needed to the SEJPA recycled water pipeline. To approve the inclusion of the non-agendized item a two-thirds vote is required.

Moved by Vice Chair Zito and seconded by Board Member Becker to approve the addition of Agenda Item No. 18.

Motion carried with the following vote of approval:

AYES:	Shaffer, Zito, Becker
NOES:	None
ABSENT:	O'Hara
ABSTAIN:	None

4. ORAL COMMUNICATIONS/PUBLIC COMMENT PERIOD

None.

5. AWARDS AND RECOGNITION

Recognition of Service to SEJPA

Scott Best – 10 Years

Winston Friedly – 5 Years

Awards:

California Water Environment Association (CWEA)

State Level Award for Community Engagement, and Outreach Program of the Year (2025) - Water Career Day

6. CONSENT CALENDAR

Agenda Item No. 7	Approval of Minutes for the March 17, 2026 Board Meeting
Agenda Item No. 8	Approval for Payment of Warrants and Monthly Investment Report – March 2026
Agenda Item No. 9	Wastewater Treatment Report – February 2026
Agenda Item No. 10	Recycled Water Report – February 2026
Agenda Item No. 11	Reportable Meetings
Agenda Item No. 12	Purposely Left Blank

Agenda Item No. 13 Purposely Left Blank

Agenda Item No. 14 Purposely Left Blank

Moved by Vice Chair Zito and seconded by Board Member Becker to approve the Consent Calendar.

Motion carried with the following vote of approval:

AYES: Shaffer, Zito, Becker
NOES: None
ABSENT: O'Hara
ABSTAIN: None

16. PRESENTATION OF THE SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2026-27 RECOMMENDED BUDGET

Director of Finance and Administration Kevin Lang presented the FY 2026-27 Recommended Budget, which consists of $11,717,007 in operating expense, $4,441,412 in capital appropriations, and $2,373,011 in debt service payments for a total budget of $18,521,430. The recommended FY 2026–27 budget with a focus on controlling costs, maximizing value, and ensuring the agency can effectively carry out its essential functions and maintain reliable service to participating agencies.

The proposed operating budget for all programs of $11,717,007 represents a 4.6% increase over the prior year. The increase is primarily attributable to higher personnel costs necessary to maintain a skilled and dependable workforce, additional expenses associated with treatment of wastewater flows during the wet season, and ongoing regulatory compliance and infrastructure investments needed to support long-term system reliability.

The Capital Improvement Program (CIP) includes both new and continuing projects within the Wastewater Treatment, Laboratory Services, Ocean Outfall, and Recycled Water programs, and reflects both current capital contributions and PAYGO savings designated for larger future capital needs as part of a three-year CIP funding plan. The CIP also includes pump station improvement projects, which are fully funded by the owner agencies of each respective pump station. The recommended FY 2026–27 CIP appropriation totals $4,441,412, including $1,320,000 for Recycled Water Phase 4 capital projects and $2,971,412 for other capital improvements funded through PAYGO contributions or cash revenues from participating agencies.

Total debt service for FY 2026–27 is projected at $2,373,011 represents scheduled debt service obligations that are proportionally shared among participating agencies. The FY 2026–27 budget does not include the issuance of any new debt.

The FY 2026-27 Recommended Budget contains additional details surrounding the development of the budget. The recommended budget is attached to the April 2026 Board Meeting Agenda document, as well as posted on SEJPA's website at the following address: www.sejpa.org/about-us/financials.

Director Lang announced that at the May 19, 2026 Board meeting, staff will be presenting public comments received and any proposed adjustments to the recommended budget. The final version of the budget will then be submitted for the Board's approval consideration during the meeting scheduled for June 16, 2026.

No action required. This item was submitted for information only.

17. CLASSIFICATION AND COMPENSATION ANALYSIS

Deputy General Manager Thomas Falk presented the completed classification and compensation analysis conducted by Reward Strategy Group. The study was completed under the supervision of the General Manager and included a comprehensive review of SEJPA position classifications using salary data from comparable agencies, supplemented with additional regional data where necessary to improve market alignment for specialized positions.

The classification and compensation study, conducted between November 2025 and April 2026, evaluated SEJPA's compensation structure relative to the regional utility labor market. The analysis found that many classifications, including operations, laboratory, and management positions, were below prevailing market levels. To support the Agency's ongoing ability to attract and retain qualified employees in a competitive labor environment, the proposed compensation structure generally targets salary ranges near the 65th percentile of comparable agencies. Recommended salary range adjustments are intended to improve market alignment, with management increases moderated to preserve internal equity. Three classifications currently above the target range will remain unchanged and will continue to be reviewed annually as market conditions evolve.

The proposed 2026–27 Classification and Salary Schedule will increase salary ranges and long-term earning potential across affected classifications. Over time, these adjustments, combined with future cost-of-living and merit increases, will result in higher overall compensation costs. Financial impacts will continue to be evaluated through the annual budget process to ensure alignment with available resources and long-term fiscal sustainability.

Moved by Board Member O'Hara and seconded by Vice Chair Zito to:

1. Accept and File Classification and Compensation Study by Reward Strategy Group, dated April 9, 2026; and

2. Approve Fiscal Year 2026-27 Classification and Compensation Schedule, effective July 1, 2026 – June 30, 2027

Motion carried with the following vote of approval:

AYES:	Shaffer, Zito, O'Hara, Becker
NOES	None
ABSENT:	None
ABSTAIN:	None

18. NOTICE OF EMERGENCY SITUATION AND AWARD OF CONSTRUCTION CONTRACT FOR REPAIRS TO RECYCLED WATER PIPELINE ON THE SAN ELIJO WATER CAMPUS (SUBJECT TO TWO-THIRDS VOTE OF THE SAN ELIJO POWERS AUTHORITY BOARD)

Director of Infrastructure and Sustainability Thomas Falk presented to the Board that on April 20, 2026, at approximately 3:30 p.m., staff observed water surfacing through the asphalt parking lot at the Campus. Staff isolated the leak and closed the affected area for safety.

Burtech Pipeline was contacted at approximately 4:30 p.m. and was requested to mobilize a crew and equipment, by 7:00 a.m. on April 21, 2026.

Immediate action was required to protect public safety, maintain a safe working environment, and minimize service interruptions to recycled water customers. Under SEJPA's Resolution 2022-01 and PCC 22050, the General Manager authorized emergency repairs without competitive bidding.

Burtech will complete repairs in an expeditious manner. The trench will be backfilled, compacted, and temporarily paved with a cold asphalt patch. Final parking lot paving will be completed after full extents of damage are assessed and will be competitively bid. Once all work is complete, SEJPA will reconcile time and materials charges with Burtech and close out the emergency declaration.

The cost of the emergency repairs will be funded through the Recycled Water Program's reserves. The recommended contract with Burtech Pipeline for this work is for an amount not to exceed $50,000.

Moved by Vice Chair Zito and seconded by Board Member O'Hara to:

1. Review and Confirm this Emergency Condition pursuant to San Elijo Joint Power Authority's Resolution 2022-01 "Purchasing Policies and Procedures" and Public Contract Code 22050, and ratify the General Manager's execution of an emergency repair agreement with Burtech Pipeline for repairs to buried recycled water pipeline at the San Elijo Water Campus.

Motion carried with the following vote of approval:

AYES:	Shaffer, Zito, O'Hara, Becker
NOES	None
ABSENT:	None
ABSTAIN:	None

19. PURPOSELY LEFT BLANK

20. GENERAL MANAGER'S REPORT

None.

21. GENERAL COUNSEL'S REPORT

None.

22. BOARD MEMBER COMMENTS

None.

23. CLOSED SESSION

A closed session was held for:

PUBLIC EMPLOYMENT (Government Code Section 54957 (b)(1),
Title: General Manager

CONFERENCE WITH LABOR NEGOTIATORS (Government Code 54957.6)
Agency designated representatives: Michael T. Thornton, General Manager
Unrepresented employees: SEJPA Employee Group

No reportable actions were taken.

24. ADJOURNMENT

The meeting adjourned at 9:57 a.m. The next Board of Directors meeting is scheduled to be held on Tuesday, May 19, 2026 at 8:30 a.m.

SAN ELIJO JOINT POWERS AUTHORITY
PAYMENT OF WARRANTS
For the Month of APRIL 2026

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
46439	1903 Solutions, LLC	Licenses	Advanced anti-phishing	$ 1,196.00
46440	Sterling Infosystems, Inc	Preemployment Screening	Safety clearance reports	163.98
46441	Abila	Licenses	Accounting software support & subscription	5,110.60
46442	AT&T	Utilities - Telephone	Phone service - Mar	772.68
46443	Automation Direct	Repair Parts Expense	Lomas Santa Fe Pump Station - Replacement VFD	3,719.53
46444	American Water Works Assoc.	Dues & Memberships	Membership - M. Piper	347.00
46445	Backflow Services, Inc.	Services - Maintenance	Annual backflow testing	500.00
46446	Boyd Fasteners	Supplies - Shop & Field	Stainless steel replenish	1,017.81
46447	Brenntag Pacific, Inc	Supplies - Chem - Odor	Sodium hydroxide	2,010.18
46448	Caltrol, Inc.	Repair Parts Expense	Keystone actuator	5,214.58
46449	CS-Amsco	Capital Outlay	Plug valves for digesters	12,508.19
46450	CWEA Membership	Dues & Memberships	Membership renewal - M. Haney and V. Buskirk	502.00
46451	The Reinalt-Thomas Corp.	Repair Parts Expense	Tires	2,047.37
46452	Dixieline Lumber Company	Shop Tools and Equip.	Various supplies	500.32
46453	Westbound Solar 2, LLC	Fees - Disposal	Solar - Feb	9,996.87
46454	EDCO Waste & Recycling Service	Utilities - Trash	Mar Trash Service	520.68
46455	Equipment Solutions	Training - Safety	Operator safety training	850.00
46456	Eurofins Calscience, LLC	Services - Laboratory	Testing water samples	1,763.00
46457	Excel Landscape, Inc.	Services - Landscape	Grounds maintenance service - Feb and Mar	8,764.00
46458	gafcon	Services - Contractors	Labor compliance for Wanket Tank - Feb	13.00
46459	Grainger, Inc.	Shop Tools and Equip., Repair Parts Expense	Various supplies	3,441.70
46460	Hardy Diagnostics	Supplies - Lab	Various supplies	1,040.44
46461	Harrington Industrial Plastics	Repair Parts Expense	18-inch flange PVC	2,237.77
46462	Hoch Consulting, APC	Services - Professional	Prop 1 Rd 1 Proj. 7 and Proj. 6 - Jan 2026	3,820.00
46463	Life Technologies Corporation	Supplies - Lab	Bromothymol blue	209.68
46464	Liquid Environmental Solution	Services - Grit & Screenings	Roll off box	1,285.00
46465	McMaster-Carr Supply Co.	Repair Parts Expense, Supplies - Safety, Shop Tools and Equip.	Various supplies	1,787.64
46466	Cosby Oil Company, Inc	Fuel	Fuel - Mar	785.23
46467	City of Oceanside	Licenses	1HA8739	176.00
46468	Olin Corp - Chlor Alkali	Supplies - Chem - Sodium Hypo	Procurement of sodium hypochlorite	11,286.25
46469	Olivenhain Municipal Water Dis	Rent	Pipeline rental payment - Feb	4,365.00
46470	Otis Elevator Company	Services - Maintenance	Elevator maintenance - Apr	243.78
46471	Peerless Materials Co., LLC	Supplies - Shop & Field	Rag box	691.65
46472	Michael Piper	Printing	Employee reimbursement - certificate renewal & plan printing	165.90
46473	Process Pump Sale's, Inc	Repair Parts Expense	Various supplies	3,310.19
46474	Robert Half International, Inc	Services - Temp	Temp service	2,000.00
46475	Rockwell Solutions	Repair Parts Expense	Mechanical seal and shaft sleeve	4,470.51
46476	San Dieguito Water District	Utilities - Water	Water	3,019.10
46477	Southern Contracting Comp.	Services - Maintenance	Emergency svs. for Santa Fe Pump Station	960.00
46478	Void			-
46479	Technical Systems Inc	Services - Professional	As-needed SCADA and PLC Programming	3,844.62

SAN ELIJO JOINT POWERS AUTHORITY
PAYMENT OF WARRANTS
For the Month of APRIL 2026

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
46480	Trussell Technologies, Inc	Services - Professional	T3 - Coliform support - Feb	2,673.25
46481	USA Bluebook	Supplies - Lab	Various supplies	3,524.04
46482	Valley CM, Inc.	Services - Professional	Management and inspection services - Feb	5,100.00
46483	Verizon Wireless	Utilities - Telephone	Phone - Mar	627.47
46484	Benefits Coordinators Corp.	Dental/Vision	Vision - Mar	488.40
46485	VWR International, Inc.	Supplies - Lab	Timers	446.36
46486	Spex CertPrep, LLC	Supplies - Chemicals	Water testing service	413.39
46487	Adam Kaye	Services - Professional	Public communications	100.00
46488	Affordable Drain Services	Services - Maintenance	Jet/Vac Truck	850.00
46489	Aflac	EE Deduction Benefits Payable	Aflac - Apr	920.54
46490	Ag Tech, LLC	Services - Biosolids Hauling	Biosolids hauling and reuse - Mar	15,482.61
46491	Allied Storage Containers	Equipment Rental/Lease	20' and 40' storage containers - Apr	359.89
46492	AT&T	Utilities - Internet	Internet - Mar	2,208.33
46493	Backflow Services, Inc.	Repair Parts Expense	Repair backflow assembly	2,878.17
46494	Black & Veatch	Services - Engineering	Facility Plan Update through Feb 2026	4,799.25
46495	Boot World, Inc.	Uniforms - Boots	Safety boots - B. Yutsus, J. Garcia and M. Piper	643.93
46496	Brenntag Pacific, Inc	Supplies - Chem - Odor, Chemicals	Sodium hydroxide and citric acid	5,622.40
46497	Brewer Crane and Rigging	Equipment Rental/Lease	Crane rental	1,052.80
46498	CA. Office Cleaning, Inc.	Services - Janitorial	Office and window cleaning	4,976.00
46499	California Water Technologies	Supplies - Chem - Ferric Chlo	Ferric chloride solution	12,117.63
46500	Susan Cassidy	Subsistence - Meals	Employee reimbursement - Meal items	44.78
46501	CDM Smith	Services - Engineering	Services for Wanket Tank - Mar	24,379.01
46502	Corodata	Rent	Record storage - Mar	125.82
46503	CS-Amsco	Capital Outlay	Plug valves for digesters	7,570.92
46504	CWEA Membership	Dues & Memberships	Membership renewal - S. Best	251.00
46505	Dixieline Lumber Company	Shop Tools and Equip.	Various supplies	543.45
46506	Evan E Fox	Subsistence - Travel/Rm & Bd	Employee reimbursement - Mileage	143.19
46507	Jose Garcia	Subsistence - Travel/Rm & Bd	Employee reimbursement - Conference & travel	1,911.79
46508	Grainger, Inc.	Supplies - Chemicals, Vehicle Maintenance	Detector tube, hydrogen sulfide and tool boxes	1,051.98
46509	Hach Company	Supplies - Lab, Services - Maintenance	Annual equipment service and cable	35,107.46
46510	Hardy Diagnostics	Supplies - Lab	Various supplies	280.34
46511	InSource Software Solutions	Licenses	Topview software support renewal	885.00
46512	Kevin R. Lang	Subsistence - Travel/Rm & Bd, Licenses	Employee reimbursement - Conference and CPA license renewal	1,503.99
46513	McMaster-Carr Supply Co.	Repair Parts Expense, Supplies - Safety	Various supplies	2,083.87
46514	MetLife - Group Benefits	Dental/Vision	Dental - May	3,661.71
46515	Midas Shop	Vehicle Maintenance	Vehicle service maintenance	2,700.68
46516	MTGL, Inc.	Services - Engineering	Soil compaction testing	6,718.50
46517	Nautilus Environmental, Inc	Services - Laboratory	Laboratory toxicity testing services for Feb 26	1,290.00
46518	Cosby Oil Company, Inc	Fuel	Fuel - Apr	84.04
46519	Olivenhain Municipal Water Dis	Rent	Pipeline rental - Mar	10,890.00
46520	OneSource Distributors, Inc.	Repair Parts Expense	Various supplies	797.36

SAN ELIJO JOINT POWERS AUTHORITY
PAYMENT OF WARRANTS
For the Month of APRIL 2026

Warrant #	Vendor Name	G/L Account	Warrant Description	Amount
46521	Pacific Pipeline Supply	Repair Parts Expense	Meter box lid polymer	1,013.81
46522	Michael Piper	Dues & Memberships, Fuel	Employee reimbursement - AWWA membership dues and fuel reimb.	441.22
46523	PlanetBids, Inc.	Licenses	Vendor bid management module - FY 26/27	4,315.00
46524	Reward Strategy Group, Inc	Services - Professional	Class and comp consulting services	5,880.00
46525	Concepcion Yani Reyes-Heyer	Subsistence - Travel/Rm & Bd, Postage/Shipping	Employee reimbursement - CSMFO hotel, mileage, meals and postage	879.31
46526	Robert Half International, Inc	Services - Temp	Temp service	5,500.00
46527	RSF Security Systems	Services - Alarm	Code change service	24.00
46528	Rusty Wallis, Inc.	Supplies - Shop & Field	Water softener, tank service, & salt bags	459.38
46529	Santa Fe Irrigation District	Utilities - Water, SFID Distribution Pipeline	Water and Pipeline purchase payment	5,608.94
46530	Scheidel Professional Corp.	Services - Engineering	Effluent Pump Station Prelim Engr. Report - Mar	3,020.33
46531	San Dieguito Water District	Utilities - Water	Water	1,938.49
46532	Southwest Valve & Equip.	Repair Parts Expense	Encapsulated disc check valve and various parts	17,537.46
46533	Sunbelt Rentals	Equipment Rental/Lease	Manlift rental	1,505.60
46534	Technical Systems Inc	Services - Professional	As-needed SCADA and PLC Programming - Wanket tank integration	2,171.54
46535	Terminix Processing Center	Services - Maintenance	Pest control	686.15
46536	U.S. CAD	Licenses	Bluebeam annual license renewal	1,210.00
46537	Unifirst Corporation	Services - Uniforms, Supplies - Safety	Uniform service	2,319.80
46538	UPS	Postage/Shipping	Shipping	128.25
46539	Underground Service Alert/SC	Services - Alarm	Dig alert and safe excavation board	130.78
46540	USA Bluebook	Supplies - Lab, Shop Tools and Equip.	Erlenmeyer flask, pH and temp tester	890.67
46541	Valley CM, Inc.	Services - Professional	Management and inspection services - Mar	2,040.00
46542	Verizon Wireless	Utilities - Telephone	Cell phone service - Mar and Apr	1,514.50
46543	Volt Management Corp	Services - Temp	Internship program and temp service	2,788.17
46544	Yao Engineering, Inc	Services - Engineering	Professional services - Mar	17,470.00
46545	AT&T	Utilities - Internet	Internet - Mar	2,183.33
On-line 1226	Home Depot Credit Services	Supplies - Shop & Field	Polyethylene storage tank for chemicals	3,258.36
On-line 1227	Mission Square	ICMA Retirement	ICMA - 401a	8,729.73
On-line 1228	Mission Square - 304175	EE Deduction Benefits Payable	ICMA - 457	10,828.57
On-line 1229	P.E.R.S.	Medical Insurance - Pers	Health - Apr	57,152.77
On-line 1230	Blue Triton Brands Inc	Supplies - Lab	Kitchen and lab supplies	604.74
On-line 1231	BankCard Center	Supplies - Safety, Vehicle Maintenance, Subsistence - Meals	Various supplies	15,987.52
On-line 1232	Mission Square	ICMA Retirement	ICMA - 401a	8,336.96
On-line 1233	Mission Square - 304175	EE Deduction Benefits Payable	ICMA - 457	10,616.29
On-line 1234	Public Employees- Retirement	Retirement Plan - PERS	Retirement - Apr Pay Period	26,660.21
On-line 1235	Sun Life Financial	Life Insurance/Disability	Life and disability - May	3,177.53
On-line 1236	WM Corporate Services, Inc.	Services - Sediment Disposal	10 Yd Roll off disposal - Mar	11,346.99
On-line 1237	CA. Dept. of Tax & Fee Admin.	Accrued Sales Tax Payable	Use tax Q1 2026	126.00
On-line 1238	San Diego Gas & Electric	Utilities - Gas & Electric	Gas and electric - Mar	89,822.92
Payroll ACH	San Elijo Payroll Account	Payroll	Payroll - Pay Date 04/03/2026	133,644.87
Payroll ACH	San Elijo Payroll Account	Payroll	Payroll - Pay Date 04/17/2026	161,654.33
				$ 897,572.12

SAN ELIJO JOINT POWERS AUTHORITY
PAYMENT OF WARRANTS SUMMARY

For the Month of APRIL 2026
As of APRIL 30, 2026

PAYMENT OF WARRANTS	$ 897,572.12

I hereby certify that the demands listed and covered by warrants are correct and just to the best of my knowledge, and that the money is available in the proper funds to pay these demands. The cash flows of SEJPA, including the Member Agency commitment in their operating budgets to support the operations of SEJPA, are expected to be adequate to meet SEJPA's obligations over the next six months. I also certify that SEJPA's investment portfolio complies with the SEJPA's investment policy.

Kevin Lang
Director of Finance and Administration

SAN ELIJO JOINT POWERS AUTHORITY

STATEMENT OF FUNDS AVAILABLE FOR PAYMENT OF WARRANTS AND INVESTMENT INFORMATION

As of APRIL 30, 2026

FUNDS ON DEPOSIT WITH	AMOUNT
LOCAL AGENCY INVESTMENT FUND *(APRIL 2026 YIELD 3.811%)*	$ 10,444,921.68
CALIFORNIA BANK AND TRUST *(APRIL 2026 YIELD 0.01%)*	329,745.99
U.S. Bank *(APRIL 2026 YIELD 2.30%)*	9,420,104.26
PARS *(MARCH 2026 YIELD -3.97%)*	1,251,047.16
TOTAL RESOURCES	$ 21,445,819.09

*

AGENDA ITEM NO. 9

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Operations

SUBJECT: WASTEWATER TREATMENT REPORT – MARCH 2026

RECOMMENDATION

No action required. This memorandum is submitted for information only.

DISCUSSION

Monthly Treatment Facility Performance and Evaluation

Wastewater treatment for the San Elijo Joint Powers Authority (SEJPA) met all National Pollutant Discharge Elimination System (NPDES) ocean effluent limitation requirements for the month of March 2026. The primary indicators of treatment performance include the removal of Total Suspended Solids (TSS) and Carbonaceous Biochemical Oxygen Demand (CBOD). SEJPA is required to remove a minimum of 85 percent of the TSS and CBOD from the wastewater. Treatment levels for **TSS** and **CBOD** were **98.8** and **99.1** percent removal, respectively, during the month of March.

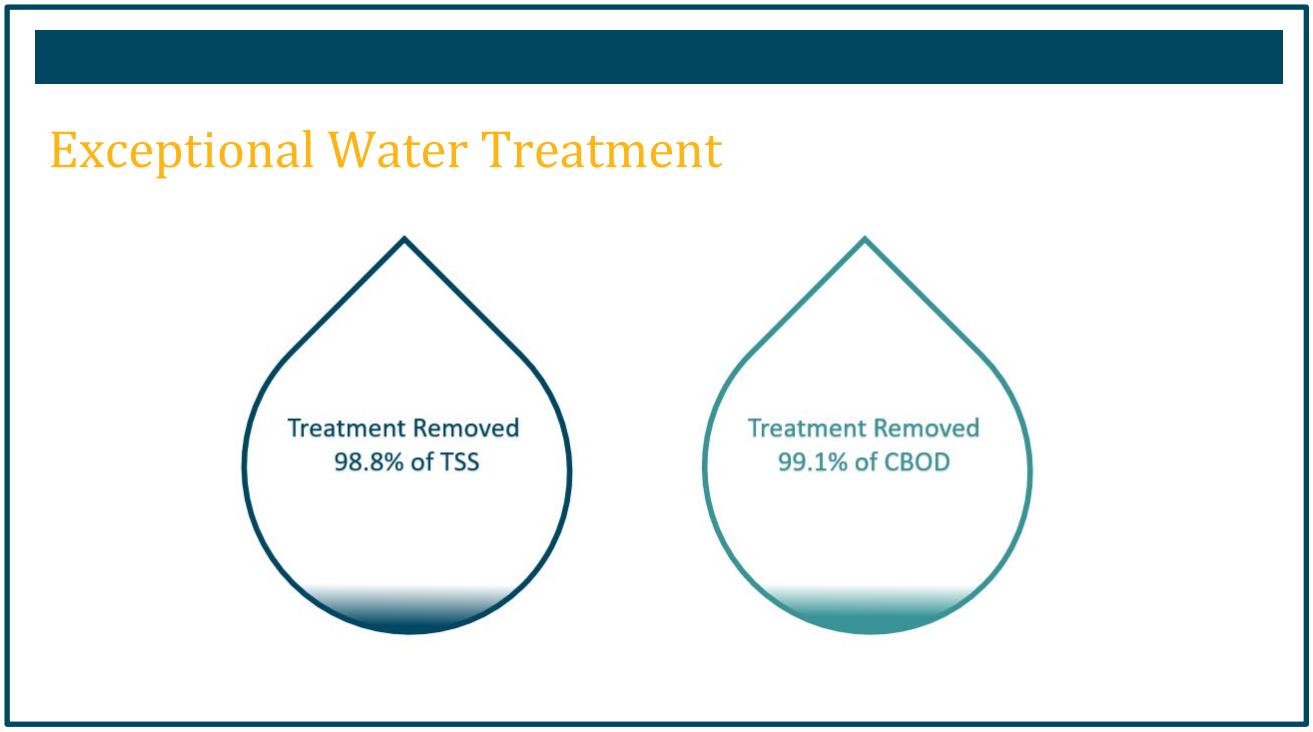
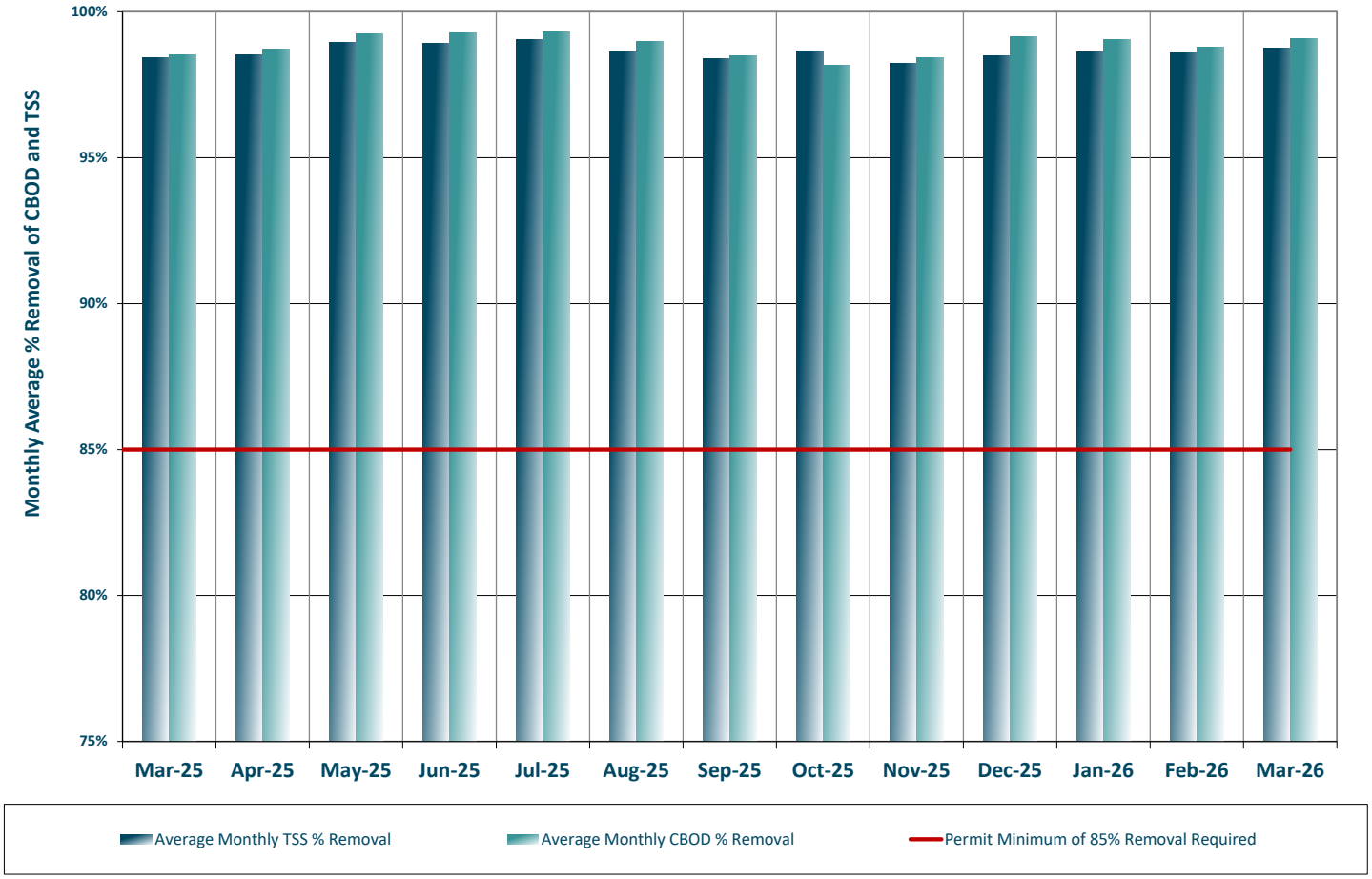


Figure 1 (below) shows historic treatment performance trends for the removal of TSS and CBOD over the last 13 months compared to the permit minimum removal requirement of 85%.

Figure 1: Wastewater Treatment Performance of the SEJPA % Removal of Total Suspended Solids (TSS) and Carbonaceous Biochemical Oxygen Demand (CBOD)



Figures 2 and 3 (below) show historic influent vs effluent TSS and CBOD concentration fluctuations in the strength of the wastewater being received and discharged by the SEJPA.

FIGURE 2: TREATED EFFLUENT FLOWS REMOVAL OF TSS

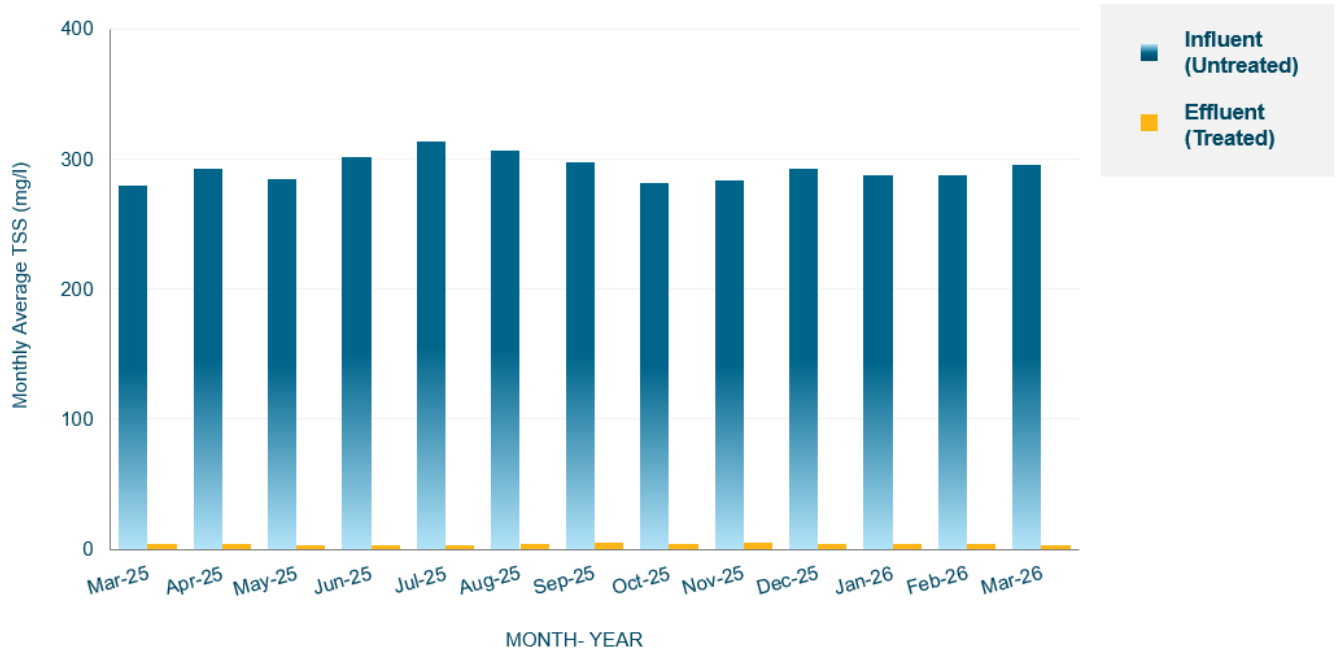
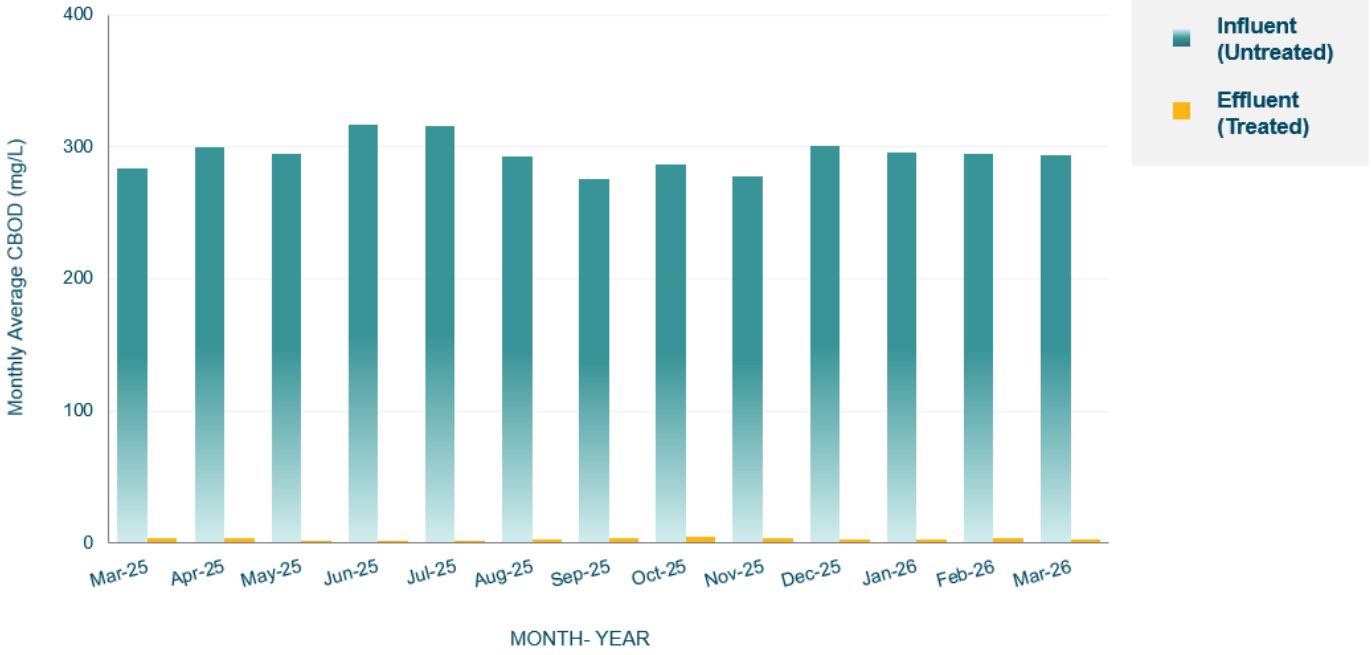


FIGURE 3: TREATED EFFLUENT FLOWS REMOVAL OF CBOD



Member Agency Flows

Table 1 provides a summary of influent and effluent flows for March. Average daily influent volumes were measured for each contributing agency. During this reporting period, roughly 57% of the influent was treated and beneficially reused as recycled water, while the balance was conveyed to the ocean outfall.

TABLE 1 – INFLUENT AND EFFLUENT FLOWS IN MARCH

	Influent (mgd)	Recycled Water (mgd)	Effluent (mgd)*
Cardiff Sanitary Division	1.357	0.772	0.585
City of Solana Beach	1.046	0.595	0.451
Rancho Santa Fe SID	0.181	0.102	0.079
City of Del Mar	0.401	0.228	0.173
Total San Elijo Water Campus Flow	2.985	1.697	1.288

* Effluent is calculated by subtracting the recycled water production from the influent wastewater.

Table 2 (below) presents the historical average and unit influent flow rates per month for each of the contributing agencies during the past 3 years. It also presents the number of connected Equivalent Dwelling Units (EDUs) for each agency during this same time.

TABLE 2 - SAN ELIJO WATER CAMPUS MONTHLY REPORT - FLOWS AND EDUS

	AVERAGE DAILY INFLUENT FLOW RATE (MGD)					CONNECTED EDUs					AVERAGE UNIT INFLUENT FLOW RATE (GAL/EDU/DAY)				
MONTH	CSD	RSF	SB	DM	TOTAL DESIGN	CSD	RSF	SB	DM	TOTAL EDUS	CSD	RSF	SB	DM	TOTAL PLANT
Jan-23	1.630	0.200	0.979	0.379	3.188	8,557	585	8,142	2,616	19,900	190	342	120	153	160
Feb-23	1.323	0.167	0.930	0.371	2.791	8,557	585	8,142	2,616	19,900	155	286	114	149	140
Mar-23	1.892	0.255	1.044	0.392	3.583	8,557	585	8,142	2,616	19,900	221	436	128	154	180
Apr-23	1.244	0.187	0.915	0.303	2.649	8,557	586	8,142	2,616	19,901	145	319	112	123	133
May-23	1.184	0.167	0.879	0.295	2.525	8,557	586	8,142	2,616	19,901	138	285	108	120	127
Jun-23	1.185	0.144	0.891	0.413	2.633	8,557	586	8,142	2,616	19,901	136	282	109	171	132
Jul-23	1.160	0.146	0.949	0.446	2.701	8,557	586	8,166	2,616	19,925	136	249	116	182	136
Aug-23	1.242	0.177	0.954	0.494	2.867	8,559	586	8,166	2,622	19,933	145	302	117	200	144
Sep-23	1.161	0.161	0.885	0.371	2.578	8,559	586	8,166	2,622	19,933	136	275	108	152	129
Oct-23	1.125	0.163	0.870	0.308	2.466	8,559	587	8,166	2,622	19,934	131	278	107	125	124
Nov-23	1.246	0.186	0.961	0.409	2.802	8,559	588	8,166	2,622	19,935	146	317	118	149	141
Dec-23	1.313	0.173	1.011	0.377	2.874	8,559	588	8,166	2,622	19,935	153	294	124	133	144
Jan-24	1.416	0.190	1.055	0.380	3.041	8,569	588	8,166	2,622	19,945	165	323	129	134	152
Feb-24	1.788	0.256	1.099	0.422	3.565	8,569	588	8,166	2,622	19,945	209	436	135	151	179
Mar-24	1.395	0.200	1.061	0.352	3.008	8,616	588	8,166	2,639	20,009	162	340	130	125	150
Apr-24	1.313	0.216	1.036	0.368	2.933	8,620	588	8,166	2,639	20,013	152	368	127	130	147
May-24	1.294	0.196	1.017	0.349	2.856	8,620	588	8,166	2,639	20,013	150	334	125	125	143
Jun-24	1.275	0.191	1.058	0.508	3.032	8,620	588	8,166	2,639	20,013	148	325	130	184	152
Jul-24	1.310	0.185	1.076	0.494	3.065	8,620	588	8,166	2,639	20,013	152	315	132	182	153
Aug-24	1.279	0.166	1.090	0.512	3.047	8,621	588	8,178	2,639	20,025	148	283	133	188	152
Sep-24	1.278	0.165	1.034	0.399	2.876	8,621	588	8,178	2,657	20,043	148	281	126	147	143
Oct-24	1.296	0.160	1.019	0.340	2.815	8,621	591	8,178	2,657	20,046	150	271	125	122	140
Nov-24	1.250	0.184	0.967	0.482	2.883	8,621	591	8,178	2,657	20,046	145	312	118	165	144
Dec-24	1.231	0.182	1.079	0.408	2.900	8,621	593	8,178	2,657	20,048	143	307	132	134	145
Jan-25	1.398	0.187	1.105	0.381	3.071	8,621	593	8,178	2,657	20,048	162	316	135	124	153
Feb-25	1.471	0.186	1.120	0.408	3.185	8,621	593	8,178	2,657	20,048	171	314	137	134	159
Mar-25	1.524	0.214	1.133	0.390	3.261	8,621	593	8,178	2,657	20,048	177	361	139	129	163
Apr-25	1.355	0.210	1.084	0.367	3.016	8,621	593	8,178	2,657	20,048	157	354	133	122	150
May-25	1.349	0.202	1.071	0.371	2.993	8,621	593	8,178	2,657	20,048	156	341	131	123	149
Jun-25	1.310	0.190	1.071	0.524	3.095	8,621	593	8,178	2,657	20,048	152	321	131	175	154
Jul-25	1.326	0.204	1.109	0.502	3.141	8,621	593	8,126	2,657	19,996	154	344	136	168	157
Aug-25	1.351	0.213	1.090	0.556	3.210	8,621	594	8,126	2,680	20,020	157	359	134	187	160
Sep-25	1.354	0.187	1.050	0.426	3.017	8,623	596	8,126	2,680	20,025	157	314	129	142	151
Oct-25	1.292	0.176	1.039	0.378	2.885	8,627	596	8,126	2,680	20,029	150	296	128	126	144
Nov-25	1.407	0.188	1.050	0.424	3.069	8,629	596	8,126	2,680	20,031	163	316	129	144	151
Dec-25	1.362	0.171	1.011	0.379	2.923	8,629	595	8,126	2,680	20,030	158	288	124	128	146
Jan-26	1.473	0.190	1.051	0.383	3.097	8,631	595	8,126	2,680	20,032	171	320	129	129	155
Feb-26	1.464	0.182	1.052	0.417	3.115	8,631	595	8,126	2,680	20,032	170	306	129	140	156
Mar-26	1.357	0.181	1.046	0.401	2.985	8,631	595	8,126	2,680	20,032	157	304	129	135	149

CSD: Cardiff Sanitary Division

RSF: Ranch Santa Fe Community Service District

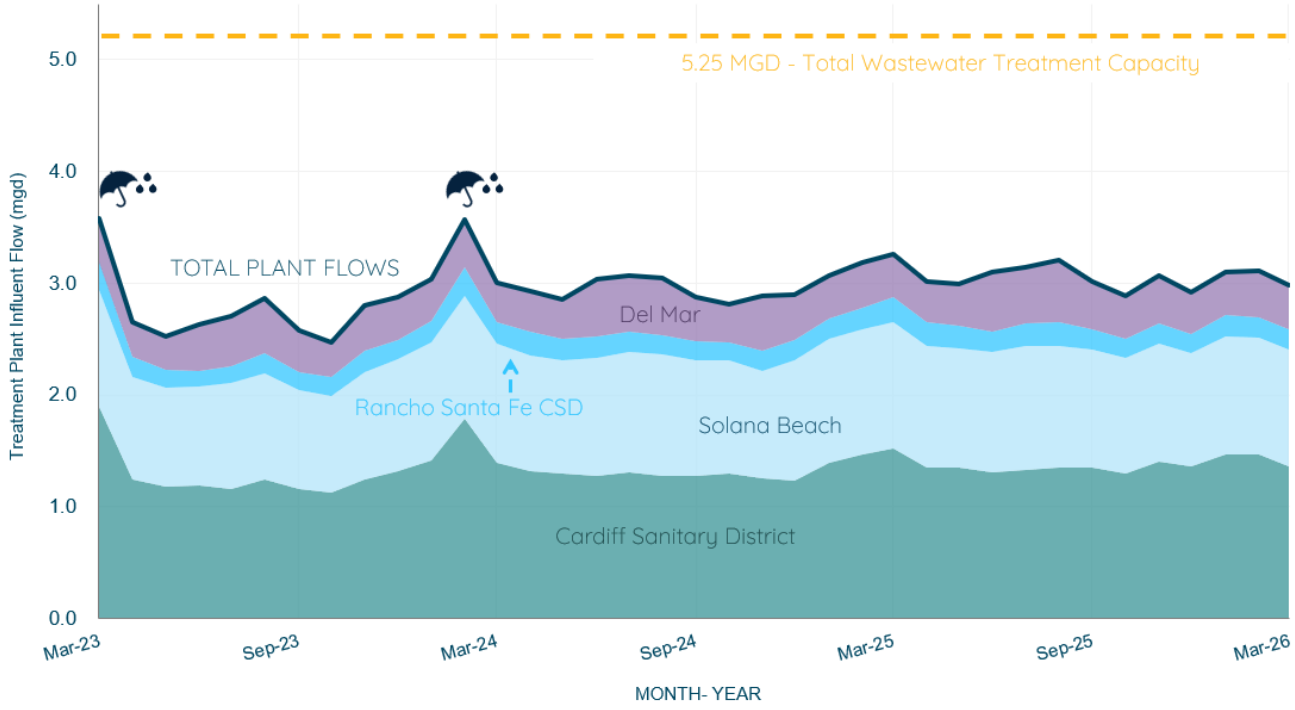
SB: Solana Beach

DM: City of Del Mar

EDU: Equivalent Dwelling Unit

Figure 4 (below) presents the 3-year historical average daily flows per month for each contributing agency. This is to provide a historical overview of the average flow treated for each agency. Also shown in Figure 4 is the total wastewater treatment capacity of the water campus, 5.25 mgd, of which the Cities of Encinitas and Solana Beach each have the right to 2.2 mgd, Rancho Santa Fe Community Service District leases 0.25 mgd, and the City of Del Mar leases 0.60 mgd.

FIGURE 4: SEJPA AVERAGE DAILY FLOWS OVER THE PAST 3 YEARS



City of Escondido Flows

The average and peak daily flow rate for the month of March 2026 from the City of Escondido's Hale Avenue Resource Recovery Facility, which discharges through the San Elijo Ocean Outfall, is reported below in Table 3.

TABLE 3 – CITY OF ESCONDIDO DAILY FLOWS

	Flow (mgd)
Escondido (Average flow rate)	10.8
Escondido (Peak flow rate)	18.1

Connected Equivalent Dwelling Units

The City of Solana Beach and the City of Del Mar updated the number of connected EDUs reported to the SEJPA in September 2025, memorializing updates effective July 1, 2025. The connected EDUs for Solana Beach were reduced due to the reconstruction of Solana Highlands apartments. The City of Encinitas and Rancho Santa Fe CSD update their connected EDUs report every month. The number of EDUs connected for each of the Member Agencies and lease agencies is reported in Table 4 below.

TABLE 4 – CONNECTED EDUs BY AGENCY

	Connected (EDU)
Cardiff Sanitary Division	8,631
Rancho Santa Fe SID	595
City of Solana Beach	7,789
San Diego (to Solana Beach)	337
City of Del Mar	2,680
Total EDUs to System	20,032

Respectfully submitted,

Christopher Trees
Director of Operations

*

AGENDA ITEM NO. 10

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Operations

SUBJECT: RECYCLED WATER REPORT – MARCH 2026

RECOMMENDATION

No action required. This memorandum is submitted for information only.

DISCUSSION

Recycled Water Production

In March 2026, recycled water production totaled 128 acre-feet (AF), supplied entirely by recycled water with no supplemental potable water required. Production was significantly higher than the budget estimate of 64 AF due to strong seasonal demand and continued dry weather conditions. Recycled water production remained in compliance with applicable permit requirements during the month.

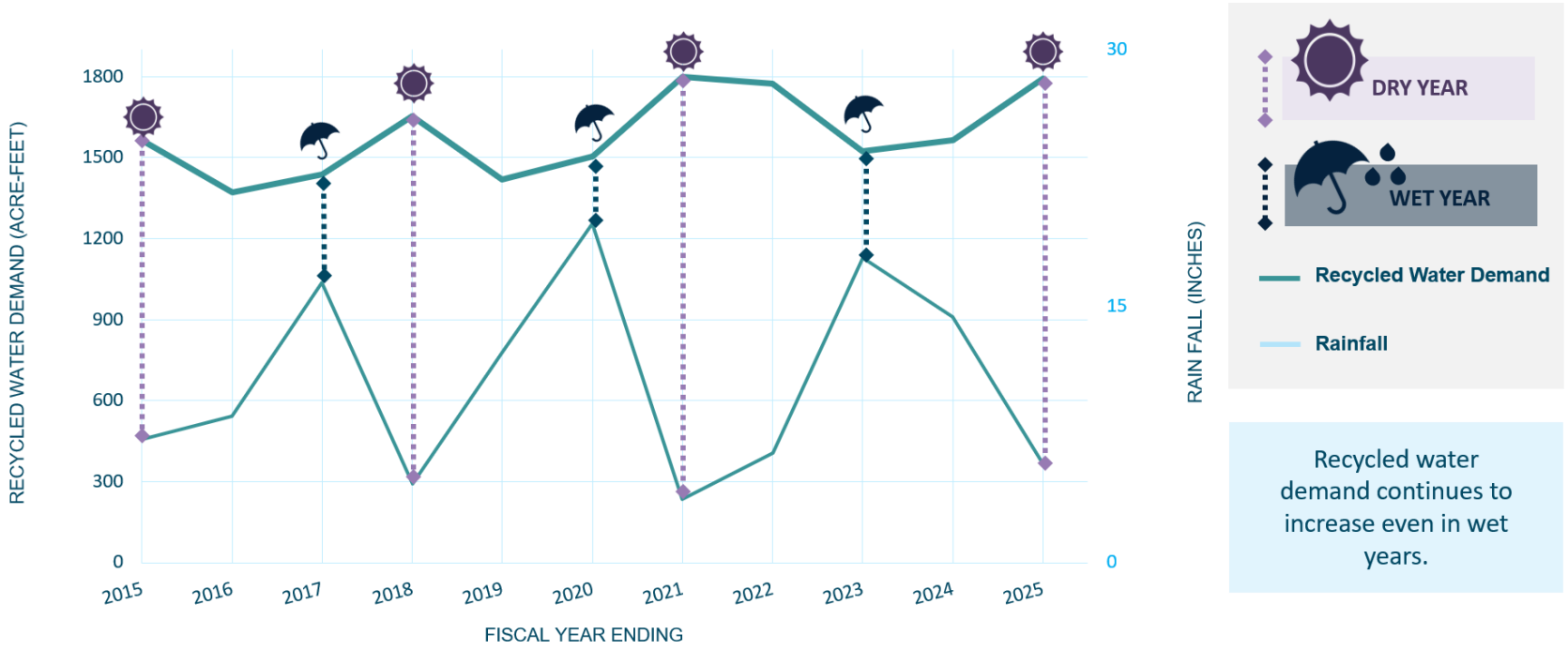
Fiscal year recycled water production currently totals 1,197 AF, approximately 7.9% above budget projections.

Figure 1 (attached) provides a ten-year history of annual recycled water production and rainfall, illustrating the correlation between precipitation and production. Figure 2 compares March production over the past ten years, and Figure 3 shows budgeted versus actual recycled water production for FY 2025-26.

Respectfully submitted,

Christopher Trees
Director of Operations

FIGURE 1: RECYCLED WATER DEMAND AND RAINFALL COMPARISON



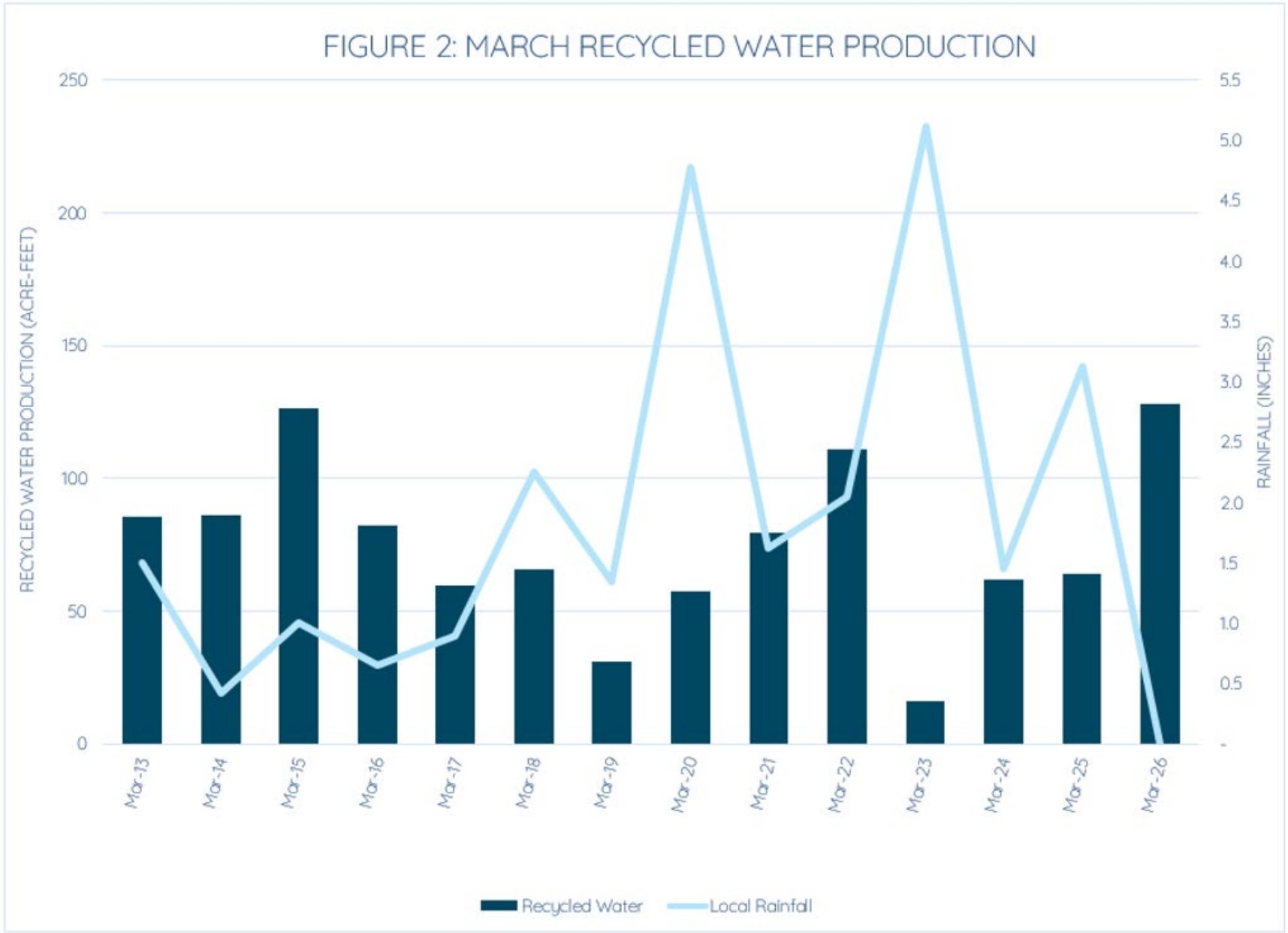
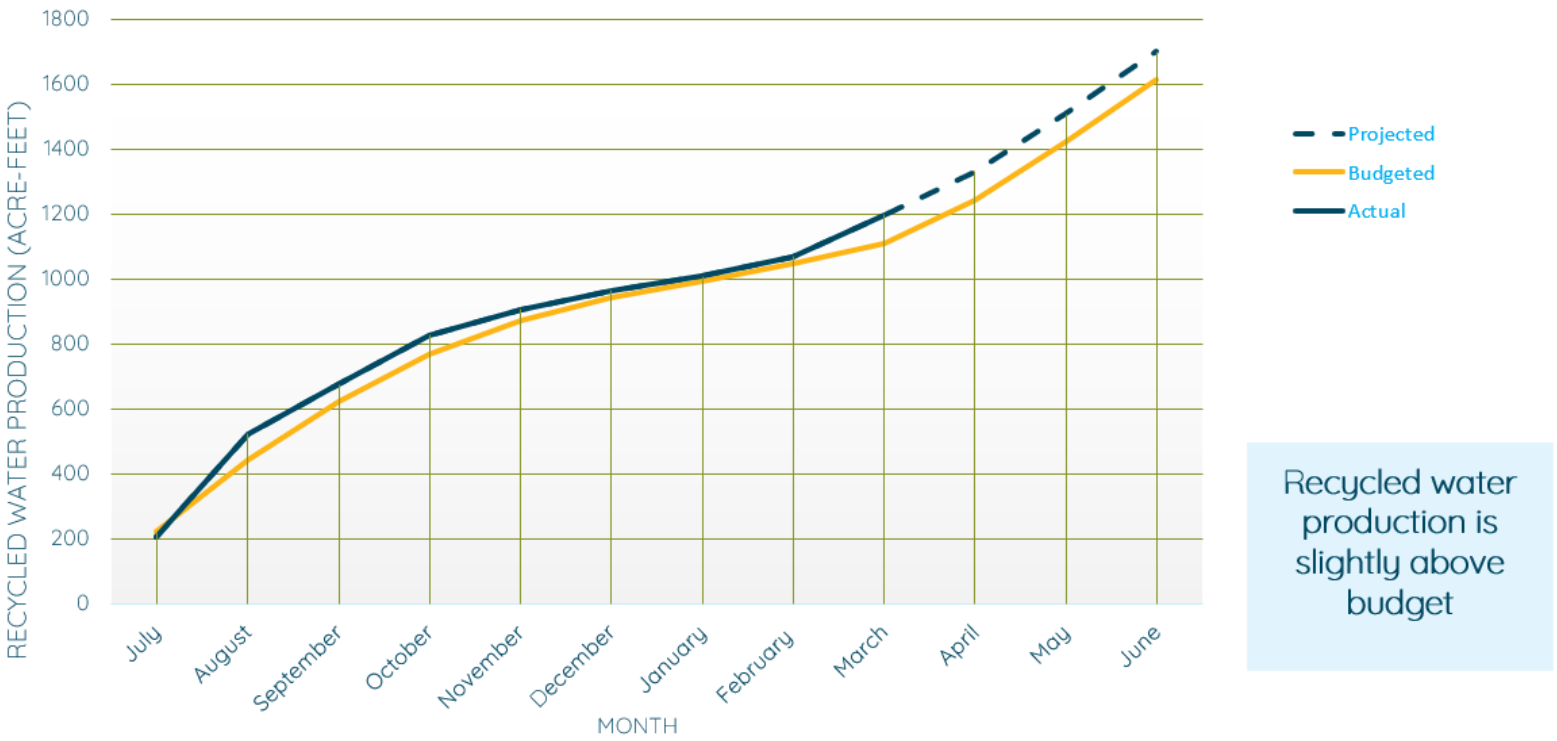


FIGURE 2: MARCH RECYCLED WATER PRODUCTION
RECYCLED WATER PRODUCTION (ACRE-FEET)
RAINFALL (INCHES)
250
200
150
100
50
0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-
Mar-13
Mar-14
Mar-15
Mar-16
Mar-17
Mar-18
Mar-19
Mar-20
Mar-21
Mar-22
Mar-23
Mar-24
Mar-25
Mar-26
Recycled Water
Local Rainfall

FIGURE 3: FY2025/26 CUMULATIVE PRODUCTION VS BUDGET



Recycled water production is slightly above budget

*

AGENDA ITEM NO. 11

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: REPORTABLE MEETINGS

RECOMMENDATION

No action required. This memorandum is submitted for information only.

BACKGROUND

The General Manager or his designee may meet monthly with one or more Board Members in preparation for the Board Meeting.

DISCUSSION

The following meetings have taken place since previously reported:

- Meeting to review Board Meeting Agenda with Chairperson Shaffer on April 17, 2026

FINANCIAL IMPACT

Per the SEJPA Restatement Agreement, SEJPA offers the Board Member $160 for each reportable meeting, which the Board Member may choose to accept or reject. These meetings are accounted for in our annual budget.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

*

AGENDA ITEM NO. 12

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Operations

SUBJECT: AWARD OF CHEMICAL CONTRACTS FOR SODIUM HYPOCHLORITE AND ALUMINUM SULFATE FOR FISCAL YEARS ENDING 2027–2029

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to enter into an agreement with JCI Jones Chemical, Inc for the procurement of sodium hypochlorite in an amount not-to-exceed $676,500;

2. Authorize the General Manager to enter into an agreement with Thatcher Company, Inc. for the procurement of aluminum sulfate in an amount not-to-exceed $119,160;

3. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Joint Powers Authority (SEJPA) periodically solicits competitive bids for chemicals used in the treatment of wastewater and the production of recycled water in accordance with SEJPA purchasing policies and procedures (Resolution 2022-01). Chemical procurements with contract values exceeding the General Manager's purchasing authority of $50,000 require Board approval.

In January 2026, staff issued a request for bids through the PlanetBids procurement system for the purchase of ferric chloride, sodium hydroxide, citric acid, aluminum sulfate, and sodium hypochlorite.

Multiple bids were received for most chemicals. However, only a single bid was received for aluminum sulfate and sodium hypochlorite. Staff re-advertised these two chemicals to encourage additional vendor participation and enhance competitive pricing. The re-advertisement resulted in increased competition for sodium hypochlorite; however, a single bid was again received for aluminum sulfate.

Procurement Summary
The results of the competitive bidding process and recommended contract awards are summarized below.

Chemical	Recommended Vendor	Estimated Annual Cost	Three-Year Contract Value
Sodium Hypochlorite	JCI Jones Chemical Inc.	$225,500	$676,500
Aluminum Sulfate	Thatcher	$39,720	$119,160

DISCUSSION

Sodium Hypochlorite

Sodium hypochlorite is used for disinfection of recycled water during production and within the odor control system to destroy dissolved hydrogen sulfide at the headworks.

SEJPA requested bids for 110,000 gallons per year, delivered in 5,000-gallon shipments. Three vendors submitted bid responses.

The bid submitted by JCI Jones Chemical, Inc. was determined to be the lowest responsive and responsible bid. The bid award is for a one-year agreement with two one-year extension options, at the discretion of SEJPA. The bid provides a fixed unit price of $2.05 per gallon, resulting in an estimated annual cost of $225,500 and a total not-to-exceed amount of $676,500 if all extension options are exercised.

Table 1 – Bid Results – Sodium Hypochlorite

Vendor	Cost per Gallon	Gallons	Price per Year	Total Price
JCI Jones Chemical, Inc.	$2.05	110,000	$225,500	$676,500
HASA, Inc.	$2.39	110,000	$262,900	$788,700
Pioneer America's	$2.67	110,000	$293,700	$881,100

Aluminum Sulfate

Aluminum sulfate is used in the production of recycled water to enhance coagulation prior to filtration in the sand filters.

SEJPA requested bids for 50 liquid tons per year, to be delivered in 3,000-gallon shipments.

The bid submitted by Thatcher Company, Inc. was determined to be the lowest responsive and responsible bid. Staff recommends award of a one-year agreement with two one-year extension options. The bid provides a fixed unit price of $794.40 per liquid ton, resulting in an estimated annual cost of $39,720 and a total not-to-exceed amount of $119,160 if all extension options are exercised.

Table 2 – Bid Results – Aluminum Sulfate

Vendor	Cost per liquid ton	Liquid Tons	Price per Year	Total Price
Thatcher Company	$794.40	50	$39,720	$119,160
Univar	Declined	NA	NA	NA

FINANCIAL IMPACT

Each chemical contract is proposed to begin July 1, 2026, coinciding with the start of the new fiscal year and the expiration of the current chemical supply contracts. The chemical contracts recommended for award are higher than the initial bids received in January 2026 due to recent geopolitical developments affecting global chemical supply chains and fuel prices. The FY 2026–27 Recommended Budget includes $185,511 for Sodium Hypochlorite across both the wastewater and recycled water budgets. The FY 2026–27 Recommended Budget also includes $17,572 for Aluminum Sulfate in the recycled water budget. Although the bids for both chemicals are approximately $60,000 over the budgeted amounts, the combined programs maintain $126,000 in contingency funding that can be available.

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to enter into an agreement with JCI Jones Chemical, Inc. for the procurement of sodium hypochlorite in an amount not-to-exceed $676,500;

2. Authorize the General Manager to enter into an agreement with Thacher Company for the procurement of aluminum sulfate in an amount not-to-exceed $119,160;

3. Discuss and take action as appropriate.

Respectfully submitted,

Christopher Trees
Director of Operations

*

AGENDA ITEM NO. 13

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Deputy General Manager

SUBJECT: SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) UPGRADES CONTRACT

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to negotiate and execute a SCADA Upgrades Services Agreement with Tesco Controls, Inc., in the amount of $150,000; and

2. Discuss and take action as appropriate.

BACKGROUND

San Elijo Joint Powers Authority (SEJPA) uses a Supervisory Control and Data Acquisition (SCADA) system to monitor and control treatment systems at the San Elijo Water Campus, as well as remote sewer pump stations, ocean outfall flow and recycled water distribution facilities. SCADA provides real-time operational visibility and process control, both onsite and remotely, and is essential to meeting regulatory, safety, and process reliability standards.

In 2018, SEJPA competitively retained TESCO to deliver the SCADA System Upgrade Project—a nearly $600,000 effort funded by the 2017 Clean Water Bond that included new servers, data historians, controllers, panels, software, cybersecurity enhancements, system programming, testing, commissioning, and staff training—completed in early 2020. Following completion, SEJPA retained TESCO under an as-needed SCADA Support Services Agreement for programming, upgrades, and emergency support. TESCO continues to serve as a key partner in the maintenance and asset management of the SCADA infrastructure.

DISCUSSION

SEJPA is planning a phased upgrade of the SCADA system over the next three years. The work will address physical and cybersecurity vulnerabilities, replace obsolete equipment, upgrade remote site communications, and enhance the user interface at local workstations. The upgrades will be prioritized and implemented based on system criticality and funding availability.

The proposed improvements are intended to reduce single-point-of-failure risks, improve system resiliency, and strengthen backup and recovery capabilities for critical operational infrastructure.

SEJPA has identified mitigation of physical vulnerability risks associated with critical SCADA hardware as a priority need. At SEJPA's request, TESCO prepared a comprehensive implementation approach that includes engineering, equipment procurement, programming, and implementation services.

TESCO has provided a detailed proposal in the amount of $72,798 (attached) that includes:

- Configuration and deployment of a redundant server located separately from the existing primary and secondary server equipment;
- Replacement of two managed core ethernet switches that have reached end-of-service life;
- Deployment of network attached storage devices (NAS) for system backup and historical data retention;
- Preparation of technical documentation, shop drawings, O&M manuals, and record drawings; and
- Startup, testing, and commissioning services.

Additionally, SEJPA has identified the need for a segment of fiber optic cabling between the Administration/Operations Building and the Reclaim Building, to provide parallel pathways to support the redundant server configuration. This work will include approximately 300-LF of fiber optic cabling, a new patch panel and switches and is anticipated to cost approximately $75,000 based on budgetary estimates. The final scope and budget, to be executed by a sub-contractor to TESCO, will be competitively priced and negotiated prior to implementation.

FINANCIAL IMPACT

The $150,000 cost will be funded through the Capital Program as an initial component of the larger SCADA Upgrades Project. The FY 2025-26 Budget identified SCADA Upgrades as a priority project over the three-year period ending 2028 and appropriated a capital budget of $1.6 million. The capital funding will be allocated across the Wastewater, Ocean Outfall, Recycled Water, and Pump Station Programs.

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to negotiate and execute a SCADA Upgrades Services Agreement with Tesco Controls, Inc., in the amount of $150,000; and

2. Discuss and take action as appropriate.

Respectfully submitted,

Thomas (Tom) C. Falk, P.E., PMP
Deputy General Manager

Attachment:

1. TESCO Proposal (Quote 26C222Q02, Date 4/23/26)

www.TescoControls.com

Corporate Office
8440 Florin Road, Sacramento, CA 95828
P.O. Box 299007, Sacramento, CA 95829
PH: 916.395.8800 FX: 916.429.2817

To: San Elijo Joint Power Authority

Attn: Tom Falk

Re: San Elijo Joint Power Authority
SCADA Redundant Temporary Setup

Quote Date: 4/23/26

Quote No.: 26C222Q02

Dear Tom:

Thank you for your continued interest in TESCO products, services, and solutions. We are pleased to quote the following scope of work pertaining to the above-referenced project.

Scope of Work

San Elijo Joint Power Authority (Owner) currently has their Redundant SCADA server in the same building as their primary SCADA server within the Lab/Mechanics Building. To improve system resiliency and support disaster recovery, the Owner is looking to begin future-proofing the system by moving the redundant virtual machines to a separate building from the primary SCADA servers using new owner-furnished servers.

Tesco will configure and migrate the requested redundant virtual machines to the owner-furnished R650 PowerEdge Dell servers into the Admin/Ops Building. Tesco will furnish and retrofit a new Network Attached Storage (NAS) with four (4) 4TB NAS drives for historian data backup. Tesco will furnish, integrate, and retrofit two (2) new managed ethernet switches to be configured and retrofit at the Admin/Ops and Lab/Mechanics buildings. Tesco will furnish and configure a Cisco 9300L Core Switch to replace the Owner's existing Cisco Catalyst 3850 at the Lab/Mechanics building. Additionally, Tesco will furnish and configure a second 9300L Core Switch at the owner's Admin/Ops.

The two switches will be interconnected using SFP modules over the existing spare fiber optic strands between the two buildings. Each core switch will be independently connected to the Owner's existing Cisco IE3010 to provide network connectivity in case of switch failure at either location. This configuration will strengthen the existing network architecture, providing hardware redundancy and partial disaster recovery capabilities.

Once all equipment has been retrofitted and configured, Tesco will begin startup to verify the redundant virtual machines were successfully relocated and new networking equipment is functioning as intended.

Note: This quote utilizes the existing spare fiber between the Admin/Ops building and Lab/Mechanics building. If the required fiber is not available, the Owner is to provide the necessary fiber to complete the project.

Scope of Supply

Item	Qty	Description	
		Temporary SCADA Server Redundancy	
1	1	**Equipment** to include: ▪ (1) Network Attached Storage (NAS) ▪ 4-Bay ▪ (4) 4TB NAS Drives ▪ (2) Cisco – 9300L Managed Core Ethernet Switch ▪ Advantage Licensing ▪ 24 Ports ▪ (2) Cisco – DNA Licensing ▪ 3-year ▪ (6) SPF Ports	$22,442.00
2	Lot	**Professional Services:** ▪ Project Management ▪ Engineering ▪ Engineered shop drawings, equipment schematics, engineered submittals, technical data, as-built documentation, and project records ▪ SCADA Programming ▪ Configure Owner-Furnished R650 PowerEdge server ▪ Networking/Communications/Telemetry ▪ Configure two (2) Core Ethernet Switches ▪ Product Startup Services ▪ Product quality review, verification of product installation, product programming, product/equipment reconfiguration as required, product function checks, and product startup. ▪ O&M Manuals	$50,356.00
		TOTAL (including applicable sales tax):	**$72,798.00**

Project Bid Clarifications

- Unless otherwise indicated by the Scope of Work above, this quote is to **furnish only** and does not include any trade labor, trade work, construction work, site improvement, contractor services, or any trade installation services. Any trade labor and/or related trade work shall be performed by others/contractor.
- Unless otherwise indicated by the Scope of Work above, the following is **not** included within this quotation:
  - Conduit, field wire, tubing, or basic trade installation materials (brackets, screws, bolts, j-box, stanchions, pull-box, etc.)
  - Instrumentation mounting components, brackets, stanchions, sunshields, etc.
  - Instrumentation, devices, components, or equipment not specifically identified in the above quotation.
  - Local control stations and/or field mounted disconnects
  - Fiber optic patch panels, cable, splicing or terminations
  - Networking infrastructure or architecture modifications to existing facilities
  - Any 3rd party testing, harmonic testing/analysis, protective device coordination study, short-circuit analysis, or Arc-Flash Risk Assessment (AFRA) services
  - Electrical interconnection diagrams
  - ISA process control loop diagrams
  - Signal loop diagrams
- **Addendums Acknowledged:** 0

- Quotes are valid for thirty **(60) days**.
- **Intellectual Property and Confidentiality Notice:** The scope of work and price quotation shall not be construed as a formal design or recommendations on design for the related project. All content contained within this quotation is the intellectual property under the proprietorship of Tesco Controls, LLC and is subject to applicable copyright laws. Such intellectual property shall not be duplicated, replicated, copied, or shared without explicit written consent from Tesco Controls, LLC, as it contains confidential information and work product developed exclusively for use by Tesco Controls, LLC.
- **Submittals:** Initial equipment submittal(s) to be provided approximately **8-12 weeks** after receipt of purchase order, written notice of intent, or notice to proceed; however, generation of submittal(s) will be contingent on supply-chain availability and variability for material components which may impact material item selections affecting submittal lead times, therefore lead times are subject to change without notice.
- **Delivery:** Initial shipment(s) anticipated to commence approximately **12-14 weeks** minimum after Product/ Equipment Submittal approval; however, delivery schedule(s) will be contingent on supply-chain availability and variability for material component selections, therefore, lead times are subject to change. Delivery schedules will be confirmed and provided after receiving Product/Equipment Submittals approval.
- **Lead time & Supply Chain Impacts:** Due to unpredictable supply chain impacts and delays outside of TESCO's control, all quoted lead times are subject to change.
- Please see separately attached **"TESCO LLC – Payment Terms & Conditions."**

Please feel free to contact us at (916) 395-8800 to discuss any questions or comments you may have regarding this quotation.

Sincerely,

TESCO CONTROLS

Robert Carr
Technical Sales Estimator
rcarr@tescocontrols.com

*

AGENDA ITEM NO. 14

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Finance and Administration

SUBJECT: SAN ELIJO JOINT POWERS AUTHORITY FISCAL YEAR 2026-27 RECOMMENDED BUDGET UPDATE

RECOMMENDATION

It is recommended that the Board of Directors:

1. Discuss and take action as appropriate.

BACKGROUND

Each year, the San Elijo Joint Powers Authority (SEJPA) prepares a recommended budget for the upcoming fiscal year. The proposed budget is presented to the Board in April and made available to the public for review and comment. Feedback and suggested changes are invited from the Board, Member Agencies, the public, and other government agencies that receive SEJPA services. In addition, SEJPA staff review the budget in collaboration with staff from both Member Agencies and other government agencies who utilize SEJPA services.

DISCUSSION

At the April 2026 SEJPA Board meeting, staff presented the FY 2026-27 Recommended Budget (Budget) to the Board of Directors for public review and comment. In addition, the budget has been provided to staff of both Member Agencies as well as other government agencies that utilize SEJPA's services.

To date, SEJPA has not received any comments or proposed changes to the Budget. The only revision to the April 2026 Budget document is the incorporation of the approved FY 2026–27 Classification and Salary Schedule. At its April 2026 meeting, the Board accepted and filed the Classification and Compensation Study and approved the updated salary schedule.

The updated Recommended Budget has been reposted to SEJPA's website at https://www.sejpa.org/about-us/financials. The Budget, along with the investment policy and appointment of the SEJPA Treasurer for FY 2026–27, will be presented for Board adoption at the June 2026 meeting. As Attachment 1 to this staff report, we have provided the excerpted updated page from the Recommended Budget including the updated Classification and Salary Schedule.

RECOMMENDATION

It is therefore recommended that the Board of Directors:

1. Discuss and take action as appropriate.

Respectfully submitted,

Kevin Lang, CPA
Director of Finance and Administration

Attachment:

1. Updated Page 62 (Excerpted) of the FY 2026-27 San Elijo Joint Powers Authority Recommended Budget

CLASSIFICATION AND SALARY SCHEDULE

SAN ELIJO JOINT POWERS AUTHORITY
FY 2026-27 CLASSIFICATION AND SALARY SCHEDULE
As of July 1, 2026

	Base Salary			
	Monthly		Annual	
Position	Minimum	Maximum	Minimum	Maximum
Accounting Series				
Accounting Technician I	$4,993	$6,740	$59,913	$80,882
Accounting Technician II	5,910	7,979	70,920	95,742
Senior Accountant	7,443	10,049	89,321	120,583
Accounting Supervisor	8,757	11,822	105,083	141,862
Administrative Series				
Administrative Coordinator	7,007	9,460	84,087	113,518
Deputy General Manager	21,250	21,250	255,000	255,000
Director of Operations	15,306	20,663	183,667	247,950
Director of Finance/Administration	15,306	20,663	183,667	247,950
Director of Infrastructure and Sustainability	15,306	20,663	183,667	247,950
Management / HR Analyst Series				
Analyst	6,835	9,227	82,018	110,724
Senior Analyst	8,041	10,855	96,492	130,264
General Manager (Board Approved Contract)	25,917	25,917	311,000	311,000
Laboratory Series				
Laboratory Analyst I	6,247	8,433	74,963	101,200
Laboratory Analyst II	7,194	9,712	86,330	116,546
Senior Laboratory Analyst	8,185	11,050	98,221	132,598
Laboratory Manager	11,005	14,856	132,056	178,275
Mechanic Series				
Mechanic-In-Training	5,261	7,102	63,130	85,226
Mechanic I	6,112	8,252	73,348	99,020
Mechanic II	7,017	9,473	84,201	113,672
Lead Mechanic	8,185	11,050	98,221	132,598
Mechanical Systems Supervisor	9,057	12,227	108,688	146,729
Mechanical Systems Manager	11,005	14,856	132,056	178,275
Engineering/Project Management Series*				
Project Engineer	6,480	8,748	77,762	104,979
Associate Engineer/Project Manager	8,959	12,094	107,506	145,133
Principal Engineer/Senior Project Manager	11,818	15,954	141,815	191,450
Recycled Water Distribution Series				
Recycled Water Supervisor	7,654	10,333	91,853	124,001
Systems Integration Series				
Systems Integration Technician I	6,112	8,252	73,348	99,020
Systems Integration Technician II	7,017	9,473	84,201	113,672
SCADA Manager	11,818	15,954	141,815	191,450
Wastewater Treatment Operator Series				
Operator-In-Training	5,261	7,102	63,130	85,226
Operator I	6,112	8,252	73,348	99,020
Operator II	7,017	9,473	84,201	113,672
Lead Operator	8,185	11,050	98,221	132,598
Operations Supervisor	9,057	12,227	108,688	146,729
Chief Plant Operator	11,005	14,856	132,056	178,275

Base salary minimums and maximums are based on full-time employment.

*

AGENDA ITEM NO. 15

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: UPDATE OF EMERGENCY REPAIRS (APRIL) TO RECYCLED WATER PIPE ON SAN ELIJO WATER CAMPUS

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to Accept the Emergency Repairs to Recycled Water Pipe on the San Elijo Water Campus and record Notice of Completion.

2. Discuss and take action as appropriate.

BACKGROUND

SEJPA entered into Public Works contracts for emergency repairs in accordance with SEJPA's resolution 2022-01 "Purchasing Policies and Procedures." When work of the contract is complete, it is customary for SEJPA to formally "Accept" the work and file a "Notice of Completion" (NOC) with the County of San Diego.

The Board was notified of emergency declaration by the General Manager and approved emergency contract under Resolution 2022-01, Part 3.1.d on April 21, 2026.

Pursuant to Public Contracting Code Section 22050, the General Manager is required to update to the governing Board at regularly scheduled meetings until the emergency action is terminated.

DISCUSSION

On April 20, 2026, at approximately 3:30 p.m., staff observed water surfacing through the asphalt parking lot at the Campus. Staff isolated the leak and closed the affected area for safety. Burtech Pipeline was contacted and mobilized a construction crew and equipment by 7:00 a.m on April 21, 2026. The Contractor's crew located the leak, excavated the area around the pipe, cut and removed the damaged portion of pipe and installed a new piece of 12" pipe with repair couplings, backfilled and pressure tested the repair by the end of the day, April 21st. The Contractor returned later in the week to install a temporary asphalt patch.

The damage was determined to be caused by exterior corrosion through the wall of the buried ductile iron pipe. This area of the San Elijo Water Campus is known to have corrosive soils and SEJPA has experienced similar pipe leaks on buried metal pipes in this localized area. The buried ductile iron pipe in this area of the plant will be identified for replacement as a capital project in the upcoming Facility Plan.

With the pipe repair complete and the system back in service, the General Manager terminated the emergency condition on April 23, 2026. SEJPA is working with the Contractor to compile time and material records in order to reconcile final costs.

FINANCIAL IMPACT

The cost of the emergency repairs will be funded through the Recycled Water Program's operating reserves. The completed emergency repair work is approximately $19,000 with final accounting of cost in progress.

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to Accept the Emergency Repairs to Recycled Water Pipe on the San Elijo Water Campus and record Notice of Completion.

2. Discuss and take action as appropriate.

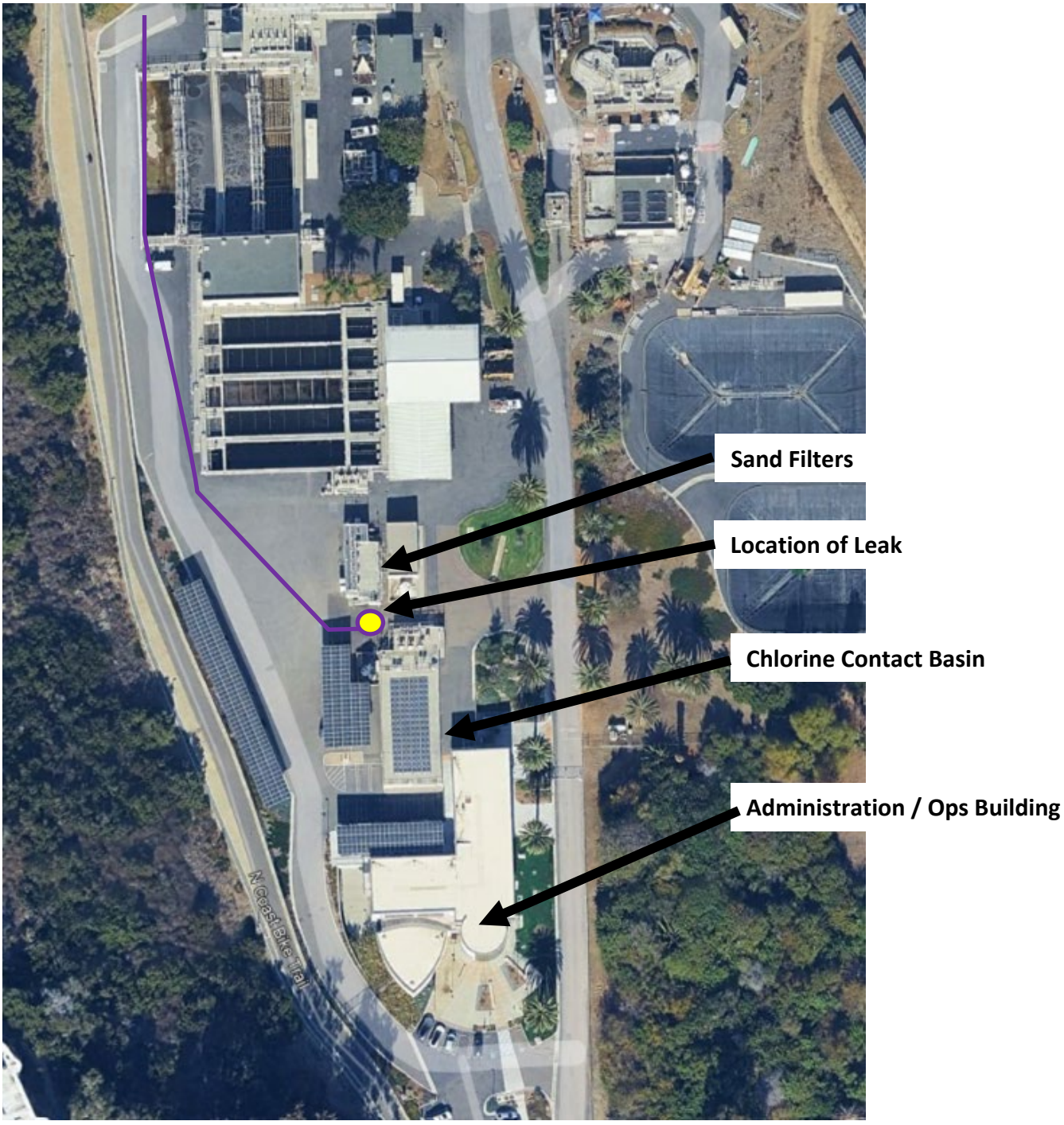
Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

Attachments:

1. Emergency Recycled Water Pipe Repair Exhibit and Photos

EMERGENCY RECYCLED WATER PIPE REPAIR PHOTOS



Location Map, San Elijo Water Campus

	
April 20, 2026 Leak Observed in Parking Lot	April 21, 2026 Hole in exterior of 12” ductile iron pipe
	
April 21, 2026 Pipe excavation	April 21, 2026 Installation of Replacement Pipe and Repair Couplings

	
April 21, 2026 Backfill of Excavation	April 21, 2026 Excavation backfilled to grade

*

AGENDA ITEM NO. 16

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: NOTICE OF EMERGENCY SITUATION AND AWARD OF CONSTRUCTION CONTRACT FOR REPAIRS TO RECYCLED WATER PIPELINE ON THE SAN ELIJO WATER CAMPUS AT EAST ENTRY GATE

RECOMMENDATION

It is recommended that the Board of Directors:

1. Review and Confirm this Emergency Condition pursuant to San Elijo Joint Powers Authority's Resolution 2022-01 "Purchasing Policies and Procedures" and Public Contract Code 22050, and ratify the General Manager's execution of an emergency repair agreement with Burtech Pipeline for repairs to buried recycled water pipeline at the San Elijo Water Campus (East Entry Gate); and

2. Discuss and take action as appropriate.

BACKGROUND

On May 8, 2026, at approximately 5:45 a.m., staff observed water surfacing through the asphalt driveway at the east entrance gate to the San Elijo Water Campus. Staff promptly isolated the leak and closed the affected area for safety. Burtech Pipeline was contacted at approximately 6:00 a.m. and mobilized a construction crew and equipment, by 7:00 a.m.

When situations such as this arise, immediate attention and action is necessary for the protection of personnel and property. Such work is commonly completed under the Emergency Work provisions of SEJPA's Resolution 2022-01 "Purchasing Policies and Procedures", Part 3.1.d which states:

> *The General Manager is authorized to purchase and enter into contracts for urgent maintenance and for necessary equipment, services and supplies in the case of an emergency, without giving notice for bids and in any necessary amount. Urgent sewer maintenance or repair work is work that is required as a result of a physical condition which threatens public health or safety or the environment and requires immediate remedial action to mitigate said threat. Following the exercise of this authority, the General Manager or designee shall follow the procedures required by Section 22050 of the Public Contract Code.*

Section 22050 of the Public Contract Code (PCC) stipulates requirements for reporting the action to the governing Board

> *22050, Paragraph (c)(1) …[following action by General Manager under authority delegated in SEJPA's Procurement Policy]…the governing body shall initially review the emergency action not later than seven days after the action, or at its next regularly scheduled meeting if that meeting will occur not later than 14 days after the action, and at least at every regularly scheduled meeting thereafter until the action is terminated, to determine, by a four-fifths vote, that there is a need to continue the action, unless …[General Manager as delegated authority]…has terminated that action prior to the governing body reviewing the emergency action and making a determination pursuant to this subdivision. If the governing body meets weekly, it may, after the initial review, review the emergency action in accordance with this paragraph every 14 days.*

DISCUSSION

Immediate action was required to protect public safety, maintain a safe working environment, and minimize service interruptions to recycled water customers. Under SEJPA's Resolution 2022-01 and PCC 22050, the General Manager authorized emergency repairs without competitive bidding. This authority allows for urgent maintenance and repair contracts as necessary to address conditions that threaten public health, safety, or the environment.

Burtech completed excavation, dewatering, pipeline removal, and repairs in an expeditious manner. The trench was backfilled, compacted, and temporarily paved with a cold asphalt patch. Final paving is to be completed after the full extent of damage is assessed. Once all work is completed, SEJPA will reconcile time and materials charges with Burtech and close out the emergency declaration.

FINANCIAL IMPACT

The cost of the emergency repairs will be funded through the Recycled Water Program's operating reserves. The recommended contract with Burtech Pipeline for this work is for an amount not to exceed $50,000, pending final accounting of charges.

RECOMMENDATION

It is recommended that the Board of Directors:

1. Review and Confirm this Emergency Condition pursuant to San Elijo Joint Power Authority's Resolution 2022-01 "Purchasing Policies and Procedures" and Public Contract Code 22050 and ratify the General Manager's execution of emergency repair agreement with Burtech Pipeline for repairs to buried recycled water pipeline at the San Elijo Water Campus (East Entry Gate).

2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

Attachment:

1. Agreement for Emergency Repair Services – Burtech Pipeline, May 8, 2026

Agreement No.: 2026-019-TSA
Account: 20-5430-10-150

TECHNICAL SERVICES AGREEMENT BETWEEN SAN ELIJO JOINT POWERS AUTHORITY AND BURTECH PIPELINE FOR RECYCLED WATER PIPELINE (@ FRONT GATE) EMERGENCY REPAIRS

RECITALS

A. This Technical Service Agreement ("**Agreement**") is made and entered into this 8th day of May, 2026 ("**Effective Date**"), by and between the SAN ELIJO JOINT POWERS AUTHORITY ("**SEJPA**") and BURTECH PIPELINE, ("**CONTRACTOR**"), an independent contractor, with a principal place of business at 1325 Pipeline Drive, Vista, CA 92081.

B. CONTRACTOR has submitted to SEJPA a proposal to provide emergency repair services for the Recycled Water Pipeline within San Elijo Water Campus (at front east gate) located at 2695 Manchester Avenue, Cardiff-by-the-Sea, CA 92007. SEJPA has been determined that it is in the best interests of SEJPA to enter into the Agreement hereinafter contained.

C. In consideration of the mutual promises, conditions and covenants herein contained, the parties hereto agree to the terms and conditions set forth in this Agreement.

AGREEMENT

SECTION 1 SCOPE OF WORK

A. CONTRACTOR shall provide labor and services to complete the Scope of Work specified in **Attachment A** to this Agreement. CONTRACTOR shall furnish all materials, equipment, supplies and incidentals necessary to perform the work, except those which are expressly designated to be furnished by SEJPA. All work performed and materials supplied in the execution of this Agreement shall comply with applicable laws, standards, codes and regulations governing such materials, items and work. All material is guaranteed to be as specified in the Scope of Work. Any alteration or deviation from the specifications, which involve extra costs, must be approved by SEJPA in advance.

B. CONTRACTOR represents that it is skilled in the technical expertise necessary to provide the services required under this Agreement. CONTRACTOR shall be licensed under the classification of Class A as the date of this Agreement and shall maintain such license until final completion and acceptance of the work specified in the Agreement. CONTRACTOR agrees to perform its work hereunder in a competent manner acceptable to SEJPA and in conformity with the requirements of this Agreement. CONTRACTOR will employ only competent workers to complete the work under this Agreement.

C. CONTRACTOR shall secure and maintain in good standing for the term of this Agreement any and all permits, licenses and certifications required to perform the Scope of Work. CONTRACTOR shall provide proof of any such permits and licensure upon request by SEJPA.

SECTION 2 TIME OF PERFORMANCE

A. CONTRACTOR agrees to complete said work by May 11, 2026 to the entire satisfaction of SEJPA before final payment is made. Time is of the essence. The time for performance of any work under this Agreement may be extended, or suspended, in the reasonable discretion of SEJPA, based on unavoidable disruption of work due to strikes, lockouts, government acts, epidemics/pandemics, acts of God and other similar conditions shown by CONTRACTOR to be beyond the control of CONTRACTOR.

SECTION 3 COMPENSATION

A. Compensation for all of the labor, equipment, material and services which CONTRACTOR is obligated to perform under the terms and conditions of this Agreement, including all applicable taxes, shall not exceed Fifty Thousand dollars ($50,000), charged on time and materials basis in accordance with rates defined in Attachment A; CONTRACTOR shall notify SEJPA if efforts are projected to exceed this amount. SEJPA shall make payments to CONTRACTOR in response to duly submitted invoices in accordance with this Section.

B. Prepayments will not be made, at any time, during the execution of this Agreement. CONTRACTOR shall submit monthly invoices to SEJPA for payments. Such invoices shall represent the value of the items delivered or services provided during the billing period. Such invoices shall be prepared in such form and supported by documentation as SEJPA may reasonably require including a brief narrative description of the work performed.

C. Payment shall be made by SEJPA to CONTRACTOR within forty-five (45) days of receipt of an approved invoice. The amount of this payment will be less any amounts previously paid on the account.

D. SEJPA shall review each invoice as soon as practicable after receipt for the purpose of determining whether the invoice should be approved as a proper payment request. SEJPA shall return to CONTRACTOR any invoice determined not to be a proper payment request as soon as practicable. The returned payment request shall include a written explanation setting forth the reasons why the payment request is not proper, and a proposed revised invoice amount, if any, that SEJPA believes to be the proper amount.

E. If CONTRACTOR accepts the proposed revised invoice prepared by SEJPA, CONTRACTOR shall provide written notification to SEJPA's designated representative that CONTRACTOR accepts the proposed revised invoice, and the revised invoice shall be deemed received on the same business day CONTRACTOR's written notification is received. SEJPA shall thereafter have 45 days to make payment on the revised invoice.

F. All invoices shall be made in writing and must be delivered via email to apsejpa@sejpa.org. All payments shall be delivered U.S. mail to the address below:

Payment mailing address:
San Elijo Joint Powers Authority, Attention: Accounts Payable
P.O. Box 1077
Cardiff by the Sea, CA 92007

SECTION 4 TERM AND TERMINATION

A. The Agreement period will continue until CONTRACTOR's completion of the Scope of Work attached hereto as "**Attachment A**" and expiration of the warranty of work. CONTRACTOR's indemnification, hold harmless and defense obligation shall survive the termination of expiration of this Agreement.

B. SEJPA may cancel this Agreement at any time with no less than ten (10) days' prior written notice. CONTRACTOR shall discontinue all affected work on the indicated date of termination.

C. The time for performance of any work under this Agreement may be extended, at SEJPA's discretion, based on unavoidable disruption of work due to strikes, lockouts, government acts, pandemics/epidemics, acts of God and other similar conditions shown by CONTRACTOR to be beyond the control of CONTRACTOR.

SECTION 5 LEGAL RELATIONS

A. CONTRACTOR is for all purposes an independent contractor. All personnel provided by CONTRACTOR pursuant to this Agreement are to be employed by CONTRACTOR, or its subcontractors, for their account only. Neither CONTRACTOR, its employees nor subcontractors, shall be deemed to have been employees of SEJPA or to have been entitled to any rights or benefits as SEJPA employees. CONTRACTOR certifies that it is free from the control and direction of SEJPA in connection with the performance of the work. CONTRACTOR will supervise the work and control the means for accomplishment of the services and work to be performed hereunder. CONTRACTOR will be responsible for providing required and necessary protective gear for its personnel, including any subcontractor personnel, while on the job site, including safety equipment. No permitted or required approval by SEJPA of personnel, costs, schedules, documents or services of CONTRACTOR shall be construed as making SEJPA responsible for the manner in which CONTRACTOR performs its services. Such approvals are intended to give SEJPA the right to satisfy itself with the quality of work performed by CONTRACTOR. CONTRACTOR further certifies that it is customarily engaged in an independently established trade, occupation, or business of the same nature as that involved in the work performed under this Agreement. This Agreement is not exclusive, and as such CONTRACTOR certifies that it is free to perform work for others for the duration of this Agreement.

B. CONTRACTOR agrees to indemnify, defend, protect, and hold SEJPA, its Member Agencies (the City of Solana Beach and the City of Encinitas), and each of their respective officers, officials, directors, agents, employees, and volunteers (collectively, "Indemnified Parties") harmless from and against any and all liability, claims, demands, damages, loss, charge, civil fines or penalties, liens, actions and causes of action, including reasonable attorney's fees, costs and

expenses (collectively, "Claims"), arising out of the negligent acts, errors, omissions or willful misconduct of CONTRACTOR, its associates, employees, subcontractors or other agents in the performance of this Agreement or out of operations conducted by CONTRACTOR. CONTRACTOR shall not be required to defend, indemnify or hold harmless Indemnified Parties for Claims to the extent attributable to the sole negligence, active negligence or willful misconduct of Indemnified Parties. The indemnification, hold harmless and defense obligations set forth herein shall survive the termination or expiration of this Agreement.

SECTION 6 INSURANCE.

A. CONTRACTOR shall procure and maintain during the term of this Agreement all insurance required by federal, state, county and local laws, and such other and additional coverage adequate to protect CONTRACTOR and SEJPA from any liabilities and claims for injuries and damages to persons or property which may arise from, or in connection with, the performance of work hereunder by CONTRACTOR, its agents, representatives, employees or subcontractors. Specifically, CONTRACTOR and each of its subcontractors shall maintain throughout the term of this Agreement the following policies of insurance:

1. A general liability policy of insurance, including coverage for products and completed operations, bodily injury and/or death, personal and advertising injury, and property damage claims which may arise from or in connection with the performance of the work under this Agreement by CONTRACTOR and its subcontractors, and each of their agents, representatives, or employees. General Liability insurance shall be comprehensive in form and shall be on a "per occurrence" basis in a minimum amount of Three Million Dollars ($3,000,000) per occurrence. Such coverage shall be written on Insurance Services Office ("ISO") Form CG 00 01, or equivalent.

2. An automobile liability policy of insurance to cover claims, injury, death, loss or damage, accidents from the use or operation of any automobiles, trucks and/or other mobile or stationary equipment, whether owned, non-owned or hire. Auto coverage shall be issued with a limit no less than One Million Dollars ($1,000,000) per accident for bodily injury and property damage.

3. Workers' compensation insurance with limits no less than the statutory limits.

B. All policies of insurance required under this Section shall be from insurance providers who are either admitted or licensed to do business in California, or are Surplus Lines Carriers authorized to do business in California, and who have an A.M. Best Company rating of no less than A- and a financial size category of at least Class VII, unless otherwise acceptable to SEJPA.

C. All policies of insurance required under this Section, except for workers' compensation, shall be endorsed to name SEJPA, its member agencies the City of Solana Beach and City of Encinitas, and their directors, officers, employees and representatives (the "Additional Insureds") as additional insureds under each such policy and an additional insured endorsement at

least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 and CG 20 37, if later revisions are used, shall be provided to SEJPA.

D. CONTRACTOR shall provide duly-authorized and, as applicable, executed original certificates and endorsements for all insurance required pursuant to this Agreement on forms approved by SEJPA in conformity with all requirements of this Agreement prior to commencement of any work hereunder. If any of the required coverages expire during the term of this Agreement, CONTRACTOR shall deliver renewal certificates to SEJPA at least ten (10) days prior to the expiration date.

E. For any claims related to this Agreement, CONTRACTOR's insurance coverage shall be primary insurance as respects the Additional Insureds. Any insurance or self-insurance maintained by the Additional Insureds shall be excess of the CONTRACTOR's (and its subcontractor's) insurance, and shall not contribute to such insurance.

F. Any deductibles or self-insured retentions must be declared in writing and approved by SEJPA. At the option of SEJPA, either: the insurance provider(s) shall reduce or eliminate such deductibles or self-insured retentions as respects SEJPA and its directors, officers, employees, and representatives; or the CONTRACTOR shall provide a financial guarantee satisfactory to SEJPA guaranteeing payment of losses and related investigations, claim administration and defense expenses.

G. CONTRACTOR hereby agrees to waive rights of subrogation against SEJPA and the Additional Insureds which any of CONTRACTOR's insurers may acquire from CONTRACTOR by virtue of the payment of any loss. CONTRACTOR agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation.

H. CONTRACTOR shall provide thirty (30) days' advance written notice to SEJPA, of any cancellation or material alteration of any insurance policy required herein.

SECTION 7 ASSIGNMENTS/SUBCONTRACTS

CONTRACTOR shall not sublet or assign any of the work covered by this Agreement, except with the prior written approval of SEJPA and in strict compliance with the terms, provisions and conditions of this Agreement.

SECTION 8 CONTRACTOR'S PROJECT MANAGER

CONTRACTOR's designated project manager, Erick Garcia, shall be empowered to act for CONTRACTOR for all matters relating to this Agreement.

SECTION 9 SEJPA REPRESENTATIVE

SEJPA's designated representative, Tom Falk, PE, Deputy General Manager, will administer this Agreement.

SECTION 10 FREEDOM OF INFORMATION

SEJPA shall make freely available to CONTRACTOR for examination all non-privileged directly pertinent books, documents, papers and records of SEJPA involving transactions related to this Agreement. CONTRACTOR understands that information provided to SEJPA pursuant to this contract may become a public record and subject to disclosure pursuant to the California Public Records Act.

SECTION 11 PREVAILING WAGE LAWS

A. CONTRACTOR shall comply with the requirements of this SECTION 12 with respect to any installation, repair, maintenance or other work constituting a public works under California Labor Code sections 1720 et seq. and 1770 et seq., and California Code of Regulations, title 8, section 16000 et seq. (collectively, "Prevailing Wage Laws").

B. CONTRACTOR must be, and must require its subcontractors to, be registered with the California Department of Industrial Relations ("DIR") pursuant to Labor Code section 1725.5, prior to execution of this Agreement. No contractor or subcontractor may be listed on a bid proposal for a public works project, or may be awarded a contract for public work on a public works project, unless it registers with and pays an annual fee to the DIR. CONTRACTOR shall submit proof of current registration, and shall require subcontractors to submit proof of current registration, to SEJPA prior to commencing work on the project. For more information on how to become registered with the DIR, please go to https://www.dir.ca.gov/Public-Works/Contractor-Registration.html. [Option to remove this paragraph if the work is less than $15,000. This registration requirement does not apply to work performed on a public works project for maintenance of fifteen thousand dollars ($15,000) or less.]

C. CONTRACTOR agrees to comply with and require its subcontractors to comply with the requirements of Prevailing Wage Laws and any additional applicable California Labor Code provisions related to such work including without limitation payroll recordkeeping requirements. CONTRACTOR and its subcontractors shall pay not less than the prevailing rate of per diem wages as determined by the Director of the DIR for all services described in this Agreement and as required by law. The general prevailing wage determinations can be found on the DIR website at: http://www.dir.ca.gov. Copies of the prevailing rate of per diem wages may be accessed at SEJPA's administrative office, and shall be made available upon request. CONTRACTOR shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the services described in this Agreement available to interested parties upon request, and shall post and maintain copies at CONTRACTOR'S principal place of business and at all site(s) where services are performed. Penalties for violation of Prevailing Wage Laws may be assessed in accordance with such laws. For example, CONTRACTOR shall forfeit, as a penalty to SEJPA, Two Hundred Dollars ($200) for each calendar day, or portion thereof, for each workman paid less than stipulated prevailing rates for services performed under this Agreement by him, or any subcontractor under him, in violation of Prevailing Wage Laws. CONTRACTOR shall defend, indemnify and hold the Indemnified Parties harmless from any claims, liabilities, costs, penalties or interest arising out of the failure or alleged failure of CONTRACTOR or its subcontractors to comply with Prevailing Wage Laws.

D. CONTRACTOR and each of its subcontractors shall keep accurate payroll records showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by CONTRACTOR or subcontractor in connection with the services performed pursuant to this Agreement. Each payroll shall be certified and available for inspection as prescribed by Labor Code section 1776. CONTRACTOR shall keep SEJPA informed as to the location of the records and shall be responsible for the compliance with these requirements by all subcontractors. CONTRACTOR shall inform SEJPA of the location of the payroll records, including the street address, city and county and shall, within five (5) working days, provide a notice of any change of location and address. Penalties for noncompliance include a forfeiture of One Hundred Dollars ($100) per calendar day, or portion thereof, for each worker until strict compliance is effectuated, which may be deducted from any moneys due CONTRACTOR.

E. Eight (8) hours of work shall constitute a legal day's work. CONTRACTOR and any subcontractors shall forfeit, as a penalty to SEJPA, Twenty-Five Dollars ($25) for each worker employed in the execution of services pursuant to this Agreement by CONTRACTOR or any of its subcontractors for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any calendar week in violation of the provisions of the California Labor Code, in particular, sections 1810 to 1815, thereof, inclusive, except services performed by employees of CONTRACTOR and its subcontractors in excess of eight (8) hours per day at not less than one and one-half (1 ½) times the basic rate of pay, as provided in California Labor Code section 1815.

F. CONTRACTOR shall require any subcontractors performing services under this Agreement to comply with all of the above.

SECTION 12 NOTICE

Any notices required to be given under this Agreement by either party to the other must be effected by email, or by personal delivery in writing or by mail, first class, registered or certified, postage prepaid with return receipt requested. Mailed notices must be addressed to the parties at the addresses below, but each party may change the address by giving written notice in accordance with this paragraph. Emailed notices will be deemed communicated via same-day if sent before 5:00 PST. Notices delivered personally will be deemed communicated as of actual receipt; mailed notices will be deemed communicated as of the day of receipt or the fifth (5^{th}) day after mailing, whichever occurs first.

To SEJPA:
San Elijo Joint Powers Authority
Attention: Tom Falk
2695 Manchester Avenue
Cardiff-By-The-Sea, CA 92007
falkt@sejpa.org

To CONTRACTOR: Burtech Pipeline
Attention: Dominic J. Burtech_
1325 Pipeline Drive
Vista, CA 92081

SECTION 13 WORKING HOURS

All on site work is to be performed Monday through Friday between the hours of 7:30 a.m. and 5:30 p.m. or as otherwise agreed to by SEJPA. In the event these working hours conflict with an ordinances of the City of Encinitas, CONTRACTOR shall perform site work in compliance with such ordinance. CONTRACTOR will also notify SEJPA's designated Project Manager or the Project Manager's assigned alternate of their daily schedule. Any change in the defined working times must have prior written approval from SEJPA's General Manager or his designated representative.

SECTION 14 WARRANTY OF WORK

A. CONTRACTOR guarantees all work pursuant to this Agreement against defective materials or workmanship for period of one (1) year from the date of completion of all work, except where longer warranty periods are specifically stated. Any defective material or workmanship which may be discovered before completion all work or within one (1) year thereafter shall be corrected immediately by CONTRACTOR at its own expense notwithstanding that it may have been overlooked in previous inspections and estimates. Any work to correct a defect in workmanship and/or replacement materials shall additionally be guaranteed by CONTRACTOR for a period of one (1) year from the date of completion of such corrective work or replacement of materials.

B. Failure to inspect the work at any stage shall not relieve CONTRACTOR from any obligation to perform sound and reliable work as herein described. It is CONTRACTOR'S ultimate responsibility to complete all work as required by this Agreement.

C. During the one (1) year warranty period, should CONTRACTOR fail to remedy defective material and/or workmanship, or to make replacements within five (5) days after written notice by SEJPA, it is agreed that SEJPA may make such repairs and replacements and the actual cost of the required labor or materials shall be chargeable to and payable by CONTRACTOR.

D. The warranty provided herein shall not be in lieu of, but shall be in addition to, any warranties or other obligations otherwise imposed by this Agreement or by law. The remedies provided herein shall not be exclusive and SEJPA shall be entitled to any and all remedies provided by law.

SECTION 15 WORK DURING DISPUTES

In the event of a dispute between the parties as to the performance of the work, the interpretation of this Agreement, or payment or nonpayment for work performed, the parties shall

attempt to resolve the dispute. If the dispute is not resolved, CONTRACTOR agrees to continue the work diligently to completion and will neither rescind this Agreement nor stop the progress of the work, but may submit such controversy for determination in accordance with applicable law. In the event any litigation is commenced with respect to this Agreement, such litigation shall not serve to suspend CONTRACTOR'S obligation to continue performance of the work hereunder.

SECTION 16 MISCELLANEOUS

A. If CONTRACTOR is required by law to be licensed and regulated by a State License Board, or any other regulatory body, CONTRACTOR hereby warrants that it has complied with any such licensing and regulatory authorities. CONTRACTOR shall provide proof of such licensure upon request by SEJPA.

B. All work performed and materials supplied in the execution of this Agreement shall comply with applicable laws, standards, codes and regulations governing such materials, items and work. All material is guaranteed to be as specified in the Scope of Work. Any alteration or deviation from the Scope of Work, which involve extra costs, may be executed by CONTRACTOR only after approval of SEJPA by written order, which will specifically state the change in the Scope of Work and the additional charges to be incurred. Unless otherwise directed by SEJPA, CONTRACTOR shall not be entitled to compensation for work requiring an approved written order if CONTRACTOR fails to obtain such an order prior to the execution of that work.

C. The "Hazard Communication Standard" requires that individuals (employees) working in an area where hazardous substances are being used must be informed of any potential dangers associated with working in that area. (29 C.F.R. § 1919.1220.) It is the responsibility of CONTRACTORS working at San Elijo Joint Powers Authority to read and acknowledge receipt of the information packet prior to the start of any scheduled work. Furthermore, CONTRACTOR shall make available all applicable information regarding hazardous substances and conditions to all CONTRACTOR employees and subcontractors.

D. CONTRACTOR will perform all work under this Agreement in good faith and in the best interests of SEJPA. CONTRACTOR shall be solely and completely responsible for the safety of all CONTRACTOR personnel, including personnel of any subcontractors, during performance of the work. In performing the work specified in this Agreement, CONTRACTOR agrees to comply with all laws, rules, regulations, ordinances, directives and orders, whether federal, state or local, and any and all of SEJPA policies and procedures, departmental rules and other directives applicable to the services to be performed, including, but not limited to, SEJPA's Contractor Safety Policies and Procedures. Any changes to SEJPA policies and procedures that relate to CONTRACTOR will be provided to CONTRACTOR in writing. CONTRACTOR agrees to review such policies, procedures, rules and directives the contents of which CONTRACTOR will be deemed to have knowledge.

E. If this Agreement involves an expenditure of public funds in excess of ten thousand dollars ($10,000), the Agreement is subject to examination and audit of the State Auditor, at the request of SEJPA or as a part of any audit of SEJPA, for a period of three (3) years after final payment under the Agreement. CONTRACTOR shall cooperate with SEJPA regarding any such audit at no extra cost to SEJPA.

F. This Agreement represents the entire understanding of SEJPA and CONTRACTOR as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Agreement may not be modified or altered except in writing and signed by both parties.

G. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument. A faxed, .pdf, or other electronic copy of the fully executed original version of this Agreement shall have the same legal effect as an executed original for all purposes. Electronic signatures shall have the same legal effect as an original signature.

H. Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed inserted herein, and the Agreement shall be read and enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Agreement shall forthwith be physically amended to make such insertion.

I. In signing this Agreement, CONTRACTOR certifies that CONTRACTOR shall not submit a false claim in violation of the False Claims Act, section 12650 et seq. of the Government Code.

J. This Agreement shall be construed and enforced under and in accordance with the laws of the State of California. Venue to any action or proceeding arising out of this Agreement shall be in San Diego County, California.

K. In the event litigation or arbitration is commenced to interpret or enforce this Agreement, the prevailing party shall be entitled to recover its reasonable attorney's fees in addition to costs and expenses.

L. SEJPA and CONTRACTOR do covenant that the individual executing this Agreement on their behalf is a person duly authorized and empowered to execute this Agreement for such party.

BY SIGNING BELOW THE PARTIES VOLUNTARILY ENTER INTO THIS AGREEMENT AND ACKNOWLEDGE THAT THEY HAVE READ AND UNDERSTAND THE TERMS SET FORTH HEREIN AND AGREE TO BE BOUND THEREBY.

SAN ELIJO JOINT POWERS AUTHORITY:

Michael Thornton

Michael T. Thornton, P.E.

General Manager

May 11, 2026

Date

BURTECH PIPELINE:

Signature

Dominic J. Burtech - President & CEO

Title

May 8, 2026

Date

718202, Class A

Contractor's License No.

01/31/2028

License Expiration Date

Attachment A

Scope of Work

PROJECT LOCATION:

San Elijo Water Campus, 2695 Manchester Ave, Cardiff by the Sea, CA. 92007

PROJECT SCOPE: Emergency repair scope to be completed under force account.

1. Erect and maintain safety procedures for work within Water Campus site for affected work areas.
2. Remove asphalt, excavate, confer with SEJPA to determine repair solution for leaking 12" ductile iron recycled water pipeline (within San Elijo Water Campus property) at location identified by SEJPA. Piping, fittings, valves and appurtenances shall conform to applicable local standards and codes, as applicable.
3. Excavated material shall be hauled within the San Elijo Water Campus site and deposited in manner and location directed by SEJPA.
4. Complete repair as directed by SEJPA; pressure test; and support SEJPA in putting pipeline back in service.
5. Backfill with clean, compacted material to grade.
6. Install temporary paving patch; SEJPA will complete final paving at later date.

TIME & MATERIAL DETAILS: *Costs to be tracked on time and materials basis (in accordance with owner-approved force account records) and as described in Burtech rate sheet (enclosed); equipment rates per current CalTrans rates.*

Attachment A: Rate Sheet

BURTECH PIPELINE

GENERAL ENGINEERING CONTRACTOR

Burtech Pipeline Emergency Work Compensation Rate Schedule

Title/Classification	Standard Rate ($)/Hour	Overtime Rate ($)/Hour	Doubletime Rate ($)/Hour
Superintendent	135.00	202.50	272.00
Foreman	120.00	180.00	240.00
Equipment Operator	118.00	177.00	236.00
Truck Driver	108.00	162.00	216.00
Laborer/Pipelayer	90.00	135.00	180.00
Carpenter	94.00	141.00	188.00
Mechanic	115.00	172.50	230.00
Project Manager	162.00	243.00	324.00
Project Staff Engineer	120.00	NA	NA
SWPPP/QSP	115.00	NA	NA
Office Admin	90.00	NA	NA

1. These rates are specified as Burtech's established rates for calculating labor cost without allowance for overhead & profit. A 20% markup will be added to these costs for overhead & profit
2. For owned equipment, Caltrans Equipment rental rates in effect at the time the work is being performed will be used. A 15% markup will be added to these costs for overhead & profit.
3. For rented equipment, the cost will be the rental invoice plus consumables (fuel, grease, etc.) A 15% markup will be added to these costs for overhead & profit.
4. Materials & Dump Fees will be the amount of the invoice. A 15% markup will be added to these costs for overhead & profit.
5. Subcontractor costs will be the amount invoiced. A 10% mark up will be added to the invoice for overhead & profit.

Lic# 718202 1325 Pipeline Dr. Vista, CA 92081 Tel: 760-634-2822 Fax: 760-634-2415

AGENDA ITEM NO. 17A

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: NOTICE OF EMERGENCY SITUATION AND AWARD OF CONSTRUCTION CONTRACT FOR REPAIRS TO RECYCLED WATER PIPELINE ON THE SAN ELIJO WATER CAMPUS AT NORTH BIKE TRAIL (SUBJECT TO TWO-THIRDS VOTE OF THE SAN ELIJO JOINT POWERS AUTHORITY BOARD)

RECOMMENDATION

It is recommended that the Board of Directors:

1. Review and Confirm this Emergency Condition pursuant to San Elijo Joint Powers Authority's Resolution 2022-01 "Purchasing Policies and Procedures" and Public Contract Code 22050, and ratify the General Manager's execution of an emergency repair agreement with Burtech Pipeline for repairs to buried recycled water pipeline at the San Elijo Water Campus (North Bike Trail); and

2. Discuss and take action as appropriate.

BACKGROUND

On May 15, 2026, at approximately 10:00 a.m., during routine landscaping activities, staff observed water surfacing adjacent to the North Coast Trail Bike Path on the north end of the San Elijo Water Campus (SEWC). Staff promptly investigated the condition, contained the drainage, and secured the area to protect public safety. Review of available engineering drawings indicated that the nearest isolation valve associated with the suspected leaking lateral is buried approximately 10 feet deep. Staff determined the leak to be limited in magnitude but requiring prompt repair due to its proximity to public infrastructure, uncertainty regarding the condition of the buried lateral connection, and the complexity of isolating the pipeline.

Burtech Pipeline was contacted and requested to mobilize a construction crew and equipment on Monday, May 18, 2026, to repair the leak. Leakage was fully contained within SEWC property boundaries, and recycled water delivery service was not interrupted over the weekend.

When situations such as this arise, action is necessary for the protection of public safety, infrastructure, and the environment. Such work is commonly completed under the Emergency Work provisions of SEJPA's Resolution 2022-01, "Purchasing Policies and Procedures," Part 3.1.d, which states:

The General Manager is authorized to purchase and enter into contracts for urgent maintenance and for necessary equipment, services and supplies in the case of an emergency, without giving notice for bids and in any necessary amount. Urgent sewer maintenance or repair work is work that is required as a result of a physical condition which threatens public health or safety or the environment and requires immediate remedial action to mitigate said threat. Following the exercise of this authority, the General Manager or designee shall follow the procedures required by Section 22050 of the Public Contract Code.

Section 22050 of the Public Contract Code (PCC) stipulates requirements for reporting the action to the governing Board

22050, Paragraph (c)(1) …[following action by General Manager under authority delegated in SEJPA's Procurement Policy]…the governing body shall initially review the emergency action not later than seven days after the action, or at its next regularly scheduled meeting if that meeting will occur not later than 14 days after the action, and at least at every regularly scheduled meeting thereafter until the action is terminated, to determine, by a four-fifths vote, that there is a need to continue the action, unless …[General Manager as delegated authority]…has terminated that action prior to the governing body reviewing the emergency action and making a determination pursuant to this subdivision. If the governing body meets weekly, it may, after the initial review, review the emergency action in accordance with this paragraph every 14 days.

DISCUSSION

Timely action was required to protect public safety, maintain a safe working environment, minimize potential property impacts, and avoid interruptions to recycled water service. Under SEJPA's Resolution 2022-01 and PCC Section 22050, the General Manager authorized emergency repair work without competitive bidding. This authority allows for urgent maintenance and repair contracts necessary to address conditions that may threaten public health, safety, the environment, or critical infrastructure operations.

Burtech is scoped to provide necessary safety measures for work adjacent to the public bike trail; excavate, locate, and repair the leak; and coordinate with SEJPA to determine and implement the appropriate repair solution. The work includes furnishing and installing piping materials, fittings, valves, bedding sand, pressure testing, support for restoration of service, backfilling and compaction, and restoration of disturbed surface features.

FINANCIAL IMPACT

The cost of the emergency repairs will be funded through the Recycled Water Program's operating reserves. The recommended contract with Burtech Pipeline for this work is for an amount not to exceed $50,000, pending final accounting of charges.

RECOMMENDATION

It is recommended that the Board of Directors:

1. Review and Confirm this Emergency Condition pursuant to San Elijo Joint Power Authority's Resolution 2022-01 "Purchasing Policies and Procedures" and Public Contract Code 22050 and ratify the General Manager's execution of emergency repair agreement with Burtech Pipeline for repairs to buried recycled water pipeline at the San Elijo Water Campus (North Bike Trail).

2. Discuss and take action as appropriate.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

Attachment:

1. Agreement for Emergency Repair Services – Burtech Pipeline, May 18, 2026

Attachment 1

Agreement No.: 2026-021-TSA
Account: 20-5430-10-150

TECHNICAL SERVICES AGREEMENT BETWEEN SAN ELIJO JOINT POWERS AUTHORITY AND BURTECH PIPELINE FOR RECYCLED WATER PIPELINE (@ NORTH BIKE TRAIL) EMERGENCY REPAIRS

RECITALS

A. This Technical Service Agreement ("**Agreement**") is made and entered into this 8th day of May, 2026 ("**Effective Date**"), by and between the SAN ELIJO JOINT POWERS AUTHORITY ("**SEJPA**") and BURTECH PIPELINE, ("**CONTRACTOR**"), an independent contractor, with a principal place of business at 1325 Pipeline Drive, Vista, CA 92081.

B. CONTRACTOR has submitted to SEJPA a proposal to provide emergency repair services for the Recycled Water Pipeline within San Elijo Water Campus (at north end of site along bike trail) located at 2695 Manchester Avenue, Cardiff-by-the-Sea, CA 92007. SEJPA has been determined that it is in the best interests of SEJPA to enter into the Agreement hereinafter contained.

C. In consideration of the mutual promises, conditions and covenants herein contained, the parties hereto agree to the terms and conditions set forth in this Agreement.

AGREEMENT

SECTION 1 SCOPE OF WORK

A. CONTRACTOR shall provide labor and services to complete the Scope of Work specified in **Attachment A** to this Agreement. CONTRACTOR shall furnish all materials, equipment, supplies and incidentals necessary to perform the work, except those which are expressly designated to be furnished by SEJPA. All work performed and materials supplied in the execution of this Agreement shall comply with applicable laws, standards, codes and regulations governing such materials, items and work. All material is guaranteed to be as specified in the Scope of Work. Any alteration or deviation from the specifications, which involve extra costs, must be approved by SEJPA in advance.

B. CONTRACTOR represents that it is skilled in the technical expertise necessary to provide the services required under this Agreement. CONTRACTOR shall be licensed under the classification of Class A as the date of this Agreement and shall maintain such license until final completion and acceptance of the work specified in the Agreement. CONTRACTOR agrees to perform its work hereunder in a competent manner acceptable to SEJPA and in conformity with the requirements of this Agreement. CONTRACTOR will employ only competent workers to complete the work under this Agreement.

C. CONTRACTOR shall secure and maintain in good standing for the term of this Agreement any and all permits, licenses and certifications required to perform the Scope of Work. CONTRACTOR shall provide proof of any such permits and licensure upon request by SEJPA.

SECTION 2 TIME OF PERFORMANCE

A. CONTRACTOR agrees to complete said work by May 19, 2026 to the entire satisfaction of SEJPA before final payment is made. Time is of the essence. The time for performance of any work under this Agreement may be extended, or suspended, in the reasonable discretion of SEJPA, based on unavoidable disruption of work due to strikes, lockouts, government acts, epidemics/pandemics, acts of God and other similar conditions shown by CONTRACTOR to be beyond the control of CONTRACTOR.

SECTION 3 COMPENSATION

A. Compensation for all of the labor, equipment, material and services which CONTRACTOR is obligated to perform under the terms and conditions of this Agreement, including all applicable taxes, shall not exceed Fifty Thousand dollars ($50,000), charged on time and materials basis in accordance with rates defined in Attachment A; CONTRACTOR shall notify SEJPA if efforts are projected to exceed this amount. SEJPA shall make payments to CONTRACTOR in response to duly submitted invoices in accordance with this Section.

B. Prepayments will not be made, at any time, during the execution of this Agreement. CONTRACTOR shall submit monthly invoices to SEJPA for payments. Such invoices shall represent the value of the items delivered or services provided during the billing period. Such invoices shall be prepared in such form and supported by documentation as SEJPA may reasonably require including a brief narrative description of the work performed.

C. Payment shall be made by SEJPA to CONTRACTOR within forty-five (45) days of receipt of an approved invoice. The amount of this payment will be less any amounts previously paid on the account.

D. SEJPA shall review each invoice as soon as practicable after receipt for the purpose of determining whether the invoice should be approved as a proper payment request. SEJPA shall return to CONTRACTOR any invoice determined not to be a proper payment request as soon as practicable. The returned payment request shall include a written explanation setting forth the reasons why the payment request is not proper, and a proposed revised invoice amount, if any, that SEJPA believes to be the proper amount.

E. If CONTRACTOR accepts the proposed revised invoice prepared by SEJPA, CONTRACTOR shall provide written notification to SEJPA's designated representative that CONTRACTOR accepts the proposed revised invoice, and the revised invoice shall be deemed received on the same business day CONTRACTOR's written notification is received. SEJPA shall thereafter have 45 days to make payment on the revised invoice.

F. All invoices shall be made in writing and must be delivered via email to apsejpa@sejpa.org. All payments shall be delivered U.S. mail to the address below:

Payment mailing address:
San Elijo Joint Powers Authority, Attention: Accounts Payable
P.O. Box 1077
Cardiff by the Sea, CA 92007

SECTION 4 TERM AND TERMINATION

A. The Agreement period will continue until CONTRACTOR's completion of the Scope of Work attached hereto as "**Attachment A**" and expiration of the warranty of work. CONTRACTOR's indemnification, hold harmless and defense obligation shall survive the termination of expiration of this Agreement.

B. SEJPA may cancel this Agreement at any time with no less than ten (10) days' prior written notice. CONTRACTOR shall discontinue all affected work on the indicated date of termination.

C. The time for performance of any work under this Agreement may be extended, at SEJPA's discretion, based on unavoidable disruption of work due to strikes, lockouts, government acts, pandemics/epidemics, acts of God and other similar conditions shown by CONTRACTOR to be beyond the control of CONTRACTOR.

SECTION 5 LEGAL RELATIONS

A. CONTRACTOR is for all purposes an independent contractor. All personnel provided by CONTRACTOR pursuant to this Agreement are to be employed by CONTRACTOR, or its subcontractors, for their account only. Neither CONTRACTOR, its employees nor subcontractors, shall be deemed to have been employees of SEJPA or to have been entitled to any rights or benefits as SEJPA employees. CONTRACTOR certifies that it is free from the control and direction of SEJPA in connection with the performance of the work. CONTRACTOR will supervise the work and control the means for accomplishment of the services and work to be performed hereunder. CONTRACTOR will be responsible for providing required and necessary protective gear for its personnel, including any subcontractor personnel, while on the job site, including safety equipment. No permitted or required approval by SEJPA of personnel, costs, schedules, documents or services of CONTRACTOR shall be construed as making SEJPA responsible for the manner in which CONTRACTOR performs its services. Such approvals are intended to give SEJPA the right to satisfy itself with the quality of work performed by CONTRACTOR. CONTRACTOR further certifies that it is customarily engaged in an independently established trade, occupation, or business of the same nature as that involved in the work performed under this Agreement. This Agreement is not exclusive, and as such CONTRACTOR certifies that it is free to perform work for others for the duration of this Agreement.

B. CONTRACTOR agrees to indemnify, defend, protect, and hold SEJPA, its Member Agencies (the City of Solana Beach and the City of Encinitas), and each of their respective officers, officials, directors, agents, employees, and volunteers (collectively, "Indemnified Parties") harmless from and against any and all liability, claims, demands, damages, loss, charge, civil fines or penalties, liens, actions and causes of action, including reasonable attorney's fees, costs and

expenses (collectively, "Claims"), arising out of the negligent acts, errors, omissions or willful misconduct of CONTRACTOR, its associates, employees, subcontractors or other agents in the performance of this Agreement or out of operations conducted by CONTRACTOR. CONTRACTOR shall not be required to defend, indemnify or hold harmless Indemnified Parties for Claims to the extent attributable to the sole negligence, active negligence or willful misconduct of Indemnified Parties. The indemnification, hold harmless and defense obligations set forth herein shall survive the termination or expiration of this Agreement.

SECTION 6 INSURANCE.

A. CONTRACTOR shall procure and maintain during the term of this Agreement all insurance required by federal, state, county and local laws, and such other and additional coverage adequate to protect CONTRACTOR and SEJPA from any liabilities and claims for injuries and damages to persons or property which may arise from, or in connection with, the performance of work hereunder by CONTRACTOR, its agents, representatives, employees or subcontractors. Specifically, CONTRACTOR and each of its subcontractors shall maintain throughout the term of this Agreement the following policies of insurance:

1. A general liability policy of insurance, including coverage for products and completed operations, bodily injury and/or death, personal and advertising injury, and property damage claims which may arise from or in connection with the performance of the work under this Agreement by CONTRACTOR and its subcontractors, and each of their agents, representatives, or employees. General Liability insurance shall be comprehensive in form and shall be on a "per occurrence" basis in a minimum amount of Three Million Dollars ($3,000,000) per occurrence. Such coverage shall be written on Insurance Services Office ("ISO") Form CG 00 01, or equivalent.

2. An automobile liability policy of insurance to cover claims, injury, death, loss or damage, accidents from the use or operation of any automobiles, trucks and/or other mobile or stationary equipment, whether owned, non-owned or hire. Auto coverage shall be issued with a limit no less than One Million Dollars ($1,000,000) per accident for bodily injury and property damage.

3. Workers' compensation insurance with limits no less than the statutory limits.

B. All policies of insurance required under this Section shall be from insurance providers who are either admitted or licensed to do business in California, or are Surplus Lines Carriers authorized to do business in California, and who have an A.M. Best Company rating of no less than A- and a financial size category of at least Class VII, unless otherwise acceptable to SEJPA.

C. All policies of insurance required under this Section, except for workers' compensation, shall be endorsed to name SEJPA, its member agencies the City of Solana Beach and City of Encinitas, and their directors, officers, employees and representatives (the "Additional Insureds") as additional insureds under each such policy and an additional insured endorsement at

least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 and CG 20 37, if later revisions are used, shall be provided to SEJPA.

D. CONTRACTOR shall provide duly-authorized and, as applicable, executed original certificates and endorsements for all insurance required pursuant to this Agreement on forms approved by SEJPA in conformity with all requirements of this Agreement prior to commencement of any work hereunder. If any of the required coverages expire during the term of this Agreement, CONTRACTOR shall deliver renewal certificates to SEJPA at least ten (10) days prior to the expiration date.

E. For any claims related to this Agreement, CONTRACTOR's insurance coverage shall be primary insurance as respects the Additional Insureds. Any insurance or self-insurance maintained by the Additional Insureds shall be excess of the CONTRACTOR's (and its subcontractor's) insurance, and shall not contribute to such insurance.

F. Any deductibles or self-insured retentions must be declared in writing and approved by SEJPA. At the option of SEJPA, either: the insurance provider(s) shall reduce or eliminate such deductibles or self-insured retentions as respects SEJPA and its directors, officers, employees, and representatives; or the CONTRACTOR shall provide a financial guarantee satisfactory to SEJPA guaranteeing payment of losses and related investigations, claim administration and defense expenses.

G. CONTRACTOR hereby agrees to waive rights of subrogation against SEJPA and the Additional Insureds which any of CONTRACTOR's insurers may acquire from CONTRACTOR by virtue of the payment of any loss. CONTRACTOR agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation.

H. CONTRACTOR shall provide thirty (30) days' advance written notice to SEJPA, of any cancellation or material alteration of any insurance policy required herein.

SECTION 7 ASSIGNMENTS/SUBCONTRACTS

CONTRACTOR shall not sublet or assign any of the work covered by this Agreement, except with the prior written approval of SEJPA and in strict compliance with the terms, provisions and conditions of this Agreement.

SECTION 8 CONTRACTOR'S PROJECT MANAGER

CONTRACTOR's designated project manager, Erick Garcia, shall be empowered to act for CONTRACTOR for all matters relating to this Agreement.

SECTION 9 SEJPA REPRESENTATIVE

SEJPA's designated representative, Tom Falk, PE, Deputy General Manager, will administer this Agreement.

SECTION 10 FREEDOM OF INFORMATION

SEJPA shall make freely available to CONTRACTOR for examination all non-privileged directly pertinent books, documents, papers and records of SEJPA involving transactions related to this Agreement. CONTRACTOR understands that information provided to SEJPA pursuant to this contract may become a public record and subject to disclosure pursuant to the California Public Records Act.

SECTION 11 PREVAILING WAGE LAWS

A. CONTRACTOR shall comply with the requirements of this SECTION 12 with respect to any installation, repair, maintenance or other work constituting a public works under California Labor Code sections 1720 et seq. and 1770 et seq., and California Code of Regulations, title 8, section 16000 et seq. (collectively, "Prevailing Wage Laws").

B. CONTRACTOR must be, and must require its subcontractors to, be registered with the California Department of Industrial Relations ("DIR") pursuant to Labor Code section 1725.5, prior to execution of this Agreement. No contractor or subcontractor may be listed on a bid proposal for a public works project, or may be awarded a contract for public work on a public works project, unless it registers with and pays an annual fee to the DIR. CONTRACTOR shall submit proof of current registration, and shall require subcontractors to submit proof of current registration, to SEJPA prior to commencing work on the project. For more information on how to become registered with the DIR, please go to https://www.dir.ca.gov/Public-Works/Contractor-Registration.html. [Option to remove this paragraph if the work is less than $15,000. This registration requirement does not apply to work performed on a public works project for maintenance of fifteen thousand dollars ($15,000) or less.]

C. CONTRACTOR agrees to comply with and require its subcontractors to comply with the requirements of Prevailing Wage Laws and any additional applicable California Labor Code provisions related to such work including without limitation payroll recordkeeping requirements. CONTRACTOR and its subcontractors shall pay not less than the prevailing rate of per diem wages as determined by the Director of the DIR for all services described in this Agreement and as required by law. The general prevailing wage determinations can be found on the DIR website at: http://www.dir.ca.gov. Copies of the prevailing rate of per diem wages may be accessed at SEJPA's administrative office, and shall be made available upon request. CONTRACTOR shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the services described in this Agreement available to interested parties upon request, and shall post and maintain copies at CONTRACTOR'S principal place of business and at all site(s) where services are performed. Penalties for violation of Prevailing Wage Laws may be assessed in accordance with such laws. For example, CONTRACTOR shall forfeit, as a penalty to SEJPA, Two Hundred Dollars ($200) for each calendar day, or portion thereof, for each workman paid less than stipulated prevailing rates for services performed under this Agreement by him, or any subcontractor under him, in violation of Prevailing Wage Laws. CONTRACTOR shall defend, indemnify and hold the Indemnified Parties harmless from any claims, liabilities, costs, penalties or interest arising out of the failure or alleged failure of CONTRACTOR or its subcontractors to comply with Prevailing Wage Laws.

D. CONTRACTOR and each of its subcontractors shall keep accurate payroll records showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by CONTRACTOR or subcontractor in connection with the services performed pursuant to this Agreement. Each payroll shall be certified and available for inspection as prescribed by Labor Code section 1776. CONTRACTOR shall keep SEJPA informed as to the location of the records and shall be responsible for the compliance with these requirements by all subcontractors. CONTRACTOR shall inform SEJPA of the location of the payroll records, including the street address, city and county and shall, within five (5) working days, provide a notice of any change of location and address. Penalties for noncompliance include a forfeiture of One Hundred Dollars ($100) per calendar day, or portion thereof, for each worker until strict compliance is effectuated, which may be deducted from any moneys due CONTRACTOR.

E. Eight (8) hours of work shall constitute a legal day's work. CONTRACTOR and any subcontractors shall forfeit, as a penalty to SEJPA, Twenty-Five Dollars ($25) for each worker employed in the execution of services pursuant to this Agreement by CONTRACTOR or any of its subcontractors for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any calendar week in violation of the provisions of the California Labor Code, in particular, sections 1810 to 1815, thereof, inclusive, except services performed by employees of CONTRACTOR and its subcontractors in excess of eight (8) hours per day at not less than one and one-half (1 ½) times the basic rate of pay, as provided in California Labor Code section 1815.

F. CONTRACTOR shall require any subcontractors performing services under this Agreement to comply with all of the above.

SECTION 12 NOTICE

Any notices required to be given under this Agreement by either party to the other must be effected by email, or by personal delivery in writing or by mail, first class, registered or certified, postage prepaid with return receipt requested. Mailed notices must be addressed to the parties at the addresses below, but each party may change the address by giving written notice in accordance with this paragraph. Emailed notices will be deemed communicated via same-day if sent before 5:00 PST. Notices delivered personally will be deemed communicated as of actual receipt; mailed notices will be deemed communicated as of the day of receipt or the fifth (5^{th}) day after mailing, whichever occurs first.

To SEJPA:
San Elijo Joint Powers Authority
Attention: Tom Falk
2695 Manchester Avenue
Cardiff-By-The-Sea, CA 92007
falkt@sejpa.org

To CONTRACTOR: Burtech Pipeline
Attention: Dominic J. Burtech_
1325 Pipeline Drive
Vista, CA 92081

SECTION 13 WORKING HOURS

All on site work is to be performed Monday through Friday between the hours of 7:30 a.m. and 5:30 p.m. or as otherwise agreed to by SEJPA. In the event these working hours conflict with an ordinances of the City of Encinitas, CONTRACTOR shall perform site work in compliance with such ordinance. CONTRACTOR will also notify SEJPA's designated Project Manager or the Project Manager's assigned alternate of their daily schedule. Any change in the defined working times must have prior written approval from SEJPA's General Manager or his designated representative.

SECTION 14 WARRANTY OF WORK

A. CONTRACTOR guarantees all work pursuant to this Agreement against defective materials or workmanship for period of one (1) year from the date of completion of all work, except where longer warranty periods are specifically stated. Any defective material or workmanship which may be discovered before completion all work or within one (1) year thereafter shall be corrected immediately by CONTRACTOR at its own expense notwithstanding that it may have been overlooked in previous inspections and estimates. Any work to correct a defect in workmanship and/or replacement materials shall additionally be guaranteed by CONTRACTOR for a period of one (1) year from the date of completion of such corrective work or replacement of materials.

B. Failure to inspect the work at any stage shall not relieve CONTRACTOR from any obligation to perform sound and reliable work as herein described. It is CONTRACTOR'S ultimate responsibility to complete all work as required by this Agreement.

C. During the one (1) year warranty period, should CONTRACTOR fail to remedy defective material and/or workmanship, or to make replacements within five (5) days after written notice by SEJPA, it is agreed that SEJPA may make such repairs and replacements and the actual cost of the required labor or materials shall be chargeable to and payable by CONTRACTOR.

D. The warranty provided herein shall not be in lieu of, but shall be in addition to, any warranties or other obligations otherwise imposed by this Agreement or by law. The remedies provided herein shall not be exclusive and SEJPA shall be entitled to any and all remedies provided by law.

SECTION 15 WORK DURING DISPUTES

In the event of a dispute between the parties as to the performance of the work, the interpretation of this Agreement, or payment or nonpayment for work performed, the parties shall

attempt to resolve the dispute. If the dispute is not resolved, CONTRACTOR agrees to continue the work diligently to completion and will neither rescind this Agreement nor stop the progress of the work, but may submit such controversy for determination in accordance with applicable law. In the event any litigation is commenced with respect to this Agreement, such litigation shall not serve to suspend CONTRACTOR'S obligation to continue performance of the work hereunder.

SECTION 16 MISCELLANEOUS

A. If CONTRACTOR is required by law to be licensed and regulated by a State License Board, or any other regulatory body, CONTRACTOR hereby warrants that it has complied with any such licensing and regulatory authorities. CONTRACTOR shall provide proof of such licensure upon request by SEJPA.

B. All work performed and materials supplied in the execution of this Agreement shall comply with applicable laws, standards, codes and regulations governing such materials, items and work. All material is guaranteed to be as specified in the Scope of Work. Any alteration or deviation from the Scope of Work, which involve extra costs, may be executed by CONTRACTOR only after approval of SEJPA by written order, which will specifically state the change in the Scope of Work and the additional charges to be incurred. Unless otherwise directed by SEJPA, CONTRACTOR shall not be entitled to compensation for work requiring an approved written order if CONTRACTOR fails to obtain such an order prior to the execution of that work.

C. The "Hazard Communication Standard" requires that individuals (employees) working in an area where hazardous substances are being used must be informed of any potential dangers associated with working in that area. (29 C.F.R. § 1919.1220.) It is the responsibility of CONTRACTORS working at San Elijo Joint Powers Authority to read and acknowledge receipt of the information packet prior to the start of any scheduled work. Furthermore, CONTRACTOR shall make available all applicable information regarding hazardous substances and conditions to all CONTRACTOR employees and subcontractors.

D. CONTRACTOR will perform all work under this Agreement in good faith and in the best interests of SEJPA. CONTRACTOR shall be solely and completely responsible for the safety of all CONTRACTOR personnel, including personnel of any subcontractors, during performance of the work. In performing the work specified in this Agreement, CONTRACTOR agrees to comply with all laws, rules, regulations, ordinances, directives and orders, whether federal, state or local, and any and all of SEJPA policies and procedures, departmental rules and other directives applicable to the services to be performed, including, but not limited to, SEJPA's Contractor Safety Policies and Procedures. Any changes to SEJPA policies and procedures that relate to CONTRACTOR will be provided to CONTRACTOR in writing. CONTRACTOR agrees to review such policies, procedures, rules and directives the contents of which CONTRACTOR will be deemed to have knowledge.

E. If this Agreement involves an expenditure of public funds in excess of ten thousand dollars ($10,000), the Agreement is subject to examination and audit of the State Auditor, at the request of SEJPA or as a part of any audit of SEJPA, for a period of three (3) years after final payment under the Agreement. CONTRACTOR shall cooperate with SEJPA regarding any such audit at no extra cost to SEJPA.

F. This Agreement represents the entire understanding of SEJPA and CONTRACTOR as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Agreement may not be modified or altered except in writing and signed by both parties.

G. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument. A faxed, .pdf, or other electronic copy of the fully executed original version of this Agreement shall have the same legal effect as an executed original for all purposes. Electronic signatures shall have the same legal effect as an original signature.

H. Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed inserted herein, and the Agreement shall be read and enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Agreement shall forthwith be physically amended to make such insertion.

I. In signing this Agreement, CONTRACTOR certifies that CONTRACTOR shall not submit a false claim in violation of the False Claims Act, section 12650 et seq. of the Government Code.

J. This Agreement shall be construed and enforced under and in accordance with the laws of the State of California. Venue to any action or proceeding arising out of this Agreement shall be in San Diego County, California.

K. In the event litigation or arbitration is commenced to interpret or enforce this Agreement, the prevailing party shall be entitled to recover its reasonable attorney's fees in addition to costs and expenses.

L. SEJPA and CONTRACTOR do covenant that the individual executing this Agreement on their behalf is a person duly authorized and empowered to execute this Agreement for such party.

BY SIGNING BELOW THE PARTIES VOLUNTARILY ENTER INTO THIS AGREEMENT AND ACKNOWLEDGE THAT THEY HAVE READ AND UNDERSTAND THE TERMS SET FORTH HEREIN AND AGREE TO BE BOUND THEREBY.

SAN ELIJO JOINT POWERS AUTHORITY:

Michael Thornton
Michael T. Thornton, P.E.

General Manager

May 18, 2026
Date

BURTECH PIPELINE:

Signature

Dominic J. Burtech - President & CEO
Title

May 18, 2026
Date

718202
Contractor's License No.

01/31/2028
License Expiration Date

Attachment A

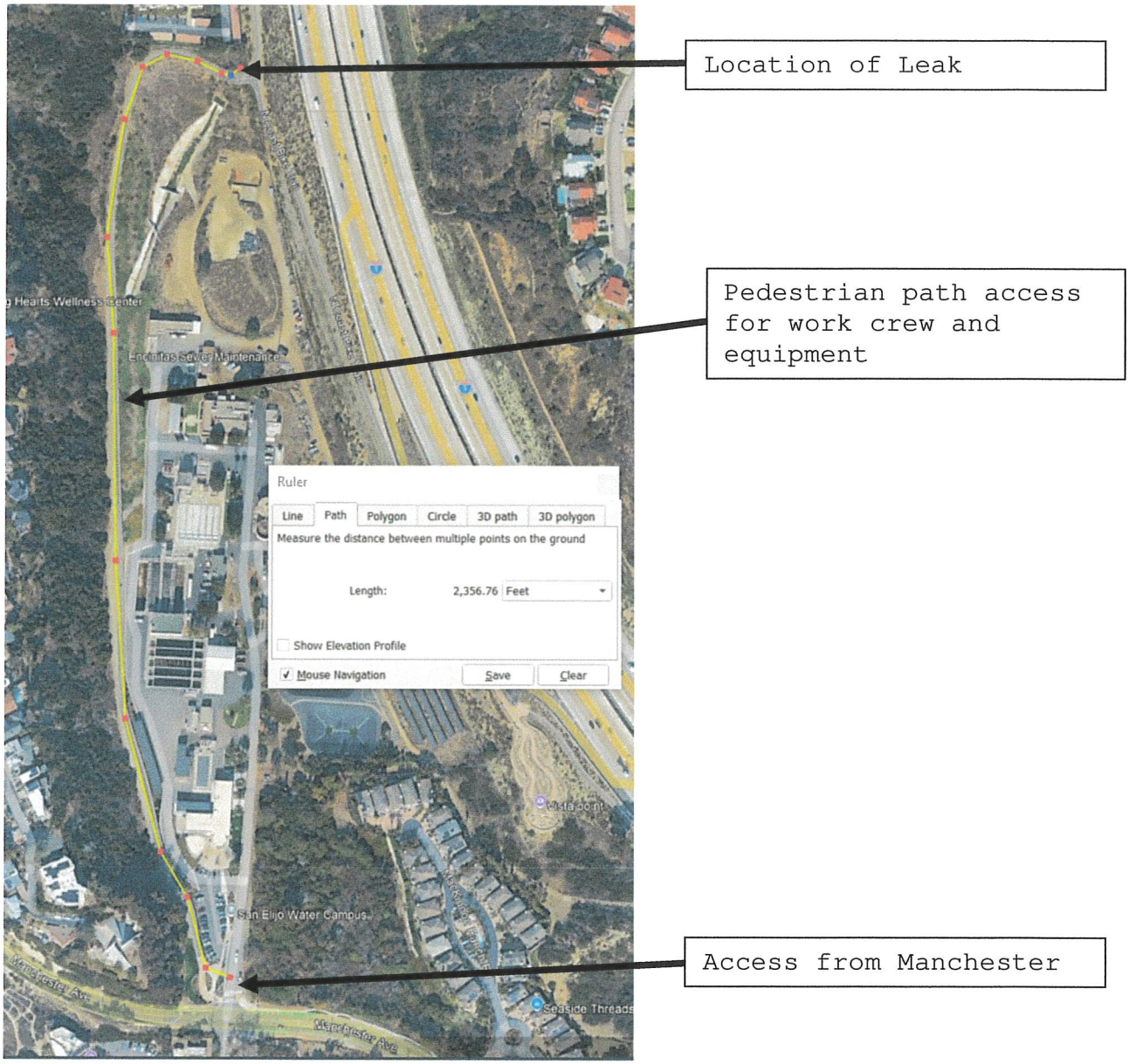
Scope of Work

PROJECT LOCATION:

San Elijo Water Campus, 2695 Manchester Ave, Cardiff by the Sea, CA. 92007

PROJECT SCOPE: Emergency repair scope to be completed under force account.

1. Erect and maintain safety procedures for work along public pedestrian path on north end of San Elijo Water Campus property.
2. Remove asphalt pedestrian path as needed, excavate, confer with SEJPA to determine repair solution for leaking 16" HDPE (DR-9) recycled water pipeline (within San Elijo Water Campus property) at location identified by SEJPA.
3. Piping, fittings, valves and appurtenances shall conform to applicable local standards and codes, as applicable.
4. Provide clean sand for pipe bedding material;
5. Excavated material shall be hauled within the San Elijo Water Campus site and deposited in manner and location directed by SEJPA.
6. Complete repair as directed by SEJPA; pressure test; and support SEJPA in putting pipeline back in service.
7. Backfill with clean, compacted material to grade.
8. Install temporary paving patch; SEJPA will complete final paving at later date.



TIME & MATERIAL DETAILS: *Costs to be tracked on time and materials basis (in accordance with owner-approved force account records) and as described in Burtech rate sheet (enclosed); equipment rates per current CalTrans rates.*

Attachment A: Rate Sheet

BURTECH PIPELINE

GENERAL ENGINEERING CONTRACTOR

Burtech Pipeline Emergency Work Compensation Rate Schedule

Title/Classification	Standard Rate ($)/Hour	Overtime Rate ($)/Hour	Doubletime Rate ($)/Hour
Superintendent	135.00	202.50	272.00
Foreman	120.00	180.00	240.00
Equipment Operator	118.00	177.00	236.00
Truck Driver	108.00	162.00	216.00
Laborer/Pipelayer	90.00	135.00	180.00
Carpenter	94.00	141.00	188.00
Mechanic	115.00	172.50	230.00
Project Manager	162.00	243.00	324.00
Project Staff Engineer	120.00	NA	NA
SWPPP/QSP	115.00	NA	NA
Office Admin	90.00	NA	NA

1. These rates are specified as Burtech's established rates for calculating labor cost without allowance for overhead & profit. A 20% markup will be added to these costs for overhead & profit
2. For owned equipment, Caltrans Equipment rental rates in effect at the time the work is being performed will be used. A 15% markup will be added to these costs for overhead & profit.
3. For rented equipment, the cost will be the rental invoice plus consumables (fuel, grease, etc.) A 15% markup will be added to these costs for overhead & profit.
4. Materials & Dump Fees will be the amount of the invoice. A 15% markup will be added to these costs for overhead & profit.
5. Subcontractor costs will be the amount invoiced. A 10% mark up will be added to the invoice for overhead & profit.

Lic# 718202 1325 Pipeline Dr. Vista, CA 92081 Tel: 760-634-2822 Fax: 760-634-2415

AGENDA ITEM NO. 18

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Deputy General Manager

SUBJECT: EFFLUENT PUMP AND MICROFILTRATION PUMP REBUILDS

RECOMMENDATION

1. Authorize General Manager to execute Agreement with Brax Company, Inc. for rebuild of four vertical turbine pumps in the amount of $164,275.98; and

2. Discuss and take action as appropriate.

BACKGROUND

The Effluent Pump Station was originally constructed in the 1970s and consists of three vertical turbine pumps that have been refurbished and rebuilt over the years. The pump station is critical for moving treated effluent through the outfall system. Most recently, Pump 2 was rebuilt in 2025 and is in good operating condition. Pumps 1 and 4 are exhibiting diminished performance indicative of deteriorated components including leaking mechanical seals. Rebuilding these pumps is identified as part of the Effluent Pump Station Rehabilitation Project with funds appropriated in the FY 2025-26 through FY 2027-28 capital budgets.

The Microfiltration Feed Pump Station (MFFP) was constructed in 2012 as part of the Advanced Water Purification facility and consists of four pumps. The pump station feeds the microfiltration/reverse osmosis system, which is an important element of the recycled water treatment system. Pumps 1 and 2 were rebuilt in 2023. Pumps 3 and 4 are exhibiting diminished performance indicative of deteriorated components. Rebuilding these pumps is identified as a priority capital project in the Recycled Water Cost of Service Study with funds appropriated in the FY 2025-26 capital budget.

DISCUSSION

SEJPA's Resolution 2022-01 "Purchasing Policies and Procedures," Part 3.2 defines procedures for "Supplies, Equipment, and Non-professional services" and paragraph 3.2.d) states:

> *Purchases over $50,000 for supplies, equipment, and nonprofessional services will require a formal bid process, including, but not limited to, the preparation and circulation of a request for proposal to qualified sources, as determined in the discretion of the General Manager or*

designee, to permit reasonable competition consistent with the nature and requirements of the proposed purchases. Authorization for purchase is by the Board of Directors.

The procurement of pump rebuild services aimed to select a qualified, specialized pump service provider in the region capable and willing to phase the work to meet SEJPA's operational needs. The following was taken into consideration in the procurement strategy:

- Vertical turbine pumps are large, high-speed rotating equipment and the rebuilding service must be performed by highly skilled technicians and machinists. The handling of these large pumps and the fabrication work necessary to rebuild pump components requires a shop equipped with specialized service equipment such as lathes, mills, bearing presses, assembly racks and welding stations.

- These pumps are critical to SEJPA's ongoing operation, for both effluent disposal and recycled water production. Service work will be phased such that only a single pumping unit from each system will be out of service at a time. Selection of a service provider with local resources and commitment to project timelines is important so that the effluent pump rebuilds can be completed during the dry season and so that recycled water production is not interrupted.

SEJPA prepared a formal request for proposals (RFP) that was sent to three qualified pump service contractors known to perform this type of work in the San Diego Region. Two of the three pump service contractors declined to submit a proposal, one of them offering explanation that due to "commitment to current & upcoming projects for the remainder of 2026 we are unable to provide you with a proposal to perform the requested services." The third pump service provider, Brax Company, Inc. provided a competent, responsive proposal by the solicitation due date.

Brax has completed similar work for SEJPA over the years and cited similar work in their proposal for other public agencies in San Diego and Imperial Counties. They have two regional, fully-equipped pump repair and machine shops with equipment specialized for vertical turbine pump service, a dedicated local warehouse inventorying over a $1 million in pump and process equipment, and experienced field technicians. Their main repair facility is ISO 9001 certified. In addition to their in-house equipment service capabilities, they have established partnerships with specialized protective coating and motor repair service shops to provide turnkey service for the full scope of SEJPA's project.

SEJPA reviewed the proposal offered by Brax and determined it is complete, responsive, and that they are qualified to complete this work as requested. Their proposal pricing is consistent with recent vertical turbine pump work completed by SEJPA over the past several years, notably Effluent Pump No. 2 (completed in late 2024) and MFFP Nos. 1 and 2 (early 2023). By combining the scope of four similar pumps into a single solicitation, SEJPA achieved an economy of scale resulting in net savings of over $15,000 compared to prior estimates.

FINANCIAL IMPACT

Major service to critical pumps is a core component of SEJPA's asset management program. Rebuilding pumps at the mid-point of their service life restores efficiency and operational reliability and extends timeframe for replacement of the equipment. Equipment overhauls or rebuilds are commonly capitalized.

- The cost of $78,446.20 for the rebuild of Effluent Pumps 1 and 4 will be funded through wastewater capital funds appropriated in the FY 2026-27 budget as an initial phase of the Effluent Pump Station Rehabilitation Project which is currently estimated at $1.1 million.

- The cost of $85,829.78 for the rebuild of MFFPs 3 and 4 will be funded through recycled water capital funds appropriated in the FY 2025-26 budget; the Recycled Water Cost of Service Study included $100,000 for this work.

RECOMMENDATION

1. Authorize General Manager to execute Agreement with Brax Company, Inc. for rebuild of four vertical turbine pumps in the amount of $164,275.98; and

2. Discuss and take action as appropriate.

Respectfully submitted,

Thomas (Tom) C. Falk, P.E., PMP
Deputy General Manager

AGENDA ITEM NO. 19

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: General Manager

SUBJECT: BURIED RECYCLED WATER PIPE REPLACEMENT STRATEGY

RECOMMENDATION

No action required. This memorandum is submitted for information only.

BACKGROUND

Within the San Elijo Water Campus, buried piping infrastructure is used to convey wastewater, recycled water, and other liquids and gases between treatment processes and facilities, as well as to convey treated effluent and recycled water offsite. Buried piping within the facility, commonly referred to as “yard piping,” typically has an expected service life ranging from 50 to 75 years, depending on material type, operating conditions, groundwater exposure, and soil corrosivity.

When buried piping deteriorates or fails, leaks can undermine pavement and structures, disrupt facility operations, and create potential safety, environmental, and permit compliance risks.

SEJPA evaluates the condition and reliability of critical buried infrastructure assets as part of its ongoing asset management and Facility Planning efforts. This memorandum provides an overview of recent corrosion-related recycled water pipeline failures and staff’s evaluation of a proactive replacement strategy for a localized section of buried ductile iron pipeline on the south end of the Water Campus.

DISCUSSION

The Water Campus contains nearly 20,000 linear feet of buried yard piping. The majority of this piping was installed after 1991, remains in good operating condition, and is generally within its anticipated service life.

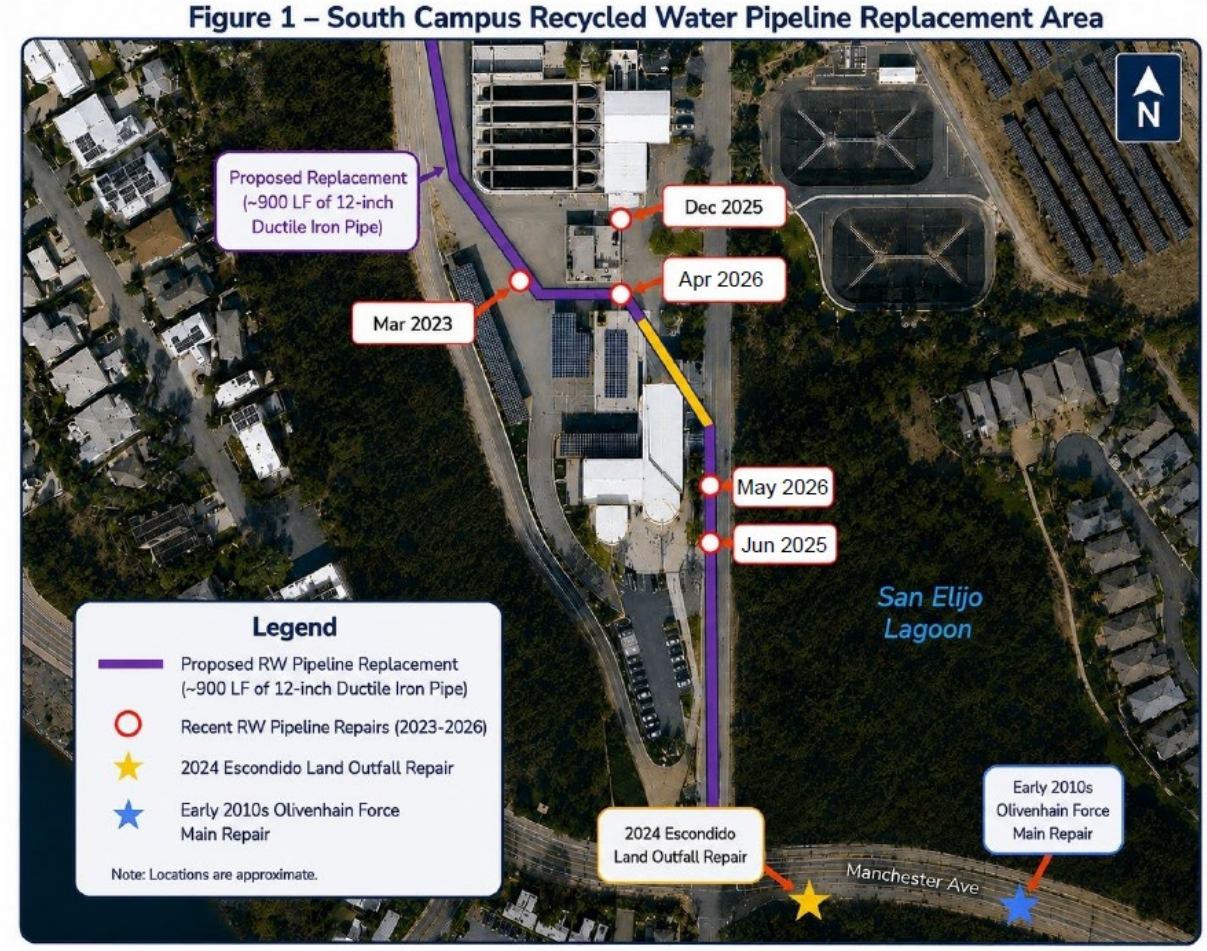
However, SEJPA has identified recurring corrosion-related failures associated with buried ductile iron pipe located on the south end of the Water Campus, where soils are known to be highly corrosive and groundwater conditions are elevated. These environmental conditions appear to be accelerating exterior pipe corrosion and reducing the reliable service life of certain buried piping assets.

Corrosion-related emergency repairs occurred in March 2023, June and December 2025, and again in April and May 2026. Over the past three years, these repairs have cost the Recycled Water Program approximately $240,000 and have resulted in operational disruptions, emergency response activities, and temporary impacts to normal facility operations.

In addition, similar corrosion-related pipeline failures have occurred within nearby regional infrastructure systems exposed to comparable environmental conditions. In 2024, the City of Escondido experienced a corrosion-related emergency involving its land outfall pipeline within the same area. Additionally, the Olivenhain sewer force main (also ductile iron) was replaced with PVC piping following multiple corrosion-related failures in the early 2010s.

Figure 1 identifies the approximate pipeline segment proposed for replacement, recent repair locations, and nearby regional corrosion-related pipeline repair locations.

Figure 1 – South Campus Recycled Water Pipeline Replacement Area



The recurring pattern of corrosion-related failures suggests this localized section of buried ductile iron pipe is approaching the end of its reliable service life under existing site conditions. While emergency repairs have successfully restored service, continued reliance on reactive repairs is

becoming operationally disruptive and may not represent the most cost-effective long-term strategy for maintaining reliable recycled water operations.

As part of SEJPA's ongoing asset management and Facility Planning efforts, staff is evaluating a proactive capital replacement strategy for approximately 900 linear feet of buried 12-inch ductile iron recycled water piping located on the south end of the Water Campus. The proposed project would enhance long-term system reliability, reduce operational and regulatory risk, and transition this infrastructure from reactive maintenance toward planned lifecycle replacement.

Replacement of this critical infrastructure asset will require engineering evaluation, design, and future capital project implementation under the Recycled Water Program. Staff anticipates returning to the Board with additional project scope, cost, and scheduling information as the evaluation progresses.

FINANCIAL IMPACT

There is no financial impact associated with this report. Staff will return with more detailed project cost information when available. Future evaluation and replacement costs will be incorporated into the Agency's Capital Improvement Program and long-term asset management planning efforts.

RECOMMENDATION

No action required. This memorandum is submitted for information only.

Respectfully submitted,

Michael T. Thornton, P.E.
General Manager

AGENDA ITEM NO. 20

SAN ELIJO JOINT POWERS AUTHORITY
MEMORANDUM

May 19, 2026

TO: Board of Directors
San Elijo Joint Powers Authority

FROM: Director of Operations

SUBJECT: SAN ELIJO OCEAN OUTFALL 2025 INSPECTION REPORT

RECOMMENDATION

1. Accept and file the San Elijo Ocean Outfall Year 2025 Inspection Report prepared by Marine Taxonomic Services, Inc.; and

2. Discuss and take action as appropriate.

BACKGROUND

The San Elijo Ocean Outfall was commissioned in 1965 to discharge treated effluent from the San Elijo Water Campus. The outfall was upgraded and expanded in 1974 to include discharge capacity for the City of Escondido's Hale Avenue Resource Recovery Facility. The length of the outfall from the shoreline into the ocean is 8,000 feet, with an end depth of approximately 150 feet below mean sea level. The diffuser section of pipe is composed of 1,176 feet of 48-inch pipe with 200 individual 2-inch diameter diffuser ports. The discharge of treated wastewater to the ocean is subject to strict environmental regulations that stipulate dilution requirements, distance from shore, and depth of water for which the effluent is discharged. To ensure that the ocean outfall is in sound operating condition and that environmental regulations are being met, the San Elijo Joint Powers Authority (SEJPA) inspects the outfall bi-annually. In addition, the outfall is allowed in the ocean under a lease agreement with the State Lands Commission which requires a structural integrity assessment of the outfall pipeline by a California registered Civil/Structural Engineer at least once every five years (due in CY 2028).

DISCUSSION

The SEJPA contracted with Marine Taxonomic Services, Inc. (MTS) to complete the 2025 outfall inspection. Previous inspection reports had recommended a wintertime inspection to inspect the pile supports assuming that winter storms would move the sand and expose more pile supports. The dive operations for this inspection were completed on December 5, 2025 and December 10, 2025. Remote Operated Vehicle (ROV) video inspection of the outlet ports was conducted on December 17 and 18, 2025.
Inspection activity was attentive to the following:

- Evidence of surface failure of exposed concrete;
- Cracks or other deficiencies in the outfall;
- Joint integrity;
- Leaks or evidence of degradation;
- Potential hazards;
- Attrition or the loss of the ballast materials as a result of physical, biological, or geologic processes;
- Scour of the nearby marine sediments;
- Man-made debris;
- Inspection of exposed portholes and pile supports;
- Inspection of diffuser flow;
- Evaluation of cathodic protection at exposed anodes;
- Replacement of zinc anodes as required; and
- Clearing kelp that hindered inspection activities or threatened ballast material.

MTS reports that the San Elijo Ocean Outfall was found to be in excellent overall condition. Offshore areas of the outfall were stable and showed no signs of ballast movement based on diver survey. The outfall showed no signs of spalling, rust staining, cracking, or other deficiencies in the concrete pipe. All observed joints were in alignment with no evidence of leaks. The near shore inspection revealed a few instances of kelp growth on the pipeline and all were removed by divers. Because kelp has considerable buoyancy, it is important to keep kelp cleared to minimize the threat of ballast movement.

The outfall was constructed with five access portholes that have metal covers. These covers use sacrificial zinc anodes for corrosion protection. Three of these portholes (1, 4, and 5) were buried in sand and shell hash so they could not be inspected. The anodes on the other two visible Portholes appear to have greater than 60% mass remaining. Staff has requested a proposal to excavate the buried portholes and check the anodes.

During inspections, efforts are made to inspect the 35 pile supports that secure the inshore section of the ocean outfall. Typically, these pile supports are covered by sand and cannot be inspected during summertime inspections. The inspection was scheduled in the wintertime, when near-shore sand-levels are at their lowest levels, and most of the pile supports (total of 26) were accessible during the inspection. Each of the pile supports has two sacrificial anodes attached and 5 exposed anodes were replaced this year during the inspection.

The number and size of spiny lobster adjacent to the outfall has increased again. The Swami's State Marine Conservation area was established in December 2010 (including the land over the San Elijo Ocean Outfall) to protect marine life by limiting the removal of wildlife from within its borders. During the current survey, numerous lobsters were observed in burrows under the outfall in the deep section that is not ballasted. While the amount of material excavated for these burrows is minimal compared to the total area of seafloor the pipeline rests upon, the slow movement of material by lobsters over time could reduce the contact area with the seafloor and increase stress on the pipeline in the future.

All 200 diffuser ports along the diffuser section of the pipeline were inspected with a ROV. No notable obstruction or biofouling was observed at any of the ports. All diffuser ports appeared to be functioning properly with observable flow from each.

SUMMARY AND RECOMMENDATIONS

MTS reports the following points to summarize the major findings of this outfall inspection:

- In general, the San Elijo Ocean Outfall was found to be in excellent overall condition.
- Ballast rock shows no significant sign of movement since the last re-ballasting project.
- The outfall showed no signs of spalling, rust staining, or cracking and there was no leakage observed from pipe joints or any other location on the outfall.
- A majority (26 of 35) of the pile supports were visible during this inspection, and 5 new anodes were installed.
- Giant kelp that was found growing on the pipeline was removed.
- The pile supports surveyed during this inspection were found to be in good condition.
- Marine growth that was observed around the diffuser ports was removed to prevent blockage.
- All diffusers were flowing well.
- Several large California spiney lobsters were found along the base of the pipe where it appeared they have cleared out substrate to create burrows for protection.

The following items are recommendations for continued integrity and environmentally safe operation of the San Elijo Ocean Outfall:

- Excavation of portholes 1, 4, and 5 should be conducted during a separate effort in order to inspect the covers and collect cathodic protection readings.
- Complete a Remote Operated Vehicle (ROV) or rebreather dive survey of the diffuser section of the outfall pipe as needed to clear any blocked ports.
- Continue to remove kelp from pipeline and ballast pile to minimize movement.
- Monitor for re-emergence of pile supports and inspect all visible pile support structures. Pile supports are most exposed during winter months such that a survey following a winter storm allows best opportunity for inspection.
- During future inspections, anodes should be replaced when they become ineffective against preventing corrosion to pipe and pile structures.
- Continue to monitor biological growth around diffuser ports. Growth is not currently obstructing flow.
- Continue monitoring the presence of lobster burrows and associated loss of pipe bedding material.

The full report is available for review at the SEJPA office, 2695 Manchester Ave. Cardiff by the Sea, CA 92007 or at https://www.sejpa.org/news/studies-reports

FINANCIAL IMPACT

None.

RECOMMENDATION

1. Accept and file the San Elijo Ocean Outfall Year 2025 Inspection Report prepared by Marine Taxonomic Services, Inc; and

2. Discuss and take action as appropriate.

Respectfully submitted,

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Christopher Trees
Director of Operations

Attachment:

1. San Elijo Ocean Outfall 2025 Inspection Report, February 2026

Attachment 1

MARINE TAXONOMIC SERVICES. LTD.
AN NV5 COMPANY

San Elijo Ocean Outfall 2025 Inspection Report

February 20, 2026

Prepared for:

San Elijo Joint Powers Authority
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SAN ELIJO | JOINT POWERS AUTHORITY

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MTS Marine Taxonomic Services, Ltd.
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Marine Taxonomic Services Ltd., an NV5 company. 2025. San Elijo Joint Powers Authority. Prepared for San Elijo Joint Powers Authority. March 5, 2026.

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San Elijo Ocean Outfall 2025 Inspection Report

March 4, 2026

1 Introduction

The San Elijo Joint Powers Authority (SEJPA) contracted Marine Taxonomic Services, an NV5 company (MTS), to complete the Year 2025 San Elijo Ocean Outfall (SEOO) inspection. Diving operations were conducted on December 5, 2025, and December 10, 2025. Remote operated vehicle (ROV) operations were conducted on December 17 and 18, 2025. Data analyses immediately followed the field effort. The inspection effort included the following elements:

- General diver overview inspection of the outfall corridor from the end cap to burial inshore attentive to the following criteria: Evidence of spalling of the exposed concrete surfaces, cracks or other deficiencies in the outfall, joint integrity, leaks or evidence of degradation, potential hazards, attrition or the loss of efficacy of the ballast material as a result of physical, biological, or geological processes, scouring of the nearby marine sediments, and manmade debris;
- Evaluation of cathodic protection at exposed anodes;
- Clearing kelp that hindered inspection activities or threatened the ballast material;
- Photographic and video documentation;
- Pile support survey;
- Zinc anode replacement;

Procedures, results, analyses, and implications are reviewed here for all elements comprising this project. This report also contains background information regarding the SEOO and a discussion of oceanographic processes (Appendix A) that could affect its structural integrity. Digital video and still images support written descriptions. Full copies of the video records are included on a USB drive with this report. The video log details and notes are included in Appendix B. Photos of all diffuser ports are included in Appendix C. Photos of marine organisms observed along the SEOO are provided in Appendix D.

1-1 Project Background

The SEOO was commissioned in 1965 to discharge treated effluent from the San Elijo Water Reclamation Facility (formally known as the San Elijo Water Pollution Control Facility). In 1974, the Hale Avenue Resource Recovery Facility was connected to the original outfall structure, and the outfall was extended to its current length of 8,000 feet. Given environmental regulations regarding discharges into marine waters and increasing demands on the infrastructure over the past 4 decades, it has been imperative that the pipeline be maintained and monitored for potential damage. To this

end, the SEJPA has contracted numerous surveys of the outfall pipeline. This report presents the results of the 2025 survey performed by MTS. Given the large volume of information collected during previous monitoring events, it would be inappropriate to compile this report without including data and information presented in previous reports. For this reason, some of the language, figures, and data presented in this report originated from previous monitoring reports prepared for the SEJPA. The contribution of numerous individual Thales Geosolutions, Inc. reports are acknowledged here but are not cited in this document. The reports and their contents are the property of the SEJPA.

1-2 Outfall Configuration

The SEOO carries treated effluent from the San Elijo Water Reclamation Facility and the Hale Avenue Resource Recovery Facility. It is then transported through the outfall and discharged into the ocean; the discharge is approximately one-and one-half miles from shore at an approximate water depth of 150 feet. The general location of the outfall is shown in Figure 1.

Construction of the original SEOO was completed in 1965. It consisted of a 30-inch diameter reinforced concrete pipeline terminating approximately 4,000 feet offshore. Effluent was discharged at a water depth of 60 feet below the Mean Lower Low Water (MLLW) datum. In 1974, the outfall was extended to a water depth of 150-feet MLLW, approximately 8,000 feet offshore using 48-inch diameter reinforced concrete pipe. The diffuser ports in the original 30-inch diameter line were blocked with fiberglass covers at the completion of the extension. Effluent is presently discharged through a single 1,176-foot-long diffuser section that is composed of two hundred individual two-inch nominal diameter diffuser ports at the end of the 48-inch extension.

Several projects have been executed to keep the outfall in a stable, clean, and efficient operating condition. Re-ballasting projects were conducted inshore of the 55-foot isobath in 1982, 1987, 1993, 1996 and 2005 to replace ballast that had been moved away from the outfall by ocean processes. The erosion of beach sediments from the shoreline, which is occurring all along the southern California coast, has caused exposure and undermining of the most inshore portion of the outfall that was previously buried well beneath the beach sand. To secure this vulnerable stretch of pipe, the pipe was clamped to piles driven into the surrounding sediments in the summer of 1992. In late 1993, additional ballast was placed around the pipe between the water depths of 55 and 85 feet. This 1993 re-ballasting spans the deepest portion of the 30-inch pipe, including the old diffuser section, and the shallow portion of the 48-inch pipe. The new large ballast replenished and augmented the original four-inch quarry rock that was placed around the outfall at the installation of the pipeline. Prior to placing the ballast in 1993, the fiberglass covers that had previously sealed the diffuser ports in the 30-inch leg of the outfall were all replaced by titanium expansion plugs.

The 1996 re-ballasting project stabilized the inshore zone of the ballast pile where a significant drop in the sand level had caused the ballast to move away from a protective position around the pipe. The zone where the pipeline support transitions from pile/clamp assemblies to rip-rap ballast was significantly enhanced, creating an overlap between the two support systems. In addition, several areas within two hundred feet of this transition that had exhibited low ballast coverage were augmented.

The 2005 re-ballasting project included the replacement of zinc anodes used to protect metal supports and access ports, replacement of ballast rock that had shifted away from the structure due

to ocean currents and wave energy and the cleaning of the diffuser ports at the end of the structure. Construction commenced in September 2005 and was completed by mid-October 2005. More than 7,365 tons of ballast rock was placed along the length of the outfall and the outfall's 200 diffuser ports were cleaned.

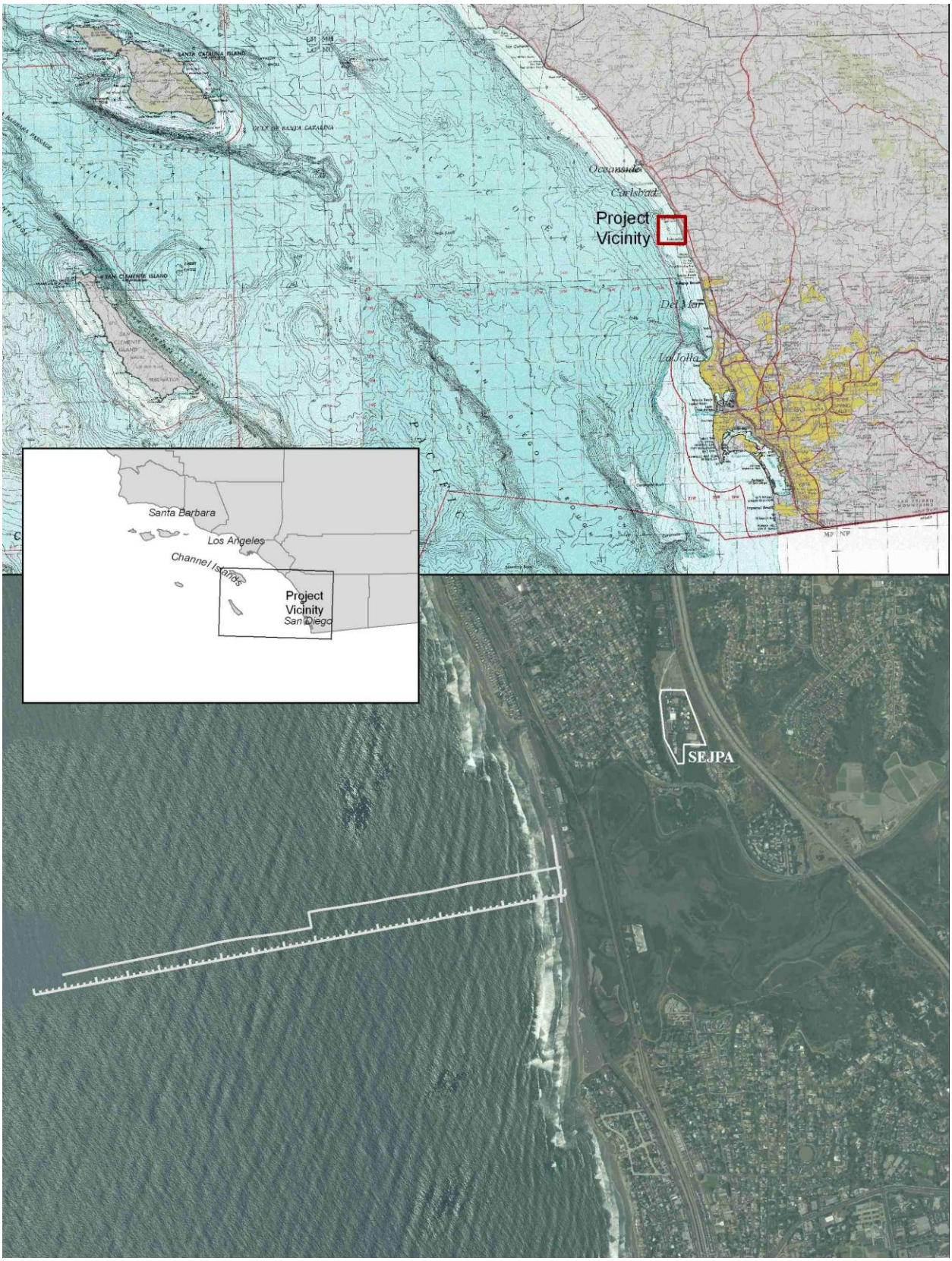


Figure 1. Map displaying San Elijo Joint Powers Authority (SEJPA) location relative to project vicinity.

1-3 Project Summary

MTS performed the Year 2025 SEOO inspection and anode maintenance at the request of the SEJPA. MTS provided SEJPA with the range of services noted in the Request for Proposals (RFP). The inspection involved diver examination of the outfall from the end cap to burial at shore, evaluation of exposed portholes, evaluation of cathodic protection at exposed anodes, kelp clearing, a pile support survey, and diffuser section survey. The anode maintenance involved replacing any anodes that were close to exhaustion or no longer providing cathodic protection to the SEOO.

Photo and video documentation were collected along the entire outfall. The purpose of the inspection was to look for evidence of spalling of the exposed concrete surfaces, cracks or other signs of wear or degradation of the outfall structure. This includes inspecting joint integrity for leaks or evidence of degradation, inspecting diffuser flow, evaluating for other potential hazards and checking attrition or the loss of efficacy of the pipe ballast material.

In general, the SEOO was found to be in excellent overall condition. All areas of the pipeline were stable, and the ballast showed minimal signs of movement based on the diver survey. The outfall showed no signs of spalling, rust staining, or cracking. No leaks were detected. Anodes on the exposed portholes were in good condition and have greater than 50% remaining life expectancy. There were 26 pile supports exposed during this survey, a significantly higher number than that of previous survey years. While all pile supports were cathodically protected, some anodes required replacement or removal. Anodes were added or replaced to pile supports that required additional protection during this survey. Portholes 4, and 5 were not inspected on this survey as, similar to the previous survey, they were buried in shell hash and could not be excavated for inspection. Porthole 1 was not able to be located by divers on this survey and is presumed to also have been buried by shell hash. A separate effort would be required to complete excavation of the buried portholes. Along the base of the pipe, the divers observed numerous large California spiny lobsters (*Panulirus interruptus).* The lobsters were located predominantly in the diffuser portion of the pipe where it appeared they had excavated substrate to create burrows for hiding.

2 Methods and Materials

Numerous techniques were incorporated in executing the current inspection tasks, which were tactically arranged to maximize diver efficiency and safety. In previous surveys, technical divers were used to inspect the entire length of the SEOO. However, due to safety concerns a remotely operated vehicle (ROV) was used to inspect the deeper section of the SEOO whereas SCUBA divers were used to inspect the shallower section. A Blue Robotics BlueROV2 remotely operated vehicle (ROV) was used to inspect and record video from the end of the SEOO to the transition zone. Divers inspected and recorded video from the transition zone to the inshore burial of the pipeline. Additionally, divers were used to inspect and conduct maintenance on anodes at the pile supports.

2-1 Vessel

Two MTS marine research vessels were mobilized for the outfall inspection: a Sea Ray and a Koffler. The 24-foot Sea Ray was used for the diving portion of the survey and was equipped with all essential diving, safety, navigation, and inspection equipment. The Koffler, a 22-ft aluminum survey vessel, served as the ROV platform and carried the necessary power systems to operate an onboard i7 computer running QGroundControl, as well as to charge depleted ROV batteries throughout the survey. Both vessels were transported to and launched from Oceanside Harbor, and all vessel equipment was inspected after each launch to ensure proper working order.

2-2 General Diver Inspection

MTS conducted a general overview inspection of the entire exposed portion of the outfall from the end cap toward shore. During operations, staff was attentive to the following criteria:

- Evidence of spalling of the exposed concrete surfaces;
- Cracks or other deficiencies in the outfall;
- Joint integrity;
- Leaks or evidence of degradation;
- Potential hazards;
- Attrition or the loss of efficacy of the ballast materials as a result of physical, biological, or geologic processes;
- Grading of ballast according to size as a result of oceanographic forces;
- Scour of the nearby marine sediments; and
- Man-made debris;
- Porthole leaks and anode inspection
- Anode inspection at pile supports

General pipeline inspection was achieved by divers and ROV. Shallow water portions of the diver survey were completed by SCUBA. A two-person dive team swam with a hand-held video camera on each side of the pipeline. The divers operated Go-Pro Hero 9 digital video cameras while performing the inspection from the transition zone to the inshore burial of the pipeline. The ROV was equipped with a camera and was navigated down both sides of the pipeline from the end to the transition zone.

2-3 Porthole Inspection

A visual evaluation was conducted of the exposed surfaces for mechanical/structural integrity including examination for leaks, fractures, gasket seal integrity, concrete spalling, etc. The sacrificial

anodes were inspected for expected remaining lifespan. There are five portholes along the original 30-inch diameter portion of SEOO. These portholes consist of a circular, Ni-Resist cast iron plate bolted to a flanged riser. A 5/16-inch-thick gasket, composed of neoprene, creates a seal between the cover and the flange. Sacrificial zinc anodes provide cathodic protection to the exposed metallic surfaces of the porthole covers and risers. All exposed portholes were inspected.

2-4 Pile Support Survey

In 1993, thirty-five pile-support assemblies were installed around the pipe between stations 4+41 and 9+69. Piles were driven through the sand to underlying bedrock on both sides of the pipe. Clamps between each pair of pile supports were bolted securely around the pipe and grouted to the piles in pile boxes. Anodes were welded to the pile boxes to provide cathodic protection to the metallic clamps and the piles. In 2005, additional anodes were clamped onto exposed pile supports but broke loose because of poor construction. Roughly each year, broken or exhausted anodes are replaced if the anodes are exposed. A complete visual inspection of the metal pipe shield and the pile supports exposed at the time of the survey was performed and anodes were replaced as necessary

2-5 Diffuser Port Inspection

The diffuser port inspection was completed by visually observing each port with the ROV. The ROV video was monitored at the time of the survey by a technician topside on the vessel. The ROV was deployed on the south side of the SEOO at the offshore end of the ballasted section and then navigated offshore until the diffuser section. Video was recorded at the start of the port diffuser section to the endcap of the SEOO. The ROV was then navigated to the north side of the pipeline and recorded the port diffusers on the north side of the SEOO. The ROV visually observed a total of 200 diffuser ports, 100 on the northern side and 100 on the southern side of the diffuser port segment of the pipe. Each diffuser port was inspected for the presence of biofouling and any other obstructions that may interfere with the proper function of the diffuser port.

3 Results

3-1 General Diver and Deep Inspection

During this present inspection, a visual examination of SEOO's reinforced concrete pipeline was completed on all exposed portions. The condition of the visible portions of the pipeline was generally found to be good. There was no evidence of spalling, cracking or other deficiencies in the concrete pipe. All observed joints were in alignment with no evidence of leaks. There were minimal debris items that could potentially affect the pipeline. Biofouling, or the undesirable accumulation of microorganisms, plants and animals on artificial surfaces, of the deeper pipeline sections was minimal and not expected to have an impact on the pipeline. There were a few instances of giant kelp growing on the pipeline, but all were removed by divers. Finally, there was no evidence of oceanographic impacts to marine sediments or ballast along the pipeline.

There was one notable observation with regards to spiny lobster. Spiny lobster abundance has increased with greater numbers of lobster and larger individuals observed since the SEOO has been included in the Swamis State Marine Conservation Area. During the current inspection, at least three to four lobster were observed at the base of the pipeline adjacent to unballasted strut locations.

While the amount of material excavated is minimal compared to the total area of seafloor the pipeline rests on, the slow movement of material by lobster over time could reduce the contact area with the seafloor and increase the stress on the pipeline.

3-2 Porthole Inspection

All portholes that could be observed were inspected. Porthole 1 was not able to be found by the divers. It seems likely that it was buried under sand or shell hash which obscured it from view. Portholes 4 and 5 were covered by greater than a one-foot thick layer of shell hash that has sluffed down from the adjacent ballast rock placed in 1993. The dive team could not remove enough of the shell hash to inspect the cover or the anode. Portholes 1, 4, and 5 will require excavation through a separate dive effort to inspect and check the cathodic protection.

Visual inspection of portholes 2 and 3 revealed the portholes and associated zinc anodes to be in fair to good condition (Figure 2). There were no signs of concrete spalling, leaks, or fractures. Cathodic protection (CP) readings on zinc anodes were also conducted and the anodes were cleaned of oxidized material and fouling organisms. Data from the 2025 survey, as well as for CP readings from the previous five years of surveys, are presented in Table 1. Cathodic protection (CP) readings and% estimated remaining anode mass results from the 2016-2025 surveys. Readings were not taken in 2018 or 2020. “N/A” indicated portholes that could not be observed. Estimated anode remaining increased from 2017 to 2019, however, anodes were not replaced between surveys. The low values during the current survey are suspected to be in error and due to a problem with the meter.. Due to suspected electrical issues with the CP meter in 2025, readings for Portholes 2 and 3 were substantially lower than in previous years and are suspected to be inaccurate. Visual observations of the anodes and porthole covers give every indication that the structures are currently cathodically protected.

Porthole 2 and porthole 3 had a 1-inch and 0.5-inch-thick biofouling layer, respectively. All exposed portholes are shown in the video data provided with this report. Locations where shell hash obscures portholes 1, 4, and 5 can also be seen in the video.

Figure 2. Porthole 3 cover with zinc anode with approximately 50% remaining life expectancy.

Table 1. Cathodic protection (CP) readings and% estimated remaining anode mass results from the 2016-2025 surveys. Readings were not taken in 2018 or 2020. "N/A" indicated portholes that could not be observed. Estimated anode remaining increased from 2017 to 2019, however, anodes were not replaced between surveys. The low values during the current survey are suspected to be in error and due to a problem with the meter.

Porthole #	2016		2017		2019		2021		2023		2025	
	CP VDC	% Estimated Remaining Anode Mass	CP VDC	% Estimated Remaining Anode Mass	CP VDC	% Estimated Remaining Anode Mass	CP VDC	% Estimated Remaining Anode Mass	CP VDC	% Estimated Remaining Anode Mass	CP VDC	% Estimated Remaining Anode Mass
1	-1.130	>60%	-1.035	>50%	-0.957	>60%	-0.994	>60%	-0.950	>60%	N/A	N/A
2	-0.980	>60%	-1.025	>50%	-0.941	>60%	-1.010	>60%	-0.990	>60%	-0.247	>60%
3	-1.040	>60%	-0.993	>50%	-1.011	>60%	-1.032	>60%	-0.970	>60%	-0.488	>60%
4	-0.970	>60%	-	-	-0.975	>60%	N/A	N/A	N/A	N/A	N/A	N/A
5	-0.950	>60%	-	-	-0.970	>60%	N/A	N/A	N/A	N/A	N/A	N/A

3-3 Pile Support Survey

Historically, much of the pile supports were buried and not able to be inspected. However, similar to the survey conducted in 2024, a majority of the pile supports were exposed during this survey effort. A total of 26 offshore pile supports, (supports 35-10) were exposed and inspected. Note that even numbered pile supports are smaller than odd numbered pile supports; for this reason, even numbered supports should have one anode each and odd numbered supports should have 2 anodes each. However, due to shifting sand and burial of anodes, some pile supports now contain more than 2 anodes.

For the 2025 inspection, 5 new anodes were added to the following pile supports: 16, 21, 27, 29, and 30. All pile supports with single anodes now have greater than 70% remaining life expectancy, whereas all pile supports with two anodes have at least one anode with 50% or greater remaining life expectancy. There were a number of pile supports that had three or more anodes attached to the pile support, likely due to portions of the support and anodes being previously buried. In these cases, the most depleted anodes were removed such that either one or two anodes of at least 70% remained on the pile support. Three anodes were removed from pile support 16, two anodes were removed from pile supports 14 and 25, and one anode was removed from pile supports 15, 18, and 19. There was also one anode that was attached to a chain on the pipeline, which was removed and added onto pile support 25. In summary, a total of 5 new anodes were added to the pipeline and 13 exhausted anodes were removed.

MTS fabricated 8 anodes ahead of the survey to be used to replace anodes on the SEOO. However, only 5 were needed on the pipeline at the time of this survey. There were 13 anodes that were removed from the pipeline; their associated clamping hardware will be cleaned and able to be incorporated into new anode assemblies for future needs on the SEOO.

CP readings data from the 2025 survey, as well as CP readings from the previous four years of surveys, are presented in Table 2. CP readings were taken following any performed anode maintenance. The 2025 pile support CP readings may not be representative of actual conditions due to a suspected intermittent electrical malfunction on the CP meter while conducting the inspection. It should be noted, however, that visual inspection of the pile supports and attached anodes give every indication that each of the pile support structures that was able to be observed by divers is currently cathodically protected.

Table 2. Cathodic Protection (CP) readings and associated % estimated remaining anode mass results from the 2016-2025 pile support surveys. Readings were not taken in 2018 or 2020. Abnormally low values denoted with an "*" are the result of an intermittent error of the CP meter.

Pile Support #	2016		2017		2019		2021		2023		2025	
	CP VDC	% Estimated Remaining Anode Mass	CP VDC	% Estimated Remaining Anode Mass	CP VDC	% Estimated Remaining Anode Mass	CP VDC	% Estimated Remaining Anode Mass	CP-VDC	% Estimated Remaining Anode Mass	CP-VDC	% Estimated Remaining Anode Mass
1	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.798	0/0	Buried	Buried
2	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried
3	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.781	0/0	Buried	Buried
4	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried
5	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.003	100/100%	Buried	Buried
6	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried
7	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.008	100/100%	Buried	Buried
8	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried
9	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.989	50/100%	Buried	Buried
10	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.093*	90/90
11	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.011	100/100%	-0.092*	90/90
12	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.077*	80/80
13	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.003	100/50%	-0.102*	90/50
14	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.808	70
15	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.010	50/50%	-0.109*	90/90
16	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.805	0	-0.978	100/90
17	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.999	50/50%	-0.923	50/50
18	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.991	20/100%	-0.109*	90
19	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.990	30/30%	-0.100*	70/70
20	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.998	100%	-0.064*	90
21	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.007	20/30%	-0.060*	100/30
22	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.008	100%/Buried	-0.089*	80/90
23	-1.010	>70/70%	Buried	Buried	Buried	Buried	Buried	Buried	-1.003	30/100%	-0.066*	80/10
24	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.008	100%/Buried	-0.071*	95
25	-0.980	>80/80%	Buried	Buried	Buried	Buried	Buried	Buried	-0.999	30/100%	-0.050*	90/90
26	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.997	100%	-0.999	90
27	-0.940	>90/30%	Buried	Buried	Buried	Buried	Buried	Buried	-0.991	100/30%	-0.966	100
28	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-1.017	100%	-0.961	90/90
29	-0.910	>70/70% And >20/20%	Buried	Buried	-1.005	100%	Buried	Buried	-0.799	0/0	-0.859	100/95
30	Buried	Buried	Buried	Buried	Buried	Buried	Buried	Buried	-0.813	None	-0.882	100/90
31	-0.950	>50/50%	-0.950	>40/50%	-0.991	100%	Buried	Buried	-1.003	50/10%	-0.889	90/90
32	-0.930	>50/50%	-0.939	>50/50%	Buried	Buried	-0.942	100/100%	-0.802	None	-0.870	90
33	-0.950	>40/40%	-0.950	>40/40%	-1.007	100%	-1.011	>50/100%	-0.993	20/70%	-0.879	95/95
34	Buried	Buried	-1.005	>50/50%	-0.979	100%	-1.001	100/100%	-0.810	None	-0.887	95/95
35	-1.000	>50/50%	-0.950	>40/40%	-1.004	100%	-1.008	>70/100%	-1.010	60/70%	-0.099*	95/95
Pipe Protection Cowling	-0.890	>40%	-0.872	>30%	-0.960	100%	-0.982	100%	-0.798	None		None

3-4 Diffuser Port Inspection

The ROV visually observed all 200 diffuser ports along the diffuser section of the outfall pipe. The presence of biofouling or any kind of notable obstruction was not observed. The diffuser ports on both the south and north side of the pipe closest to the end cap structure were not flowing, however this is the typical condition for these diffuser ports and was not considered to be blocked by any form of obstruction. These "ports" are in the end structure and are not drilled all the way through to the pipeline. All other diffuser ports appeared to be in proper working function with observable flow coming out of the diffuser ports. Video of each diffuser port, with two exceptions, is included with the submission of this report. As the inspection was being conducted, the ROV technician visually observed each diffuser for flow and biofouling. However, in the video record, South Diffusers 19 and 20 are not shown due to a recording error. The ROV technician had assumed that the camera was recording on that portion of the pipeline but later discovered that it was not. Thus, there is no video or still photo from the ROV inspection showing South Diffusers 19 and 20. Still photos of the other 198 diffusers are presented in Appendix C.

4 Summary and Recommendations

The following points summarize the major findings of this inspection:

- In general, the San Elijo Ocean Outfall was found to be in excellent overall condition.
- Ballast rock on the pipeline showed no significant signs of movement since the last re-ballasting project.
- The outfall showed no signs of spalling, rust staining, or cracking.
- Anodes that were observed at portholes were in good condition and have greater than 50% remaining life expectancy where these were visible and could be inspected.
- No anode is present at the metal plate located just offshore of the pile support section.
- Giant kelp was found growing on the pipeline or ballast, but all was removed.
- All 26 of the exposed pile supports surveyed during this inspection are cathodically protected after replacement of 5 anodes. No additional anodes are needed at this time.
- All diffusors were flowing well.
- Several large California spiny lobsters were found along the base of each exposed pile support; it appeared the lobsters had excavated substrate to create burrows.

The following items are recommendations for continued structural integrity and environmentally safe operation of the San Elijo Ocean Outfall. Some of the comments made below were mentioned in previous reports but are included again because they are still valid points.

4-1 Specific Recommendations

- Excavation of portholes 4, and 5 are proposed to remove shell hash on top of the portholes that prevented observation and collection of CP readings.
- Excavation of porthole 1 that prevented observation and collection of CP readings

- Continue to perform routine ROV or rebreather-based dive survey of the diffuser section of the outfall pipe as needed to clear any blocked ports.
- Continue to survey and remove kelp on the pipeline and ballast pile as warranted so that further ballast is not moved away from the pipeline.
- Monitor for re-emergence of all inshore pile support structures and complete structural inspection and addition of anodes once these re-emerge from the littoral sands. They seem to be the most exposed in the winter months such that a survey following a winter storm might allow for additional inspection and service.
- Continue to monitor the presence of “lobster burrows” and possible loss of pipeline bedding material during future surveys.

4-2 General Recommendations

- Continue to perform “rapid-response” overview inspections after periods of extremely high surf or earthquakes in order to identify damage and potential for failure due to scour, high-velocity currents, or major seafloor movements.
- During future inspections, anodes should be replaced when they become ineffective against preventing corrosion to pipe and pile structures.
- Continue preventative maintenance and detailed inspections of the entire pipeline using SCUBA, rebreather, and/or ROV surveys.

Appendix A: Important Oceanographic Processes

General Oceanographic Forces and Processes

(Adapted from prior Thales GeoSolutions Pacific, Inc. reports)

Several phenomena within the ocean environment exert a significant influence on the San Elijo outfall and ballast material. These processes include the hydrodynamic forces due to waves, longshore currents, and sediment transport. The arrival of large waves from local or distant storms increases localized water particle velocities, amplifies the effects of these processes and are capable of damaging the outfall. Each of these phenomena will be discussed in general terms and as they might apply to the San Elijo Ocean Outfall.

Waves and Currents

Beneath deep-water waves, water particles move in a circular orbit. The water particle velocity decreases with depth; the maximum depth of wave-induced particle motion is a function of wave height and period. The larger the wave and longer the period, the deeper the effects of the wave are felt in the water column. As a wave advances toward shore and enters shallow water, it begins to experience the effects of friction with seafloor. The frictional interaction of waves with the seafloor modifies the waveform, causing the wave height to increase, the wavelength to decrease, and the circular orbit of the particles to become increasingly elliptical. As each wave progresses into shallower water, it eventually reaches a height where the wave will break, which typically occurs in a depth of water that is nearly 1.3 times the height of the wave. The highest energy release occurs where waves are breaking. It is in this high-energy area that a pipeline is most likely to be damaged during a storm.

In addition to the wave-induced oscillatory particle motion, waves approaching a straight coastline at an angle can generate a steady longshore current. This longshore current is largely responsible for the erosion and longshore transport of sediment. The impact of this current and sediment load directly affects any structure, which could interrupt the current flow. At San Elijo, current is generally southward from November through April due to the arrival of waves generated by persistent north and northwest winds from large North Pacific storm systems. The longshore current direction occasionally reverses itself during the remaining months due to exposure to Southern Hemisphere swell or infrequent tropical storms. Other components of the nearshore current include tidal currents with semi-diurnal reversing of the onshore/offshore and upcoast/downcoast flow, regional oceanic circulation patterns, and currents produced by local winds such as sea breeze or thunderstorms and squalls. The combination of these wave- and current-related forces make the nearshore a very dynamic environment in terms of sediment transport and generating forces with act on costal structures.

Hydrodynamic Forces

Dynamic forces acting on a submerged object are comprised of the direct impact of the water particles against the object, varying hydrostatic pressure as a wave passes, and the lift/drag forces caused by increased fluid velocities over and around the object. Currents generated by waves can cause movement of the entire water mass, which can cause forces similar to a flowing river. The flow over the top of the San Elijo outfall can cause lift forces due to pressure gradients and drag on the pipe in the direction of the current flow. The lift caused by currents, coupled with the increased oscillation lift associated with localized water particle velocities and drag forces, can cause large objects such as ballast rock to move as a wave passes.

Liquefaction

Shock from breaking ocean waves or earthquake surface waves can cause unconsolidated, water-saturated sediments to go into suspension. This process, called liquefaction, results in the sediment losing its shear strength and therefore it ability to support higher density objects. This process causes objects such as ballast rock resting on the liquefied area to settle.

Sediment Scour and Transport

The forces discussed in previous sections apply to sediments as well as to an ocean outfall pipe. Longshore sediment transport and seasonal beach migration (inshore/offshore) occur when the water particle velocity is great enough to suspend sediment particles and transport them in agitated water as suspended-load and bed-load. The suspension and movement of unconsolidated sediments in the water column may result in lower bottom elevation. Eroded sand may or may not be re-deposited at the same level, depending on the resultant mean current and the up-current sediment supply.

Coastal Sediment Transport and Erosion

The transport of sediment parallel to the shore along Southern California beaches is due primarily to the longshore current generated by waves breaking at an angle to the coastline. The majority of the transport occurs within the littoral zone, extending from shore to just beyond the seaward limits of the breaker zone. The Southern California coast can be divided into a series of cells between the natural features of headlands and submarine canyons (Figure 5-1). At a headland or promontory, the upcoast supply of sand is effectively blocked or deflected offshore into deeper water and lost to the system. Similarly, submarine canyons capture the beach sand and channel it offshore into deeper water where it is also permanently lost to beach replenishment.

The local littoral sediment budget determines whether the coast is likely to experience net erosion or deposition. A beach may be considered to be in a state of equilibrium if the longshore transport into a cell or coastal segment equals the transport out of the cell. However, the coast is a dynamic environment with naturally occurring periods of erosion and deposition. Thus, an imbalance in the budget is difficult to predict due to uncertainty in estimating the magnitude of the various sediment sources and losses. The primary sources of beach material are longshore transport from upcoast segments, river transport, sea cliff erosion, onshore transport, dredging, and sand bypass at harbor entrances. The primary losses of beach material are longshore transport out of area, offshore transport, deposition within submarine canyons, accumulations at harbor entrances, and mining. In general, the contribution of sediment from river transport and runoff has been significantly reduced by the construction of dams and reservoirs. Lagoons normally contribute little to the coastal sediment budget and many actually constitute a net sediment loss. River-transported sediments deposited in shallow coastal lagoons are not normally available to nearby beaches unless there is sufficient tidal exchange to suspend and transport sand-size particles. In some instances, tidal currents may carry sediment into a lagoon where it is deposited due to lower velocity. The exception to this may occur after periods of heavy rainfall when the increased flow due to excessive runoff and coastal flooding may flush deposited sediments onto adjacent beaches.

The Oceanside Littoral Cell extends from Dana Point to the Scripps-La Jolla Submarine Canyon, a distance of approximately 50 miles. Within this cell, the net annual transport is toward the south due to the prevailing wind and wave direction from the northwest during October/November

through April/May. During the summer months, the arrival of swell from Southern Hemisphere or tropical storms can reverse the longshore current, producing periods of northward longshore transport. The estimated annual transport offshore through Scripps-La Jolla Submarine Canyon of 260,000 cubic yards is roughly equivalent to the total littoral transport reaching the adjacent upcoast beach (Chamberlain, 1964). Surveys within the Carlsbad Submarine Canyon concluded that it was not currently an active site of beach material loss. No other canyons affect the Oceanside Littoral Cell.

U.S. Army Corps of Engineers studies have suggested the division of littoral cells into segments or subcells based on the following criteria:

Distinctive sediment characteristics due to natural or man-influenced processes such as beach nourishment programs;
Known natural (lagoons and submarine canyons) or man-made (jetties and breakwaters) barriers to littoral sand transport.

The eight-mile-long costal segment between San Marcos Creek at Batiquitos Lagoon and the San Dieguito River includes the communities of Leucadia, Encinitas, Cardiff and Solana Beach. Based on data from 1954 through 1988, the sea cliffs in this area have retreated an average of approximately 0.1 to 0.2 feet per year. This sediment source contributes relatively small amounts of sand, gravel and cobble to the coastal sediment budget. Analysis of aerial photographs and beach profiles for the 50-year interval from 1938 through 1988 showed a nearly stable shoreline position, indicating a close balance in the sediment budget. The normal seasonal onshore/offshore sediment transport and localized changes near the outfall due to the effects of severe storm events or scour are not reflected in the long-term average.

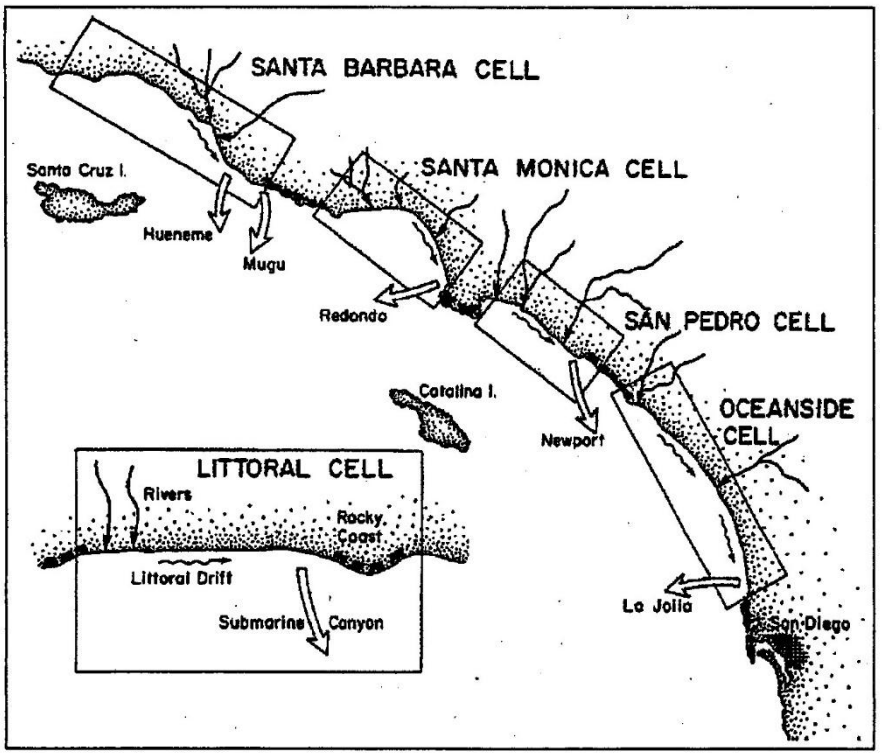


Figure 5-1 Southern California Coast Littoral Transportation Cells

Scour

Depletion of sediment occurs adjacent to offshore structures that have readily transportable sediment near their perimeters. This localized depletion of sediment around an object is called scour. Flow velocity increases as it passes around the edge of a structure, causing a localized increase in the energy proportional to the square of the velocity. This increased energy allows water to transport more sediment and larger size particles. In the case of the San Elijo Ocean Outfall, the sediment typically available for transport is sand. Therefore, at the toe end of a ballast pile, or the outfall terminus, flow passes around stationary or non-transportable material, the area will be more susceptible to scour.

Scour around an outfall can also be noted on a larger scale as differences in bottom elevation of the nearfield sediment distribution around a pipe and ballast pile. On the up-current side of the pipe, the seawater slows down as it approaches the ballast pile and loses some of its energy. As a result, its ability to transport sediment is reduced, thus causing deposition on the up-current side of the pipe. As fluid passes over the pipe and ballast pile it gains energy but not enough to displace correctly designed ballast. As the seawater leaves the down-current edge of the ballast pile, its energy is increased because of the turbulence around the ballast pile and a return to non-deflected flow. This increased energy level enhances the ability to transport sediment. Thus, sediment deposited at the ballast pile is re-suspended and transported away, which results in a lower level of sand on the down-current side. This same phenomenon is typically visible around a jetty where the up-current side experiences buildup of material and the down-current side shows a loss of material.

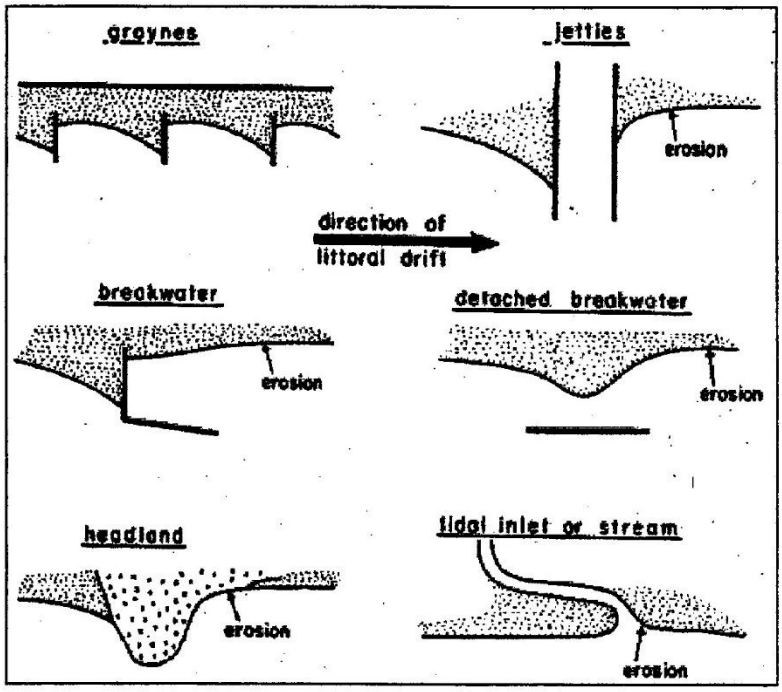


Figure 5-2 Deposition and erosion due to interruption of longshore transport

Scour results in the loss of sand around the toe of the ballast pile, around the pipe, and supporting structures where no ballast exists. Excessive scour can lead to ballast pile setting or collapse and weakened support foundation, which eventually may result in unsupported spans of pipe.

Metallic Corrosion

The galvanic process commonly referred to as corrosion arises when two dissimilar metallic alloys or different areas of the same metal are immersed in an electrolyte (e.g., generally a liquid capable of conducting electricity such as seawater). The connection created between the two metals that has a sufficient voltage potential different to initiate an oxidation reaction. The location of this reaction is known as the anode and is characterized by a negative charge. Once liberated, electrons flow as current through the metallic pathway to a more positively charged region within the cell and begin to generate a reductive reaction at an area known as the cathode.

The circuit is completed by the migration of hydroxide ions from the cathodic region to the anode. The major point of interest is that the rate at which these reactions occur is governed in large part by the rate at which oxygen can be reduced at the cathode. In basic terms, this means that the reduction rate and thus the rate of corrosion are controlled by the amount of dissolved oxygen available in the water column.

Metals immersed in seawater are susceptible to corrosion due to galvanic action, which produces an electrical current in an electrolyte (conducting) solution. Seawater is an electrolyte since it contains a significant percentage of chlorine ions found in solution. More specifically, there are approximately 35 grams of dissolved salt per kilogram of seawater. Sites on the surface of the metal where corrosion or oxidation (electron loss) is occurring are referred to as anodes. The chemical reaction at an anode results in the production of metal ions and free electrons. These electrons pass through the seawater to other sites (referred to as cathodes) where a reaction (electron gain) is occurring. Metal ions can go into solution or react to form corrosion products such as oxides on the surface of the metal, forming the classic reddish-brown rust commonly observed.

All exposed metallic fixtures on the outfall, including the steel pipeline, are susceptible to corrosion. The rate of corrosion can be significantly reduced by attachment of sacrificial zinc alloy anodes. Zinc has a higher corrosion potential than most metals and therefore the resulting loss of material is from the zinc anode and protected parts remain relatively inert.

Kelp Settlement and Growth

Kelp (*Macrocystis sp*.) is a marine alga, which grows in the Shallow Littoral Zone. It grows on hard substrate such as rocks, boulders, outcrops, concrete, and pipeline ballast rock. Substrate attachment is by means of a rhizome-like base called a holdfast. Under suitable nutrient, light, and thermal conditions, kelp plants grow to lengths in excess of 200 feet, with daily growth rates in excess of one percent of plant size. The major parts of a kelp plant are:

Holdfast – Base that anchors the kelp to the ocean floor;
Stipe – A stem-like section that connects the pneumatocysts and blades to the holdfast;
Pneumatocyst – A small, ball-like, gas-filled float between the stipe and the blades, which provides buoyancy;
Blades – Leaflike sections, 0.8 feet to 1.3 feet long and approximately 0.2 feet wide.

Multiple stipes can grow from a single holdfast clump. Kelp has considerable buoyancy and drag potential in the water column.

The entire kelp plant is quite elastic, allowing it to survive high-energy sea conditions. However, under extreme wave and current conditions, a stipe may break and the plant will float away if the stipe elasticity and strength are exceeded by drag forces. Under certain conditions at very low ocean-energy levels, the entire kelp plant, including the holdfast, can be transported away. This occurs when the substrate to which the kelp has attached has insufficient mass to anchor the kelp. Obviously, the smaller the ballast rock, the easier it is for individual kelp plants to carry it away from an outfall. While inspecting San Elijo outfall prior to the most recent reballasting, previous inspectors witnessed kelp growing on small units of ballast in the sand field away from the pipeline. Following reversal of tidal current direction, those same plants were found alongside the pipeline. By this process, a ballast pile can be significantly depleted even during moderate wave conditions if the ballast is not of a suitable size to prevent its removal by kelp drag.

Appendix B: Video Log and Notes

Video Notes

South Flange

Flange #	Notes	Lobsters Present	Flange #	Notes	Lobsters Present
SF1	Unremarkable.	Y	**SF53**	Evidence of excavation from Lobsters.	Y
SF2	Unremarkable.	N	**SF54**	Evidence of excavation from Lobsters.	Y
SF3	Unremarkable.	N	**SF55**	Evidence of excavation from Lobsters.	N
SF4	Unremarkable.	N	**SF56**	Evidence of excavation from Lobsters.	Y
SF5	Unremarkable.	N	**SF57**	Evidence of excavation from Lobsters.	Y
SF6	Unremarkable.	Y	**SF58**	Evidence of excavation from Lobsters.	Y
SF7	Unremarkable.	N	**SF59**	Evidence of excavation from Lobsters.	Y
SF8	Unremarkable.	N	**SF60**	Evidence of excavation from Lobsters.	Y
SF9	Unremarkable.	N	**SF61**	Evidence of excavation from Lobsters.	N
SF10	Unremarkable.	Y	**SF62**	Evidence of excavation from Lobsters.	N
SF11	Unremarkable.	N	**SF63**	Evidence of excavation from Lobsters.	N
SF12	Unremarkable.	N	**SF64**	Evidence of excavation from Lobsters.	N
SF13	Unremarkable.	N	**SF65**	Evidence of excavation from Lobsters.	Y
SF14	Unremarkable.	Y	**SF66**	Evidence of excavation from Lobsters.	Y
SF15	Unremarkable.	Y	**SF67**	Unremarkable.	N
SF16	Unremarkable.	Y	**SF68**	Evidence of excavation from Lobsters.	Y
SF17	Unremarkable.	Y	**SF69**	Unremarkable.	N
SF18	Evidence of excavation from Lobsters.	Y	**SF70**	Unremarkable.	Y
SF19	Evidence of excavation from Lobsters.	Y	**SF71**	Unremarkable.	N
SF20	Unremarkable.	N	**SF72**	Unremarkable.	Y
SF21	Unremarkable.	N	**SF73**	Unremarkable.	N
SF22	Evidence of excavation from Lobsters.	Y	**SF74**	Unremarkable.	Y
SF23	Evidence of excavation from Lobsters.	Y	**SF75**	Unremarkable.	N
SF24	Unremarkable.	Y	**SF76**	Unremarkable.	N
SF25	Unremarkable.	N	**SF77**	Unremarkable.	Y
SF26	Unremarkable.	N	**SF78**	Unremarkable.	N
SF27	Unremarkable.	N	**SF79**	Unremarkable.	N

Flange #	Notes	Lobsters Present	Flange #	Notes	Lobsters Present
SF28	Unremarkable.	N	**SF80**	Unremarkable.	N
SF29	Unremarkable.	N	**SF81**	Unremarkable.	Y
SF30	Unremarkable.	Y	**SF82**	Unremarkable.	N
SF31	Evidence of excavation from Lobsters.	N	**SF83**	Unremarkable.	N
SF32	Unremarkable.	N	**SF84**	Unremarkable.	Y
SF33	Unremarkable.	Y	**SF85**	Unremarkable.	Y
SF34	Unremarkable.	N	**SF86**	Unremarkable.	N
SF35	Unremarkable.	Y	**SF87**	Unremarkable.	N
SF36	Unremarkable.	Y	**SF88**	Unremarkable.	N
SF37	Unremarkable.	Y	**SF89**	Unremarkable.	N
SF38	Evidence of excavation from Lobsters.	Y	**SF90**	Unremarkable.	N
SF39	Unremarkable.	Y	**SF91**	Unremarkable.	Y
SF40	Evidence of excavation from Lobsters.	Y	**SF92**	Unremarkable.	N
SF41	Evidence of excavation from Lobsters.	Y	**SF93**	Unremarkable.	N
SF42	Evidence of excavation from Lobsters.	Y	**SF94**	Unremarkable.	N
SF43	Evidence of excavation from Lobsters.	Y	**SF95**	Unremarkable.	N
SF44	Unremarkable.	N	**SF96**	Unremarkable.	N
SF45	Evidence of excavation from Lobsters.	Y	**SF97**	Unremarkable.	N
SF46	Evidence of excavation from Lobsters.	Y	**SF98**	Unremarkable.	N
SF47	Unremarkable.	Y	**SF99**	Unremarkable.	N
SF48	Unremarkable.	N	**SF100**	Unremarkable.	N
SF49	Evidence of excavation from Lobsters.	Y	**SF101**	Unremarkable.	N
SF50	Evidence of excavation from Lobsters.	Y	**SF102**	Unremarkable.	N
SF51	Evidence of excavation from Lobsters.	Y	**SF103**	Unremarkable.	N
SF52	Evidence of excavation from Lobsters.	N			

North Flange

Flange #	Notes	Lobsters Present	Flange #	Notes	Lobsters Present
NF1	Unremarkable.	Y	**NF53**	Unremarkable.	Y
NF2	Unremarkable.	N	**NF54**	Unremarkable.	Y
NF3	Unremarkable.	Y	**NF55**	Evidence of excavation from Lobsters.	Y
NF4	Evidence of excavation from Lobsters.	Y	**NF56**	Evidence of excavation from Lobsters.	Y
NF5	Evidence of clearing and excavation from Lobsters.	Y	**NF57**	Evidence of excavation from Lobsters.	Y
NF6	Evidence of excavation from Lobsters.	Y	**NF58**	Evidence of excavation from Lobsters.	Y
NF7	Unremarkable.	Y	**NF59**	Evidence of excavation from Lobsters.	Y
NF8	Unremarkable.	N	**NF60**	Evidence of excavation from Lobsters.	Y
NF9	Evidence of excavation from Lobsters.	Y	**NF61**	Evidence of excavation from Lobsters.	Y
NF10	Unremarkable.	N	**NF62**	Evidence of excavation from Lobsters.	Y
NF11	Unremarkable.	Y	**NF63**	Unremarkable.	Y
NF12	Unremarkable.	Y	**NF64**	Unremarkable.	Y
NF13	Unremarkable.	Y	**NF65**	Unremarkable.	Y
NF14	Evidence of excavation from Lobsters.	Y	**NF66**	Unremarkable.	Y
NF15	Unremarkable.	Y	**NF67**	Unremarkable.	Y
NF16	Unremarkable.	Y	**NF68**	Evidence of excavation from Lobsters.	Y
NF17	Evidence of excavation from Lobsters.	N	**NF69**	Unremarkable.	Y
NF18	Unremarkable.	Y	**NF70**	Evidence of excavation from Lobsters.	Y
NF19	Unremarkable.	Y	**NF71**	Evidence of excavation from Lobsters.	Y
NF20	Unremarkable.	Y	**NF72**	Unremarkable.	Y
NF21	Evidence of excavation from Lobsters.	Y	**NF73**	Evidence of excavation from Lobsters.	Y
NF22	Unremarkable.	Y	**NF74**	Unremarkable.	Y
NF23	Unremarkable.	Y	**NF75**	Unremarkable.	Y
NF24	Unremarkable.	Y	**NF76**	Evidence of excavation from Lobsters.	Y
NF25	Evidence of excavation from Lobsters.	Y	**NF77**	Unremarkable.	Y
NF26	Unremarkable.	Y	**NF78**	Unremarkable.	Y
NF27	Evidence of excavation from Lobsters.	Y	**NF79**	Unremarkable.	Y
NF28	Unremarkable.	Y	**NF80**	Unremarkable.	Y
NF29	Evidence of clearing and excavation from Lobsters.	Y	**NF81**	Unremarkable.	Y

Flange #	Notes	Lobsters Present	Flange #	Notes	Lobsters Present
NF30	Evidence of excavation from Lobsters.	Y	**NF82**	Unremarkable.	Y
NF31	Unremarkable.	Y	**NF83**	Unremarkable.	N
NF32	Evidence of excavation from Lobsters.	Y	**NF84**	Unremarkable.	Y
NF33	Evidence of excavation from Lobsters.	N	**NF85**	Unremarkable.	N
NF34	Evidence of excavation from Lobsters.	Y	**NF86**	Unremarkable.	N
NF35	Evidence of excavation from Lobsters.	Y	**NF87**	Unremarkable.	N
NF36	Evidence of excavation from Lobsters.	Y	**NF88**	Unremarkable.	Y
NF37	Evidence of excavation from Lobsters.	Y	**NF89**	Unremarkable.	Y
NF38	Unremarkable.	Y	**NF90**	Unremarkable.	N
NF39	Evidence of excavation from Lobsters. Growth.	Y	**NF91**	Unremarkable.	N
NF40	Evidence of excavation from Lobsters.	Y	**NF92**	Unremarkable.	N
NF41	Evidence of excavation from Lobsters.	Y	**NF93**	Unremarkable.	N
NF42	Unremarkable.	Y	**NF94**	Unremarkable.	N
NF43	Evidence of excavation from Lobsters.	N	**NF95**	Unremarkable.	N
NF44	Evidence of excavation from Lobsters.	Y	**NF96**	Unremarkable.	N
NF45	Evidence of excavation from Lobsters.	N	**NF97**	Unremarkable.	N
NF46	Unremarkable.	Y	**NF98**	Unremarkable.	N
NF47	Unremarkable.	Y	**NF99**	Unremarkable.	N
NF48	Unremarkable.	Y	**NF100**	Unremarkable.	N
NF49	Unremarkable.	Y	**NF101**	Unremarkable.	N
NF50	Evidence of excavation from Lobsters.	Y	**NF102**	Unremarkable.	N
NF51	Evidence of excavation from Lobsters.	Y	**NF103**	Unremarkable.	N
NF52	Evidence of excavation from Lobsters.	Y			

South Diffusors

Diffusor #	Notes		Diffusor #	Notes		Diffusor #	Notes		Diffusor #	Notes
SD1	Unremarkable.		**SD26**	Unremarkable.		**SD51**	Unremarkable.		**SD76**	Unremarkable.
SD2	Unremarkable.		**SD27**	Unremarkable.		**SD52**	Unremarkable.		**SD77**	Unremarkable.
SD3	Unremarkable.		**SD28**	Unremarkable.		**SD53**	Unremarkable.		**SD78**	Unremarkable.
SD4	Unremarkable.		**SD29**	Unremarkable.		**SD54**	Unremarkable.		**SD79**	Unremarkable.
SD5	Unremarkable.		**SD30**	Unremarkable.		**SD55**	Unremarkable.		**SD80**	Unremarkable.
SD6	Unremarkable.		**SD31**	Unremarkable.		**SD56**	Unremarkable.		**SD81**	Unremarkable.
SD7	Unremarkable.		**SD32**	Unremarkable.		**SD57**	Unremarkable.		**SD82**	Unremarkable.
SD8	Unremarkable.		**SD33**	Unremarkable.		**SD58**	Unremarkable.		**SD83**	Unremarkable.
SD9	Unremarkable.		**SD34**	Unremarkable.		**SD59**	Unremarkable.		**SD84**	Unremarkable.
SD10	Unremarkable.		**SD35**	Unremarkable.		**SD60**	Unremarkable.		**SD85**	Unremarkable.
SD11	Unremarkable.		**SD36**	Unremarkable.		**SD61**	Unremarkable.		**SD86**	Unremarkable.
SD12	Unremarkable.		**SD37**	Unremarkable.		**SD62**	Unremarkable.		**SD87**	Unremarkable.
SD13	Unremarkable.		**SD38**	Unremarkable.		**SD63**	Unremarkable.		**SD88**	Unremarkable.
SD14	Unremarkable.		**SD39**	Unremarkable.		**SD64**	Unremarkable.		**SD89**	Unremarkable.
SD15	Unremarkable.		**SD40**	Unremarkable.		**SD65**	Unremarkable.		**SD90**	Unremarkable.
SD16	Unremarkable.		**SD41**	Unremarkable.		**SD66**	Unremarkable.		**SD91**	Unremarkable.
SD17	Unremarkable.		**SD42**	Unremarkable.		**SD67**	Unremarkable.		**SD92**	Unremarkable.
SD18	Unremarkable.		**SD43**	Unremarkable.		**SD68**	Unremarkable.		**SD93**	Unremarkable.
SD19	Unremarkable.		**SD44**	Unremarkable.		**SD69**	Unremarkable.		**SD94**	Unremarkable.
SD20	Unremarkable.		**SD45**	Unremarkable.		**SD70**	Unremarkable.		**SD95**	Unremarkable.
SD21	Unremarkable.		**SD46**	Unremarkable.		**SD71**	Unremarkable.		**SD96**	Unremarkable.
SD22	Unremarkable.		**SD47**	Unremarkable.		**SD72**	Unremarkable.		**SD97**	Unremarkable.
SD23	Unremarkable.		**SD48**	Unremarkable.		**SD73**	Unremarkable.		**SD98**	Unremarkable.
SD24	Unremarkable.		**SD49**	Unremarkable.		**SD74**	Unremarkable.		**SD99**	Unremarkable.
SD25	Unremarkable.		**SD50**	Unremarkable.		**SD75**	Unremarkable.		**SD100**	Unremarkable.

Other Notes Higher Ballast built up along pipe between SD17 and SD18.

North Diffusors

Diffusor #	Notes		Diffusor #	Notes		Diffusor #	Notes		Diffusor #	Notes
ND1	Unremarkable.		**ND26**	Unremarkable.		**ND51**	Unremarkable.		**ND76**	Unremarkable.
ND2	Unremarkable.		**ND27**	Unremarkable.		**ND52**	Unremarkable.		**ND77**	Unremarkable.
ND3	Unremarkable.		**ND28**	Unremarkable.		**ND53**	Unremarkable.		**ND78**	Unremarkable.
ND4	Unremarkable.		**ND29**	Unremarkable.		**ND54**	Unremarkable.		**ND79**	Unremarkable.
ND5	Unremarkable.		**ND30**	Unremarkable.		**ND55**	Unremarkable.		**ND80**	Unremarkable.
ND6	Unremarkable.		**ND31**	Unremarkable.		**ND56**	Unremarkable.		**ND81**	Unremarkable.
ND7	Unremarkable.		**ND32**	Unremarkable.		**ND57**	Unremarkable.		**ND82**	Unremarkable.
ND8	Unremarkable.		**ND33**	Unremarkable.		**ND58**	Unremarkable.		**ND83**	Unremarkable.
ND9	Unremarkable.		**ND34**	Unremarkable.		**ND59**	Unremarkable.		**ND84**	Unremarkable.
ND10	Unremarkable.		**ND35**	Unremarkable.		**ND60**	Unremarkable.		**ND85**	Unremarkable.
ND11	Unremarkable.		**ND36**	Unremarkable.		**ND61**	Unremarkable.		**ND86**	Unremarkable.
ND12	Unremarkable.		**ND37**	Unremarkable.		**ND62**	Unremarkable.		**ND87**	Unremarkable.
ND13	Unremarkable.		**ND38**	Unremarkable.		**ND63**	Unremarkable.		**ND88**	Unremarkable.
ND14	Unremarkable.		**ND39**	Unremarkable.		**ND64**	Unremarkable.		**ND89**	Unremarkable.
ND15	Unremarkable.		**ND40**	Unremarkable.		**ND65**	Unremarkable.		**ND90**	Unremarkable.
ND16	Unremarkable.		**ND41**	Unremarkable.		**ND66**	Unremarkable.		**ND91**	Unremarkable.
ND17	Unremarkable.		**ND42**	Unremarkable.		**ND67**	Unremarkable.		**ND92**	Unremarkable.
ND18	Unremarkable.		**ND43**	Unremarkable.		**ND68**	Unremarkable.		**ND93**	Unremarkable.
ND19	Unremarkable.		**ND44**	Unremarkable.		**ND69**	Unremarkable.		**ND94**	Unremarkable.
ND20	Unremarkable.		**ND45**	Unremarkable.		**ND70**	Unremarkable.		**ND95**	Unremarkable.
ND21	Unremarkable.		**ND46**	Unremarkable.		**ND71**	Unremarkable.		**ND96**	Unremarkable.
ND22	Unremarkable.		**ND47**	Unremarkable.		**ND72**	Unremarkable.		**ND97**	Unremarkable.
ND23	Unremarkable.		**ND48**	Unremarkable.		**ND73**	Unremarkable.		**ND98**	Unremarkable.
ND24	Unremarkable.		**ND49**	Unremarkable.		**ND74**	Unremarkable.		**ND99**	Unremarkable.
ND25	Unremarkable.		**ND50**	Unremarkable.		**ND75**	Unremarkable.		**ND100**	Unremarkable.

Other Notes

Excavation along pipe between NF35 and NF36.

Excavation along pipe between NF37 and NF38.

Video File – Provided as a USB Drive
Video Files are entitled: Offshore North; Inshore North; Offshore South; and Inshore South.

Photo File- "North Flanges_Sized for Report"
Photos of all flanges on the north end of the structure. North Flange 1 is the first flange. Photos are labeled in ascending order until the last flange on the north side, North Flange 103.

Photo File- "South Flanges_Sized for Report"
Photos of all flanges on the south end of the structure. South Flange 1 is the first flange. Photos are labeled in ascending order until the last flange on the south side, South Flange 103.

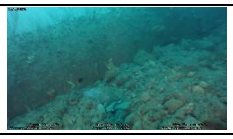
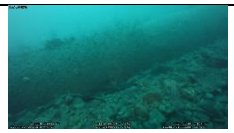
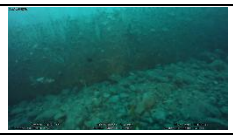
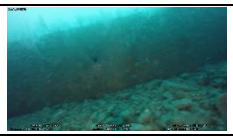
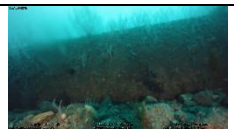
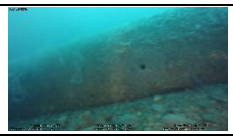
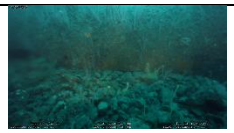
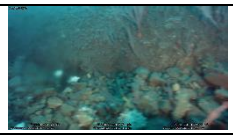
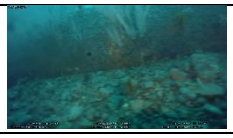
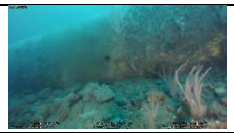
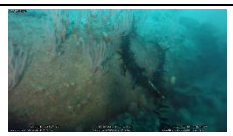
Photo File- "North Diffuser Ports_Sized for Report"
Photos of all diffuser ports on the north end of the structure. North Diffuser 1 is the first diffuser port. Photos are labeled in ascending order until the last diffuser port on the north side, North Diffuser 100.

Photo File- "South Diffuser Ports_Sized for Report"
Photos of all diffuser ports on the south end of the structure. South Diffuser 1 is the first diffuser port. There are no photos of South Diffuser 19 or South Diffuser 20 due to a recording oversight. Photos are labeled in ascending order until the last diffuser on the south side, South Diffuser 100.

All photos are provided as a digital copy.

Appendix C: Photos of all Diffuser Ports

North Diffuser Ports

				
Port 1	Port 2	Port 3	Port 4	Port 5
				
Port 6	Port 7	Port 8	Port 9	Port 10
				
Port 11	Port 12	Port 13	Port 14	Port 15
				
Port 16	Port 17	Port 18	Port 19	Port 20
				
Port 21	Port 22	Port 23	Port 24	Port 25
				
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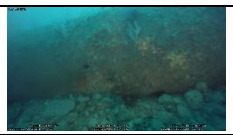
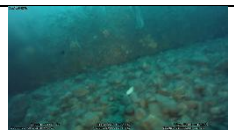
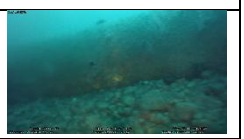
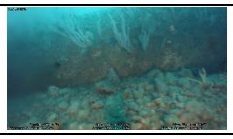
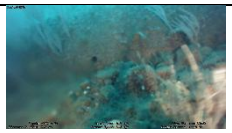
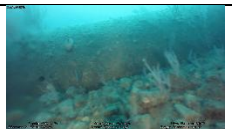
				
Port 31	Port 32	Port 33	Port 34	Port 35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			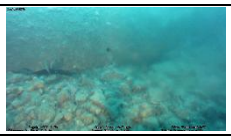	
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			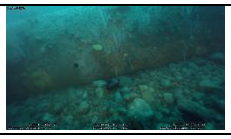	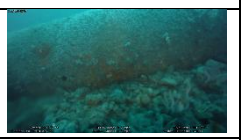
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				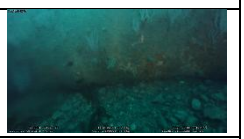
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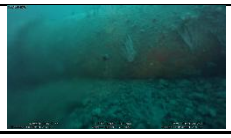
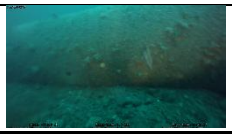
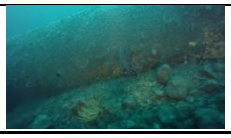
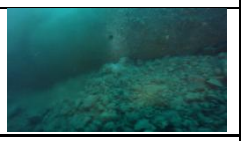
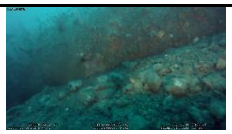
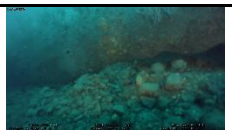
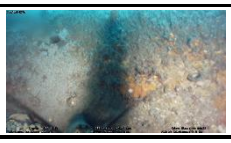
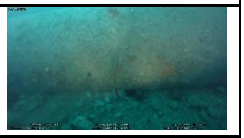
				
Port 56	**Port 57**	**Port 58**	**Port 59**	**Port 60**
				
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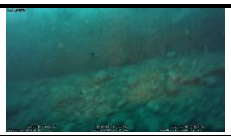
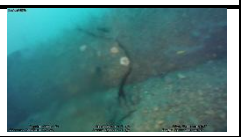
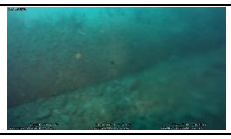
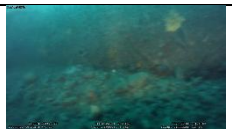
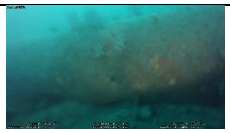
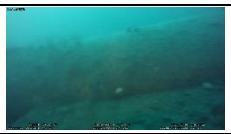
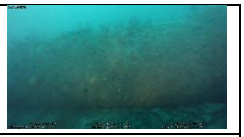
				
Port 66	**Port 67**	**Port 68**	**Port 69**	**Port 70**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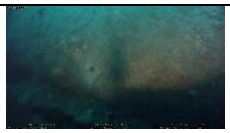
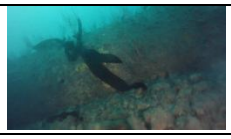
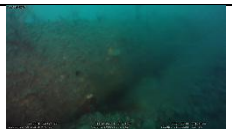
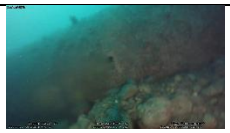
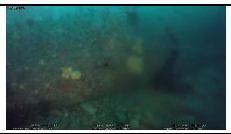
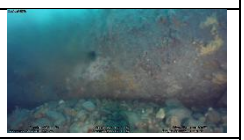
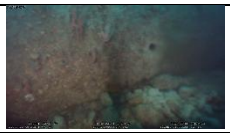
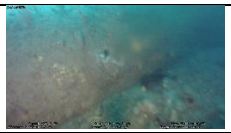
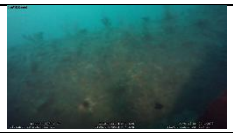
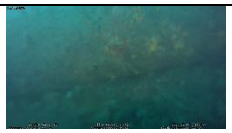
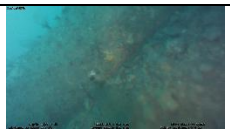
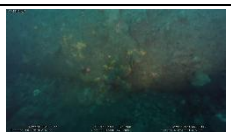
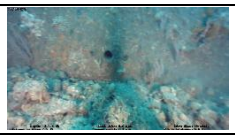
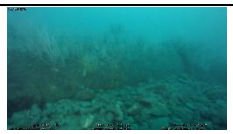
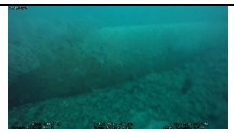
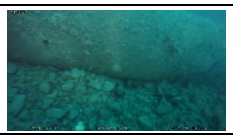
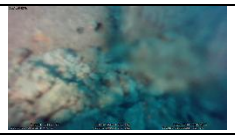
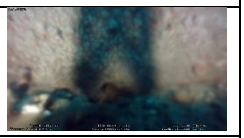
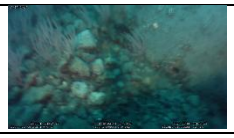
				
Port 76	**Port 77**	**Port 78**	**Port 79**	**Port 80**
				
Port 81	**Port 82**	**Port 83**	**Port 84**	**Port 85**
				
Port 86	**Port 87**	**Port 88**	**Port 89**	**Port 90**
				
Port 91	**Port 92**	**Port 93**	**Port 94**	**Port 95**
				
Port 96	**Port 97**	**Port 98**	**Port 99**	**Port 100**

South Diffuser Ports

				
Port 1	**Port 2**	**Port 3**	**Port 4**	**Port 5**
				
Port 6	**Port 7**	**Port 8**	**Port 9**	**Port 10**
				
Port 11	**Port 12**	**Port 13**	**Port 14**	**Port 15**
			No photo available*	No photo available*
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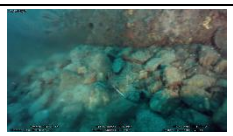
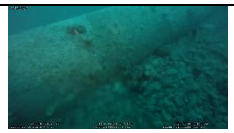
Port 21	**Port 22**	**Port 23**	**Port 24**	**Port 25**
				
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		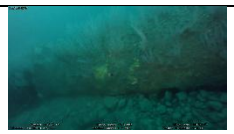		
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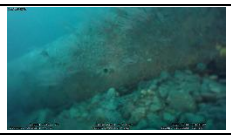			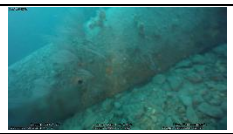	
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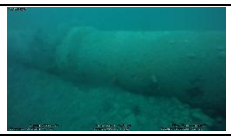			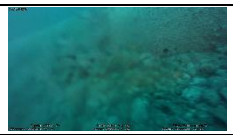	
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	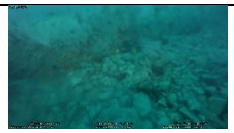	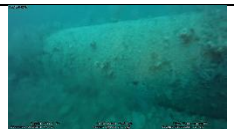		
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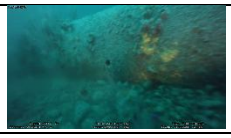			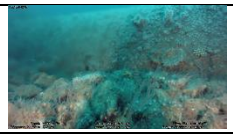	
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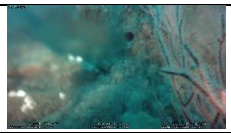		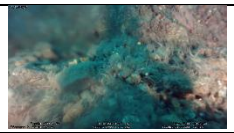		
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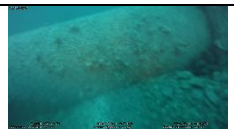
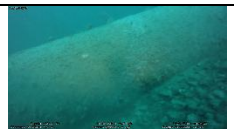
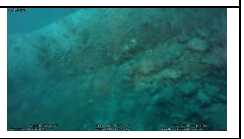
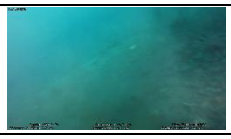
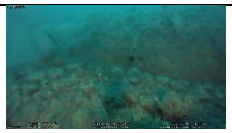
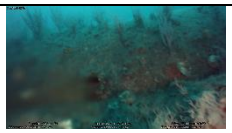
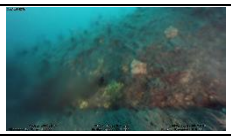
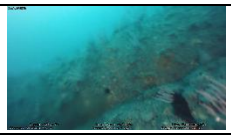
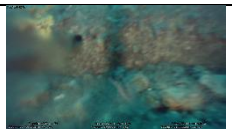
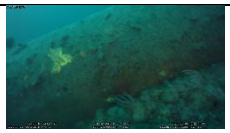
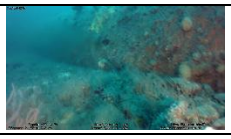
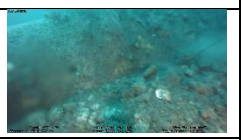
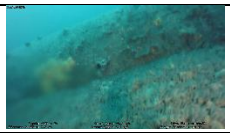
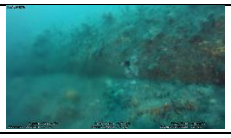
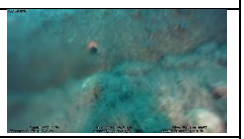
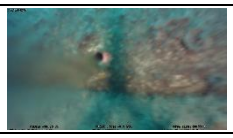
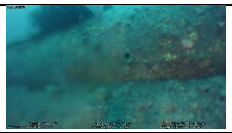
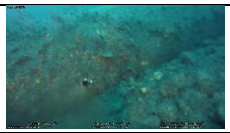
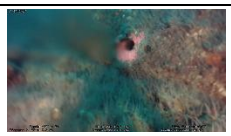
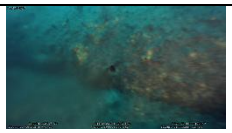
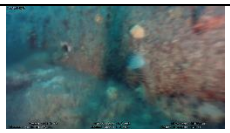
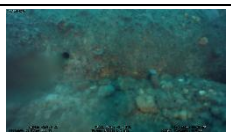
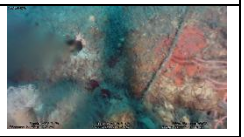
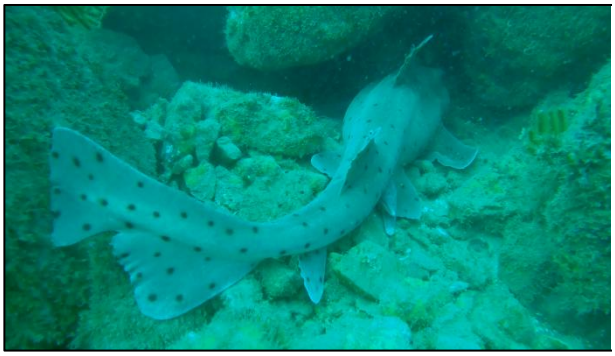
				
Port 61	**Port 62**	**Port 63**	**Port 64**	**Port 65**
				
Port 66	**Port 67**	**Port 68**	**Port 69**	**Port 70**

				
Port 71	**Port 72**	**Port 73**	**Port 74**	**Port 75**
				
Port 76	**Port 77**	**Port 78**	**Port 79**	**Port 80**
				
Port 81	**Port 82**	**Port 83**	**Port 84**	**Port 85**
				
Port 86	**Port 87**	**Port 88**	**Port 89**	**Port 90**
				
Port 91	**Port 92**	**Port 93**	**Port 94**	**Port 95**
				
Port 96	**Port 97**	**Port 98**	**Port 99**	**Port 100**

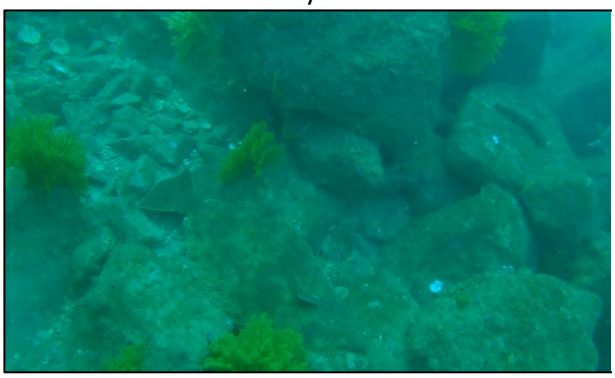
*No still photo or video was recorded for South Port 19 and South Port 20 due to recording oversight. Flow from these ports was observed in real time by technician operating the ROV.

Appendix D: Photos of Marine life present during inspection

Moray Eel



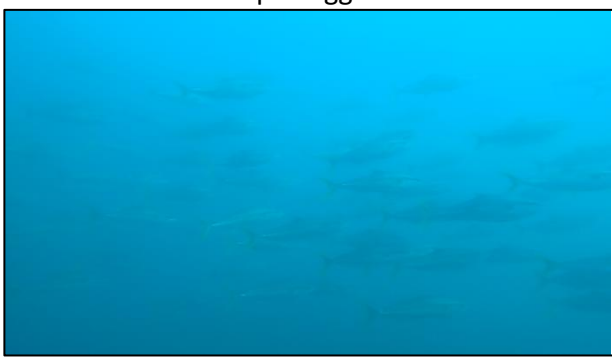
Horn Shark



California Halibut

Squid Eggs

Leopard Shark



California Yellowtail