1902 - Serving Our Community for over 120 Years - 2024

WEST BAY SANITARY DISTRICT
AGENDA OF BUSINESS
REGULAR MEETING OF THE DISTRICT BOARD
WEDNESDAY, AUGUST 14, 2024 AT ***7:30 P.M.***
RONALD W. SHEPHERD ADMINISTRATION BUILDING,
500 LAUREL STREET, MENLO PARK, CALIFORNIA 94025

Board Members
Fran Dehn, President
David Walker, Secretary
Roy Thiele-Sardiña, Treasurer
Edward P. Moritz, Member
George Otte, Member

General Manager
Sergio Ramirez

District General Counsel
Anthony Condotti, Esq.

AGENDA OF BUSINESS

To participate by telephone or Zoom meeting, public comments can be made by joining Zoom meeting at:
https://us06web.zoom.us/j/81573733879?pwd=oZVqKPAgbbMCc9qawahqXJ93qUMERC.1
Meeting ID: 815 7373 3879 Passcode: 016753

1. Call to Order and Roll Call

2. Communications from the Public

3. Consent Calendar

Matters listed under this item are considered routine and will be enacted by one motion. The motion, seconds, and vote are applicable to any included resolutions and recorded accordingly. There will be no separate discussion of these items unless specifically requested by a member of the Board.

   A. Approval of Minutes for Regular Meeting July 24, 2024 Pg. 3A-1
   B. Approval of the Financial Activity Report Authorizing Payment of Certain Bills and Salary and Consideration of Other Financial Matters through July 31, 2024
   C. WBSD Operations and Maintenance Report – July 2024 Pg. 3C-1
   D. Town of Los Altos Hills Operations and Maintenance Report for Work Performed by WBSD – July 2024 Pg. 3D-1
   E. Town of Woodside Operations and Maintenance Report for Work Performed by WBSD – July 2024 Pg. 3E-1
   F. Consider Resolution Accepting Deed of Easement Pursuant to Class 3 Sewer Permit No. 1625 for the Construction of Wastewater Facilities for 20 Shoshone PL, Portola Valley, California Pg. 3F-1
   G. Consider Accepting Sewer Facilities Constructed Pursuant to Class 3 Sewer Permit No. 1625 for the Construction of Wastewater Facilities for 20 Shoshone Place, Portola Valley, California Pg. 3G-1

4. General Manager's Report Pg. 4-1

5. Consider Approving Revised Purchasing Policy and Resolution Pg. 5-1

6. Consideration to Adopt Resolution Approving Addendum No. 2 (Nanofiltration Process and New Project Design) to the 2021 Final Environmental Impact Report for the West Bay Sanitary District Flow Equalization & Resource Recovery Facility Levee Improvements Project (SCH No. 2020050414), and File the Notice of Determination Pg. 6-1

7. Consideration to Appropriate Additional Funding to Pump Station Improvements FY 2024-25 Budget, Consideration Awarding Bid for the Upgrade Pump Stations Telemetry System Project to Blocka Construction, Inc., and Record Notice of Exemption with the San Mateo County Pg. 7-1

8. Consider Awarding Bid for Stowe Lane Pump Station Replacement Project to Casey Construction, Inc. Pg. 8-1

9. Consider Authorizing the General Manager to Enter into a Purchase Order Agreement with Jack Doheny Company through Sourcewell for an IBAK CCTV Unit Pg. 9-1

10. Discussion and Direction on the West Bay and Sharon Heights Recycled Water Facility Pg. 10-1

11. Discussion and Direction on Bayfront Recycled Water Project and Status Update Pg. 11-1

12. Report, Discussion, and Direction on South Bayside Waste Management Authority (SBWMA) including the Solid Waste Franchise Re-Assignment Pg. 12-1

13. Report and Discussion on Silicon Valley Clean Water (SVCW) Plant Pg. 13-1

14. Closed Session

    A. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
    Significant Exposure to Litigation (Government Code Section 54956.9(d)(2)
    Number of potential cases: 1

15. Comments or Reports from Members of the District Board and Consider Items to be Placed on Future Agenda

16. Adjournment

The West Bay Sanitary District does not discriminate against persons with disabilities. Upon request, the agenda and agenda packet can be provided in a format to accommodate special needs. If you require a copy of the agenda or related materials in an alternative format to accommodate a disability, or if you wish to attend this public meeting and will require special assistance or other special equipment, please call the District at (650) 321-0384 at least five days in advance and we will make every reasonable attempt to provide such an accommodation.

1902 - Serving Our Community for over 120 Years - 2024

WEST BAY SANITARY DISTRICT
MINUTES OF THE REGULAR MEETING OF THE DISTRICT BOARD
WEDNESDAY, JULY 24, 2024 AT 7:00 P.M.

1. Call to Order

President Dehn called the meeting to order at 7:00 PM

Roll Call

BOARD MEMBERS PRESENT:	President Dehn, Treasurer Thiele-Sardiña, Director Moritz (Secretary pro-tem), Director Otte
BOARD MEMBERS ABSENT:	Secretary Walker
STAFF MEMBERS PRESENT:	Ramirez, Fisher, Heydari AND Condotti by Victoria Thompson via zoom
Others Present:	Dave Richardson – Woodard & Curran

2. Communications from the Public: None.

3. Consent Calendar

Matters listed under this item are considered routine and will be enacted by one motion. The motion, seconds, and vote are applicable to any included resolutions and recorded accordingly. There will be no separate discussion of these items unless specifically requested by a member of the Board.

A. Approval of Minutes for Regular Meeting July 12, 2024
B. Approval of Minutes for Special Meeting July 17, 2024
C. WBSD Operations and Maintenance Report – June 2024
D. Town of Los Altos Hills Operations and Maintenance Report for Work Performed by WBSD – June 2024
E. Town of Woodside Operations and Maintenance Report for Work Performed by WBSD – June 2024

Comments: None.

Motion to Approve by: Thiele-Sardiña 2nd by: Otte Vote: AYE: 4 NAY: 0 Abstain: 0

4. General Manager's Report

Discussion/Comments: General Manager Ramirez reported District landscape options will be brought to the Board at an upcoming meeting. He reported Casey Construction has begun work on Point Repair Project Phase II. He also reported online permitting system is set to go live in August. He continued to report succession plan interviews are concluding and the succession plan should be complete for Board review by October. He reported the candidate filing period for the November election is July 15th-August 9th. The next regular meetings are scheduled for August 14th and September 11th with the August 28th meeting cancelled. The goals luncheon will be on August 6th. The complete General Manager's written report is in the July 24, 2024 agenda packet.

5. **Authorize the General Manager To Execute an Interagency Agreement for Sanitary Sewer System Operations and Maintenance Services with the City of East Palo Alto**

Motion to Approve by: Thiele-Sardiña 2nd by: Otte Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: General Manager Ramirez reported terms of this agreement was discussed by the Board during the July 17, 2024 special Board meeting. It is a 5-year agreement, effective August 1, 2024. San Mateo County LAFCo has issued a condition of approval to the City of East Palo Alto. Motion was made and the Board approved the Sanitary Sewer System Operations and Maintenance Services for the City of East Palo Alto agreement and authorized the General Manager to execute the agreement following review by General Counsel, to confirm exhibit B properly includes the entire West Bay response to the City's request for proposals.

6. **Consider Authorizing the General Manager to Enter Into an Agreement for On-Call Geotechnical Observation and Testing Services and Special Inspections with BAGG Engineers for the Point Repair Project Phase II Replacement and Rehabilitation of Sanitary Sewer Mains Project No. 1767.0**

Motion to Approve by: Otte 2nd by: Moritz Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: General Manager Ramirez reported this agreement is for required compaction testing for Point Repair Project Phase II. The contract amount is for $100,000 over the project period.

7. **Consider Authorizing the General Manager to Execute an Agreement for Engineering Design Services for the Phase III Point Repair Sanitary Sewer Improvements Project No. 1770.0**

Motion to Approve by: Moritz 2nd by: Otte Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: General Manager Ramirez reported this is a 6-month project and the agreement is for the design of Point Repair Project Phase III. The $350,000 design cost is budgeted in 2025 CIP construction. A motion was made to approve with direction to review the condition and age of pipe.

8. **Adoption of an Updated Authorizing Resolution for the Execution and Delivery of a Construction Installment Sale Agreement and Grant between West Bay Sanitary District and State Water Resources Control Board to Finance the Bayfront Water Recycling Facility**

Motion to Approve by: Moritz 2nd by: Otte Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: General Manager Ramirez reported this is a resolution update required by the State of California for the Bayfront Recycled Water Facility.

9. Consider Approving District Treasury Report Fourth Quarter FY 2023-24

Motion to Approve by: Moritz 2nd by: Thiele-Sardiña Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: Finance Manager Fisher presented the treasury report for the fourth quarter fiscal year 2023-24. Highlights included total District fund of $90,604,522 which includes total reserve investments of $65,558,687.70.

10. Consider Approving Financial Software Proposal

Motion to Approve by: Thiele-Sardiña 2nd by: Moritz Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: Item approved pending General Council review.

11. Discussion and Direction on San Mateo County Grand Jury Report – "Assessing and Reporting Internal Controls in San Mateo County Agencies and School Districts"

Motion to Approve by: Otte 2nd by: Moritz Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: Board consensus was to draft a response to the Grand Jury.

12. Review and Consideration to Approve the Conflict-of-Interest Code and General Rules of Office for the District Board

Motion to Approve by: Moritz 2nd by: Otte Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: The Board had no changes to the Conflict-of-Interest Code and General Rules of Office for the District Board.

13. Report and Discussion on Sharon Heights Recycled Water Facility

Discussion/Comments: General Manager Ramirez reported 10.7MG were processed and 9.9MG were delivered in June. He also reported General Counsel is finalizing the solar agreement.

14. Discussion and Direction on Bayfront Recycled Water Project and Status Update
A. Consider Authorizing the Award of Design-Build Agreement – Phase 1 to Design-Build Entity (Anderson Pacific Engineering Construction, Inc., with Waterworks Engineers) for Site Demolition and Preparation Work

Motion to Approve by: Thiele-Sardiña 2nd by: Moritz Vote: AYE: 4 NAY: 0 Abstain: 0

Discussion/Comments: General Manager Ramirez reported item 14A was discussed during the July 17, 2024 special meeting. Phase 1 is set to go through January 2025. He also reported Meta requires issued permits prior to funding the project.

15. Report, Discussion and Direction on South Bayside Waste Management Authority (SBWMA) including Solid Waste Franchise Re-Assignment

Discussion/Comments: President Dehn reported General Counsel is reviving the "out clause" in the agreement with Recology. She also reported on planning a meeting with the Town of Atherton City Manager to discuss solid waste franchise re-assignment.

16. Report, Discussion & Direction on Silicon Valley Clean Water (SVCW) and Discussion on SVCW CIP Program and Financing

Discussion/Comments: Director Otte reported on the price of hydrochloric used at the plant has increase substantially in the past 4-years. A pilot program will begin looking into a processing digester gas and reprocess the gas too hydrochloric.

17. Closed Session

Entered closed session at 9:33 p.m. Left closed session at 10:01 p.m.

A. PUBLIC EMPLOYEE PERFORMANCE EVALUATION/CONF. WITH LABOR NEGOTIATORS
Agency designated representatives: Board President/Legal Counsel
Unrepresented employee: General Manager

Reportable action: None.

18. Comments or Reports from Members of the District Board and Consider Items to be Placed on Future Agenda

Discussion/Comments: Treasurer Thiele-Sardiña asked for clarification at the next board meeting on filing requirements for annual form 470 with San Mateo and Santa Clara Counties.

19. Adjournment Time: The meeting was adjourned at 10:04 PM

_____
Secretary

WEST BAY SANITARY DISTRICT
Financial Activity Report
July 2024

Date: ***August 14, 2024***

To: ***Board of Directors***

From: ***Annette Bergeron, Personnel & Accounting Specialist***
Debra Fisher, Finance Manager

Subject: ***Approve Monthly Financial Activity Report***

Financial Activity for the month of July 2024.

	Receipt Summary:		
	Commercial Deposits		110,911.47
	Deposits in Transit/(Prior Period)		0.00
	Returned Checks		(9,098.00)
	Credit Cards / ACH Payments		15,588.00
	Franchise Fees		10,033.05
	San Mateo County [Tax Roll]		443,357.95
	Other Receipts		0.00
	Transfers		6,300,000.00
		Total Receipts	**6,870,792.47**
	Withdrawal Summary		
	Total Checks		1,380,709.64
	Total Corp Cards		11,838.24
	Total Bank Wires/ACHs		5,175,292.73
	External Withdrawals		**6,567,840.61**
	Total Internal Bank Transfers		-
		Total Withdrawals	**6,567,840.61**
Fund	**Expenditure Summary by Budget Category**		
100	Operations		974,159.75
200	Capital		579,060.10
300	Solid Waste		0.00
500	Recycled Water		458,385.74
800	Silicon Valley Clean Water		4,556,235.02
		Expenditures by Fund	**6,567,840.61**

The transactions listed comprise multiple District checking accounts. On October 30, 2023, the District opened a new Operating account. The District separated payroll expenditures into a separate account to insulate employees from possible risk.

Presented to West Bay Sanitary District Board of Directors for review and approval.

President _____

Secretary _____

Investment Portfolios

There are currently five separate investment reserves maintained to support the goals of the District, along with reserves held in LAIF, the Vehicle & Equipment Reserve held in a money market account, and the restricted Pension Trust and Recycled Water State Revolving Fund (SRF) Reserves. Annual contributions are made in accordance with the Board approved budget and periodically evaluated.

The Treatment Plant Reserve target balance was set to cover Silicon Valley Clean Water (SVCW) capital needs and avoid incurring addition debt. In July 2024, $2 million was transferred from the Treatment Plant Reserve's available cash to provide funds for the $3,356,334 to SVCW for cash in luie of additional debt due in FY 2024-25. The District currently has available funds to cover the remainder, making it unnecessary to liquidate non-cash investments in the reserve.

Reserve Account	Originated	Target Balance	Balance 7/31/24	Target
Operating Reserve	11/26/2014	$14 million	$17,245,253	Unfulfilled
Rate Stabilization Reserve	10/30/2015	$10 million	$11,264,212	Achieved
Treatment Plant Reserve	8/1/2021	$12 million	$10,678,684	Unfulfilled
Capital Project Reserve	11/26/2014	$8 million	$28,464,669	Achieved *
Emergency Capital Reserve	10/19/2010	$6 million	$6,131,491	Achieved
Recycled Water Cash Flow	11/18/2016	$8 million	$6,495,942	Unfulfilled
Recycled Water SRF Reserve	3/1/2018	$1.46 million	$1,519,457	Achieved
Vehicle & Equipment Reserve	8/18/2011	$1 million	$1,006,210	Achieved

* Capital Budget funds of $20 million invested in short-term treasuries to increase yields until funds needed for projects.

Excess funds over the current monthly expenditures are held in Local Agency Investment Fund (LAIF), which are equivalent to cash and may earn higher yields without a long-term commitment. Operating Reserves, customer deposits, current capital projects, and Solid Waste Funds are held in LAIF.

Investments by Type	Balance 7/31/24	
Operating Accounts	$908,058	
Local Agency Investment Fund (LAIF)	$17,437,450	
Unrestricted Reserves		
Investment Portfolios	$63,034,997	
Money Market Account	$1,006,210	
Restricted Reserves		
Recycled Water SRF Reserve	$1,519,457	
Public Agency Retirement Services (PARS)	$873,412	**

** Balance as of 6/30/24 (current statements unavailable)

West Bay Sanitary District
Receipts
July 2024

RECEIPT NUMBER	RECEIPT DATE	DESCRIPTION	AMOUNT
463656	7/1/2024	Express Plumbing: 1328 El Camino Real, MP, Permit	690.00
463657	7/1/2024	Handy Man Plumbing: 154 Spruce Ave, MP, Permit	490.00
463658	7/2/2024	Town of Los Altos Hills: MSA 5/2024	42,510.48
463659	7/2/2024	Elliott Design & Build: 310 Arden Rd, MP, Permit	490.00
463660	7/2/2024	Ali Aslanpour: 261 Stanford Ave, MP, Permit	220.00
463661	7/3/2024	WBSD: Transfer LAIF to Ops Acct	2,500,000.00
463662	7/3/2024	WBSD: Transfer LAIF to PR Acct	600,000.00
463663	7/3/2024	Guild Craft Builder Inc.: 217 Park Lane, Ath, Permit	110.00
463664	7/3/2024	Bayshore Plumbers: 208 Willow Road, MP, Permit	490.00
463665	7/3/2024	Zach Trailer: 1161 Noel Dr, NSF Ck CR-463626 Fees 6/11/24	(9,098.00)
463666	7/3/2024	Bell Plumbing of San Mateo: 648 College Ave, MP, Permit	490.00
463667	7/3/2024	CWEA: M.Argueta Refund Duplicate Pmt	214.00
463668	7/5/2024	SMC: SSC Tax Roll FY 2023-24	443,357.95
463669	7/9/2024	Kathleen Mitic: 155 Grove Dr, PV, SSC FY 2023-24 Late Fee	511.98
463670	7/10/2024	EJ Plumbing: 1250 Laurel St, MP, Permit	690.00
463671	7/10/2024	Peninsula Plumbing: 170 Erica Way, PV, Permit	490.00
463672	7/11/2024	Handy Plumbing Man: 445 Blake St, MP, Permit	490.00
463673	7/11/2024	Lau-Lai Family Trust: 390 Golden Oak Dr., PV, ADU Conn	8,177.60
463674	7/11/2024	Lau-Lai Family Trust: 390 Golden Oak Dr., PV, Permit	490.00
463675	7/12/2024	Rebuild Green: 153 James Ave, ATH, Permit	220.00
463676	7/15/2024	Paymac: Public Surplus Auction 2012 F550 Unit 220	13,201.00
463677	7/16/2024	Recology: SW Franchise Fee 6/2024	10,033.05
463678	7/17/2024	Webb Builders, Inc.: 330 August Circle, MP, Permit	490.00
463679	7/17/2024	Katina Mandas: 1235 Bay Laurel, MP, Permit	110.00
463680	7/19/2024	Jean Mou: 46 Lilac Dr, Ath, ADUs (2) & Permit	8,667.60
463681	7/19/2024	Rebuild Green: 260 Santa Margarita Ave, MP, Permit	220.00
463682	7/22/2024	Bell Plumbing of San Mateo: 1827 Doris Drive, MP, Permit	720.00
463683	7/23/2024	WBSD: Transfer Investment Accts to Ops	3,200,000.00
463684	7/24/2024	MJK Homes: 89 Larch Dr, ATH, ADU & Permit	8,667.60
463685	7/25/2024	Mark Grewal: 1265 Bay Laurel Dr, MP, Permit	220.00
463686	7/25/2024	We Remodel & Build: 521 Pope St, MP, ADU & Permit	47,940.00
463686	7/29/2024	We Remodel & Build: 521 Pope St, MP, Refund Overcharge CR-463686	(43,146.00)
463687	7/29/2024	GHG Builders: 309 Princeton Rd, MP, ADU & Permit	4,794.00
463688	7/29/2024	Mclarney Construction: 3000 Sand Hill Rd, MP, Permit	690.00
463689	7/29/2024	Bandel & Paula Carano Tr: 30 Meadow Lane, PV, SSC FY 2023-24	2,481.99
463690	7/29/2024	Town of Woodside: MSA 4/1/24-6/30/24	24,669.22
		Total Receipts	**$6,870,792.47**

West Bay Sanitary District
Financial Activity Report
Withdrawals
July 2024

Check	Date	Payee	Purpose	Amount
71976	7/11/2024	Abila	MIP Cloud Subscription 07/04/2024 - 08/03/2024	698.36
71977	7/11/2024	Alpha Analytical Laboratories	Daily Coliform Samples - SHGCC RW Facility 4/2024 & 6/2024	3,970.00
71978	7/11/2024	Backflow Prevention Specialist	Test and Certify 18 Backflow Prevention Devices 2/2024	2,760.00
71979	7/11/2024	Bay Area Paving Co.	Paving: Continental Dr, MP 6/2024	975.00
71980	7/11/2024	California Water Service	Water Service - May-June 2024	79.10
71981	7/11/2024	Chargepoint Inc.	Chargepoint Station Renewal 10/25/23-10/25/24	690.00
71982	7/11/2024	Cintas	Uniform Service 6/2024	2,498.53
71983	7/11/2024	City Of Menlo Park - Fuel	District Vehicles Fuel 6/2024	7,342.27
71984	7/11/2024	Cleanserv Universal Services	Janitorial Service 7/2024	2,150.00
71985	7/11/2024	County Of San Mateo - LAFCO	SMC LAFCo Fees FY 2024-25	24,913.00
71986	7/11/2024	CSRMA C/O Alliant Insurance	Vehicle Coverage FY 2024-25	16,086.00
71987	7/11/2024	Deborah Peres	Landscaping 500 Laurel St & Flowers 6/2024	1,600.00
71988	7/11/2024	Dolphin Graphics	STEP and Grinder Alarm Panel Decals 6/2024	563.43
71989	7/11/2024	Du-All Safety, LLC	Standard Operating Procedures Development & Safety Contract - 6/2024	1,980.00
71990	7/11/2024	First Unum Life	Voluntary Life Ins Rev 06/2024	18.32
71991	7/11/2024	Frisch Engineering, Inc.	Plant Programming - SHRWF 5/2024	1,987.50
71992	7/11/2024	Grainger	Misc Parts & Supplies 6/2024	195.90
71993	7/11/2024	Hillyard/San Francisco	Admin Towel Supplies 6/2024	324.44
71994	7/11/2024	Home Depot Credit Services	Supplies 6/11/24	464.72
71995	7/11/2024	Ieda	Consulting Fees 7/2024	814.00
71996	7/11/2024	Kimball Midwest	Tools 4/2024	1,664.76
71997	7/11/2024	Kone Pasadena	Elevator Maintenance 7/2024	660.80
71998	7/11/2024	Municipal Maintenance Equip.	Unit 226 Rear Jetter Repairs 6/2024	14,433.50
71999	7/11/2024	Navia Benefit Solutions	Commuter & FSA Fees 6/2024 & FSA Contributions PR 07/12/24	1,502.30
72000	7/11/2024	Occupational Health Centers	Audio Health Screening F.Barrera 6/22/24	97.00
72001	7/11/2024	Void	Check Overflow	0.00
72002	7/11/2024	Pacific Gas & Electric	Electric Service - May-June 2024	36,774.62
72003	7/11/2024	Pape Machinery	John Deere Equipment Repair 4/2024	4,323.61
72004	7/11/2024	Pier 2 Marketing	Quarterly Website Maintenance 1/2024-6/2024	1,000.00
72005	7/11/2024	Principal Life Insurance	Dental & Vision Ins 07/2024	4,791.65
72006	7/11/2024	Ranger Pipelines	Bayfront SS Project 6/2024	450,422.64
72007	7/11/2024	Recology Peninsula Services	Recology Waste 2 Yard Bin - SHGCC 6/2024	249.39
72008	7/11/2024	Redwood City Health & Wellness	DOT Physical - 6/2024	171.00
72009	7/11/2024	Samuel M. Rose	Sam Rose Consulting - SOP 6/2024	315.00
72010	7/11/2024	Seekzen Systems	IT Consulting Monthly Fee 6/2024	475.00
72011	7/11/2024	Spartan Tool	Cable, Splice, Blades 5/2024	2,157.97
72012	7/11/2024	Sunbelt Rentals, Inc.	Trench Plates 6/2024	2,348.22
72013	7/11/2024	Teamsters Local No. 350	Union Dues 7/2024	1,088.00
72014	7/11/2024	Teletrac Navman Us	Vehicle GPS 6/2024	271.96
72015	7/11/2024	Towne Ford	2023 Ford E-Transit Van 6/2024	53,070.97
72016	7/11/2024	Underground Republic Water	ARC Couplers, Pipe Fittings and Pipe 6/2024	2,705.75
72017	7/11/2024	United Rentals Inc.	Shoring Rentals 6/2024	619.06
72018	7/11/2024	US Standard Products Corp	Restock Hand Sanitizer 5/2024	588.93
72019	7/11/2024	Veolia Water North America	Water Service - 1805 Purdue Ave 6/2/24-7/1/24	64.55
72020	7/11/2024	Weco Industries	CCTV Repair 6/2024	6,944.25
72021	7/18/2024	BAGG Engineers	FERRF Levee & Bayfront Testing Services Project 1762.0 6/2024	3,300.00
72022	7/18/2024	California Water Service	Water Service - June-July 2024	1,877.61
72023	7/18/2024	CalPERS LongTerm Care Program	LTC Witholding 7/1/24-7/15/24	67.27
72024	7/18/2024	Cintas	Uniform Service 7/10/24	1,214.89
72025	7/18/2024	CPS HR Consulting	HR Consulting Services 4/28/24-6/1/24	65.00
72026	7/18/2024	CSRMA c/o Alliant Insurance	WC Deposit FY 2024-25 & Retro 2007-2019 & Property Coverage FY 2024-25	160,977.69
72027	7/18/2024	DES Architects & Engineers	Reclaimed Water Design O'Brien Dr 4/29/24-6/30/24	18,139.96
72028	7/18/2024	Embarcadero Media Foundation	Advertising 6/2024	420.00
72029	7/18/2024	First Unum Life	Life, AD&D, Disability Ins 7/2024	2,575.32
72030	7/18/2024	Freyer & Laureta	On-call Eng., Telemetry Design, Bayfront & Levee, PS Design & Mgmt 5/2024	48,100.45
72031	7/18/2024	Kaz & Associates	FERRF Levee Improvements 6/2024	350.00
72032	7/18/2024	Pacific Gas & Electric	Electric Service - May-July 2024	1,033.88
72033	7/18/2024	Preferred Alliance	DOT Testing Admin Fees 6/2024	528.60
72034	7/18/2024	Sutter EAP	EAP Quarterly Charges 10/2023-06/2024	1,363.25
72035	7/18/2024	TPX Communications	District VoIP & Fiber Monthly Fee 7/2024	1,101.24
72036	7/18/2024	Vallombrosa Center	Lodging - H.Santos 7/8/24-7/15/24	525.00
72037	7/18/2024	Verizon Wireless	Cellular Service - SHRWF 6/2/24-7/1/24	65.57
72038	7/18/2024	Woodard & Curran	Bayfront Project Management Services Contract B 4/2024 & 6/2024	176,216.59
72039	7/25/2024	Abila	MIP Cloud Monthly Subscription 8/4/24-9/3/24	698.36
72040	7/25/2024	Airgas USA, LLC	Tank Rental 6/2024	107.21
72041	7/25/2024	AT&T	Telemetry Services 6/13/24-7/12/24	1,221.50
72042	7/25/2024	Bay Alarm	Alarm Monitoring Service 8/1/24-10/31/24	902.70
72043	7/25/2024	Bayside Equipment Company	Unit 216 Generator Service 5/2024	775.00

West Bay Sanitary District
Financial Activity Report
Withdrawals
July 2024

72044	7/25/2024	California Water Service	Water Service - June-July 2024	127.26
72045	7/25/2024	CalPERS LongTerm Care Program	LTC Witholding 7/16/24-7/31/24	67.27
72046	7/25/2024	Casey Construction	Avy Altschul Pump Station Pymt 3 5/2024	140,357.66
72047	7/25/2024	Cintas	Uniform Service 7/2024	2,533.97
72048	7/25/2024	City of Menlo Park - Water Svc	Water Service - June-July 2024	825.62
72049	7/25/2024	Comcast	Internet - 500 Laurel St 7/20/24-8/19/24	353.07
72050	7/25/2024	CWEA	SFBS Collections System Training Seminar 8/2024 (3 staff)	225.00
72051	7/25/2024	Grainger	Misc Parts & Supplies 7/2024	1,156.64
72052	7/25/2024	Hadronex	Smartcover Service & Warranty Package Renewal - FY 24/25	44,972.83
72053	7/25/2024	Helix Laboratories	Commander Odor Control 7/2024	2,764.03
72054	7/25/2024	Mark Weiss	Reim Agreement: Blue Oaks & Sewer4LosTrancos	1,483.53
72055	7/25/2024	Napa Auto Parts	Vehicle Parts 7/2024	421.52
72056	7/25/2024	Navia Benefit Solutions	FSA Contributions PR 07/26/24	1,102.30
72057	7/25/2024	Pacific Gas & Electric	Electric Service - June-July 2024	2,547.31
72058	7/25/2024	Readyrefresh By Nestle	Water Delivery 6/2024	49.75
72059	7/25/2024	Red Wing	Safety Boots - F.Barrera & D.Madrigal 7/8/24	485.58
72060	7/25/2024	Sharp Business Systems	Sharp Copiers Monthly Lease 7/2024	1,343.93
72061	7/25/2024	Silicon Valley Clean Water	SVCW Coliform Samples - SHRWF 6/2024	750.00
72062	7/25/2024	Teletrac Navman US	Vehicle GPS 7/2024	271.96
72063	7/25/2024	Towne Ford	Vehicle Repair Unit 201 - 6/2024	228.14
72064	7/25/2024	U.S. Jetting, LLC.	U.S. Jetter Pump Repair and Parts 7/2024	911.69
72065	7/25/2024	Univar Solutions USA	Sodium Hydroxide (Caustic) SHRWF 6/2024	2,725.61
72066	7/25/2024	Verizon Wireless	Mobile Service Monthly Fees 6/16/24-7/15/24	2,618.22
72067	7/25/2024	Vision Communications Co.	Radio Air Time 7/2024	252.00
72068	7/25/2024	Yutian Lei	Civil PE Review & Exam Reim Y.Lei 2024	775.55
72069	7/29/2024	Commercial Van Interiors	Unit 234 ETrans Rear Interior Outfit 7/2024	6,005.54
72070	7/31/2024	Atchison, Barisone & Condotti	Legal Services 6/2024	5,043.30
72071	7/31/2024	California State Lands Comm	Levee Oyster Reef App. No. A_4542 6/2024	600.00
72072	7/31/2024	CDW Government	APC Battery Backup 7/2024	980.46
72073	7/31/2024	Cintas	Uniform Service 7/24/24	1,214.89
72074	7/31/2024	Clean Earth Environmental	Hazardous Waste Disposal 4/2024	2,688.49
72075	7/31/2024	CWEA	CWEA Test Fee (2) & Membership Fee (1) 7/2024	529.00
72076	7/31/2024	Deborah Peres	Landscaping 500 Laurel St. & SHRWF 7/2024	800.00
72077	7/31/2024	Ditch Witch West	Ditch Witch Air Fillter & Wingnut Coupler 7/2024	495.65
72078	7/31/2024	Freyer & Laureta	Phase I Point Repair F&L Construction Support, Bayfront SS Project F&L Construction S	10,717.50
72079	7/31/2024	Freyer & Laureta	On-call Engineering Services, Levee Construction Mgmt & Support, Pump Stations Teler	11,828.00
72080	7/31/2024	Grainger	Misc Parts & Supplies 7/2024	807.48
72081	7/31/2024	Instrument Technology Corp.	Push Cameras 7/2024	2,208.24
72082	7/31/2024	Ironhouse Sanitary District	Western Recycled Water Coalition - Annual Dues 2024	2,713.45
72083	7/31/2024	Mission Clay Products, LLC	Clay, Wye, & Tees 7/2024	3,178.87
72084	7/31/2024	Pacific Gas & Electric	Electric Service - June-July 2024	32,428.54
72085	7/31/2024	PBM	Tools 7/2024	523.01
72086	7/31/2024	Peninsula Truck Repair	Unit 226 Engine Oil Leaks 7/2024	7,761.59
72087	7/31/2024	Readyrefresh By Nestle	Water Deliery 6/11/24-7/10/24	208.60
72088	7/31/2024	Sensera Systems	Sensera Camera Yearly Renewal 6/2024	2,148.00
				1,380,709.64

Corporate Cards:

GL	Date	Account Name	Description	Amount
54028	7/22/2024	Commuter Benefits	Fastrak: Commuter Exp. 6/15/24	1,150.00
54080	7/22/2024	Memberships	Google: Storage, Peloton Membership, CWEA-A.Ambriz Membership	448.00
54091	7/22/2024	Stationary and Office Supplies	Office Supplies	1,592.49
54095	7/22/2024	Postage	June Birthday Cards, Document Shredding	660.04
54101	7/22/2024	Ops Supplies & Materials	Gym Equipment - CSRMA Wellness Incentive	1,932.26
54103	7/22/2024	Vehicle & Equipment Supplies	Car Washes for District Vehicle (2), Water Pump Replacement	612.21
54112	7/22/2024	Personal Safety Garments	Amazon: Operations Supervisor Work Pants 6/12/24	116.08
54133	7/22/2024	Public Outreach	Tour de Menlo: Rotary Club of Menlo Park Sponsorship 6/11/24	500.00
54151	7/22/2024	Fleet/Vehicle R&M	Bobcat Bucket, Digital Counter Bracket, Oil Changes (2)	533.34
54156	7/22/2024	Landscaping	Planter Boxes (2)	589.25
54158	7/22/2024	Computer Software R & M	Zoom & Duo Monthly Subscriptions	398.80
54159	7/22/2024	Computer Hardware R & M	Desk Mount & Computer Mice	103.87
54173	7/22/2024	Dept Training & EE Development	Safety Training, CWEA Test Fee	294.50
54174	7/22/2024	Mgmt Conf. & District Meetings	Manager's Meetings, Post Board Meetings	739.16
54175	7/22/2024	CWEA Conf/Section Mtgs	CWEA Mid-Summer Conference & Dues	1,527.07
54176	7/22/2024	Business Meetings	Morning Meetings, General Manager & Board President Meetings	201.16
54191	7/22/2024	Internet	Comcast California: Internet - SHRWF	440.01
		US Bank - CalCards		**11,838.24**

West Bay Sanitary District
Financial Activity Report
Withdrawals
July 2024

Bank Wires/ACH

Date	Payee	Purpose	Amount
7/5/2024	SVCW	SVCW Monthly Operating Contribution	966,425.00
7/11/2024	ADP	Payroll Taxes - Board	878.10
7/11/2024	CalPERS	Health Premiums	74,443.59
7/11/2024	ADP	Payroll Taxes -7/12/24	44,618.32
7/11/2024	ADP	ADP Wage Garnishment Payment	1,021.73
7/11/2024	ADP	Employee Payroll - Check Date: 7/12/24	148,066.49
7/11/2024	ADP	Director Fees June 2024	4,497.27
7/12/2024	MissionSquare	Deferred Compensation PR 7/12/24	13,746.26
7/17/2024	CalPERS	Retirement Contributions 7/12/24	31,241.32
7/19/2024	ADP	ADP Fees	357.65
7/25/2024	Zions Bank	2018 WasteWater Revenue Bonds	1,262,655.78
7/25/2024	Zions Bank	2021 WasteWater Revenue Bonds	2,327,154.24
7/25/2024	ADP	Payroll Taxes -7/26/24	45,154.81
7/25/2024	ADP	Employee Payroll - Check Date: 7/26/24	141,242.12
7/25/2024	ADP	ADP Wage Garnishment Payment	1,021.73
7/25/2024	MissionSquare	Deferred Compensation PR 7/26/24	13,807.97
7/26/2024	Navia Benefit Solutions	Commuter Benefits - August	1,102.60
7/30/2024	CalPERS	Unfunded Accrued Liabilty	66,215.00
7/31/2024	CalPERS	Retirement Contributions PR 7/26/24	31,320.70
7/31/2024	ADP	ADP Fees	322.05
	Bank Wires/ACH		**5,175,292.73**

Bank Transfers:

Date	Payee	Purpose	Amount
	Internal Bank Transfers		**0.00**

Summaries:

Withdrawal Summary	
Total Checks	1,380,709.64
Total Corp Card	11,838.24
Total Bank Wires / ACHs	5,175,292.73
Total Internal Bank Transfers	0.00
Total Withdrawals	**6,567,840.61**

West Bay Sanitary District
Expenditures By Vendor
7/01/2024 to 07/31/2024

Withdrawals	Total by Vendor YTD FY 2023-24	Withdrawals July 2024
Name	***YTD***	***Current***
AAA Fire Protection Services	-	-
AAA Rentals	-	-
A-A Lock & Alarm	-	-
Action Towing	-	-
Abila	1,396.72	1,396.72
ADP - Fees	679.70	679.70
ADP-Wage Garnishment	2,043.46	2,043.46
Airgas Usa, LLC	107.21	107.21
All American Sewer Tools	-	-
Allied Crane	-	-
The Almanac	-	-
Alpha Analytical Laboratories	3,970.00	3,970.00
Anderson Pacific	-	-
Angulos NorCal Tree Service	-	-
Aqua Natural Solutions	-	-
AT&T	1,221.50	1,221.50
Atchison, Barisone & Condotti	5,043.30	5,043.30
BAGG Engineers	3,300.00	3,300.00
Backflow Prevention Specialist	2,760.00	2,760.00
BMO	-	-
Battery Junction Wholesale	-	-
Bay Alarm	902.70	902.70
Bay Area Air Quality Mgmt Dist	-	-
Bay Area Barricade Service Inc	-	-
Bay Area Paving Co.	975.00	975.00
Bay Reprographic	-	-
Bayside Equipment Company	775.00	775.00
BidNet	-	-
Bluebeam, Inc.	-	-
Bonny Doon Environmental	-	-
CA Dept Of Tax & Fee Admin	-	-
CASA	-	-
CA State Disbursement Unit	-	-
CPS HR Consulting	65.00	65.00
Calif. Labor Law Poster Service	-	-
CA Regional Water Quality	-	-
California State Lands Comm	600.00	600.00
California Water Service	2,083.97	2,083.97
CalPERS - Retirement	62,562.02	62,562.02
CalPERS - Health Premiums	74,443.59	74,443.59
CalPERS - Unfunded Accrued Liability	66,215.00	66,215.00
CalPERS - Actuary Fees	-	-
CalPERS - 1959 Survivor Billing	-	-
CalPERS Longterm Care Program	134.54	134.54
California Car Sounds	-	-
Casey Construction	140,357.66	140,357.66
CDW Government	980.46	980.46
Center For Hearing Health	-	-
CentralSquare Technologies	-	-
Chargepoint Inc.	690.00	690.00
Chavan & Associates	-	-
Cintas	7,462.28	7,462.28
City of Foster City	-	-
City of Menlo Park	-	-
City Of Menlo Park - Fuel	7,342.27	7,342.27
City Of Menlo Park - Water Svc	825.62	825.62
Clean Earth Environmental	2,688.49	2,688.49

West Bay Sanitary District
Expenditures By Vendor
7/01/2024 to 07/31/2024

Withdrawals	Total by Vendor YTD FY 2023-24	Withdrawals July 2024
Cleanserv Universal Services	2,150.00	2,150.00
Coast To Coast Trucking School	-	-
Comcast	353.07	353.07
Commercial Van Interiors	6,005.54	6,005.54
The Concept Genie	-	-
Core & Main	-	-
Costco	-	-
CSDA	-	-
CSRMA c/o Alliant Insurance	177,063.69	177,063.69
CUES	-	-
Custom Tops, Inc.	-	-
CWEA	754.00	754.00
Deborah Peres	2,400.00	2,400.00
DES Architects & Engineers	18,139.96	18,139.96
Detection Instruments Corp.	-	-
Dell Marketing	-	-
Dewey Pest Control	-	-
Ditch Witch West	495.65	495.65
Dolphin Graphics	563.43	563.43
Downtown Ford Sales	-	-
Du-All Safety, LLC	1,980.00	1,980.00
Duke's Root Control, Inc	-	-
Embarcadero Media Foundation	420.00	420.00
Employment Development Dept.	-	-
ESRI	-	-
East Bay Municipal Utility	-	-
FedEx	-	-
First Unum Life	2,593.64	2,593.64
Fischer Compliance LLC	-	-
Ford Motor Company	-	-
Freyer & Laureta	70,645.95	70,645.95
Frisch Engineering, Inc.	1,987.50	1,987.50
GoldStreet Design Agency	-	-
Govconnection, Inc.	-	-
Governmentjobs.Com	-	-
Grainger	2,160.02	2,160.02
Granite Rock Company	-	-
HF&H Consultants	-	-
Hadronex	44,972.83	44,972.83
Harben California	-	-
Helix Laboratories	2,764.03	2,764.03
Hillyard/San Francisco	324.44	324.44
Home Depot Credit Services	464.72	464.72
IEDA	814.00	814.00
Innovyze LLC	-	-
Institute For Local Government	-	-
Instrument Technology Corp.	2,208.24	2,208.24
Interstate Traffic Control	-	-
Ironhouse Sanitary District	2,713.45	2,713.45
Kaz & Associates	350.00	350.00
Kimball Midwest	1,664.76	1,664.76
Kone Pasadena	660.80	660.80
Lasky Trade Printing	-	-
Leaf Capital Funding	-	-
Mallory Co.	-	-
Matheson Tri-Gas	-	-
Maxx Metals	-	-
McCrometer Inc.	-	-
Medco Supply Company	-	-

West Bay Sanitary District
Expenditures By Vendor
7/01/2024 to 07/31/2024

Withdrawals	Total by Vendor YTD FY 2023-24	Withdrawals July 2024
Menlo Park Fire Protection	-	-
Meta Platforms (Facebook)	-	-
Microix, Inc.	-	-
Mission Clay Products, LLC	3,178.87	3,178.87
MissionSquare	27,554.23	27,554.23
Morse Hydraulics	-	-
Municipal Maintenance Equip.	14,433.50	14,433.50
Napa Auto Parts	421.52	421.52
Navia Benefit Solutions	3,707.20	3,707.20
NeoPost	-	-
Nuvei / Paya	-	-
Occasions, Etc.	-	-
Occupational Health Centers	97.00	97.00
Omega Industrial Supply	-	-
Orenco Systems, Inc.	-	-
Ovivo Usa, LLC	-	-
Owen Equipment Sales	-	-
P&F Distributers	-	-
PBM	523.01	523.01
Pacific Gas & Electric	72,784.35	72,784.35
Pape Machinery	4,323.61	4,323.61
Peninsula Truck Repair	7,761.59	7,761.59
Pier 2 Marketing	1,000.00	1,000.00
Ponton Industries	-	-
Precise Concrete Sawing, Inc.	-	-
Precise Printing And Mailing	-	-
Precision Engineering	-	-
Preferred Alliance	528.60	528.60
Principal Life Insurance	4,791.65	4,791.65
Quadient Leasing USA	-	-
Quincy Compressor	-	-
R.A. Nosek Investigations	-	-
Ranger Pipelines	450,422.64	450,422.64
Readyrefresh By Nestle	258.35	258.35
Recology Peninsula Services	249.39	249.39
Red Wing	485.58	485.58
Redwood City Health & Wellness	171.00	171.00
Redwood General Tire Co	-	-
City Of Redwood City	-	-
Registrar Of Voters	-	-
Repcor	-	-
Rich Voss Trucking	-	-
Roadsafe Traffic Systems, Inc.	-	-
Samuel M. Rose	315.00	315.00
SVCW - Monthly Operating Contribution	966,425.00	966,425.00
SVCW - Debt Reserve Contribution	-	-
SVCW - 2018 Bonds	1,262,655.78	1,262,655.78
SVCW - 2021 A&B Bonds	2,327,154.24	2,327,154.24
SVCW - SRF Debt	-	-
Silicon Valley Clean Water	750.00	750.00
Chamber San Mateo County	-	-
County of San Mateo	-	-
San Mateo County Assessor	-	-
San Mateo County Tax Collector	-	-
San Mateo County Health	-	-
County of San Mateo - LAFCO	24,913.00	24,913.00
San Mateo Lawn Mower Shop	-	-
County of Santa Clara	-	-
SWRCB	-	-
Seekzen Systems	475.00	475.00

West Bay Sanitary District
Expenditures By Vendor
7/01/2024 to 07/31/2024

Withdrawals	Total by Vendor YTD FY 2023-24	Withdrawals July 2024
Sensera Systems	2,148.00	2,148.00
Shape, Inc.	-	-
Sharp Business Systems	1,343.93	1,343.93
Sonsray Machinery LLC	-	-
Spartan Tool	2,157.97	2,157.97
State Board Of Equalization	-	-
Stevens Creek Quarry	-	-
Streamline	-	-
Sunbelt Rentals, Inc.	2,348.22	2,348.22
Sutter EAP	1,363.25	1,363.25
TPX Communications	1,101.24	1,101.24
Teamsters Local No. 350	1,088.00	1,088.00
Teletrac Navman US	543.92	543.92
Total Equipment Of Fremont	-	-
Town Of Atherton	-	-
Towne Ford	53,299.11	53,299.11
Trojan Technologies Group ULC	-	-
Underground Republic Water	2,705.75	2,705.75
Underground Service Alert	-	-
United Rentals Inc.	619.06	619.06
Univar Solutions USA	2,725.61	2,725.61
US Bank - CalCards	11,838.24	11,838.24
U.S. Jetting, LLC.	911.69	911.69
US Standard Products Corp	588.93	588.93
V & A Consulting Engineers	-	-
V.W. Housen & Associates	-	-
Valley Heating & Cooling	-	-
Vallombrosa Center	525.00	525.00
Veolia Water North America	64.55	64.55
Verizon Wireless	2,683.79	2,683.79
Vision Communications Co.	252.00	252.00
Weco Industries	6,944.25	6,944.25
West Yost & Associates	-	-
Woodard & Curran	176,216.59	176,216.59
Young's Auto Supply Center	-	-
Mark Weiss	1,483.53	1,483.53
Yutian Lei	775.55	775.55
Total Vendor Withdrawals	**6,183,383.50**	**6,183,383.50**
Wages & Payroll Taxes		
Salaries/Wages - Net Pay	289,308.61	289,308.61
Directors Fees - Net Pay	4,497.27	4,497.27
Payroll Taxes	90,651.23	90,651.23
Performance Merit Program - Net Pay	-	-
Total Payroll	**384,457.11**	**384,457.11**
Total External Withdrawals	**6,567,840.61**	**6,567,840.61**
WBSD Transfers:		
WBSD LAIF Account	-	-
WBSD Investment Accounts	-	-
Public Agency Retirement Services (PARS)	-	-
Other Transfers	-	-
Total Transfers	**-**	**-**
Total Withdrawals	**6,567,840.61**	**6,567,840.61**

WEST BAY SANITARY DISTRICT
AGENDA ITEM 3C

To: ***Board of Directors***

From: ***Bob Hulsmann, Operations Superintendent***

Subject: ***WBSD Operations and Maintenance Report – July 2024***

	Basin PM Pipe Clean-ing	High Freq. PM Pipe Clean-ing	Un-Sche. Pipe Clean-ing	WBSD CCTV Insp.	Pipe Patch Repairs	Open Trench Repairs	Pump Sta. PM	Pump Sta. Unsch. Repairs	SSO	SSO	Service Calls- Unit 208			
									Cat. 1	Cat. 2,3,4	Call Outs	Sch PM	Unsch. PM	USA's
Month	Miles	Miles	Miles	Miles	Qty.	Qty.	Qty.	Qty.						
January	13.9	4.4	0.1	2.8	5	12	80	0	0	0	94	13	1	208
February	12.2	6.6	0.4	2.3	9	4	64	0	0	0	55	11	0	174
March	18.0	0.2	0.1	3.0	0	11	69	0	0	0	54	14	0	139
April	9.3	4.6	0.3	3.5	6	12	70	1	0	0	49	9	0	184
May	13.1	7.8	0.4	1.9	4	8	69	1	0	0	49	14	0	283
June	15.9	0.2	0.5	3.5	0	13	64	0	0	0	62	11	0	158
July	10.6	2.9	0.1	3.8	3	8	76	1	0	0	45	13	0	152
August														
Sept.														
Oct.														
Nov.														
Dec														
Yr to date	**93.0**	**26.7**	**1.9**	**20.8**	**27.0**	**68.0**	**492.0**	**3.0**	**0.0**	**0.0**	**408.0**	**85.0**	**1.0**	**1298.0**
				**6.5										
2024 Goals	**120.0**	**50.0**	**n/a**	**45-50**	**50-65**	**90**	**n/a**	**<10**	**<**	**4**	**n/a**	**n/a**	**n/a**	**n/a**
2023 Results	**127.7**	**47.1**	**8.5**	**45.4**	**52**	**94**	**821**	**0**	**0**	**2**	**832**	**85**	**11**	**3416**
2022 Results	120.9	53.6	7.5	**40.3	**92	100	774	0	1	2	858	97	2	3161
2021 Results	*123	*50	8.6	**46	**55	91	834	2	0	4	944	n/a	n/a	2294
2020 Results	134.2	51.0	8.4	29.6	72	85	754	6	0	0	1012	89	5	2362
2019 Results	112.0	48.2	6.9	42.7	60	86	967	6	0	4	1063	75	33	2850
2018 Results	134.2	48.5	7.4	42.1	66	63	1256	6	0	4	1139	134	89	2525

* = Including TOW

**= Including LAH and TOW

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WEST BAY SANITARY DISTRICT
AGENDA ITEM 3D

To: ***Board of Directors***

From: ***Bob Hulsmann, Operations Superintendent***

Subject: ***Town of Los Altos Hills - Operations and Maintenance Report for Work Performed by WBSD – July 2024***

Town of Los Altos Hills O & M Report 23/24										
	Basin PM Pipe Clean-ing	**High Freq. PM Pipe Clean-ing**	**Un-Sche. Pipe Clean-ing**	**WBSD CCTV Insp.**	**Pipe Patch Repairs**	**Pump Sta. PM**	**Pump Sta. Unsch. Repairs**	**SSO**	**SSO**	**Service Calls**
Month								Cat. 1	Cat. 2&3s	**Call**
	Miles	**Miles**	**Miles**	**Miles**	**Qty.**	**Qty.**	**Qty.**			**Outs**
January-24	1.0	1.3	0.2	1.0	0	4	0	0	0	0
February	2.2	0.2	0.0	1.1	2	4	0	0	0	0
March	1.4	1.2	0.0	1.0	0	4	0	0	0	0
April	0.5	1.8	0.3	0.1	2	5	0	0	0	0
May	0.4	1.7	0.0	0.8	2	5	0	0	0	0
June	2.6	0.5	0.1	0.5	3	5	0	0	0	0
July	0.0	1.1	0.0	0.0	3	4	0	0	1	0
*August 23	1.0	0.8	0.0	0.5	0	4	0	0	0	0
Sept.	0.7	1.0	0.5	0.8	0	4	0	0	0	0
Oct.	0.0	1.3	0.2	0.9	0	4	0	0	0	0
Nov.	0.4	1.4	0.0	1.0	0	4	0	0	0	0
Dec	1.0	1.6	0.0	0.9	0	4	0	0	0	0
**** Yr to date**	**11.2**	**13.9**	**1.3**	**8.6**	**12.0**	**51**	**0**	**0**	**1**	**0**
FY23/24Goals	10.6	14.4	n/a	8.1	n/a	52	n/a	n/a	n/a	n/a

* = August- Start of Contract

	Goal	Total	Remaining
Pipe Cleaning	25	26.4	-1.4
CCTV Inspection	8.1	8.6	-0.5

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To: ***Board of Directors***

From: ***Bob Hulsmann, Operations Superintendent***

Subject: ***Town of Woodside Operations and Maintenance Report for Work Performed by WBSD – July 2024***

Yearly Summary Report

8/5/2024
1:56 PM

Dates Between 8/1/2023 and 7/31/2024

Month	Basin PM Pipe Cleaning (miles)	High Freq PM Pipe Cleaning (miles)	Unscheduled Pipe Cleaning (miles)	CCTV Inspection (miles)	Pump Stations Preventive Maintenance Qty	Pump Stations Unscheduled Repairs Qty	SSO Cat 1	SSO Cat 2 & 3	Service Calls Call Outs
January	0.0	0.0	0.0	0.0	8	1	0.0	0.0	0.0
February	0.00	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0
March	0.00	0.3	0.0	0.0	8	0.0	0.0	0.0	0.0
April	0.00	0.0	0.0	1.0	8	0.0	0.0	0.0	0.0
May	0.00	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0
June	0.00	0.3	0.0	0.0	8	0.0	0.0	0.0	0.0
July	0.00	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0
August	0.00	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0
September	0.00	0.3	0.0	0.0	8	0.0	0.0	0.0	0.0
October	0.00	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0
November	0.00	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0
December	4.52	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0
Totals	4.52	0.8	0.0	1.0	96	1	0.0	0.0	0.0

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WEST BAY SANITARY DISTRICT
AGENDA ITEM 3F

To: ***Board of Directors***

From: ***Fariborz Heydari, P.E. District Engineer***

Subject: **Consider Resolution Accepting Deed of Easement Pursuant to Class 3 Sewer Permit No. 1625 for the Construction of Wastewater Facilities for 20 Shoshone PL, Portola Valley, California**

Background

The District requires an easement to maintain the flow from the STEP system that serves 20 Shoshone PL. The easement includes ingress and egress to the location of the STEP system and is conforming to District specifications.

Recommendation

The District Engineer recommends that the Board adopt the attached Resolution accepting the Deed of Easement.

Attachments: Resolution _____(2024), Grant Deed of Easement

RESOLUTION NO._____ (2024)

IN THE DISTRICT BOARD OF THE WEST BAY SANITARY DISTRICT

COUNTY OF SAN MATEO, STATE OF CALIFORNIA

*****

BE IT RESOLVED that the President and Secretary of the West Bay Sanitary District be and are hereby authorized to accept the attached Grant Deed of Easement by and between the following parties:

James C. Davidson and Laura H. Davidson, trustees of the Davidson Family Trust

BE IT FURTHER RESOLVED that the General Manager is hereby directed to place the same on record.

*****

Passed and adopted by the District Board of the West Bay Sanitary District at a regular meeting thereof held on the 14th day of August, 2024, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

_____
President of the District Board of the West Bay Sanitary District of San Mateo County, State of California

Attest:

_____
Secretary of the District Board of the West Bay Sanitary District of San Mateo County, State of California

RECORDING REQUESTED BY:
WEST BAY SANITARY DISTRICT

WHEN RECORDED MAIL TO:
WEST BAY SANITARY DISTRICT
500 LAUREL STREET
MENLO PARK, CA 94025

Title Order No. N/A
Escrow No. N/A
Parcel No. ***077-331-110***

GRANT DEED OF EASEMENT

THE UNDERSIGNED GRANTOR(S) DECLARE(S):

DOCUMENTARY TRANSFER TAX is $0 CITY TAX is $0 **DEED TO PUBLIC AGENCY**

☐ computed on the full value of the property conveyed, or

☐ computed on full value less value of liens or encumbrances remaining at the time of sale,

X this is a conveyance of an easement and the consideration and value is less than $100, R & T 11911 & R&T 11922.

☐ Unincorporated area of San Mateo County ☐ City/Town of _____

FOR NO CONSIDERATION, receipt of which is hereby acknowledged, I (we)

James C. Davidson and Laura H. Davidson, trustees of the Davidson Family Trust

Hereby GRANT(S) to:

West Bay Sanitary District, a Public Agency organized and existing under the laws of the State of California,

A perpetual easement to construct, install, maintain, use, repair, remove, replace any and all pipeline, fittings, and related facilities necessary for the operation of a wastewater conveyance system in the area described as follows over the following described real property in the City of Menlo Park, County of San Mateo, State of California; more particularly described in Exhibit "A" and "B", attached hereto, and by this reference incorporated herein.

West Bay Sanitary District, its employees and agents shall have the right to enter upon the herein described real property at any and all times with such tools and equipment as may be necessary or convenient for the exercise of the rights herein granted to West Bay Sanitary District.

No building or structure of any kind shall be constructed upon the herein described easement, and should a building or structure be erected in violation of this provision, West Bay and its successors and assigns may still exercise all rights herein granted and shall have the right to remove, or cause grantor to remove, at Grantors expense, any building or structure that may be erected upon or over the said parcel of real property. West Bay Sanitary District shall not be held liable in any manner whatsoever for any damages thereby incurred, nor shall West Bay have any obligation to replace any structure that may be removed from said property.

This grant of easement shall be binding upon and shall inure to the benefit of the respective administrators, executors, personal representatives, successors and assigns of the parties hereto.

LEGAL DESCRIPTION ATTACHED HERETO AS EXHIBITS "A" AND "B" MADE A PART HEREOF

Also Known As: **20 Shoshone Place, Portola Valley**

Assessor's Parcel Number: **077-331-110**

Executed on July 29, 2024, **at** Portola Valley, CA
(City and State)

James Cameron Davidson
Printed Name

Signature

Executed on July 29, 2024, **at** Portola Valley, CA
(City and State)

Laura Hras Davidson
Printed Name

Signature(s)

(ATTACH NOTARY CERTIFICATE)

→ See Attached Jurat

CALIFORNIA JURAT
CERTIFICATE

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of San Mateo }

Subscribed and sworn to (or affirmed) before me on this 29th day of July, 2024

by James Cameron Davidson, Laura Haas Davidson, proved to me on the basis of

satisfactory evidence to be the person(s) who appeared before me.

ENC1 DAVID TRIEU LY COMM. # 2465603 NOTARY PUBLIC • CALIFORNIA SANTA CLARA COUNTY My Comm. Expires October 5, 2027 ENC1

David Trieu Ly
Notary Public Signature

(Seal)

OPTIONAL INFORMATION

DOCUMENT

Grant Deed of Easement
(name or type of document)

(number of pages)

07/29/2024
(document date)

SIGNER CAPACITY

(capacity claimed by the signer)

NOTICE

THE NOTARY PUBLIC DOES NOT CERTIFY THE AUTHORIZED CAPACITY OF THE SIGNER

EXHIBIT "A"
LEGAL DESCRIPTION FOR
INGRESS/EGRESS AND MAINENANCE EASEMENT
20 SHOSHONE PLACE, PORTOLA VALLEY
SAN MATEO COUNTY, CALIFORNIA

An easement over that certain real property, situate in the Town of Portola Valley, County of San Mateo, State of California, being a portion of Lot 2, Block 4 of the Lands of Davidson, as shown on that certain "Tract No.774 Arrowhead Meadows Unit No.4, Being a Portion of the Rancho El Corte Madera, San Mateo County, California" filed on March 17, 1959 in Volume 50 of Maps at pages 45, 46, 47, and 48, Official Records of San Mateo County, said easement more particularly described as follows:

Commencing at the Northwest corner of said Lot 2;
Thence along the North line of said lot, coincident with the South Right of Way line of Shoshone Place (50 feet wide) as shown on said "Tract No.774 Arrowhead Meadows Unit No.4",
North 86°30'00" East, 20.40 feet to the **Point of Beginning**;
Thence continuing along last north line coincident with said south right of way line,
North 86°30'00" East, 21.46 feet;
Thence leaving last said line, along the following three courses:

1. South 24°43'43" East, 17.69 feet
2. South 62°06'38" West, 20.00 feet
3. North 24°47'40" West, 26.56 feet to the **Point of Beginning.**

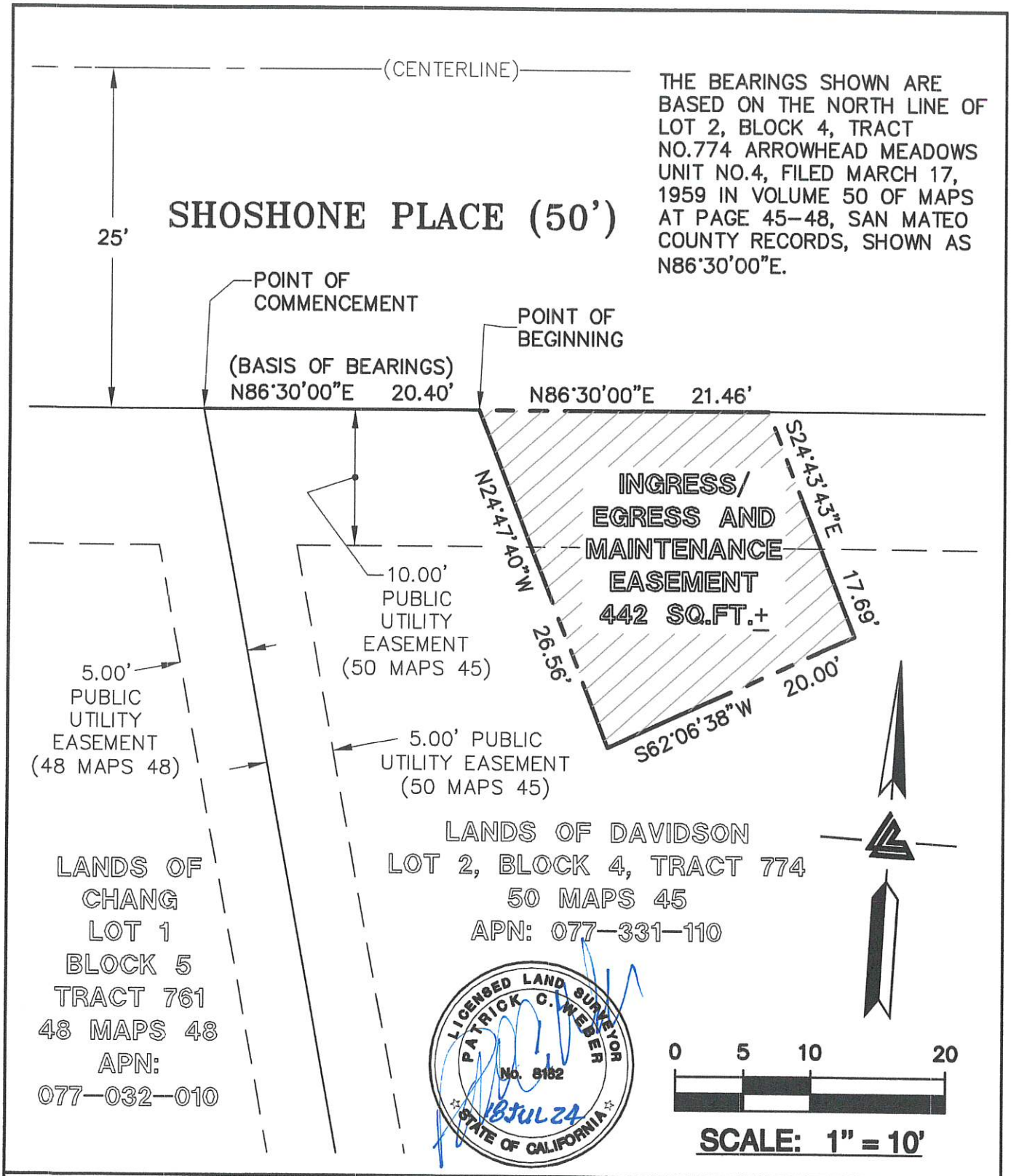
Containing 442 Square Feet, more or less.

A plat showing the above described Ingress/Egress and Maintenance Easement is attached hereto and made a part hereof as Exhibit "B".

The bearings shown are based on the Northwest line of said Lot 2, Block 4, "Tract No.774 Arrowhead Meadows Unit No.4" shown thereon as North 86°30'00" East.

END OF DESCRIPTION
PREPARED BY OR UNDER THE SUPERVISION OF:

07/18/2024
PATRICK C. WEBER, LS 8162



LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS · LAND SURVEYORS
BAY AREA REGION
2495 INDUSTRIAL PKWY WEST
HAYWARD, CALIFORNIA 94545
(P) (510) 887–4086
(F) (510) 887–3019
SACRAMENTO REGION
3017 DOUGLAS BLVD, # 300
ROSEVILLE, CA 95661
(P) (916)966–1338
(F) (916)797–7363
WWW.LEABRAZE.COM

EXHIBIT "B"

PLAT TO ACCOMPANY LEGAL DESCRIPTION INGRESS/EGRESS AND MAINTENANCE EASEMENT LANDS OF DAVIDSON TOWN OF PORTOLA VALLEY SAN MATEO COUNTY, CALIFORNIA

DRAWN BY; PCW | PAGE 2 OF 2 | JOB NO: 2220537CI | JULY 2024

County of San Mateo
TRANSFER TAX AFFIDAVIT

DTT AFFIDAVIT

Per San Mateo County Ordinance Code 2.93.050

NOTICE: Any material **misrepresentation of fact in this affidavit is a misdemeanor under section 2.93.120 of the San Mateo County real property tax code. Any person who makes such a representation is subject to prosecution for such offense.**

The Assessor-Clerk-Recorder reserves the right to report potentially fraudulent recordings to the District Attorney's Real Estate Fraud Unit.

This form must accompany any document that requires a Documentary Transfer Tax declaration, including but not limited to; Agreement for Sale; Assignment of Lease; Deed in Lieu of Foreclosure; Easement; Grant Deed; Land Contract; Lease; Memorandum of Lease;

1. **LOCATION OF PROPERTY:** Assessor's Parcel Number: 077 - 331 - 110 City: Portola Valley

   Street Address: 20 Shoshone PL Document To Be Recorded: EASEMENT

2. **IS THIS A FORECLOSURE OR TRUSTEE SALE?** ☐ Yes ☑ No (If yes, complete this section.)

   a. Is the transferee the Beneficiary or Mortgagee? ☐ Yes ☐ No

   b. Please provide. Name of Trustee: _____

   Date of original Deed of Trust: _____

3. **IS THIS A LEASE?** ☐ Yes ☑ No (If yes or no, complete this section.)

   a. Is remaining term of lease, including renewal options, greater than 35 years? ☐ Yes ☑ No

   b. If NO, submit a copy of the lease, or summary, or terms.

   c. If YES, enter the value of the lease interest on line 9a. (For tax calculations.)

4. **IS THIS A GIFT IN WHOLE OR IN PART?** ☐ Yes ☑ No (If yes, give a complete explanation.)

   Name of the Donor: _____

   Name of the Donee: _____

Please be aware that certain gifts in excess of $13,000 per calendar year may trigger a Federal Gift Tax. In such cases, the Transferor/Donor may be required to fill out a Form 709 (Federal Gift Tax Return) with the Internal Revenue Service. Please also be aware that the information stated on this document may be given to and used by governmental agencies, including the Internal Revenue Service.

I, as the Transferor/Donor declare under penalty of perjury that I have read the above paragraph and acknowledge that a Federal Gift Tax may be triggered.

▶ _____ _____ ( )

Signature of Donor: Print Donor Name: Donor Phone:

SIGNATURE ON REVERSE STILL REQUIRED.

5. **ARE YOU ADDING OR REMOVING A CO-OWNER FOR REFINANCING PURPOSES?** ☐ Yes ☑ No Initial here:

   If yes, initial to the right to indicate your agreement with the statement below and sign on reverse. ▶ _____

   The proportional ownership interest will revert back to its original holding within one (1) month from the date of recording; otherwise I will pay the applicable transfer tax.

Continued on Reverse

THIS DOCUMENT IS NOT SUBJECT TO PUBLIC INSPECTION.

TRANSFER TAX AFFIDAVIT, pg. 2

6. **ARE YOU MOVING TITLE INTO OR OUT OF A TRUST?** ☐ Yes ☑ No / ☐ Into ☐ Out of / ☐ Revocable ☐ Irrevocable

a. Name of Trust: _____ b. Date of Trust: _____

c. Name of Trustor(s): _____

d. Name(s) of Currently Active Trustee(s): _____

e. If this transaction changes who is on title or the proportional interest of how title is held, further explanation is required and may require additional time to review.

_____

Attach additional page(s) if necessary.

7. **DO YOU CONTEND THAT NO TRANSFER TAX IS DUE FOR A REASON NOT EXPLAINED IN #1-6?** ☑ Yes ☐ No (If yes, give a complete explanation.)

a. The nature of the transaction is: DEED OF EASEMENT

b. The reason (exemption) you claim no tax is due: DEED TO PUBLIC ENTITY

8. **IS THIS A TRANSFER BETWEEN LEGAL ENTITIES?** ☐ Yes ☑ No

IF YES, TRANSFERS INVOLVING LEGAL ENTITIES MUST PROVIDE, PREFERRABLY ONE (1) WEEK IN ADVANCE, APPLICABLE DOCUMENTATION. SOME EXAMPLES ARE LISTED BELOW. THIS TYPE OF TRANSACTION WILL REQUIRE 1-3 BUSINESS DAYS TO REVIEW.

Entity ownership documentation is required if you are a:

- **Corporation**—A copy of the Articles of Incorporation amendments and any other documents showing the shares issued and share ownership; or
- **LLC**—A copy of the Operating Agreement, amendments, and any other documentation showing the partners and ownership \percentage; or
- **Partnership**— A copy of the Partner Agreement, amendments and any other documents showing the partners and ownership percentage.

For all legal entities, provide the names of individuals and specific percentages held by each individual prior to and following the transfer.

9. **TAXABLE TRANSACTIONS:** Complete the following and calculate the tax below. Tax is calculated as $0.55 per $500 of line 9D. Example, $100,000 value/$500 increments = 200. 200 increments x $0.55 = $110 in tax due. You may also use $1.10

A) Consideration paid or value. $ _____

B) ☐ Full cash value. ☐ Less liens.

C) If less liens, loan amount assumed. $ _____

D) Total consideration or value less liens. (Line A minus line C.) $ _____

E) Tax due. $ N/A

I DECLARE OR AFFIRM UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

Are you the ☐ Transferee, ☐ Transferor, ☐ Both, or ☐ Representative with full knowledge of foregoing. Signature still required.

▶ _____ Signature of Transferee: _____ Print Name:

_____ Address of Transferee: _____ Phone Number of Transferee: ( )

▶ James Dawson Signature of Transferor: JAMES DAWDSON Print Name

20 SHOSHONE RD Address of Transferor: Phone Number of Transferor: (650)-794-4264

PORTOLA VALLEY, CA, SAN MATEO COUNTY Place of Execution: (City, County, State where executed.) 7/29/2024 Date of Execution

WEST BAY SANITARY DISTRICT
AGENDA ITEM 3G

To: ***Board of Directors***

From: ***Fariborz Heydari, P.E. District Engineer***

Subject: **Consider Accepting Sewer Facilities Constructed Pursuant to Class 3 Sewer Permit No. 1625 for the Construction of Wastewater Facilities for 20 Shoshone Place, Portola Valley, California**

Background

This permit request was for the construction of a Grinder Pump System connected a WBSD force main (FM) located on Shawnee Pass in front of 135 Shawnee Pass to serve 20 Shoshone Place in Portola Valley.

Analysis

The Board issued this Permit No. 1625 at the Regular Meeting of February 8, 2023.

The work has been completed, inspected, tested, and approved by staff as being in conformance with District Standards. The property owner has submitted a one-year guarantee for the work in the form of a maintenance bond.

Recommendation

The District Engineer recommends that the Board accepts these facilities and directs the General Manager to approve Class 3 Permit No. 1625.

Attachments: Class 3 Permit (1625)
Site map

WEST BAY SANITARY DISTRICT

1625

500 Laurel Street
Menlo Park, California 94025
(650) 321-0384

Type_____

APPLICATION FOR CLASS 3 SEWER PERMIT

To the WEST BAY SANITARY DISTRICT:

The undersigned, being the ☑ Owner ☐ Owner's Agent of the property located at

20 Shoshone Place, Portola Valley, CA 94028

does hereby request permission to construct sanitary sewers and related facilities to serve a

☒ Residential ☐ Non-residential Development at said location.

ENGINEER'S

Lea & Braze Engineering, Inc.
Name

2495 Industrial Pkwy W., Hayward CA 94545
Address

CONTRACTOR'S

Able Underground
Name

1020 Ruff Drive, San Jose, CA 95110
Address

OWNER'S

Laura Davidson
Name

20 Shoshone Place, Portola Valley, CA, 94028
Address

Applicant's Signature

Laura Davidson
Signed by — Please Print Name

20 Shoshone Place, Portola Valley, CA, 94028
Address

Receipt of $585 Application Fee is hereby acknowledged C.N. 1/29/23
Date

Receipt of $2,000 ☒ Cash Deposit or ☐ Performance Bond

Comments Install Grinder pump System

Approved by the District Board on _____.

Application approved and permit issued:

WEST BAY SANITARY DISTRICT
Sergio Ramirez, District Manager

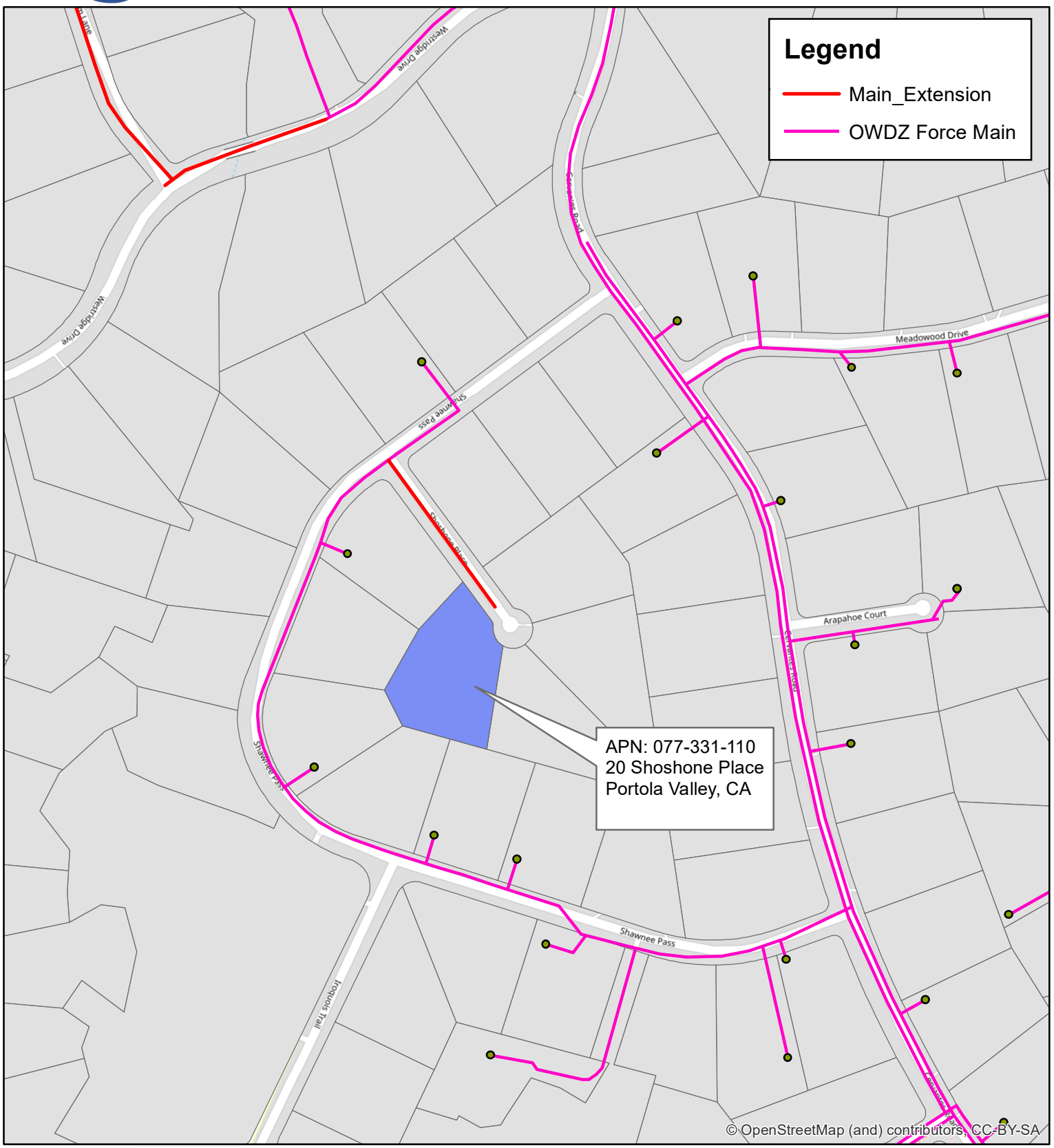
Date 2/28/2023 By _____

Final Acceptance by the District Board on _____.

(SEE PERMIT CONDITIONS ON REVERSE)

WEST BAY SANITARY DISTRICT

WEST BAY SANITARY DISTRICT
EXHIBIT "B"
SITE LOCATION
20 SHOSHONE PLACE
PORTOLA VALLEY, CA
GRINDER PUMP SYSTEM



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To: ***Board of Directors***

From: ***Sergio Ramirez, General Manager***

Subject: ***General Manager's Report***

1) **Administrative:**
   a. Staff continues to work on the Succession Plan conducted by CPS HR consulting. The plan should be completed by September and will be presented to the Board in October of 2024.
   b. In reference to the annual 700 and 470 forms, San Mateo County is the lead county (meaning the county with the most registered voters in the District) therefore the Board only needs to file with San Mateo, not Santa Clara.
2) **Finance:**
   a. The District and the State have officially executed the finance agreement for the Bayfront Facility. The State Revolving Fund loan will fund approximately $61 million in a loan and $5 million in a grant. The loan will be used to fund the Bayfront Recycled Water Facility. The District may now begin to seek reimbursement of costs associated with the project.
   b. Staff is reviewed the Purchasing Policy with the Finance Committee and discussed potential changes. The revised policy will come to the Board on August 14, 2024.
   c. Staff and General Counsel finalized the Oracle's NetSuite software agreement as directed by the Board. The agreement was fully executed on August 8, 2024.
3) **CIP Projects:**
   a. **Capital Improvement Program (CIP):**
      i. Casey Construction has begun to locate utilities as part of the Willow Pump Station rehabilitation project.
   b. **Levee Improvement Project**:
      i. Anderson Pacific continues the work on the levee project based on the lack of bird nesting and findings in the survey.
   c. **Point Repair Project Phase II:**
      i. Casey Construction has begun the Phase II Point Repair Project. Several pipelines in and around the District offices have been replaced through this project. The project will eliminate High Frequency cleaning pipe segment due to excessive tree roots.
4) **Information Technology (IT):**
   a. Staff is now trained on the new online permitting system and is scheduled to go live on August 19, 2024.

5) **Operations and Maintenance:**
    a. **Collection System:**
        i. Crews continue to work safely and report near misses, so they may be addressed prior to there being an issue. The District has officially gone seven years without lost time due to an accident.

    b. **Pump Facilities:**
        i. The pump crew has been working with Engineering to discuss the District's Telemetry Project that was bid and came in higher than expected.

    c. **Training:**
        i. Staff received hands-on training on a live pump station drill at the Willow Pump Station on July 22nd. Staff will share photos of the event during the next Board meeting.

6) **Water Quality:**
    a. **Sharon Heights Golf and Country Club (SHGCC):**
        i. The District will require a $20 thousand deposit from SHGCC in order to administer the Solar Project at the West Bay Sharon Heights Facility.

    b. **Bayfront Recycled Water Facility (BRWF):**
        i. A meeting was held with Signature Group and Meta regarding the Bayfront Facility where the proposed cost for the new facility was presented. Staff had discussions with Meta representatives regarding the bridging contract to allow the contractor to begin demolition work, prior to any potential environmental restrictions. Meta was in full support of the initial contract but mentioned that they could not seek funding until after they obtain two remaining Willow Village Project permits with SFPUC and Caltrans.

7) **Fleet and Facilities:**
    a. **Vehicle Maintenance:**
        i. The new 2024 Dump Truck is being manufactured at Western Truck Fabrications in Hayward CA. The unit should be delivered within the next 30 days.

8) **Personnel:**
        i. Recruitment for 3 new Maintenance Workers continues. Additional recruitments could be made initially in-house.

9) **Upcoming Events:**
    a. **Next Regular Board Meetings:** Wednesdays, August 14th and September 11th.

10) **Misc. Items**:
    a. **West Bay:** The General Manager will update the Board on miscellaneous items related to District operations.
    b. **Town of Los Altos Hills:** The Town experienced its first Spill in over 12 months.
    c. **Town of Woodside:** Staff continues to maintain the Town's pump stations and collection system.
    d. **East Palo Alto:** City and District staff have fully executed an interagency agreement for Operation and Maintenance of their collection system, similar to the Towns of Los Altos Hills and Woodside agreements.

WEST BAY SANITARY DISTRICT
AGENDA ITEM 5

To: ***Board of Directors***

From: ***Debra Fisher, Finance Manager***

Subject: ***Consider Approving Revised Purchasing Policy and Resolution***

Background

The District's Purchasing Policy was written and approved in 2010. The Purchasing Policy was last updated on December 13, 2023. Slight adjustments were made to requirements in the electronic Purchase Order system, implemented in July 2020. On July 31, 2024 the Finance Advisory Committee met and reviewed proposed changes to the existing Purchasing Policy.

Analysis

The General Manager recommended increasing the dollar values in the Purchasing Policy for formal quotes and bidding process, for items previously approved in the budget process.

Section 4. Materials, Supplies, Equipment, or Goods:

- Increase Informal Bid process to $24,999, from $14,999.
- Increase Written Quotes to $25,000 to $49,999, from $15,000 to $24,999.
- Increase Competitive Bid to $50,000 or more, from $25,000.

Section 6. District's Construction Related Contracts

- Construction:
  - Increase Informal Bid process to $50,000, from $15,000.
  - Increase Competitive Bid to $50,000 or more, from $15,000.
  - Increase Emergency contracts to $50,000, from $15,000
- Maintenance
  - Increase Informal Bid process to $50,000, from $25,000.
  - Increase Competitive Bid to $50,000 or more, from $25,000.

Section 8. Professional Services.

- Increase General Manager's approval to $100,000, from $25,000.
- Increase Board approval to over $100,000 or more, from $25,000.
  - Request for Proposal required over $100,000.

Fiscal Impact

Unknown fiscal impact. Reduction in staff time for written and formal bidding may offset loss of competitive price advantage.

Recommendation

The Finance Manager recommends the Board approve the revised Purchasing Policy and resolution.

Attachment:

2023 Purchasing Policy Approved.20231213
Resolution _____(2024)
2024 Purchasing Policy Redline Version

WEST BAY SANITARY DISTRICT
PURCHASING POLICY
APPROVED April 14, 2021
Revised December 13, 2023

Purpose

These procedures have been prepared to establish and clearly define the responsibilities of each employee and department of the West Bay Sanitary District ("District") related to purchasing to maintain centralized control over the purchase of goods or services, create efficiencies to pay invoices timely, and ensure goods and services are procured fairly at the "best value" based on competitive prices, quality, suitability, timeliness, and/or related considerations. This Purchasing Policy is intended to comply with Government Code section 54201 et seq., applicable state and federal laws and rules, and the terms and conditions of any grant or gift that is consistent with the law.

Section 1. Purchasing Procedure

An employee ("Requester") who needs to obtain goods or services to conduct the District's business shall adhere to the following procedure:

1. Determine exactly what is needed. Prudent purchasing requires requests be made only for those goods or services that are necessary.

2. Prepare an electronic purchase requisition in the District's purchase order (PO) system prior to obtaining goods or services. The requisition must include:

    a. Detailed description of the purchase or service
        - Goods or services to be purchased.
    b. Vendor information
        - All vendors must be pre-authorized by the Finance Department.
        - Vendor name, address, and telephone number.
        - A Request for Taxpayer ID, federal form W-9 is required for new vendors, prior to input.
    c. Reason and Justification for purchase.
        - Purpose of goods or services to be purchased.
    d. Transaction details, including price, sales tax, when applicable, budget coding, including general ledger account, department, and other sub-codes as required.
    e. Attachments
        - All backup supporting documents must be attached, including:
            - Quote(s), including details of goods and/or services,
            - Authorization and contracts, with all signatures,
            - Resolutions, signed by board, when required,
            - Staff Report, when presented to board,
            - Additional information may be required by this Purchasing Policy or the General Manager.

- Quote(s), three (3) quotes for items over $5,000.

Formal bid packet, when required.

f. Submit requisition. The requisition will automatically go to Supervisor, Department Manager, and/or General Manager, as required by the Policy.

3. All purchases, other than with a petty cash or credit card, must be initiated by a purchase requisition, in PO system.

Section 2. Division of Responsibility

A. No orders may be placed for goods or services, and no purchase order shall be valid without prior approval of the Supervisor, Department Manager, General Manager, or their respective designated agent as specified herein.

For the purposes of this section, the responsibilities of Department Manager may be assumed and carried out by employees in the designated positions within the operating departments, as follows:

1.	Administrative and General:	Office & Communications Manager
2.	Collection System:	Operations Superintendent
3.	Flow Equalization Facilities:	Operations Superintendent
4.	Water Quality:	Water Quality Manager
5.	Capital:	Projects Manager

The responsibilities of Supervisor may be assumed and carried out by employees in the designated positions within the operating departments, as follows:

1.	Collection System:	Asst. Operations Superintendent
2.	Flow Equalization Facilities:	Asst. Operations Superintendent
3.	Water Quality:	Water Quality Supervisor

B. <u>Supervisor and/or Department Manager</u>

The Supervisor and/or Department Manager authorizing the purchase requisition shall adhere to all the following procedures:

1. Maintain list of qualified vendors acceptable to the District.
2. Determine the goods or services requested are appropriate and will accomplish the proposed purpose and meet specifications when required.
3. Determine if the requirements of this policy have been met.
4. Determine the goods or services requested do not exceed the District's inventory requirements.
5. Authorize purchase requisition.
    a. Requisition will automatically be sent to Department Manager and/or General Manager, if required for approval.
6. When the invoice is received, determine whether the goods or services have been received or completed in good order and in accordance with specifications.
7. Stamp invoice approved, sign, indicate PO number, and submit invoice and packing slip, if applicable, signed by the receiver of goods, in the PO system and to Finance Department. A completed purchasing transaction for goods and services is defined as an authorized purchase requisition, an

approved purchase order, and a signed invoice with the words "okay to pay". The Finance Department will verify all purchasing packages are complete prior to issuing payments.

8. Requester, Supervisor, or Department Manager will notify Finance Department of any shortages or damages.
9. Approve any invoices up to approved limits.
    a. Supervisors may approve purchases up to $999.99.
    b. Department Managers may approve purchases up to $4,999.99.

C. General Manager

The General Manager authorizing the purchase requisition shall adhere to the following procedures:

1. Determine the goods or services requested are necessary to conduct the District's business.
2. Determine the purchasing procedures set forth in this policy have been adhered to.
3. Approve all purchases of $5,000 or greater, with $15,000.00 or greater, subject to authorization of the Board of Directors consistent with this policy.

D. Finance Department

The Finance Department shall adhere to the following procedures:

1. Determine availability of funds.
2. Verify vendor has submitted signed Request for Taxpayer Identification Number and Certification, IRS Form W-9.
3. Determine purchase requisitions and purchase orders have been prepared and authorized in accordance with this policy.
4. Audit for a complete purchasing transaction and pay all authorized and approved invoices once the full transaction has been completed.
5. Advise the General Manager of any discrepancies between purchase orders and invoices prior to payment.
6. Verify correct general ledger coding.
7. Issue payment to vendor listed on approved purchase order(s).
8. Verify vendor payments are mailed to the address on IRS Form W-9 or remit address stated on the approved vendor submitted invoice, in a timely manner.
    - If vendor does not have an invoice, payments are sent to the vendor's name and address listed on the approved contract.
    - If special circumstances require a vendor to pickup a check from the District office, an official representative of the vendor must inform the District in writing, in the approved contract, stating who is authorized to pickup the check.
        - Authorized representative much present California or Federal Identification verifying their identity and sign a receipt releasing the District from liability on the payments received.

Purchase Orders issued by the District for goods or services must be approved by the Supervisor, Department Manager, and/or the General Manager, depending on the approval dollar limits, prior to ordering of goods and/or services in order to be valid, unless purchased through a pre-approved Open Purchase Order, pre-approved account (e.g. Home Depot or District Credit Card) or during extremely urgent or emergency conditions. Any purchase which does not meet this requirement, shall not be processed (nor any related invoice paid) and brought to the attention of the District Board at the next regularly scheduled meeting.

Section 3. Purchasing Cycle

Purchase of goods or services shall be made only after a purchase order is authorized according to this policy or an agreement is entered into by an authorized District representative (the General Manager or assignee).

A. If not budgeted, the General Manager shall request Board authorization to purchase any capital item, including tools, equipment, furniture, or fixtures costing in excess of $15,000.00 or having an estimated life of three years or more and be capitalized according to the Capitalization Policy.

B. The purchase value shall include all costs pursuant to their utilization of an item for its intended purpose, including taxes, freight, modification, interest, and any other relevant costs. **No Contract or purchase shall be subdivided to avoid the requirements of these purchasing procedures.**

Section 4. Purchasing Approval Limits for Materials/Supplies/Equipment/Goods.

1. Small Purchases to $199.99:

    a. Small Purchases may be made with petty cash, requiring a Petty Cash Receipt, in lieu of a purchase requisition or purchase order.
    b. The petty cash receipt must be signed by the employee receiving the petty cash and the employee's immediate supervisor or manager.
    c. The petty cash must be balanced periodically, at least annually, and shall be maintained by the Petty Cash Custodian and the Finance Manager.

PURCHASES MADE UNDER SECTION 4 (2)(3)(4)(5)(6) MUST MEET THE REQUIREMENTS OF SECTION 1, 2 AND 3 OF THIS POLICY.

2. Purchases of $00.01 to $4,999.99:

    a. Must be placed with a qualified vendor.

    b. Purchases must have the appropriate approval by Department Manager, before purchase:

        - Petty cash must have an approved Petty Cash Receipt.
        - District Credit Card purchases require prior approval, per the Purchasing Card Policy and purchasing limits of this policy.
        - All other purchases and services require an approved purchase requisition and purchase order, unless for a routine service approved by the General Manager, such as utilities, or via an Open Purchase Order.

3. Purchases of $5,000.00 to $14,999.99:

    a. At least three informal prices will be obtained from qualified vendors. Written

or electronic quotes shall be secured and attached to the purchase requisition.

b. Availability of funds is required.

c. Simple, concise specifications may be furnished to the Administration Office for obtaining quotes.

d. Purchases require General Manager approval prior to issuance of the purchase order.

e. Purchases or payments in this price category can be made by District Credit Card if approved and deemed beneficial to the District by the General Manager.

f. These purchases/payments must be specifically reported to the District Board in the first instance or coded as paid by District Credit Card in the Board packet's monthly Financial Activity Report.

4. Purchases of $15,000.00 to $24,999.99:

a. Purchase must be approved through adoption of the budget or directly in advance by the District Board.

b. Written specifications shall be required prior to purchase.

c. Written quotes shall be solicited from three or more qualified vendors whenever possible.

d. Availability of funds is required.

e. The General Manager, prior to issuance of a purchase order, shall approve purchase to the qualified vendor with the lowest quote.

f. Purchase shall be reported to the District Board via the subsequent monthly Financial Activity Report.

g. Should the General Manager determine the lowest quote(s) is (are) unresponsive, the General Manager shall ask the District Board to ratify the General Manager's determination prior to purchase.

h. The General Manager shall report to the District Board all purchases made pursuant to this subsection (Section 4 (4)) at the first regular Board Meeting following the purchase.

5. Purchases of $25,000.00 or more:

a. Purchase must go through the competitive bid process and be approved by the District Board to go to bid, unless purchased through a Cooperative Purchase Agreement, or Piggyback purchase as outlined in Section 7.

b. Written specifications shall be required prior to obtaining bids (except sole

source items such as: Flygt Pumps and parts, Ultrasonic Hydro Rangers, ISAC systems and components).

c. Formal Invitation to Bid, Request for Proposal, or Request for Quotes shall be solicited from multiple qualified vendors.

d. Availability of funds is required.

e. The General Manager shall evaluate all bids, proposals, or quotes received and recommend the Best Value. Best Value shall mean the bidder who meets the best interests of the District as determined by the General Manager. The District Board, in their sole and absolute discretion pursuant to the criteria outlined by the District in its Request for Quotes, Request for Proposal or Invitation for Bid, shall authorize General Manager to award the bid to the best value vendor.

Materials Supplies Equipment or Goods - Contract Summary Table

Amount	Contract Requirement	Authorization
<$5,000	Quotes not required	General Manager
>$5,000 - <$15,000 budgeted	Informal Quotes*	General Manager
>$5,000 - <$15,000 unbudgeted	Informal Quotes*	General Manager with Board of Directors' Prior Approval
>$15,000 - <$25,000 budgeted	Formal Written Quotes*	General Manager with report to Board of Directors
>$15,000 - <$25,000 unbudgeted	Formal Written Quotes*	General Manager with Board of Directors' Prior Approval
≥$25,000	Competitive Bid Process	Board of Directors' Prior Approval

* After appropriate price comparisons

Section 5. Receipt of Purchases

1. When products are received, attach packing slip to Purchase order:

a. All goods received must be listed on the invoice. A packing list may be used for this purpose.

b. All shortages must be noted on the invoice or packing slip, which is attached to the original approved Purchase Order.

c. The invoice must be provided to the District's Finance Department for payment.

d. The District employee receiving the goods must clearly print their name on the invoice and/or packing slip.

e. For receipt of services delineated as Repairs and Maintenance in the District Budget, the Supervisor, Department Manager, or General Manager

shall provide the Finance Department with a signed "Services Receipt" indicating that the work has been completed to their satisfaction.

f. All receipts, packing slips (when applicable), approved invoices, and "Service Receipts" must be uploaded to the District PO System prior to the payments being made.

Section 6. District's Construction Related Contracts

A. For purposes of this policy, the District's construction related contracts are defined as involving the construction, reconstruction, alteration, enlargement, renewal, or replacement of any District owned, leased, or operated facility under Public Contract Code §§ 22002, 20800 et seq. Contracts for maintenance work to keep, operate, and maintain District's property or facilities are governed by Public Contract Code section 22002(d).

1. Construction Contracts of less than $15,000: General manager may approve the contract unless it is not an approved budgeted item, in which case, prior approval by the District Board is required.

2. Construction Contracts of $15,000.00 or more:

    a. Contract requires a formal bid process in compliance with the public contract laws.

    b. Contract must be approved and bid awarded by the District Board.

    c. Applicable provisions of the Health and Safety Code and the Government Code of the State of California must be followed.

    d. Availability of funds is required prior to the "award of bid" to be recommended to the District Board and purchase order issued.

    e. Should the General Manager determine that the lowest bid(s) is (are) unresponsive, the General Manager shall ask the District Board to ratify the General Manager's determination prior to purchase.

B. Maintenance contracts:

1. Under $25,000 - General Manager may approve the contract unless it is not an approved budgeted item, in which case, prior approval by the District Board is required.

2. If more than $25,000 – Contract is subject to a competitive bidding process and must be approved and bid awarded by the District Board.

Public Works Construction Contract - Contract Summary Table

Amount	Contract Requirement	Authorization
<$15,000 budgeted	Informal Quotes*	General Manager
<$15,000 unbudgeted	Informal Quotes*	General Manager with Board of Directors' Prior Approval
>$15,000	Competitive Bid Process	Board of Directors' Prior Approval
>$15,000 emergency	Public Contract Code §22050 and Board Resolution process	General Manager with Board of Director approval at next regular meeting
≤$25,000 budgeted Maintenance	Informal Quotes*	General Manager
>$25,000 budgeted or unbudgeted Maintenance	Competitive Bid Process	Board of Directors' Prior Approval

* After appropriate price comparisons

Section 7. Exceptions to Competitive Procurement Process.

In the event any of the following exceptions to the competitive procurement process are used, the recommendation will be documented in writing and approved by the General Manager if required for the purchase, and by the Board of Directors for purchases requiring Board approval.

A. Sole Source Procurement

1. This policy grants authority to the General Manager to enter into non-competitive contract, also known as sole source procurement, when one or more of the following conditions exist:

   a. The item is available only from a single source: a preferred brand, like material, etc., to be procured; or
   b. The commodity is unique, including, but not limited to, acquisition of data processing, telecommunications and word processing equipment, goods and services; or
   c. The purchase of a specific brand name, make or model is necessary to match existing District equipment or facilitate effective maintenance and support; or
   d. When it is in the best interest of the District to extend or renew a contract from a previous contract period, based on satisfactory service, reasonable prices, avoidance of start-up costs, avoidance of interruptions to District business, or good business practices.

2. The District must document why a particular item is unique, or why the individual or firm it has selected has the unique capability required, and the consequences if the sole source procurement is not made. Documentation must be retained for audit purposes.

B. Emergency Purchases

1. The General Manager shall make all emergency purchases in accordance with Public Contract Code Section 22050 et seq., and District Board Resolution 1253 (95):

The General Manager may deem an emergency exists which requires an immediate and serious need for materials, supplies, equipment, goods, services, or construction that cannot be met through normal procurement methods, the lack of which would seriously threaten any of the following:

a. Essential services or operation of the District;
b. The preservation or protection of property;
c. The public health, safety, or welfare; or
d. Economic health of the District.

2. All emergency purchases which would otherwise require formal solicitation must consult with the Board President and be submitted to the Board of Directors for ratification by resolution at the next regular Board meeting after the emergency procurement has been made. Such resolution shall state the facts constituting the emergency.

C. **Cooperative and Piggyback Contracts**

When the services or supplies are obtained by cooperative procurements or "piggyback" on the competitive procurement process of another agency, the District shall have the authority to join with other public jurisdictions in cooperative purchasing plans, programs, or pricing agreements. The District may also contract for services and supplies at a price established by competitive procurement by another public jurisdiction in substantial compliance with that public agency's competitive procurement process. The District may also contract with any federal, state, municipality, or other public agency.

Prices quoted through a competitive bidding process by another public agency, may be used for purchasing equipment, services, and supplies for use in the District when it is recommended by the General Manager and approved by District Board that it is the Best Value and in the District's best interest. Sections 4 and 6 do not apply to this subsection.

Cooperative Purchase Agreements can be utilized to provide financial benefits to the District when purchasing equipment, furniture, vehicles etc. Recognized cooperative purchase agreements such as Sourcewell cooperative, California Multiple Award Schedules (CMAS), General Services Administration (GSA), California State Bids, or other multi-government agency agreements can be used in place of the formal invitation to bid process when it is advantageous to the District.

D. State/Federal Funding Rules.
In the event grant, state, or federal funding is utilized, the grant, state, or federal awarding agency or pass-through entity expressly authorizes noncompetitive proposals in response to a written request from the District.

E. Impractical/Impossible. When competitive procurement would fail to produce an advantage or when the procurement process is undesirable, impractical, or impossible. Examples include situations when the services or supplies are to be performed in partnership with other public agencies or nonprofit organizations; or are to be paid for with private funds.

Section 8. <u>Professional Services</u>.

The General Manager may enter into a contract for professional services under the following guidelines:

A. Expert and professional services are provided by independent consultants which involve extended analysis, personal expertise, the exercise of discretion and independent judgment in their performance, which are of an advisory nature, such as financial advisors, auditors, grant writers, program specialists, labor consultants and negotiators, investigators, certified laboratories, attorneys, environmental consultants, appraisers, architects, landscape architects, surveyors, engineers, design professionals, and construction management firms.

B. Except as provided in subparagraph (C), when selecting professional or consulting consultants, the District representatives evaluating the proposals will consider the consultant's demonstrated experience and competence, insurability, understanding of the scope of work, financial ability, resources to perform the work, willingness to cooperate with District representatives and other consultants, and proposed methods to ensure timely and acceptable performance and management of the work. An award of a contract will be made to a qualified consultant whose proposal will be most advantageous to the District, with price and other factors considered.

C. The selection for professional services of private architectural, landscape architectural, engineering, environmental, land surveying, or construction project management firms will be on the basis of demonstrated competence and on the professional qualifications necessary for the satisfactory performance of the services required, pursuant to Government Code Section 4526.

D. Authorization Limits.

1. If the amount is less than $25,000, then the General Manager may contract with a qualified consultant based on the General Manager's discretion.

2. If the amount or cumulative amount in a fiscal year is $25,000 or more, prior approval of District Board of Directors is required.

Professional Services - Contract Summary Table

Amount	Authorization
<$25,000	General Manager
≥$25,000	General Manager with Board of Directors' Prior Approval

RESOLUTION NO. _____ (2024)

IN THE DISTRICT BOARD OF THE WEST BAY SANITARY DISTRICT

COUNTY OF SAN MATEO, STATE OF CALIFORNIA

*****

A Resolution of the District Board of the West Bay Sanitary District Approving the Revised Purchasing Policy

WHEREAS, the West Bay Sanitary District is a special independent district, organized and existing under the Sanitary District Act of 1923 (Cal. Health & Safety Code §6400, et seq.), and provides wastewater collection, recycled water and conveyance services to the Cities of Menlo Park, Atherton and Portola Valley, and portions of East Palo Alto, Woodside and unincorporated areas of San Mateo and Santa Clara counties, and

WHEREAS, the West Bay Sanitary District approved a Purchasing Policy in May of 2010, and

WHEREAS, revisions to the purchasing policies are necessary over time to reflect, changes in monetary values, personnel, titles, responsibilities and purchasing options, and

WHEREAS, revisions to the purchasing policy are intended to increase efficiency in operations, provide for better security, and protect the District against fraud, and transition to paperless transactions where feasible, and

WHEREAS, the General Manager has been appointed as the Chief Fiscal Officer of the West Bay Sanitary District and has been granted authority by the District Board per Resolution No. 1720(2010) to Open Accounts and Invest Funds to ensure continuity of the District's operations, processes and procedures.

*****

NOW, THEREFORE, BE IT RESOLVED that the West Bay Sanitary District Board hereby approves the District's Purchasing Policy 2010, as the Revised Purchasing Policy 2024 this 14th day of August 2024, as attached in Exhibit A.

PASSED AND ADOPTED by the District Board of the West Bay Sanitary District at a regular meeting thereof held on 14th day of August 2024, by the following votes:

Ayes:

Noes:

Absent:

Abstain:

_____
President of the District Board of the
West Bay Sanitary District of San
Mateo County, State of California

Attest:

_____
Secretary of the District Board of the
West Bay Sanitary District of San Mateo
County, State of California

WEST BAY SANITARY DISTRICT
PURCHASING POLICY
APPROVED April 14, 2021
Revised December 13, 2023

Purpose

These procedures have been prepared to establish and clearly define the responsibilities of each employee and department of the West Bay Sanitary District ("District") related to purchasing to maintain centralized control over the purchase of goods or services, create efficiencies to pay invoices timely, and ensure goods and services are procured fairly at the "best value" based on competitive prices, quality, suitability, timeliness, and/or related considerations. This Purchasing Policy is intended to comply with Government Code section 54201 et seq., applicable state and federal laws and rules, and the terms and conditions of any grant or gift that is consistent with the law.

Section 1. Purchasing Procedure

An employee ("Requester") who needs to obtain goods or services to conduct the District's business shall adhere to the following procedure:

1. Determine exactly what is needed. Prudent purchasing requires requests be made only for those goods or services that are necessary.

2. Prepare an electronic purchase requisition in the District's purchase order (PO) system prior to obtaining goods or services. The requisition must include:

    a. Detailed description of the purchase or service
        - Goods or services to be purchased.
    b. Vendor information
        - All vendors must be pre-authorized by the Finance Department.
        - Vendor name, address, and telephone number.
        - A Request for Taxpayer ID, federal form W-9 is required for new vendors, prior to input.
    c. Reason and Justification for purchase.
        - Purpose of goods or services to be purchased.
    d. Transaction details, including price, sales tax, when applicable, budget coding, including general ledger account, department, and other sub-codes as required.
    e. Attachments
        - All backup supporting documents must be attached, including:
            - Quote(s), including details of goods and/or services,
            - Authorization and contracts, with all signatures,
            - Resolutions, signed by board, when required,
            - Staff Report, when presented to board,
            - Additional information may be required by this Purchasing Policy or the General Manager.

- Quotes: three (3) quotes for items over $5,000.
  Formal bid packet, when required.

f. Submit requisition. The requisition will automatically go to Supervisor, Department Manager, and/or General Manager, as required by the Policy.

3. All purchases, other than with a petty cash or credit card, must be initiated by a purchase requisition, in PO system.

Section 2. Division of Responsibility

A. No orders may be placed for goods or services, and no purchase order shall be valid without prior approval of the Supervisor, Department Manager, General Manager, or their respective designated agent as specified herein.

For the purposes of this section, the responsibilities of Department Manager may be assumed and carried out by employees in the designated positions within the operating departments, as follows:

1.	Administrative and General:	Office & Communications Manager
2.	Collection System:	Operations Superintendent
3.	Flow Equalization Facilities:	Operations Superintendent
4.	Water Quality:	Water Quality Manager
5.	Capital:	Projects Manager

The responsibilities of Supervisor may be assumed and carried out by employees in the designated positions within the operating departments, as follows:

1.	Collection System:	Asst. Operations Superintendent
2.	Flow Equalization Facilities:	Asst. Operations Superintendent
3.	Water Quality:	Water Quality Supervisor

B. <u>Supervisor and/or Department Manager</u>

The Supervisor and/or Department Manager authorizing the purchase requisition shall adhere to all the following procedures:

1. Maintain list of qualified vendors acceptable to the District.
2. Determine the goods or services requested are appropriate and will accomplish the proposed purpose and meet specifications when required.
3. Determine if the requirements of this policy have been met.
4. Determine the goods or services requested do not exceed the District's inventory requirements.
5. Authorize purchase requisition.
   a. Requisition will automatically be sent to Department Manager and/or General Manager, if required for approval.
6. When the invoice is received, determine whether the goods or services have been received or completed in good order and in accordance with specifications.
7. Stamp invoice approved, sign, indicate PO number, and submit invoice and packing slip, if applicable, signed by the receiver of goods, in the PO system and to Finance Department. A completed purchasing transaction for goods and services is defined as an authorized purchase requisition, an approved purchase order, and a signed invoice with the words "okay to pay". The Finance Department will verify all purchasing packages are complete prior to issuing payments.

8. Requester, Supervisor, or Department Manager will notify Finance Department of any shortages or damages.
9. Approve any invoices up to approved limits.
    a. Supervisors may approve purchases up to $999.99.
    b. Department Managers may approve purchases up to $4,999.99.

C. General Manager

The General Manager authorizing the purchase requisition shall adhere to the following procedures:

1. Determine the goods or services requested are necessary to conduct the District's business.
2. Determine the purchasing procedures set forth in this policy have been adhered to.
3. Approve all purchases of $5,000 or greater, with $15,000.00 or greater, subject to authorization of the Board of Directors consistent with this policy.

D. Finance Department

The Finance Department shall adhere to the following procedures:

1. Determine availability of funds.
2. Verify vendor has submitted signed Request for Taxpayer Identification Number and Certification, IRS Form W-9.
3. Determine purchase requisitions and purchase orders have been prepared and authorized in accordance with this policy.
4. Audit for a complete purchasing transaction and pay all authorized and approved invoices once the full transaction has been completed.
5. Advise the General Manager of any discrepancies between purchase orders and invoices prior to payment.
6. Verify correct general ledger coding.
7. Issue payment to vendor listed on approved purchase order(s).
8. Verify vendor payments are mailed to the address on IRS Form W-9 or remit address stated on the approved vendor submitted invoice, in a timely manner.
    - If vendor does not have an invoice, payments are sent to the vendor's name and address listed on the approved contract.
    - If special circumstances require a vendor to pickup a check from the District office, an official representative of the vendor must inform the District in writing, in the approved contract, stating who is authorized to pickup the check.
        - Authorized representative much present California or Federal Identification verifying their identity and sign a receipt releasing the District from liability on the payments received.

Purchase Orders issued by the District for goods or services must be approved by the Supervisor, Department Manager, and/or the General Manager, depending on the approval dollar limits, prior to ordering of goods and/or services in order to be valid, unless purchased through a pre-approved Open Purchase Order, pre-approved account (e.g. Home Depot or District Credit Card) or during extremely urgent or emergency conditions. Any purchase which does not meet this requirement, shall not be processed (nor any related invoice paid) and brought to the attention of the District Board at the next regularly scheduled meeting.

Section 3. Purchasing Cycle

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Purchase of goods or services shall be made only after a purchase order is authorized according to this policy or an agreement is entered into by an authorized District representative (the General Manager or assignee).

A. If not budgeted, the General Manager shall request Board authorization to purchase any capital item, including tools, equipment, furniture, or fixtures costing in excess of $15,000.00 or having an estimated life of three years or more and be capitalized according to the Capitalization Policy.

B. The purchase value shall include all costs pursuant to their utilization of an item for its intended purpose, including taxes, freight, modification, interest, and any other relevant costs. **No Contract or purchase shall be subdivided to avoid the requirements of these purchasing procedures.**

Section 4. Purchasing Approval Limits for Materials/Supplies/Equipment/Goods.

1. Small Purchases to $199.99:

   a. Small Purchases may be made with petty cash, requiring a Petty Cash Receipt, in lieu of a purchase requisition or purchase order.
   b. The petty cash receipt must be signed by the employee receiving the petty cash and the employee's immediate supervisor or manager.
   c. The petty cash must be balanced periodically, at least annually, and shall be maintained by the Petty Cash Custodian and the Finance Manager.

PURCHASES MADE UNDER SECTION 4 (2)(3)(4)(5)(6) MUST MEET THE REQUIREMENTS OF SECTION 1, 2 AND 3 OF THIS POLICY.

2. Purchases of $00.01 to $4,999.99:

   a. Must be placed with a qualified vendor.

   b. Purchases must have the appropriate approval by Department Manager, before purchase:

      - Petty cash must have an approved Petty Cash Receipt.
      - District Credit Card purchases require prior approval, per the Purchasing Card Policy and purchasing limits of this policy.
      - All other purchases and services require an approved purchase requisition and purchase order, unless for a routine service approved by the General Manager, such as utilities, or via an Open Purchase Order.

3. Purchases of $5,000.00 to $~~14~~24,999.99:

   a. At least three informal prices will be obtained from qualified vendors. Written

or electronic quotes shall be secured and attached to the purchase requisition.

b. Availability of funds is required.

c. Simple, concise specifications may be furnished to the Administration Office for obtaining quotes.

d. Purchases require General Manager approval prior to issuance of the purchase order.

e. Purchases or payments in this price category can be made by District Credit Card if approved and deemed beneficial to the District by the General Manager.

f. These purchases/payments must be specifically reported to the District Board in the first instance or coded as paid by District Credit Card in the Board packet's monthly Financial Activity Report.

4. Purchases of $~~1~~25,000.00 to $~~24~~49,999.99:

a. Purchase must be approved through adoption of the budget or directly in advance by the District Board.

b. Written specifications shall be required prior to purchase.

c. Written quotes shall be solicited from three or more qualified vendors whenever possible.

d. Availability of funds is required.

e. The General Manager, prior to issuance of a purchase order, shall approve purchase to the qualified vendor with the lowest quote.

f. Purchase shall be reported to the District Board via the subsequent monthly Financial Activity Report.

~~f.~~g. Should the General Manager determine the lowest quote(s) is (are) unresponsive, the General Manager shall ask the District Board to ratify the General Manager's determination prior to purchase.

~~g.~~h. The General Manager shall report to the District Board all purchases made pursuant to this subsection (Section 4 (4)) at the first regular Board Meeting following the purchase.

5. Purchases of $~~2~~50,000.00 or more:

a. Purchase must go through the competitive bid process and be approved by the District Board to go to bid, unless purchased through a Cooperative Purchase Agreement, or Piggyback purchase as outlined in Section 7.

b. Written specifications shall be required prior to obtaining bids (except sole source items such as: Flygt Pumps and parts, Ultrasonic Hydro Rangers, ISAC systems and components).

c. Formal Invitation to Bid, Request for Proposal, or Request for Quotes shall be solicited from multiple qualified vendors.

d. Availability of funds is required.

e. The General Manager shall evaluate all bids, proposals, or quotes received and recommend the Best Value. Best Value shall mean the bidder who meets the best interests of the District as determined by the General Manager. The District Board, in their sole and absolute discretion pursuant to the criteria outlined by the District in its Request for Quotes, Request for Proposal or Invitation for Bid, shall authorize General Manager to award the bid to the best value vendor.

f. The General Manager will report to District Board in the subsequent Manager's Report all amounts in excess of $25,000.

~~e.~~

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Materials, Supplies, Equipment, or Goods - Contract Summary Table

Amount	Contract Requirement	Authorization
<$5,000	Quotes not required	General Manager
>$5,000 - <$~~1~~25,000 budgeted	Informal Quotes*	General Manager
>$5,000 - <$~~1~~25,000 unbudgeted	Informal Quotes*	General Manager with Board of Directors' Prior Approval
>$~~1~~25,000 - <$~~2~~50,000 budgeted	Formal Written Quotes*	General Manager with report to Board of Directors
>$~~1~~25,000 - <$~~2~~50,000 unbudgeted	Formal Written Quotes*	General Manager with Board of Directors' Prior Approval
≥$~~2~~50,000	Competitive Bid Process	Board of Directors' Prior Approval

* After appropriate price comparisons

Section 5. Receipt of Purchases

1. When products are received, attach packing slip to Purchase order:

a. All goods received must be listed on the invoice. A packing list may be used for this purpose.

b. All shortages must be noted on the invoice or packing slip, which is attached to the original approved Purchase Order.

c. The invoice must be provided to the District's Finance Department for payment.

d. The District employee receiving the goods must clearly print their name on the invoice and/or packing slip.

e. For receipt of services delineated as Repairs and Maintenance in the District Budget, the Supervisor, Department Manager, or General Manager shall provide the Finance Department with a signed "Services Receipt" indicating that the work has been completed to their satisfaction.

f. All receipts, packing slips (when applicable), approved invoices, and "Service Receipts" must be uploaded to the District PO System prior to the payments being made.

Section 6. District's Construction Related Contracts

A. For purposes of this policy, the District's construction related contracts are defined as involving the construction, reconstruction, alteration, enlargement, renewal, or replacement of any District owned, leased, or operated facility under Public Contract Code §§ 22002, 20800 et seq. Contracts for maintenance work to keep, operate, and maintain District's property or facilities are governed by Public Contract Code section 22002(d).

1. Construction Contracts of less than $~~1~~50,000: General ~~m~~Manager may approve the contract unless it is not an approved budgeted item, in which case, prior approval by the District Board is required.

   a. At least three informal prices will be obtained from qualified vendors. Written or electronic quotes shall be secured and attached to the purchase requisition.

~~1.~~2. Construction Contracts of $~~1~~50,000.00 or more:

   a. Contract requires a formal bid process in compliance with the public contract laws.

   b. Contract must be approved and bid awarded by the District Board.

   c. Applicable provisions of the Health and Safety Code and the Government Code of the State of California must be followed.

   d. Availability of funds is required prior to the "award of bid" to be recommended to the District Board and purchase order issued.

   e. Should the General Manager determine that the lowest bid(s) is (are) unresponsive, the General Manager shall ask the District Board to ratify the General Manager's determination prior to purchase.

B. Maintenance contracts:

~~B.~~

1. Under $~~2~~50,000 - General Manager may approve the contract unless it is not an approved budgeted item, in which case, prior approval by the District Board is required.

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a. At least three informal prices will be obtained from qualified vendors. Written or electronic quotes shall be secured and attached to the purchase requisition.

~~1.~~

2. If more than $~~2~~50,000 – Contract is subject to a competitive bidding process and must be approved and bid awarded by the District Board.

Public Works Construction Contract - Contract Summary Table

Amount	Contract Requirement	Authorization
<$~~1~~50,000 budgeted	Informal Quotes*	General Manager
<$~~1~~50,000 unbudgeted	Informal Quotes*	General Manager with Board of Directors' Prior Approval
>$~~1~~50,000	Competitive Bid Process	Board of Directors' Prior Approval
>$~~1~~50,000 emergency	Public Contract Code §22050 and Board Resolution process	General Manager with Board of Director approval at next regular meeting
≤$~~2~~50,000 budgeted Maintenance	Informal Quotes*	General Manager
>$~~2~~50,000 budgeted or unbudgeted Maintenance	Competitive Bid Process	Board of Directors' Prior Approval

* After appropriate price comparisons

Section 7. Exceptions to Competitive Procurement Process.

In the event any of the following exceptions to the competitive procurement process are used, the recommendation will be documented in writing and approved by the General Manager if required for the purchase, and by the Board of Directors for purchases requiring Board approval.

A. Sole Source Procurement

1. This policy grants authority to the General Manager to enter into non-competitive contract, also known as sole source procurement, when one or more of the following conditions exist:

   a. The item is available only from a single source: a preferred brand, like material, etc., to be procured; or
   b. The commodity is unique, including, but not limited to, acquisition of data processing, telecommunications and word processing equipment, goods and services; or
   c. The purchase of a specific brand name, make or model is necessary to match existing District equipment or facilitate effective maintenance and support; or
   d. When it is in the best interest of the District to extend or renew a contract from a previous contract period, based on satisfactory service, reasonable prices, avoidance of start-up costs, avoidance of interruptions to District business, or good business practices.

2. The District must document why a particular item is unique, or why the individual or firm it has selected has the unique capability required, and the consequences if the sole source procurement is not made. Documentation must be retained for audit purposes.

B. Emergency Purchases

1. The General Manager shall make all emergency purchases in accordance with Public Contract Code Section 22050 et seq., and District Board Resolution 1253 (95):

The General Manager may deem an emergency exists which requires an immediate and serious need for materials, supplies, equipment, goods, services, or construction that cannot be met through normal procurement methods, the lack of which would seriously threaten any of the following:

a. Essential services or operation of the District;
b. The preservation or protection of property;
c. The public health, safety, or welfare; or
d. Economic health of the District.

2. All emergency purchases which would otherwise require formal solicitation, the General Manager must consult with the Board President and be submitted to the Board of Directors for ratification by resolution at the next regular Board meeting after the emergency procurement has been made. Such resolution shall state the facts constituting the emergency.

C. **Cooperative and Piggyback Contracts**

When the services or supplies are obtained by cooperative procurements or "piggyback" on the competitive procurement process of another agency, the District shall have the authority to join with other public jurisdictions in cooperative purchasing plans, programs, or pricing agreements. The District may also contract for services and supplies at a price established by competitive procurement by another public jurisdiction in substantial compliance with that public agency's competitive procurement process. The District may also contract with any federal, state, municipality, or other public agency.

Prices quoted through a competitive bidding process by another public agency, may be used for purchasing equipment, services, and supplies for use in the District when it is recommended by the General Manager and approved by District Board that it is the Best Value and in the District's best interest. Sections 4 and 6 do not apply to this subsection.

Cooperative Purchase Agreements can be utilized to provide financial benefits to the District when purchasing equipment, furniture, vehicles etc. Recognized cooperative purchase agreements such as Sourcewell cooperative, California Multiple Award Schedules (CMAS), General Services Administration (GSA), California State Bids, or other multi-government agency agreements can be used in place of the formal invitation to bid process when it is advantageous to the District.

D. State/Federal Funding Rules.
In the event grant, state, or federal funding is utilized, the grant, state, or federal awarding agency or pass-through entity expressly authorizes noncompetitive proposals in response to a written request from the District.

E. Impractical/Impossible. When competitive procurement would fail to produce an advantage or when the procurement process is undesirable, impractical, or impossible. Examples include situations when the services or supplies are to be performed in partnership with other public agencies or nonprofit organizations; or are to be paid for with private funds.

Section 8. Professional Services.

The General Manager may enter into a contract for professional services under the following guidelines:

A. Expert and professional services are provided by independent consultants which involve extended analysis, personal expertise, the exercise of discretion and independent judgment in their performance, which are of an advisory nature, such as financial advisors, auditors, grant writers, program specialists, labor consultants and negotiators, investigators, certified laboratories, attorneys, environmental consultants, appraisers, architects, landscape architects, surveyors, engineers, design professionals, and construction management firms.

B. Except as provided in subparagraph (C), when selecting professional or consulting consultants, the District representatives evaluating the proposals will consider the consultant's demonstrated experience and competence, insurability, understanding of the scope of work, financial ability, resources to perform the work, willingness to cooperate with District representatives and other consultants, and proposed methods to ensure timely and acceptable performance and management of the work. An award of a contract will be made to a qualified consultant whose proposal will be most advantageous to the District, with price and other factors considered.

C. The selection for professional services of private architectural, landscape architectural, engineering, environmental, land surveying, or construction project management firms will be ~~on the~~ based~~is~~ of demonstrated competence and on the professional qualifications necessary for the satisfactory performance of the services required, pursuant to Government Code Section 4526.

D. Authorization Limits.

1. If the amount is less than $~~25~~100,000, then the General Manager may contract with a qualified consultant based on the General Manager's discretion.

2. If the amount or cumulative amount in a fiscal year or the total contract amount is $~~25~~100,000 or more, written request for proposal (RFP) and prior approval of District Board ~~of Directors~~ is required.

Professional Services - Contract Summary Table

Amount	Authorization
<$~~25~~100,000	General Manager
≥$1~~25~~00,000	RFP with Board of Directors' Prior Approval

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WEST BAY SANITARY DISTRICT
AGENDA ITEM 6

To: ***Board of Directors***

From: ***Sergio Ramirez, General Manager***
Fariborz Heydari, P.E., District Engineer

Subject: ***Consideration to Adopt Resolution Approving Addendum No. 2 (Nanofiltration Process and New Project Design) to the 2021 Final Environmental Impact Report for the West Bay Sanitary District Flow Equalization & Resource Recovery Facility Levee Improvements Project (SCH No. 2020050414), and File the Notice of Determination***

Background

On May 12, 2021, the Board under the California Environmental Quality Act (CEQA), adopted resolution certifying the Final Environmental Impact Report (EIR) and Mitigation and Reporting Program for the Flow Equalization & Resource Recovery Facility (FERRF) Levee Improvement and Bayfront Recycled Water Facility Project (approved project; State Clearinghouse No. 2020050414). The Final EIR is herein referred to as the 2021 EIR.

On June 26, 2024, the Board adopted and certified Resolution No. 2457 approving Addendum No. 1 (Installation of the Oyster Reefs) to the 2021 EIR (State Clearinghouse No. 2020050414).

However, neither the 2021 EIR nor Addendum #1 discussed a detailed description of the nanofiltration process, new project design, or increased demolition. Addendum #2 (Nanofiltration and New Project Design) analyzes the environmental impacts of the nanofiltration process and new project design to the approved project and 2021 EIR.

Analysis

State CEQA Guidelines Section 15164 states that the lead agency shall prepare an addendum to a previously certified EIR if the project sponsor needs to make some changes or additions to a project and if certain conditions are met. An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.

SWCA Environmental Consultant has prepared the Addendum No. 2 (Nanofiltration and New Project Design), dated July 2024, to evaluate the impacts of modifications to the

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approved project identified in the 2021 EIR; those modifications are referred to herein as the “proposed project.” Proposed project modifications would not result in new significant impacts or a substantial increase in the severity of a previously identified significant impact: therefore, preparation of a Supplemental or Subsequent EIR is not required. Addendum No. 2 is to be adopted and certified by the Board.

Fiscal Impact

None at this time. There is no direct fiscal impact associated with adopting the resolution approving Addendum No.2 to the 2021 EIR.

Recommendation

The General Manager recommends the District Board consider adopting the resolution approving Addendum No. 2 (Nanofiltration and New Project Design) to the 2021 Environmental Impact Report for the Flow Equalization & Resource Recovery Facility Levee Improvement Project (SCH No. 2020050414), and file the Notice of Determination.

Attachments: Resolution
Addendum No. 2 to the 2021 Final EIR (State Clearinghouse No. 2020050414)
Notice of Determination

RESOLUTION NO. _____ (2024)

IN THE DISTRICT BOARD OF THE WEST BAY SANITARY DISTRICT
COUNTY OF SAN MATEO, STATE OF CALIFORNIA

*****

BE IT RESOLVED, by the District Board of West Bay Sanitary District, County of San Mateo, State of California, as follows:

ADDENDUM NO. 2 TO 2021 FINAL ENVIORNMENTAL IMPACT REPORT (SCH NO. 2020050414)

Name of Project: Flow Equalization and Resource Recovery Facility Levee Improvements & Bayfront Recycled Water Facility Project

Location: Flow Equalization and Resource Recovery Facility Levee Improvements & Bayfront Recycled Water Facility Project is located at the District's 20-acres Menlo Park Flow Equalization Facility (FEF) site, which is at the end of Marsh Road in Menlo Park, adjacent to Bedwell Bayfront Park, on the edge of the San Francisco Bay.

Entity or Person Undertaking Project: West Bay Sanitary District

Determination of the District Board:

On May 12, 2021, the Board under the California Environmental Quality Act (CEQA), adopted resolution certifying the Final Environmental Impact Report (EIR) and Mitigation and Reporting Program for the Flow Equalization & Resource Recovery Facility (FERRF) Levee Improvement and Bayfront Recycled Water Facility Project (approved project; State Clearinghouse No. 2020050414).

On June 26, 2024, the Board adopted and certified Resolution No. 2457 approving Addendum No. 1 (Installation of the Oyster Reefs) to the 2021 EIR (State Clearinghouse No. 2020050414).

However, neither the 2021 EIR nor Addendum #1 discussed a detailed description of the nanofiltration process, new project design, or increased demolition. Addendum #2 (Nanofiltration and New Project Design) analyzes the environmental impacts of the nanofiltration process and new project design to the approved project and 2021 EIR.

State CEQA Guidelines Section 15164 states that the lead agency shall prepare an addendum to a previously certified EIR if the project sponsor needs to make some changes or additions to a project and if certain conditions are met. An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.

The District Board certifies that Addendum No.2 (Nanofiltration and New Project Design) to the 2021 Final EIR has been prepared and completed in compliance with the State California Environmental Quality Act Guidelines Section 15164 and this change would not result in new significant impacts or a substantial increase in the severity of a previously

identified significant impacts: therefore, preparation of a Supplemental or Subsequent EIR is not required.

The District Board hereby certifies that it has reviewed Addendum No. 2 (Nanofiltration and New Project Design) to the 2021 Final EIR for this project and has considered the contents thereof. The Board finds that this document is adequate for use by the District in its review of the project.

The District Board hereby adopts resolution approving Addendum No. 2 (Nanofiltration and New Project Design) to the 2021 Final Environmental Impact Report for the West Bay Sanitary District Flow Equalization & Resource Recovery Facility Levee Improvements Project (SCH No. 2020050414), and the Notice of Determination.

The District Board finds on the basis of the whole record (including the Final Environmental Impact Report and any comments received), that there is no substantial evidence that the revisions to the Project will have a significant effect on the environment and that the Final Environmental Impact Report reflects the District's independent judgment and analysis; therefore, preparation of a Supplemental or Subsequent EIR is not required.

Based upon the foregoing, and upon compliance with District regulations and requirements, as applicable, the Addendum No. 2 (Nanofiltration and New Project Design) to the 2021 Final Environmental Impact Report for the West Bay Sanitary District Flow Equalization & Resource Recovery Facility Levee Improvements Project (SCH No. 2020050414), and the Notice of Determination is hereby:

____ Approved

____ Disapproved

*****

Passed and adopted by the District Board of West Bay Sanitary District at a meeting thereof held on the 14th day of August 2024, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

_____
President of the District Board of the
West Bay Sanitary District of San Mateo
County, State of California

Attest:

_____
Secretary of the District Board of the
West Bay Sanitary District of San Mateo
County, State of California

Addendum #2 to the 2021 Final Environmental Impact Report for the West Bay Sanitary District Flow Equalization and Resource Recovery Facility Levee Improvements Project

SCH NO. 2020050414

JULY 2024

PREPARED FOR

West Bay Sanitary District

PREPARED BY

SWCA Environmental Consultants

ADDENDUM TO THE
2021 FINAL ENVIRONMENTAL IMPACT REPORT FOR THE WEST BAY SANITARY DISTRICT FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS PROJECT

SCH NO. 2020050414

Prepared for

West Bay Sanitary District
500 Laurel Street
Menlo Park, CA 94025
Attn: Sergio Ramirez, General Manager
Fariborz Heydari, Project Manager

Prepared by

SWCA Environmental Consultants
60 Stone Pine Road Suite 100
Half Moon Bay, CA 94019
(650) 440-4160
www.swca.com

July 2024

CONTENTS

Appendices

1 PURPOSE OF THE ADDENDUM

1.1 Introduction

West Bay Sanitary District (WBSD), serving as the Lead Agency[1] under the California Environmental Quality Act (CEQA), adopted the Final Environmental Impact Report (EIR) for the Flow Equalization and Resource Recovery Facility (FERRF) Levee Improvements and Bayfront Recycled Water Facility Project (approved project; State Clearinghouse No. 2020050414) in May 2021 (2021 EIR) (WBSD 2021). In May 2024, *Addendum to the 2021 Final Environmental Impact Report for the West Bay Sanitary District Flow Equalization and Resource Recovery Facility Levee Improvements Project* (Addendum #1) was prepared to evaluate the installation of an artificial oyster reef at the northwestern portion of the project site (SWCA Environmental Consultants 2024).

The approved project included levee improvements consisting of sheet pile wall installation (i.e., large sheets of metal inserted into the ground) and an ecotone slope or living shoreline. The approved project also included a new satellite recycled water facility (RWF) at the project site, including new influent and effluent pump stations and piping to transport the recycled water. The 2021 EIR mentioned the oyster reefs by stating that the approved project may include living shoreline elements at the toe of the slope of the ecotone levee (e.g., oysters, eel grass) (EIR Project Description, p. 2-20).

However, neither the 2021 EIR nor Addendum #1 discussed a detailed description of the nanofiltration process, new project design, or increased demolition. This document analyzes the environmental impacts of the nanofiltration process and new project design to the approved project and is Addendum #2 to the 2021 EIR.

1.2 Identification of Addendum as Appropriate CEQA Document

The purpose of this review is to evaluate potential environmental impacts associated with proposed changes to the previously approved project, specifically, the addition of oyster reefs along the northwest portion of the project site. Additional CEQA review beyond this addendum, in the form of a Supplemental EIR, would only be necessary if the proposed changes to the approved project created new significant impacts or a substantial increase in the severity of significant impacts identified in the certified 2021 EIR.

State CEQA Guidelines Section 15164 states that the lead agency shall prepare an addendum to a previously certified EIR if the project sponsor needs to make some changes or additions to a project and if certain conditions are met. These conditions are based on State CEQA Guidelines Section 15162, which specifies the conditions that would require preparation of a Subsequent EIR. If ***none*** of the conditions described in Section 15162 calling for preparation of a Subsequent EIR have occurred, then an addendum to an EIR is the appropriate document to complete environmental review of changes to a project.

According to State CEQA Guidelines Section 15162:

> (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines,

[1] The State CEQA Guidelines define the "Lead Agency" as the public agency that has principal responsibility for carrying out or approving a project.

on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Additionally, State CEQA Guidelines Section 15164 provides the following guidance for preparation of an EIR addendum:

(a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.

(c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.

(d) The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.

(e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency‘s findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

This document is an Addendum to the 2021 EIR and has been prepared to evaluate the impacts of modifications to the approved project identified in the 2021 EIR; those modifications are referred to herein as the “proposed project.” Proposed project modifications would not result in new significant

impacts or a substantial increase in the severity of a previously identified significant impact; therefore, preparation of a Supplemental or Subsequent EIR is not required.

1.3 Summary of Addendum Conclusions

This Addendum #2 to the 2021 EIR demonstrates that the environmental analysis, impacts, and mitigation requirements identified in the 2021 EIR remain substantively unchanged by the project modifications described herein and support the finding that the proposed project does not raise any new significant impacts and does not exceed the levels of impact significance identified in the 2021 EIR. Accordingly, preparation of a Subsequent EIR is not necessary pursuant to State CEQA Guidelines Sections 15162 and 15164. This decision is based on substantial evidence, as set forth in the following discussions of the proposed project modifications and the environmental impacts of those modifications.

Circulation of Addendum #2 for public review is not required (State CEQA Guidelines Section 15164(c)); however, this addendum will be considered by the decision-making body, along with the previously certified 2021 EIR, prior to taking action to approve or deny the proposed project (State CEQA Guidelines Section 15164(d)).

2 BACKGROUND

2.1 Summary Description of the Approved Project

2.1.1 2021 Final EIR for the West Bay Sanitary District FERRF Levee Improvements Project

The approved project is located at WBSD's 20-acre Menlo Park FERRF site, which is at the end of Marsh Road in Menlo Park, adjacent to Bedwell Bayfront Park, on the edge of Flood Slough in the San Francisco Baylands. The FERRF contains open basins (also referred to as ponds in the 2021 EIR) that provide wastewater storage for WBSD flows when the conveyance system to the plant is at capacity, most likely during wet weather events, or the conveyance system to the plant is undergoing maintenance or repairs. The existing levees surrounding the project site were built in the late 1960s and are not currently certified by the Federal Emergency Management Agency (FEMA) to protect the project site from the 100-year flood event. Therefore, the levees require improvement/repairs to ensure the facility and San Francisco Bay remain protected from raw wastewater cross contamination and adjacent Bay/tidal areas waters remain protected during flood events and as sea levels rise.

The approved project levee improvements consist of sheet pile installation (large sheets of metal inserted into the ground that rise above the ground surface) and the reconfiguration of a portion of existing levee into an ecotone levee, also known as a "living shoreline." Ecotone levees are a nature-based adaptation measure comprising gentle slopes or ramps that provide a gradual transition zone between tidal marshes and flood risk management levees. They stretch from the levee crest to the marsh surface and can provide wetland-upland transition zone habitat when properly vegetated with native grasses, rushes, and sedges. They can attenuate waves, provide high-tide refuge for marsh wildlife, and allow room for marshes to migrate upslope with sea level rise.

In addition to flood improvements, the 2021 EIR analyzed the installation of a new satellite RWF at the project site, replacing the existing FERRF facility. The Bayfront RWF was analyzed to produce 0.5 million gallons per day (MGD) of recycled water (approximately 560 acre-feet per year); with an average capacity of 1.0 MGD. The major components of the Bayfront RWF included a new influent flow

diversion structure located at Bayfront Expressway (State Route [SR] 84) and Marsh Road, submersible influent pumps with a generator, influent force main, grit removal filters (grit would be off-hauled), dual fine screens, an equalization basin, equalization return pumps, an anoxic basin with mixers and feed forward pumps, an aerobic basin with mixer and feed forward pumps and diffusers, membrane basins with membrane cassettes, permeate pumps, a reverse osmosis (RO) system, a chemical system for membrane cleaning, recycled water tank and distribution pumps, distribution pipeline, an odor control system, electrical and supervisory control and data acquisition (SCADA) system, one standby generator, and sampling system and laboratory testing areas.

RO is an advanced treatment method for wastewater. RO was included in the 2021 EIR to reduce the amount of total dissolved solids (TDS) concentration within the recycled water product. It is estimated that the Bayfront RWF would produce an average of approximately 0.025 MGD (or 25,000 gallons per day) of RO concentrate under design and actual flows (i.e., average approximately 0.5 MGD of recycled water produced by the facility on a daily basis), which would be discharged into the existing on-site concrete ponds to evaporate by 50% at which time the grit would be off-hauled to a landfill. When the ponds are filled with the RO concentrate, the concentrate would be discharged to the Westpoint Slough continuously at an average temperature of 25 degrees Celsius (77 degrees Fahrenheit). The discharge line was analyzed to run north along the existing concrete ponds with the outfall located at the northwestern corner of the project site. Based on influent wastewater from Silicon Valley Clean Water (SVCW), the RO concentrate that would be generated as part of the second waste stream was expected to exhibit the pollutant concentrations that could be discharged into Westpoint Slough. The third waste stream generated by RO is waste sludge, washwater, and cleaning solutions, which would be discharged back into the sewer system.

Other than the RWF itself, the system would require new influent and effluent pump stations and piping to transport the recycled water to customers (end users) in the Menlo Park Bayshore area. Pipeline alignments primarily utilize existing street rights-of-way for installation. The recycled water distribution pipelines would utilize approximately 14,200 linear feet (LF) of pipe along Marsh Road, Constitution Drive, Chilco Street, and Hamilton Avenue. Approximately 2,600 LF of distribution pipeline already exists along Chilco Street between Constitution Drive and Hamilton Avenue and the analyzed pipeline would connect to this existing distribution pipeline. The distribution pipeline requires four easement crossings: California Department of Transportation (Caltrans) crossings at Bayfront Expressway (SR 84) and Willow Road (SR 114), a Dumbarton Rail Corridor crossing on Chilco Street, a Pacific Gas and Electric Company (PG&E) high-pressure gas line crossing on Hamilton Avenue at Sevier Avenue. The influent wastewater pipeline was analyzed to connect the influent pump station located at Marsh Road and Bayfront Expressway (SR 84), adjacent to the SVCW pump station, and would connect with the Bayfront RWF along the Marsh Road right-of-way, approximately 4,500 LF long.

2.1.2 2024 EIR Addendum for Oyster Reef

Addendum #1 to the 2021 EIR included analysis for the addition of approximately 0.18 acre and 836 LF of artificial oyster reef to be installed at the northwestern portion of the project site. This artificial oyster reef would be located within the northernmost part of the FERRF site as well as in the area along Westpoint Slough, between the WBSD facility and Greco Island. The 2021 EIR mentioned the oyster reefs by stating that the approved project may include living shoreline elements at the toe of the slope of the ecotone levee (e.g., oysters, eel grass) (EIR Project Description p. 2-20).

The materials for the artificial oyster reef include a mix of coconut coir, Portland cement, and Baycrete shaped into a table-shaped framework. These table-shaped structures are sold commercially under the product name "Oyster Catcher™." Each table-shaped unit measures approximately 2 feet long by 2 feet wide by 2.5 feet high and weighs 25 to 30 pounds; approximately 1,260 individual units would be installed. The units would be anchored into the mud within the lower to middle intertidal zone along the

margin of existing mudflat between mean lower low water (MLLW) and mean sea level (MSL) (-1.18–3.35 feet NAVD88) and table legs will be planted approximately 18 inches below the mud ground surface.

The oyster reefs would use hand-carried installation methods, which includes carrying each of the framework table units over a series of laid wooden planks placed between the levee road and marsh installation area. Each unit would then be placed in the mud-ground installation site by hand and/or with hand tools, such as crow bars. The excavator installation method includes placement of the framework tables with an excavator, which would be sited on the levee road and the arm would be extended to unload the tables near the installation site. Installation by boat would require launching a 20- to 24-foot-long flat-bottom skiff boat from the shoreline during higher tidal periods, then motoring to the installation areas to install the units. Once in the installation area, the skiff's motor would be turned off and the boat poled to and away from the shore loading site to restock units onto the boat. Similar to the hand-carried installation method, the units would later be pushed into the mud-ground area by hand and/or with hand tools.

2.2 Environmental Review Process

The WBSD, serving as the Lead Agency under CEQA, prepared the Final EIR for the approved project, as well as the Findings and Mitigation Monitoring and Reporting Program (MMRP) in accordance with State CEQA Guidelines Sections 15091 (Findings) and 15097 (Mitigation Monitoring or Reporting), respectively. The Findings document identified impacts resulting from the approved project, and the MMRP outlines mitigation measures to reduce significant impacts to less-than-significant levels.

3 PROPOSED PROJECT CHANGES

The WBSD is proposing to utilize nanofiltration, a wastewater treatment process requiring a redesign of the RWF layout from the 2021 EIR. The nanofiltration process would take the place of wastewater treatment using RO; the approved project analyzed utilization of RO, which is no longer desired by the district.

Nanofiltration is an advanced treatment process where a membrane filter separates molecules based on size. Nanofiltration would produce brine at a lower concentration than RO, as analyzed in the 2021 EIR (Pura Aqua 2024). However, for the purposes of evaluation in this Addendum #2, concentrations were assumed to be equal to concentrations evaluated in the 2021 EIR.[2] Use of nanofiltration would result in lower energy use and result in a smaller waste stream, which allows for discharge into the existing sewer on-site, rather than into Westpoint Slough directly, as analyzed in the 2021 EIR. Recycled water, which is a byproduct of the wastewater treatment process, would be produced after primary treatment, which includes passing water through fine screens, aeration, and anoxic basins. Secondary treatment would include nanofiltration, which would pressure-filter the water through membranes with nanometer-sized pores to further separate solids. This process produces two waste streams: grit (solids) from the initial screening of the influent wastewater, as analyzed in the approved project (this material is collected and stored until it is hauled off-site to a sanitary landfill), and the residual fluid concentrate. Due to the lower concentration of brine, the effluent could be discharged directly to the existing sewer located at the Menlo Park Pump Station at the intersection of Bayfront Expressway (SR 84) and Marsh Road, in accordance with Regional Water Quality Control Board (RWQCB) requirements for recycled water waste discharge (SWRCB 2014).

[2] Email from Lorraine Htoo, Freyer Laureta, on May 10, 2024.

The changes required to construct a wastewater treatment facility using nanofiltration, instead of RO, include updated construction dates and durations. Construction is scheduled to begin in September 2024 and end in December 2026 (approximately 27 months), and operation is proposed to begin in October 2026. The 2021 EIR analyzed construction beginning construction in January 2022, with the new Bayfront RWF becoming operational in 2024.

The following on- and off-site changes are proposed under this Addendum #2 compared to the 2021 EIR:

3.1 Updated Recycled Water Facility

The updated Bayfront RWF is proposed to be approximately 33,000 square feet including tanks and accessory structures described below,[3] and as shown on Figure A-1 (Appendix A). This represents an increase in the square footage beyond the approved project's 12,000 square feet by approximately 21,000 square feet.

This facility would house all primary treatment facilities, or bioreactors, and would receive wastewater from the existing wastewater line along Marsh Road. Eight trees would need to be removed to accommodate the new site layout; the 2021 EIR analyzed the removal of two trees.

3.2 New Accessory Structures

As part of the updated Bayfront RWF, the following new accessory structures are planned (see Appendix A: Figure A-1):

- **New Operations Building:** A new operations building, approximately 1,700 square feet, is proposed to house electrical and secondary treatment facilities, including ultraviolet (UV)/nanofiltration apparatus. Chemicals needed for filtration, including acids, bases, and/or nutrients, may be stored in this facility.

  Nanofiltration would result in a brine concentrate waste stream that would be discharged into the existing sewer system (see Section 3.4, *New Pipeline Alignments*). The updated composition would result in concentrated effluent less than or equal to RO. However, for the purposes of evaluation in this Addendum #2, the concentrations were assumed to be equal to the concentrations evaluated in the 2021 EIR.[4]

- **New Storage building:** A new approximately 5,200 square foot storage building is proposed onsite, in the location of the demolished sedimentation tanks. This storage building replaces one of the warehouses proposed to be demolished.

- **New Generator:** A new approximately 700- to 850-horsepower electric generator is proposed to power the RWF and pipeline distribution system. The Influent Pump Station (IPS) receives wastewater from the sanitary sewer system located at the intersection of Bayfront Expressway (SR 84) and Marsh Road. Construction of the IPS was analyzed as part of the approved project. The distribution system follows the same pipeline alignments as analyzed in the 2021 EIR.

- **New Storage Tanks:** Two new approximately 35-foot-tall storage tanks 54 feet in diameter would be installed on-site. The new tanks would have a storage capacity of 0.5 million gallons (MG) each. The new tanks would be located adjacent to the east of the existing warehouse.

[3] Email from Fernando Monroy, Freyer Laureta on June 24, 2024.

[4] Email from Lorraine Htoo, Freyer Laureta on May 10, 2024.

- **New Odor Control Room:** Addition of an approximately 830 square-foot odor control room would purify air from the headworks (screens and grit). Air handling will be located within both the headworks and odor control area.
- **New Carbon Towers:** Two approximately 15-foot-tall carbon towers would be constructed on-site. The towers would reduce hydrogen sulfide gas levels to acceptable emissions levels through Bay Area Air Quality Management District (BAAQMD) permitting.
- **New Stormwater Bioretention Basin:** Approximately 1,620 square feet of bioretention basins (approximately 4% of total impervious area) would be installed at-grade for stormwater management. The new retention basins would be located throughout the site, including in the southeast corner near the proposed operations building, between the primary and advanced treatment buildings, north of the proposed tanks, and east of the decommissioned wastewater treatment plant. The new basins would be installed in compliance with National Pollutant Discharge Elimination System (NPDES) standards, required for new facilities that create more than 5,000 square feet of impervious surfaces.

3.3 New Pipeline Alignments

New pipeline alignments are required to service the new RWF located at the southeast corner of the project site, adjacent to Marsh Road. The overall layout has been updated and therefore proposed pipelines to and from the RWF would be extended and rerouted. The new influent and effluent sewer pipeline alignments and the recycled water line would connect to the updated RWF.

The effluent sewer pipeline would discharge the nanofiltration brine concentrate into the existing on-site sewer line, located at Marsh Road. The grit effluent would be held on-site until it is off-hauled by trucks to the Ox Mountain Sanitary Landfill.

The PG&E 3-inch high-pressure gas line, is currently located at Hamilton Avenue at Sevier Ave, and would be protected in place with installation of the new recycled water pipe. A PG&E representative would be contacted to observe construction during the installation.

3.4 Additional Demolition and Earthwork

As a result of the proposed nanofiltration system and to accommodate the new site layout, additional demolition is required (see Appendix A: Figure A-2). The following existing structures would be demolished as part of this addendum: the decommissioned wastewater treatment plant, concrete sedimentation tanks, chlorination building, headworks, pre-treatment structure, digester tanks, and operations building, and three ancillary structures. The total proposed demolition is approximately 2,400 cubic yards (CY) of material, which represents an increase of approximately 2,200 CY over the approved project.

An additional 2,800 CY of fill would be imported to the project site as part of the proposed project to achieve a finished floor elevation of a minimum of 12 feet, rather than the maximum elevation analyzed in the 2021 EIR. The floor elevation would be approximately 12 inches above the FEMA flood elevation map line. The approved project included 32,250 CY of fill, bringing the total fill to 35,050 CY.

The impervious surface of the project site would increase to approximately 33,000 square feet for the updated RWF and accessory structures. The total impervious surface of the approved project totaled 14,113 square feet in the 2021 EIR (13,620 square feet for the RWF and approximately 493 square feet for the IPS); this represents an increase of approximately 18,887 square feet in impervious surface on-site for the new RWF. The project proposes to formalize existing access routes onsite and resurface with

asphalt paving. Approximately 70,500 square feet of asphalt paving is proposed around the new facility and would provide on-site access and employee and maintenance worker parking. The project's total proposed impervious area with the paving and updated facility would total approximately 103,500 square feet, approximately 89,387 more square feet than the approved project. A proposed 23,000 square foot gravel area would be developed along the northern edge of the project area.

As previously discussed in the 2021 EIR, all best management practices (BMPs) from the approved project would apply. The approved project estimated approximately 86 total construction workers, with 60 workers required during peak construction activities, and there would be no change from the staffing evaluated in the 2021 EIR.

4 ENVIRONMENTAL IMPACT ANALYSIS

The 2021 EIR for the approved project evaluated the following environmental issues: Aesthetics, Air Quality, Hydrology and Water Quality, Land Use and Planning, and Noise. A discussion of impacts found to be less than significant or having no impact for the topics of Agriculture and Forestry Resources, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire, are also summarized. All issue areas required to be evaluated under the 2021 EIR have been evaluated or reevaluated in this Addendum #2 for the proposed project. This evaluation determines whether the proposed project would result in any new significant impacts or substantially more severe impacts than those identified in the 2021 EIR for the approved project.

4.1 Aesthetics

The proposed project revisions include demolition of existing structures, development of an RWF with an updated layout to accommodate nanofiltration, and construction of accessory structures. Proposed pipelines to and from the RWF would be extended and rerouted throughout the project site. The project site would be raised with imported fill to achieve a minimum floor elevation of 12 feet, approximately 12 inches above the FEMA flood elevation map line.

Temporary and operational (permanent) construction of the new facility would not impact any designed scenic vista, substantially damage any designated scenic resources, nor substantially alter existing visual character. Demolition and installation (construction) of the RWF and accessory structures would occur throughout the project site and would include removal of eight additional trees, for a total of 10 trees. Exterior lighting would be installed but would be similar to lighting described in the 2021 EIR. Operationally, the RWF would be visible from public viewpoints from trails, roadways, or non-motorized boaters along Westpoint or Flood Sloughs, but would not result in substantial visual changes to the natural bay setting nor block scenic views or vistas beyond impacts described in the 2021 EIR.

The following mitigation measures described in the 2021 EIR would remain applicable to the overall project and would remain unchanged:

- AES-1: Replacement Landscaping
- AES-2: Exterior Lighting

While the project proposes slightly raising the elevation, as well as additional demolition activities, the overall existing land use, area of disturbance, and size of the proposed structures are comparable to the existing features at the project site and in the immediate vicinity. The proposed RWF does not represent a

significant change in the aesthetic environment and the less-than-significant conclusions summarized in the 2021 EIR would remain unchanged. No modified or additional mitigation measures are required.

4.2 Air Quality

The proposed project revisions include demolition of existing structures, development of an RWF with an updated layout to accommodate nanofiltration, and construction of accessory structures. An additional 850 CY of fill would be imported to the project site as part of the proposed project to achieve a finished floor elevation of a minimum of 12 feet, approximately 12 inches above the FEMA flood elevation map line. Proposed pipelines to and from the RWF would be extended and rerouted throughout the project site. The following existing structures would be demolished as part of this addendum: the decommissioned wastewater treatment plant, concrete sedimentation tanks, chlorination building, headworks, pre-treatment structure, digester tanks and an operations building. The total proposed demolition is approximately 2,400 CY of material, which represents an increase of approximately 2,200 CY over the approved project.

While construction of the proposed project under this Addendum #2 would result in a longer construction period than analyzed in the EIR, additional earthwork and demolition, and additional equipment (backhoe), the project would not exceed any BAAQMD emissions thresholds. The Air Quality Technical Report (Appendix B) modeled all proposed project changes. Assumptions in the model included that exposed areas were watered two times per day and unpaved roads to the project were watered a minimum of two times per day. While the project emissions would be below all thresholds, further BAAQMD BMP requirements would ensure emissions are further below thresholds and would result in less-than-significant impacts as concluded in the 2021 EIR. The proposed project would also produce effluent from the nanofiltration process, rather than RO as analyzed in the 2021 EIR. Nanofiltration would result in a smaller waste stream and allow for discharge into the existing sewer line, lessening odors in the project vicinity compared to the 2021 EIR.

All construction projects within BAAQMD jurisdiction must comply with the required BMPs regarding fugitive dust and equipment exhaust emissions, as analyzed in the 2021 EIR. The proposed project revisions, therefore, would not conflict with or obstruct implementation of the BAAQMD Clean Air Plan. The proposed project revisions would not result in cumulatively considerable net increases in short- or long-term construction or operational criteria air pollutant emissions. Additionally, the proposed project revisions would not expose sensitive receptors to substantial pollutant concentrations or generate any additional odors beyond those already discussed in the 2021 EIR. Therefore, the proposed project would not cumulatively contribute to cumulative air quality impacts.

The proposed project does not represent a significant change to the air quality-related conclusions summarized in the 2021 EIR. No modified or additional mitigation measures are required.

4.3 Biological Resources

The proposed project revisions include demolition of existing structures, development of an RWF with an updated layout to accommodate nanofiltration, and construction of accessory structures. Proposed pipelines to and from the RWF would be extended and rerouted throughout the project site. Eight additional trees would be removed to accommodate the new site layout.

Additional grading and earthwork are required for the proposed project changes. An additional 2,800 CY of fill would be imported to the project site to achieve a finished floor elevation of a minimum of 12 feet, approximately 12 inches above the FEMA flood elevation map line. The project proposes to formalize existing access routes onsite and resurface with asphalt paving. The project's total proposed impervious

area with the paving and updated facility would total approximately 103,500 square feet. This represents an increase of approximately 89,387 square feet of impervious surface on-site from the 2021 EIR.

As discussed in the 2021 EIR and in Section 2.1.1, *2021 Final EIR for the West Bay Sanitary District FERRF Levee Improvements Project*, the RO concentrate generated as part of the second waste stream was expected to exhibit the pollutant concentrations that could be discharged into Westpoint Slough. For the purposes of evaluation in this Addendum #2, concentrations were assumed to be equal to concentrations evaluated in the 2021 EIR.[5] However, with the new facility using nanofiltration technology, this Westpoint Slough discharge is no longer required, and all concentrate can be discharged directly to the existing sewer line. While the proposed project revisions increase impervious surface, and require increased earthwork for the new site layout, the proposed project does not change the levels of significance concluded in the 2021 EIR.

The following mitigation measures described in the 2021 EIR would remain applicable to the overall project and would remain unchanged:

- BIO-1a: Pre-Activity Surveys for Special Status Plans
- BIO-1b: Avoidance Buffers
- BIO-2a: Biological Monitoring During Construction in the Marsh
- BIO-2b: Installation of Sheet Piles, Dewatering Plan and Relocation of Stranded Fish
- BIO-2c: Measures to Protect Water Quality
- BIO-2d: Noise Minimization
- BIO-3a: Worker Environmental Awareness Training
- BIO-3b: No Pets
- BIO-3c: Food Trash Removal
- BIO-3d: Minimize Non-daylight Work; Prepare Lighting Plan
- BIO-3e: Work During Extreme High Tides
- BIO-3f: Limit Vegetation Removal
- BIO-3g: Vegetation Removal Methods
- BIO-3h: Exclusion Fence
- BIO-3i: Artificial Lighting
- BIO-3j: Prohibition of Plastic Monofilament Netting
- BIO-3k: Monitoring and Adaptive Management Plan
- BIO-4: Pre-Construction/Pre-Disturbance Survey for California Black Rail and California Ridgway's Rail.
- BIO-5a: Conduct Pre-construction Surveys for Burring Owls
- BIO-5b: Implement Buffer Zones for Burring Owls
- BIO-5c: Monitor Owls During Construction
- BIO-5d: Restoration of Burring Owl Habitat On Site

[5] Email from Lorraine Htoo, Freyer Laureta on May 10, 2024.

- BIO-6a: Pre-Construction/Pre-Disturbance Surveys for Nesting Birds
- BIO-6c: Reduce Collision Hazard
- BIO-6d: Cap Open topped Posts/Fill Bolt Holes
- BIO-7a: Integrate Invasive Plan Management into the Ecotone Levee Restoration Plan
- BIO-7b: Construction Measures to Minimize Invasive Plan Infestations

Mitigation measure BIO-8, Water Quality Monitoring Plan is applicable to the RO concentrate, which is no longer a component of the proposed project and would not be required under the proposed project. Therefore, the proposed demolition and updated site layout would not cumulatively contribute to cumulative biological impacts.

The proposed demolition, earthwork, and construction of the RWF and accessory structures do not represent a significant change in the biological resources environment and less-than-significant conclusions summarized in the 2021 EIR would remain unchanged. No modified or additional mitigation measures are required.

4.4 Cultural and Tribal Cultural Resources

The proposed project revisions include demolition of existing structures, development of an RWF with an updated layout to accommodate nanofiltration, and construction of accessory structures. Proposed pipelines to and from the RWF would be extended and rerouted throughout the project site. Eight additional trees would be removed to accommodate the new site layout.

Additional grading and earthwork are required for the proposed project changes. An additional 2,800 CY of fill would be imported to the project site to achieve a finished floor elevation of a minimum of 12 feet, rather than the maximum elevation. The project proposes to formalize existing access routes onsite and resurface with asphalt paving. The total proposed impervious area with the paving and updated facility would total approximately 103,500 square feet. This represents an increase of approximately 89,387 square feet of impervious surface on-site from the 2021 EIR.

The following existing structures would be demolished as part of this addendum: the decommissioned wastewater treatment plant, concrete sedimentation tanks, chlorination building, headworks, pre-treatment structure, digester tanks, and operations building (see Appendix A: Figure A-2). The Historic Resources Evaluation prepared for the 2021 EIR found that the decommissioned FERRF site is not historic with regards to the built environment, and demolition of the additional structures as part of this Addendum #2 would not impact any historic resources.

While the proposed project revisions would increase the amount of earthwork or ground disturbance in the project area described in the 2021 EIR, the change does not represent a change in the level of significance conclusions in the 2021 EIR. In the event of the discovery of archaeological resources, or the unlikely discovery of human remains, and to safeguard potential buried archaeological remains, the following mitigation measures described in the 2021 EIR would remain applicable to the overall project and would remain unchanged:

- CUL-1a: Inadvertent Discovery
- CUL-1b: Tribal Resources
- CUL-1c Human Remains
- CUL-1d: Plan Details

- CUL-1e: Construction Monitoring on Hamilton Avenue
- CUL-1f: Toothless Buckets

The proposed project would therefore not cumulatively contribute to cumulative cultural or tribal resource impacts.

The proposed RWF does not represent a significant change in the cultural resources environment and the less-than-significant conclusions summarized in the 2021 EIR would remain unchanged. No modified or additional mitigation measures are required.

4.5 Geology and Soils

The proposed project includes an additional 2,800 CY of fill to imported to the project site to achieve a finished floor elevation of a minimum of 12 feet, rather than the maximum elevation. The project proposes to formalize existing access routes onsite and resurface with asphalt paving. The total proposed impervious area with the paving and updated facility would total approximately 103,500 square feet. This represents an increase of approximately 89,387 square feet of impervious surface on-site from the 2021 EIR. A proposed 23,000 square foot gravel area would be developed along the northern edge of the project area. The project revisions would not result in additional soil erosion, be located on unstable soil, or be located in soils incapable of adequately supporting the proposed RWF.

The following mitigation measures described in the 2021 EIR would remain applicable to the overall project and would remain unchanged:

- GEO-1: Geotechnical Engineering Investigation
- GEO-2: Paleontological Resources

The proposed RWF facility would therefore not cumulatively contribute to cumulative geology and soils impacts.

The proposed project does not represent a significant change in the geology and soils environment and conclusions summarized in the 2021 EIR would remain unchanged. No modified or additional mitigation measures are required.

4.6 Hydrology and Water Quality

The proposed project includes an additional 2,800 CY of fill to be imported to the project site. The project proposes to formalize existing access routes onsite and resurface with asphalt paving. The total proposed impervious area with the paving and updated facility would total approximately 103,500 square feet. This represents an increase of approximately 89,387 square feet of impervious surface on-site from the 2021 EIR. Additionally, the proposed project includes stormwater bioretention basins for stormwater management, in compliance with NPDES standards. This is required for new facilities that create more than 5,000 square feet of impervious surfaces.

Installation and operation of the new RWF would not further increase the potential for turbidity and sedimentation in Westpoint or Flood Sloughs than already described in the 2021 EIR, and therefore would not violate water quality or groundwater quality standards. Additionally, the project no longer proposes to discharge effluent into Westpoint Slough, but rather would discharge effluent into the existing sewer pipe on the project site. The proposed project would not impact surface water or groundwater quality nor alter existing drainage patterns. As discussed in the 2021 EIR, while flooding from San

Francisco Bay is a potentially significant impact, impacts can be mitigated through appropriate design of the approved project's levee improvements. Additionally, the proposed facility would be raised by increased fill to achieve a finished floor elevation of a minimum of 12 feet, rather than the maximum elevation described in the 2021 EIR.

Further, although the project site is located on the Bay margin, the project site is located outside of the tsunami inundation area and therefore there is no risk of release of pollutants due to a tsunami. The proposed RWF and nanofiltration process would therefore not cumulatively contribute to hydrology and water quality impacts.

The proposed RWF does not represent a significant change in the hydrology and water quality environment and conclusions summarized in the 2021 EIR would remain unchanged. No modified or mitigation measures are required.

4.7 Land Use and Planning

The proposed project revisions include the development of an RWF utilizing nanofiltration. The proposed project does not represent a change in land use outside of what is analyzed in the 2021 EIR. The installation and operation of the RWF would not physically divide an established community nor conflict with existing land use plans, policies, or regulations. Specifically, the proposed revisions would not alter conclusions or requirements with the California State Lands Commission. Therefore, the proposed RWF would not cumulatively contribute to cumulative land use and planning impacts.

The proposed RWF does not represent a significant change to land use planning-related conclusions summarized in the 2021 EIR. No additional mitigation measures are required.

4.8 Noise and Vibration

The proposed project revisions include demolition of existing structures, development of an RWF with an updated layout to accommodate nanofiltration, and construction of accessory structures. Proposed pipelines to and from the RWF would be extended and rerouted throughout the project site. Construction is expected to occur over approximately 27 months, 3 months longer than analyzed in the 2021 EIR. Construction would be similar to the phases and equipment analyzed in the 2021 EIR and require use of heavy equipment, including excavators, loaders, dozers, a pile driver, a roller, and an additional backhoe. The proposed RWF would result in similar construction noise and vibration, which would be temporary during construction. Operationally, there would be no change from the facility as analyzed in the 2021 EIR. Therefore, the proposed project revisions would not generate any increase in temporary or permanent ambient noise levels nor result in ground-borne vibration. The proposed project revisions would not result in excessive noise levels to persons residing or working in the vicinity. The proposed RWF and demolition would therefore not cumulatively contribute to noise and vibration impacts.

The proposed RWF does not represent a significant change to the noise- and vibration-related conclusions summarized in the 2021 EIR. No modified or additional mitigation measures are required.

4.9 Impacts Found to be Less than Significant

Using Appendix G of the State CEQA Guidelines, the 2021 EIR concluded that the proposed project would clearly result in no impact or a less-than-significant impact to the following resources: Agriculture and Forestry Resources, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service

Systems, and Wildfire. Construction and operation of the proposed project revisions would not result in changes to the conclusions of impacts found to have no impact or a less-than-significant impact based on the following:

- The proposed project revisions are not located on prime farmland, do not conflict with the Williamson Act, and are not located on forest or timber lands, and therefore would continue to have ***no impact*** on agriculture or forestry resources and ***no cumulative impact***.
- The proposed project revisions would not result in wasteful or inefficient energy use nor conflict with state or local renewable energy plans, and therefore would continue to result in ***less-than-significant impacts*** with regard to energy use and a ***less-than-significant cumulative impact***.
- The proposed project revisions would not generate enough greenhouse gas (GHG) emissions to influence global climate change, and therefore would result in ***less-than-significant impacts*** with regard to cumulative global climate change and GHG emissions.
- The proposed project revisions would not transport, use, handle, or distribute hazardous materials or be located on any open hazardous materials sites, within a wildfire hazards zone, within the proximity of any schools, or near any adjacent airport or airstrips, and therefore would continue to result in ***less-than-significant impacts*** with regard to hazards and hazardous materials and a ***less-than-significant cumulative impact***.
- The proposed project revisions would not impact mineral availability nor a mineral recovery site, and therefore would continue to result in ***no impact*** with regard to mineral resources or mineral availability and ***no cumulative impact***.
- The proposed project revisions would not induce population growth or displace any existing housing, and therefore would continue to result in ***less-than-significant impacts*** with regard to population and housing and a ***less-than-significant cumulative impact***.
- The proposed project revisions would not change the demand in fire, police, schools, parks, or library services, and therefore would continue to result in ***less-than-significant impacts*** with regard to public services and a ***less-than-significant cumulative impact***.
- The proposed project revisions would not increase the use of or change the demand on recreation facilities, and therefore would continue to result in ***less-than-significant impacts*** with regard to recreation and a ***less-than-significant cumulative impact***.
- The proposed project revisions would not result in changes to the circulation system analyzed in the 2021 EIR, including transit, roadway, bicycle, pedestrian facilities, and energy access, nor would it contribute towards an increase in vehicle miles traveled (VMT) beyond 100 trips per day, and therefore would continue to result in ***less-than-significant impacts*** with regard to transportation and a ***less-than-significant cumulative impact***.
- The proposed project revisions would not result in increased water, wastewater, stormwater, or solid waste use, and therefore would continue to result in ***less-than-significant impacts*** with regard to utilities and service systems and a ***less-than-significant cumulative impact***.
- The proposed project revisions would not exacerbate wildfire hazards nor conflict with emergency response plans, and therefore would continue to result in ***less-than-significant impacts*** with regard to wildfire hazards and a ***less-than-significant cumulative impact***.

5 CONCLUSION

The proposed project revisions do not involve any conditions that require preparation of a Subsequent or Supplemental EIR. This Addendum #2 demonstrates that the proposed amendments will not require major revisions to the 2021 EIR because the changes do not result in any new or substantially increased significant environmental effects pursuant to State CEQA Guidelines Sections 15162(a)(1) and 15162(a)(2). The proposed project revisions will not result in a new significant impact or a substantial increase in the severity of an impact identified in the 2021 EIR pursuant to State CEQA Guidelines Sections 15162(a)(3)(A) and 15162(a)(3)(B). Furthermore, no new information of substantial importance exists that indicates that there are mitigation measures or alternatives that are considerably different from those analyzed in the 2021 EIR that will substantially reduce one or more significant effects on the environment, and that the project proponents have declined to adopt the mitigation measure or alternative pursuant to State CEQA Guidelines Section 15162(a)(3)(D). Therefore, based on the criteria established in State CEQA Guidelines Sections 15162 and 15164, an Addendum is the proper CEQA documentation for proposed project revisions.

6 LITERATURE CITED

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APPENDIX A

Addendum #2 Figures

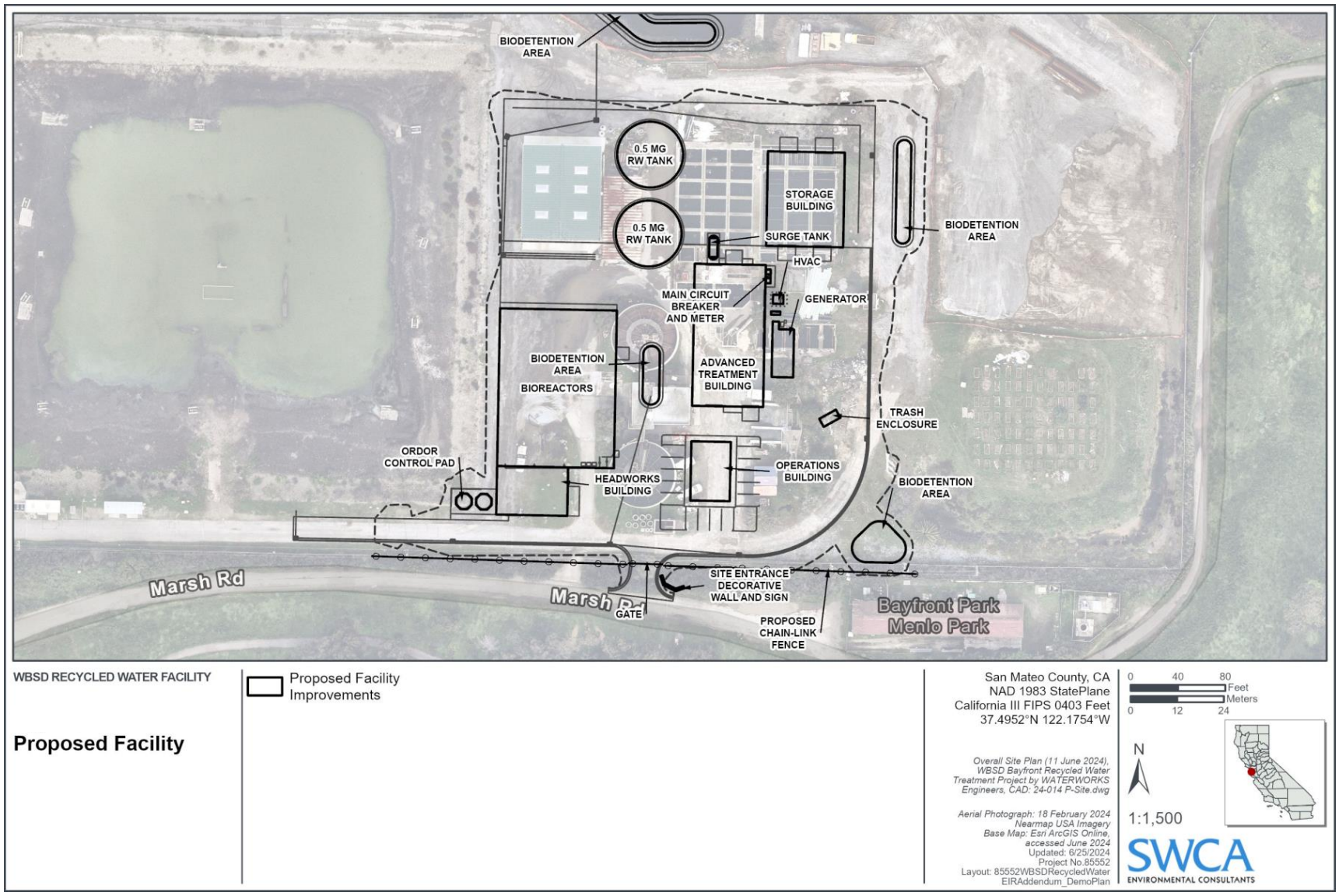

Figure A-1. Proposed RWF Facility Layout.

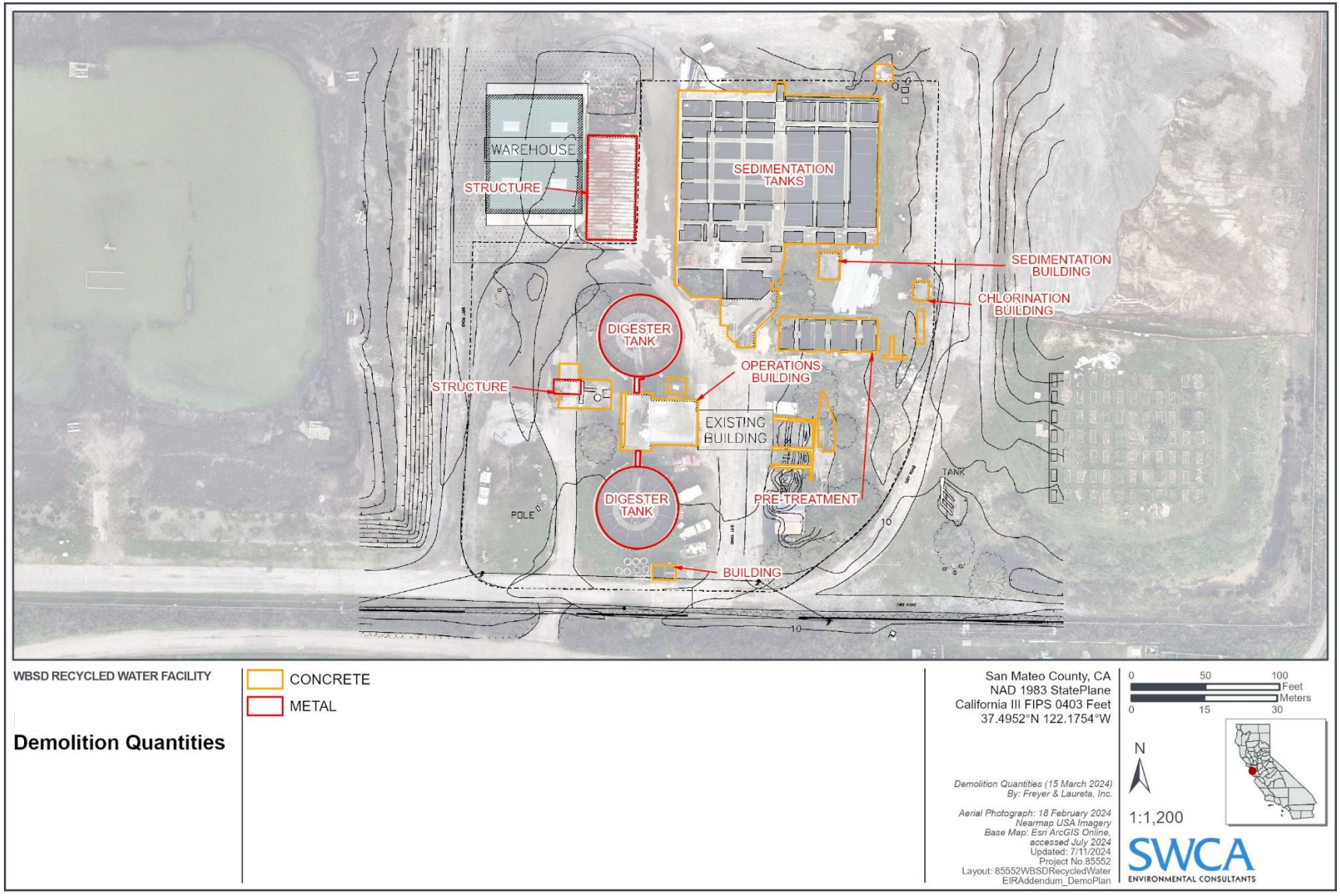

Figure A-2. Demolition Quantities.

APPENDIX B

Air Quality Technical Report

Air Quality Technical Report for the West Bay Sanitary District Flow Equalization and Resource Recovery Facility Levee Improvements Project Addendum #2, San Mateo County, California

JULY 2024

PREPARED FOR

West Bay Sanitary District

PREPARED BY

SWCA Environmental Consultants

AIR QUALITY
TECHNICAL REPORT FOR THE
WEST BAY SANITARY DISTRICT FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS PROJECT ADDENDUM #2
SAN MATEO COUNTY, CALIFORNIA

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July 2024

EXECUTIVE SUMMARY

This report analyzes potential air quality impacts related to the West Bay Sanitary District Flow Equalization and Resources Recovery Facility Levee Improvements Project Addendum #2 (project). In May 2021, WBSD adopted the Final Environmental Impact Report (EIR) for the Flow Equalization and Resource Recovery Facility (FERRF) Levee Improvements and Bayfront Recycled Water Facility Project. In January 2024, the 2021 EIR was amended (Addendum #1) to include an analysis of approximately 0.18 acre (836 linear feet) of artificial oyster reef, which was proposed to be installed at the northwestern portion of the project site. This project is an addendum to the FERRF Levee Improvements and Bayfront Recycled Water Facility Project Final EIR All analyses have been conducted to comply with Bay Area Air Quality Management District (BAAQMD) requirements for air quality and satisfy the requirements of the California Environmental Quality Act. The findings are as follows:

- The project's unmitigated emissions during construction and operations would not exceed BAAQMD annual or daily significance emissions thresholds.
- The project also includes dust and exhaust control measures to reduce emissions and comply with BAAQMD rules.
- The project would not result in significant elevated health risks at sensitive receptors.
- The project's carbon monoxide emissions during long-term project operations would not create any new or exacerbate any existing carbon monoxide hot spots.
- The project would be consistent with rules, regulations, emission control strategies and air quality plans set forth by BAAQMD.
- The project would be consistent with the California Global Warming Solutions Act of 2006 (also known as Assembly Bill 32) scoping plan strategies, the California Air Resources Board emission reduction strategy presented in the scoping plans, and the BAAQMD, County of San Mateo, and City of Menlo Park general plans and goals.

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CONTENTS

Appendices

Figures

Tables

ACRONYMS AND ABBREVIATIONS

2021 EIR	Flow Equalization & Resource Recovery Facility Levee Improvements & Bayfront Recycled Water Facility Project Final Environmental Impact Report –SCH#2020050414
µg/m3	micrograms per cubic meter
AB	Assembly Bill
approved project	Flow Equalization and Resource Recovery Facility Levee Improvements and Bayfront Recycled Water Facility Project (State Clearinghouse No. 2020050414)
AQMP	air quality management plan
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
BTT	bio-trickling tower
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emission Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	California Action Team
CCAA	California Clean Air Act
CCAP	Community Climate Action Plan
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CH4	methane
CO	carbon monoxide
CO2	carbon dioxide
CO2e	carbon dioxide equivalent
County	San Mateo County
CY	cubic yard
DPM	diesel particulate matter
EIR	Environmental Impact Report
EO	Executive Order

EPA	U.S. Environmental Protection Agency
EV	electric vehicle
FERFF	Flow Equalization and Resource Recovery Facility
GHG	greenhouse gas
GWP	global warming potential
H2S	hydrogen sulfide
HFC	hydrofluorocarbon
hp	horsepower
IPCC	Intergovernmental Panel on Climate Change
IPS	influent pump station
LCFS	Low Carbon Fuel Standard
MT	metric ton
MMT	million metric tons
N2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO2	nitrogen dioxide
NOX	oxides of nitrogen
O3	ozone
OEHHA	California Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
OSC	open space/conservation
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM2.5	particulate matter less than 2.5 microns in diameter
PM10	particulate matter less than 10 microns in diameter
ppb	parts per billion
ppm	parts per million
project	West Bay Sanitary District Flow Equalization and resource Recovery Facility Levee Improvements Project Addendum #2
RO	reverse osmosis

ROG	reactive organic gases
RTP	Regional Transportation Plan
RWF	recycled water facility
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCOTUS	Supreme Court of the United States
SCS	Sustainable Communities Strategy
SF6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SIP	State Implementation Plan
SO2	sulfur dioxide
SOx	sulfur oxides
SWCA	SWCA Environmental Consultants
TAC	toxic air contaminant
TRU	transportation refrigeration unit
TSCA	Toxic Substances Control Act
VMT	vehicle miles traveled
VOC	volatile organic compound
WBSD	West Bay Sanitary District
ZEV	Zero Emission Vehicle

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1 INTRODUCTION

West Bay Sanitary District (WBSD) retained SWCA Environmental Consultants (SWCA) to conduct an air quality emissions technical report in support of the proposed nanofiltration process and new project design for the previously approved project (Addendum #2 or project). In May 2021, WBSD adopted the Final Environmental Impact Report (EIR) for the Flow Equalization and Resource Recovery Facility (FERRF) Levee Improvements and Bayfront Recycled Water Facility Project. In January 2024, the 2021 EIR was amended (Addendum #1) to include an analysis of approximately 0.18 acre (836 linear feet) of artificial oyster reef, which was proposed to be installed at the northwestern portion of the project site. This project is an addendum to the FERRF Levee Improvements and Bayfront Recycled Water Facility Project Final EIR (State Clearinghouse No. 2020050414) (herein referred to as the 2021 EIR or approved project) (WBSD 2021) and the Addendum to the 2021 Final EIR for the WBSD FERRF Levee Improvements Project (Addendum #1). The project is in San Mateo County, California, approximately 3 miles from the city center of Menlo Park.

The purpose of this air quality report is to explain the methodologies used to evaluate the effects of the proposed construction, operation, maintenance, and decommissioning of the project on ambient air quality. This report provides a summary of the air pollutant emissions calculation methodologies, a summary of the control measures assumed, and the results of the air pollutant calculations. This report also addresses the compliance of the project with applicable federal, state, and local regulatory policies pertaining to air quality and an analysis of whether the project would cause an exceedance of an ambient air quality standards or significance threshold.

This evaluation of project impacts was conducted to comply with Bay Area Air Quality Management District (BAAQMD) requirements for air quality assessments and to satisfy the requirements of the California Environmental Quality Act (CEQA), as recommended in the BAAQMD *California Environmental Quality Act Air Quality Guidelines* (CEQA Guidelines) (BAAQMD 2022), which are incorporated herein by reference. Chapter 3 – Thresholds of Significance of the guidelines presents the BAAQMD air quality thresholds of significance for use in determining whether a proposed project will have a significant impact on air quality and provides the substantial evidence that a lead agency would need to support use of these thresholds. For this project, WBSD is serving as the lead agency under CEQA.[1] This report presents the results of the evaluation of potential air quality impacts associated with proposed changes to the previously approved project and shows that the proposed changes to the approved project do not create new significant impacts or a substantial increase in the severity of air quality impacts that were identified in the 2021 EIR.

2 PROJECT LOCATION AND DESCRIPTION

2.1 Project Location

The 20-acre approved project is at WBSD's Menlo Park FERRF, which is at the end of Marsh Road in Menlo Park, adjacent to Bedwell Bayfront Park on the edge of Flood Slough in the San Francisco Baylands. A 0.18-acre artificial oyster reef, proposed in Addendum #1, would be within the northernmost part of the FERRF site, as well as in the area along Westpoint Slough between FERRF and Greco Island. The current project site is within the approved project's 20-acres.

Access to the project site is provided via U.S. Route 101, Bayfront Expressway (State Route 84), and Marsh Road. Westpoint Slough and Don Edwards National Wildlife Refuge are north of the site, Flood

[1] The State CEQA Guidelines define the "lead agency" as the public agency that has principal responsibility for carrying out or approving a project.

Slough and salt evaporation ponds are to the west, and Bedwell Bayfront Park abuts the site's southern and eastern boundaries.

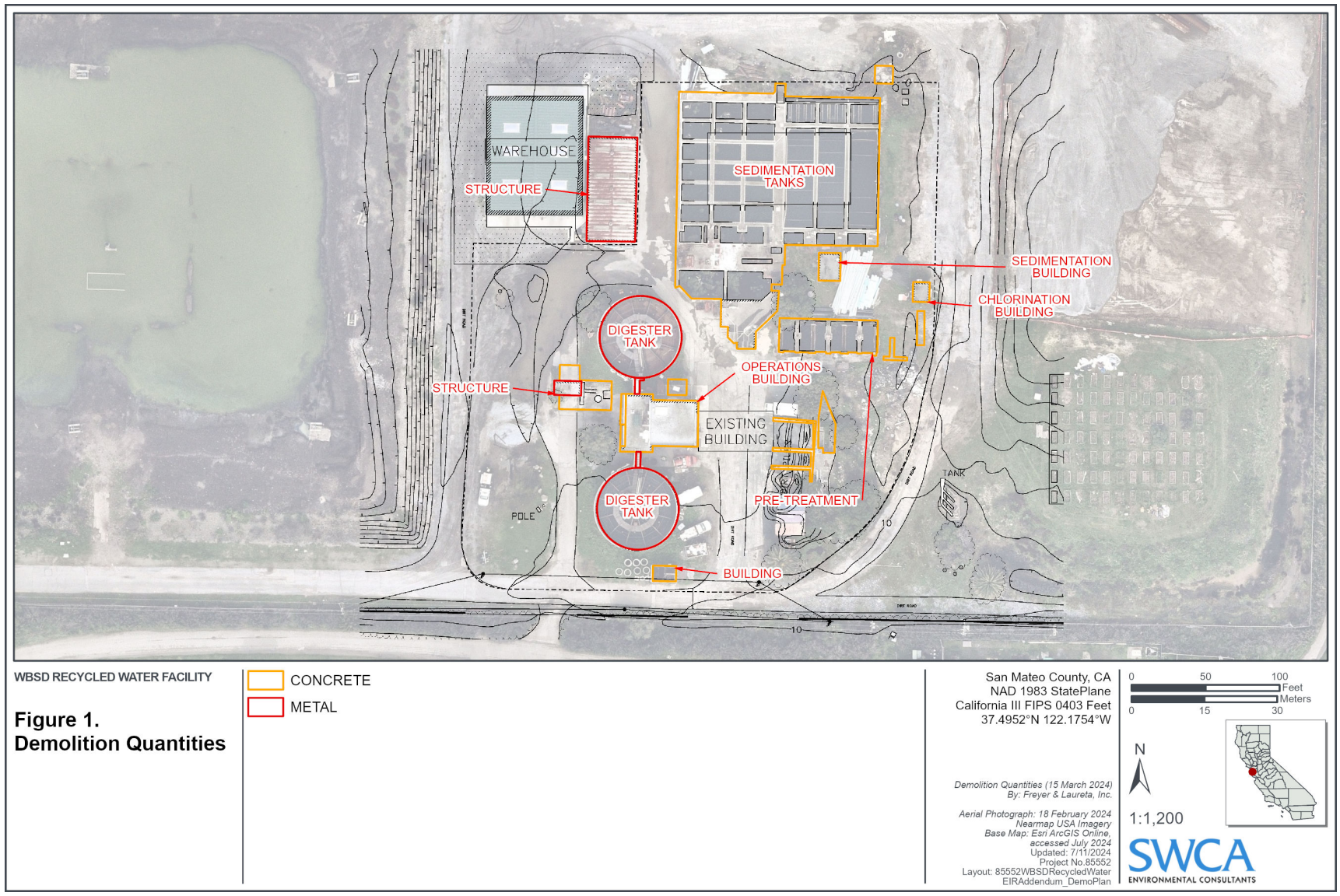

Figure 1. Project demolition area.

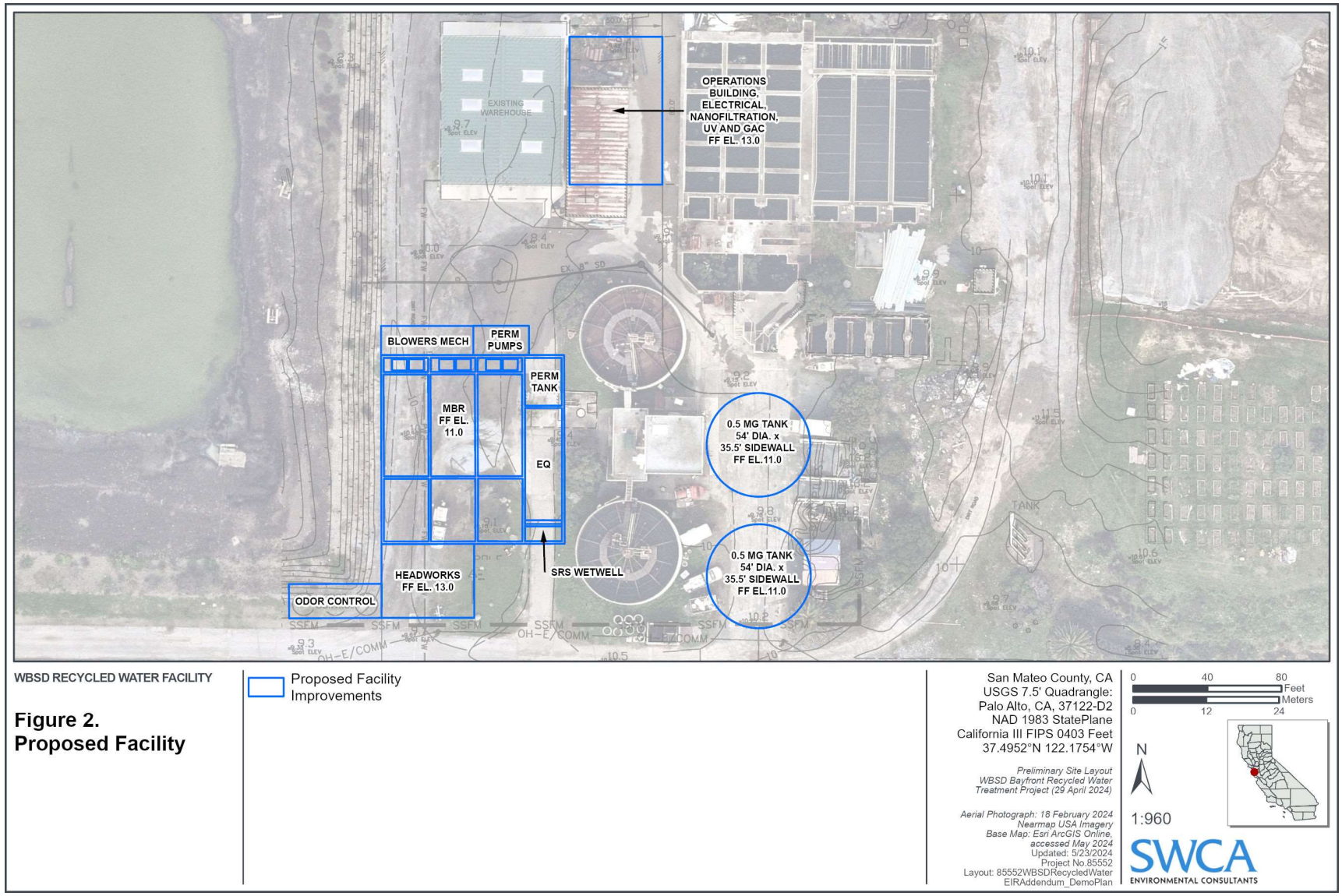

Figure 2.
Proposed Facility

Figure 2. Proposed project facility.

2.2 Project Description

The WBSD is proposing the current project, located within the approved project's 20-acre site, to utilize nanofiltration, a wastewater treatment process requiring a redesign of the Recycled Water Facility (RWF) layout from the 2021 EIR. The approved project proposed reverse osmosis (RO) as the wastewater treatment method; however, the WBSD is now proposing to use nanofiltration to treat wastewater. Nanofiltration would result in a brine concentrate waste stream that would be discharged into the existing sewer system; however, the effluent concentration will be equal to or less than that resulting from RO.

This new wastewater treatment process will require a redesign of the previously approved Bayfront recycled water facility (RWF) layout. Other required changes include a new operations building, new accessory structures, new pipeline alignments, and additional demolition and earthwork. These which would also result in a change in construction dates and durations. The proposed on- and off-site changes for the project are described below. Figure 1 shows the demolition area and Figure 2 provides the proposed facility.

2.2.1 Updated Recycled Water Facility

The proposed Bayfront RWF would be approximately 33,000 square feet, including tanks and accessory structures described below. This represents a 21,000-square-foot increase over the 12,000-square-foot approved project. The RWF would house all primary treatment facilities and would receive wastewater from the existing wastewater line along Marsh Road. The 2021 EIR analyzed removal of two trees; however, eight additional trees would need to be removed to accommodate new site layout. The project proposes to formalize existing access routes onsite and resurface with asphalt paving. Approximately 70,500 square feet of asphalt paving is proposed around the new facility and would provide on-site access and employee and maintenance worker parking.

2.2.2 New Accessory Structures

As part of the Bayfront RWF, the following new accessory structures are planned:

New Operations Building: A new operations building, approximately 1,700 square feet, is proposed to house electrical and secondary treatment facilities, including ultraviolet (UV)/nanofiltration apparatus. Chemicals needed for filtration, including acids, bases, and/or nutrients, may be stored in this facility.

New Storage building: A new approximately 5,200 square foot storage building is proposed onsite, in the location of the demolished sedimentation tanks. This storage building replaces one of the warehouses proposed to be demolished.

New Generator: A new approximately 700- to 850-horsepower electric generator is proposed to power the RWF and pipeline distribution system. The Influent Pump Station (IPS) receives wastewater from the sanitary sewer system located at the intersection of Bayfront Expressway (SR 84) and Marsh Road. Construction of the IPS was analyzed as part of the approved project. The distribution system follows the same pipeline alignments as analyzed in the 2021 EIR.

New Storage Tanks: Two new approximately 35-foot-tall storage tanks 54 feet in diameter would be installed on-site. The new tanks would have a storage capacity of 0.5 million gallons (MG) each. The new tanks would be located adjacent to the east of the existing warehouse.

New Odor Control Room: Addition of an approximately 830 square-foot odor control room would purify air from the headworks (screens and grit). Air handling will be located within both the headworks and odor control area.

New Carbon Towers: Two approximately 15-foot-tall carbon towers would be constructed on-site. The towers would reduce hydrogen sulfide gas levels to acceptable emissions levels through Bay Area Air Quality Management District (BAAQMD) permitting.

New Stormwater Bioretention Basin: Approximately 1,620 square feet of bioretention basins (approximately 4% of total impervious area) would be installed at-grade for stormwater management. The new retention basins would be located throughout the site, including in the southeast corner near the proposed operations building, between the primary and advanced treatment buildings, north of the proposed tanks, and east of the decommissioned wastewater treatment plant. The new basins would be installed in compliance with National Pollutant Discharge Elimination System (NPDES) standards, required for new facilities that create more than 5,000 square feet of impervious surfaces.

2.2.3 New Pipeline Alignments

New pipeline alignments would be required to service the new RWF at the southeast corner of the site, adjacent to Marsh Road. The overall layout would be updated, and therefore proposed pipelines to and from the RWF would be extended and rerouted. The new influent and effluent sewer pipeline alignments and the recycled waterline would connect to the updated RWF. The effluent sewer pipeline would discharge the nanofiltration brine concentrate into the existing on-site sewer line at Marsh Road. The grit effluent would be held on-site until it is off-hauled by trucks to the Ox Mountain Sanitary Landfill. The Pacific Gas and Electric Company (PG&E) 3-inch high-pressure gas line at Hamilton Avenue at Sevier Avenue would be protected in place by the installation of the new recycled water pipe. A PG&E representative would observe the installation.

2.2.4 Additional Demolition and Earthwork

As a result of the proposed nanofiltration system and to accommodate the new site layout, additional demolition would be required. The following existing structures would be demolished as part of this addendum: the decommissioned wastewater treatment plant, concrete sedimentation tanks, chlorination building, headworks, pretreatment structure, digester tanks and an operations building. The total proposed demolition is approximately 2,400 cubic yards (CY) of material, which represents an increase of approximately 2,200 CY over the approved project.

An additional 2,800 CY fill would be imported to the site as part of the proposed project to achieve a finished floor elevation of a minimum of 12 feet. The approved project included 32,250 CY of fill, bringing the total fill to 35,050 CY.

The impervious surface of the project site would increase to approximately 33,000 square feet for the updated RWF and accessory structures. The total impervious surface of the approved project totaled 14,113 square feet in the 2021 EIR (13,620 square feet for the RWF and approximately 493 square feet for the IPS); this represents an increase of approximately 18,887 square feet in impervious surface on-site for the new RWF. A proposed 23,000 square foot gravel area would be developed along the northern edge of the project area.

All best management practices (BMPs) discussed in the 2021 EIR for the approved project would apply.

The approved project estimated approximately 86 total construction workers, with 60 workers required during peak construction activities; there would be no change for the project from the staffing levels evaluated in the 2021 EIR.

2.3 Construction Time Frame and Phasing

Construction of the project, from mobilization to the site to final completion, is expected to begin in September 2024 and be complete by the end of November 2026, lasting for approximately 27 months. Operation is proposed to begin in October 2026. Construction would occur in the following five phases:

1. **Demolition**, including the decommissioned wastewater treatment plant, concrete sedimentation tanks, chlorination building, headworks, pretreatment structure, digester tanks, and an operations building. The total proposed 74,000-square-foot demolition would result in approximately 2,400 CY of material, which would be hauled from the project site.
2. **Utilities associated with the Bayfront RWF**, including erosion control measures, removal of trees, rough, light grading of site, leveling, utility set-ups, and import of 2,800 CY of fill.
3. **RWF construction**, including construction of the updated 33,000-square-foot Bayfront RWF which includes a 5,200 square foot storage building and the 1,700-square-foot operations building, accessory structures, new pipeline alignments, and parking area pavement.
4. **Paving**, including the paving of approximately 70,500 square feet around the new facility, on-site access, and employee and maintenance worker parking.
5. **Architectural coating**, including the interior and exterior of buildings and the parking area.

All construction activities, including construction staging of equipment, would be entirely within the project site. Typical construction equipment, including excavators, graders, tractors, loaders, and pavers, would be used during all phases of project construction and would be stored within the staging area. The project would apply for and comply with a BAAQMD General Permit to Construct and Authority to Operate. Once construction is complete, the project would be operate as a recycled water facility using nanofiltration, owned and operated by the West Bay Sanitary District.

No off-road equipment is anticipated during project operations. Stationary equipment would include a new approximately 700- to 850-hp emergency diesel generator, proposed to power the influent pump station during emergencies (which would be subject to permitting by the BAAQMD) and two 20-hp electric pumps. The project would be autonomous and would generate two trips per day of employee visiting the site for maintenance and operation. An additional 24 trips per year are anticipated for chemical deliveries.

In addition to the potential emissions from stationary equipment and worker and deliveries, the operations building and Bayfront RWF would have emissions associated with electricity, waste, and indoor water. Current operations at the FERRF site are permitted through the existing BAAQMD Permit to Operate (PTO) No. 124. In accordance with the PTO, the flow equalization facilities would continue to be required to maintain aerobic conditions to minimize odors. During project operation, the brine treatment process would be nanofiltration, which results in a smaller waste stream than RO and would be sent back to the sewer system.

3 ENVIRONMENTAL SETTING

The project is in San Mateo County within the San Francisco Bay Area Air Basin (SFBAAB), which consists of nine Bay Area counties. The BAAQMD has jurisdiction within the San Mateo County portion of SFBAAB. The ambient concentrations of air pollutants are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors

as topography, meteorology, and climate, in addition to the emissions released by existing air pollutant sources.

3.1 Overview of Air Pollution and Potential Health Effects

3.1.1 Criteria Air Pollutants

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of specific pollutants in order to protect public health and welfare. These pollutants are referred to as "criteria air pollutants," and the national and state standards have been set at levels considered safe to protect public health, including the health of sensitive populations, such as asthmatics, children, and the elderly (with a safety margin), and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment, either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in the air quality with the SFBAAB. The criteria air pollutants for which national and state standards have been promulgated and that are most relevant to current air quality planning and regulation in the SFBAAB and BAAQMD include carbon monoxide (CO), ozone (O_3), particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead, sulfates, and H_2S. These pollutants, as well as volatile organic compounds (VOCs) and toxic air contaminants (TACs), are discussed in the following paragraphs. The national and state criteria pollutants and the applicable ambient air quality standards are listed in Table 1 below.

3.1.1.1 OZONE

O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly nitrogen oxides (NO_x) and VOCs. The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric ozone) and at the Earth's surface in the troposphere (ozone). The O_3 regulated by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good" O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2024a). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

3.1.1.2 NITROGEN DIOXIDE

NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (N_2O), which is a colorless, odorless gas. NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2024a).

3.1.1.3 CARBON MONOXIDE

CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions (EPA 2024a).

3.1.1.4 SULFUR DIOXIDE

SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel (EPA 2024a).

3.1.1.5 PARTICULATE MATTER

PM pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. PM can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and particulate matter less than 10 microns in diameter (PM_{10}) represent fractions of particulate matter. $PM_{2.5}$ is roughly $^1/_{28}$ the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In

addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs. PM_{10} is about $^1/_7$ the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush and waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in $PM_{2.5}$ and PM_{10} (EPA 2024a).

On February 7, 2024, the EPA strengthened the National Ambient Air Quality Standards (NAAQS) for $PM_{2.5}$ by revising the level of the primary (health-based) annual $PM_{2.5}$ standard to 9.0 micrograms per cubic meter ($\mu g/m^3$). EPA is retaining the primary 24-hour $PM_{2.5}$ standard, with its level of 35 $\mu g/m^3$. As part of the revisions to the $PM_{2.5}$ NAAQS, EPA is updating key air quality monitoring requirements for fine particles (EPA 2024b).

3.1.1.6 LEAD

Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient and psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead (EPA 2024a).

3.1.1.7 OTHERS

Sulfates. Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere. Sulfates can result in respiratory impairment, as well as reduced visibility.

Vinyl Chloride. Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide. H_2S is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of H_2S include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to H_2S can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

3.1.2 Volatile Organic Compounds

VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the state of California as TACs. Although there are no specific VOC ambient air quality standards, VOC is a prime component (along with NO_x) of the photochemical processes by which such criteria pollutants as O_3, NO_2, and certain fine particles are formed. They are, thus, regulated as "precursors" to the formation of those criteria pollutants.

3.1.3 Toxic Air Contaminants

TACs refer to a diverse group of "non-criteria" air pollutants that can affect human health but have not had ambient air quality standards established for them. This is not because they are fundamentally different from the pollutants discussed above but because their effects tend to be local rather than regional. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the state legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hot spots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

The federal TACs are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health, although there are no ambient standards established for TACs. Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or other acute (short-term) or chronic (long-term) health problems. For TACs that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk free. Individual TACs vary greatly in the risks they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another. For certain TACs, a unit risk factor can be developed to evaluate cancer risk. For acute and chronic health effects, a similar factor, called a Hazard Index, is used to evaluate risk. TACs are identified and their toxicity is studied by the

California Office of Environmental Health Hazard Assessment (OEHHA). Examples of TAC sources include industrial processes, dry cleaners, gasoline stations, paint and solvent operations, and fossil fuel combustion sources. The TAC that is relevant to the implementation of the project is diesel particulate matter (DPM).

DPM was identified as a TAC by CARB in August 1998 (CARB 1998). DPM is emitted from both mobile and stationary sources. In California, on-road, diesel-fueled vehicles contribute approximately 40% of the statewide total, with an additional 57% attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units (TRUs). Stationary sources, contributing about 3% of emissions, include shipyards, warehouses, heavy-equipment repair yards, and oil and gas production operations. Emissions from these sources are from diesel-fueled internal combustion engines. Stationary sources that report DPM emissions also include heavy construction, manufacturers of asphalt paving materials and blocks, and diesel-fueled electrical generation facilities.

Exposure to DPM can have immediate health effects. DPM can have a range of health effects including irritation of eyes, throat, and lungs, causing headaches, lightheadedness, and nausea. Exposure to DPM also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. Children, the elderly, and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to fine-particle pollution. In California, DPM has been identified as a carcinogen.

CARB has adopted and implemented a number of regulations to reduce emissions of DPM from botstationary and mobile sources. Several of these regulatory programs affect medium- and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and NO_x from existing on-road, heavy-duty, diesel-fueled vehicles, including those used at construction sites. The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. Therefore, as of January 1, 2023, all trucks and buses are 2010 or newer model year engines.

Naturally occurring asbestos areas are identified based on the type of rock found in the area. Asbestos-containing rocks found in California are ultramafic rocks, including serpentine rocks. Asbestos has been designated a TAC by CARB and is a known carcinogen. When this material is disturbed in connection with construction, grading, quarrying, or surface mining operations, asbestos-containing dust can be generated. Exposure to asbestos can result in adverse health effects such as lung cancer, mesothelioma (cancer of the linings of the lungs and abdomen), and asbestosis (scarring of lung tissues that results in constricted breathing) (Van Gosen and Clinkenbeard 2011).

Naturally occurring asbestos is prevalent in at least 44 of California's 58 counties. Asbestos is the name for a group of naturally occurring silicate minerals. Asbestos may be found in serpentine, other ultramafic, and volcanic rock. When rock containing naturally occurring asbestos is broken or crushed, asbestos may become released and become airborne, causing a potential health hazard. To reduce exposure to asbestos when these soils are disturbed CARB adopted the Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations. This statewide regulation is applicable to grading or any other projects disturbing soil in areas of California where asbestos may exist, as determined by the California Geological Survey. The Airborne Toxic Control Measure applies to any size construction project, although there are additional notification requirements for projects that exceed 1 acre. The project is not in a geologic setting with a potential for asbestos to occur; therefore, asbestos will not be an issue for this project (CARB 2000a).

Table 1. State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
			Primary	Secondary
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m³)	–	Same as primary
	8 hour	0.070 ppm (137 µg/m³)	0.070 ppm (137µg/m³)	
Respirable particulate matter (PM_{10})	24 hour	50 µg/m³	150 µg/m³	Same as primary
	Annual mean	20 µg/m³	–	
Fine particulatematter ($PM_{2.5}$)	24 hour	–	35 µg/m³	Same as primary
	Annual mean	12 µg/m³	9.0 µg/m³	15 µg/m³
Carbon monoxide (CO)	1 hour	20 ppm (23 µg/m³)	35 ppm (40 mg/m³)	–
	8 hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	–
Nitrogen dioxide (NO_2)	1 hour	0.18 ppm (339 µg/m³)	100 ppb (188 µg/m³)	–
	Annual mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	Same as primary
Sulfur dioxide (SO_2)	1 hour	0.25 ppm (655 µg/m³)	75 ppb (196 µg/m³)	–
	3 hour	–	–	0.5 ppm (1,300 µg/m³)
	24 hour	0.04 ppm (105 µg/m³)	0.14 ppm	–
	Annual mean	–	0.030 ppm	–
Lead	30-day average	1.5 µg/m³	–	–
	Calendarquarter	–	1.5 µg/m³	Same as primary
	Rolling 3-month average	–	0.15 µg/m³	Same as primary
Visibility-reducing particles	8 hour	10-mile visibility standard, extinction of 0.23 per kilometer	No national standards	
Sulfates	24 hour	25 µg/m³		
Hydrogen sulfide (H_2S)	1 hour	0.03 ppm (42 µg/m³)		
Vinyl chloride	24 hour	0.01 ppm (265 µg/m³)		

Source: CARB (2016); EPA (2024c).

Notes:

– = No standard.
µg/m³ = Micrograms per cubic meter.
ppb = Parts per billion.
ppm = Parts per million.

3.1.4 Odors

A qualitative assessment should be made as to whether a project has the potential to generate odorous emissions of a type or quantity that could meet the statutory definition for nuisance, i.e., odors "which cause detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property" (California Health and Safety Code 41700). Whereas offensive odors usually do not cause any physical harm, they can be unpleasant enough to lead to considerable distress among the public and generate citizen complaints to local governments and the BAAQMD. BAAQMD Regulation 7 – Odorous Substances places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property." Under BAAQMD Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance.

3.2 Existing Air Quality Conditions at the Project Site

3.2.1 Regional Air Quality

Ambient air quality is affected by climatological conditions, topography, and the types and amounts of pollutants emitted. The following sections summarize how air pollution moves through the air, water, and soil in the SFBAAB and how it changes chemically in the presence of other chemicals and particles. This section also summarizes regional and local climate conditions, existing air quality conditions, and sensitive receptors that may be affected by project-related emissions.

The project is in the city of Menlo Park and San Mateo County within the SFBAAB (over which BAAQMD has jurisdiction). The SFBAAB is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range splits in the Bay Area, creating a west coast gap, the Golden Gate, and an east coast gap, the Carquinez Strait, which allows air to flow in and out of the Bay Area and the Central Valley. The climate is dominated by the strength and location of a semipermanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. The upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold-water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. On summer afternoons, the temperatures at the coast can be 35 degrees (°) Fahrenheit cooler than temperatures 15 to 20 miles inland; at night, this contrast usually decreases to less than 10° Fahrenheit. In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime, the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains (November–March) account for about 75% of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys (NCDC 2024). During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high, and thus pollution levels tend to be low (i.e., air pollutants are dispersed more readily into the atmosphere rather than accumulate under stagnant conditions); however, during the winter, frequent dry periods do occur, where mixing and ventilation are low and pollutant levels build up.

3.2.2 Regional Attainment Status

Depending on whether the applicable ambient air quality standards are met or exceeded, the SFBAAB is classified on a federal and state level as being in "attainment" or "nonattainment." The EPA and CARB determine the air quality attainment status of designated areas by comparing ambient air quality measurements from state and local ambient air monitoring stations with the NAAQS and California Ambient Air Quality Standards (CAAQS), respectively. These designations are determined on a pollutant-by-pollutant basis. Consistent with federal requirements, an unclassifiable/unclassified designation is treated as an attainment designation. The SFBAAB is currently designated as a nonattainment area for O_3 under the NAAQS and CAAQS, PM_{10} under the CAAQS, and $PM_{2.5}$ under the NAAQS and CAAQS. Thus, the General Conformity Rule, which is designed to protect ambient air quality within nonattainment and maintenance areas against further degradation applies and the de minimis thresholds are applicable as outlined in 14 California Code of Regulations (CCR) Division 6, Chapter 3, Section 15183.5(b)). The SFBAAB is considered an "attainment/unclassified" area for all other pollutants (EPA 2024d).

3.2.3 Local Wind Conditions

The project site is approximately 4 miles southeast of San Carlos Municipal Airport and approximately 4 miles northwest of Palo Alto Municipal Airport. As shown in Figure 3 and Figure 4, the prevailing winds at San Carlos Municipal Airport and Palo Alto Municipal Airport are from the west-northwest and northwest, respectively. This indicates the prevailing wind at the project site is likely from the northwest.

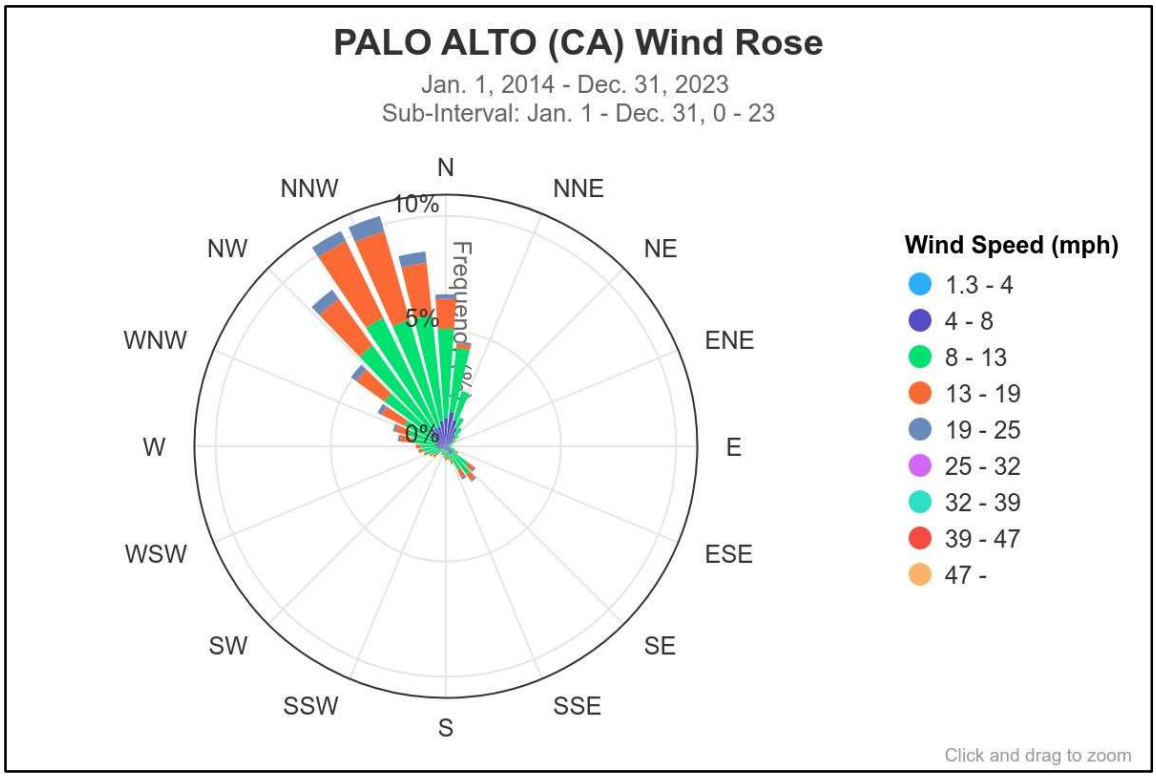

Figure 3. Palo Alto Municipal Airport wind rose 2014–2023.

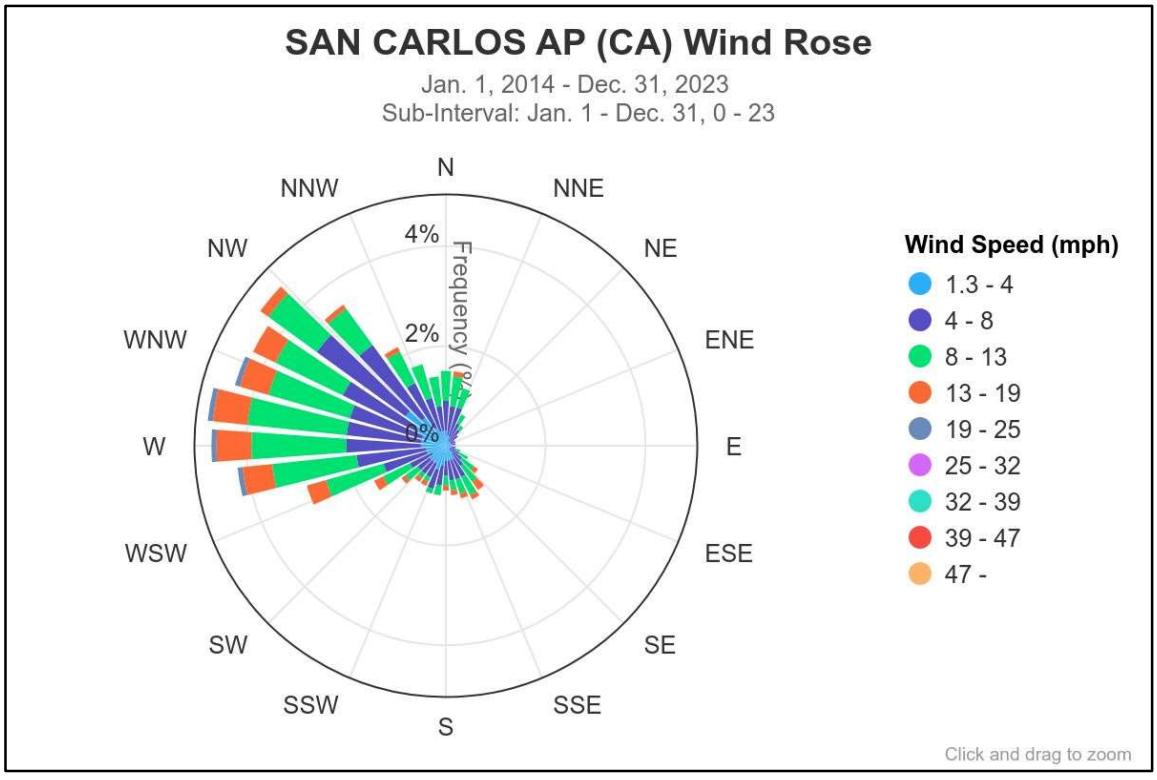

Figure 4. San Carlos Municipal Airport wind rose 2014–2023.

3.2.4 Local Air Quality

Air pollutant emissions are generated in the local vicinity by mobile sources primarily consisting of automobile traffic. O_3 and $PM_{2.5}$ are the major regional air pollutants of concern in the Bay Area. Ozone is primarily a problem in the summer, and fine particle pollution in the winter. In San Mateo County, O_3 almost never exceeds health standards, and $PM_{2.5}$ exceeds the national standard only about 1 day each year. San Mateo County frequently receives fresh marine air from the Pacific Ocean, which passes over the coastal hills. In winter, $PM_{2.5}$ may be transported into San Mateo County from other parts of the Bay Area, adding to wood smoke, which may lead to elevated concentrations, but these are rarely high enough to exceed health standards.

3.2.4.1 EXISTING CRITERIA POLLUTANT LEVELS AT NEARBY MONITORING STATIONS

The BAAQMD maintains a comprehensive air quality monitoring network consisting of over 30 stations distributed among the nine Bay Area counties in its jurisdiction. Table 2 shows data from the 3 most recent years available from the monitor on Barron Avenue in Redwood City. The Barron Avenue location is the closest station to the project site that collects data for O_3, NO_2, and $PM_{2.5}$. Data for PM_{10} have been taken from the BAAQMD monitoring station on Jackson Street in San Jose, the next closest monitoring station that collects data for those pollutants. As shown in Table 2, air quality conditions have generally remained the same or improved over the 2020 to 2022 time period. The air quality data collected by CARB in Table 2 include exceptional events such as wind and wildfires. The national and state criteria pollutants and the applicable ambient air quality standards are listed above in Table 1.

Table 2. Summary of Ambient Air Quality Monitoring Summary

Criteria Pollutant		Year		
		2020	2021	2022
O_3	Maximum 1-hour concentration (ppm)	0.098	0.085	0.079
	Days exceeding CAAQS (0.09 ppm)	1	0	0
	Maximum 8-hour concentration (ppm)	0.077	0.063	0.061
	Days exceeding NAAQS (0.07 ppm)	1	0	0
	Days exceeding CAAQS (0.07 ppm)	1	0	0
PM_{10}	Maximum 24-hour concentration (µg/m^3)	134.9	42.8	41.1
	Days exceeding NAAQS (150 µg/m^3)	0	0	0
	Days exceeding CAAQS (50 µg/m^3)	–	0	0
$PM_{2.5}$	Maximum 24-hour concentration (µg/m^3)	124.1	30.1	27.4
	Days exceeding NAAQS (35 µg/m^3)	9	0	0
NO_x	Maximum 1-hour concentration (µg/m^3)	45.9	40.5	43.8
	Days exceeding NAAQS (188 µg/m^3)	0	0	0
	Days exceeding CAAQS (339 µg/m^3)	0	0	0

Source: CARB (2024).

Notes:
µg/m3 = Micrograms per cubic meter.
ppm = Parts per million.
– = Insufficient data.

3.2.4.2 EXISTING HEALTH RISK IN THE PROJECT VICINITY

OEHHA, on behalf of the California Environmental Protection Agency (CalEPA), provides a screening tool called CalEnviroScreen that can be used to help identify California communities disproportionately burdened by multiple sources of pollution. The project is in Census Tract 6081611700, which has 5,801 people. To determine the existing level of TACs in the area, the CalEnviroScreen indicator that represents modeled air concentration of chemical releases from large facility emissions in and nearby the census tract was identified. This indicator takes the air concentration and toxicity of the chemical to determine the toxic release score. The data are averaged over 2017 to 2019, and the toxic release indicator scores range from 0 to 96,985. The score for this census tract is 116.77, which means the toxic release percentile for this census tract is 25, or higher than 25% of the census tracts in California (OEHHA 2023).

The CalEnviroScreen for DPM was determined, as DPM is also a TAC. This indicator represents how much DPM is emitted into the air within and near the populated parts of the census tracts. The data from 2016 indicate that sources of DPM within and nearby the populated parts of this census tract emit 0.453 tons per year. The DPM percentile for this census tract is 88, meaning it is higher than 88% of the census tracts in California. Diesel emissions in California counties range between 0 and 15 tons per year. These indicators show that health risk in the project vicinity is moderate for DPM and toxic releases. Similarly, for O_3, the indicator is the mean of summer months (May–October) of the daily maximum 8-hour O_3 concentration (parts per million [ppm]). This measurement is used to represent short-term O_3 health impacts. The census tract has a summed concentration of 0.034 ppm. O_3 concentrations in California range between 0.03 and 0.07 ppm. Overall, according to CalEnviroScreen, the project is in the 11th percentile for O_3, which means the project site has levels of O_3 that are higher than 11% of the census tracts in California (OEHHA 2023). Overall, according to CalEnviroScreen, the pollution burden for the project is in the 60th percentile, which means that the project area is higher than average in comparison to other communities within California (OEHHA 2023).

3.2.4.3 SENSITIVE USES

Some population groups, including children, elderly, and acutely and chronically ill persons (especially those with cardiorespiratory diseases), are considered more sensitive to air pollution than others. A sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant. Sensitive receptors are typically found in the following facilities:

- Schools, playgrounds, and childcare centers
- Long-term health care facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences

The Bayfront RWF is approximately 4,600 feet from the nearest homes off Rolison Road, approximately 8,600 feet from Stanford Medicine Outpatient Center in Redwood City and approximately 4,700 feet from TIDE Academy in the Sequoia Union High School District. All other air quality sensitive receptors are at greater distances from the project and would be less impacted by project emissions. Implementation of the proposed project would not result in the long-term operation of any emission sources that would adversely affect nearby sensitive receptors. Short-term (27-month) construction activities could result in temporary increases in pollutant concentrations.

4 REGULATORY SETTING

Federal, state, and local agencies have set ambient air quality standards for certain air pollutants through statutory requirements and have established regulations and various plans and policies to maintain and improve air quality, as described below.

4.1 Federal

4.1.1 Federal Clean Air Act

The federal Clean Air Act (CAA), which was passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The CAA delegates primary responsibility for clean air to EPA. The EPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to state and local agencies. Under the act, EPA has established the NAAQS for six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. O_3, CO, NO_2, SO_2, lead, and particulate matter (PM_{10} and $PM_{2.5}$) are the six criteria air pollutants. O_3 is a secondary pollutant; NO_X and VOCs are of particular interest as they are precursors to O_3 formation. The NAAQS are divided into primary and secondary standards; the primary standards are set to protect human health within an adequate margin of safety, and the secondary standards are set to protect environmental values, such as plant and animal life. The standards for all criteria pollutants are presented in Table 1.

The CAA requires EPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The act also mandates that the state submit and implement a State Implementation Plan (SIP) for areas not meeting the NAAQS. These plans must include pollution control measures that demonstrate how the standards will be met.

4.1.2 Toxic Substance Control Act

The Toxic Substances Control Act (TSCA) provides EPA with authority to require reporting, recordkeeping and testing, and restrictions related to chemical substances and/or mixtures. TSCA became law on October 11, 1976, and it became effective on January 1, 1977. TSCA authorized EPA to secure information on all new and existing chemical substances, as well as to control any of the substances that were determined to cause unreasonable risk to public health or the environment. Congress later added additional titles to TSCA, with the original part designated as Title I – Control of Hazardous Substances. TSCA regulatory authority and program implementation rest predominantly with the federal government (i.e., EPA); however, EPA can authorize states to operate their own programs for some portions of the statute. TSCA Title IV allows states the flexibility to develop accreditation and certification programs and work practice standards for lead-related inspection, risk assessment, renovation, and abatement that are at least as protective as existing federal standards.

4.1.3 National Emission Standards for Hazardous Air Pollutants (Asbestos)

The EPA's air toxics regulation for asbestos is intended to minimize the release of asbestos fibers during activities involving the handling of asbestos. Asbestos was one of the first hazardous air pollutants regulated under the air toxics program, as there are major health effects associated with asbestos exposure (lung cancer, mesothelioma, and asbestosis). On March 31, 1971, EPA identified asbestos as a hazardous

pollutant, and on April 6, 1973, EPA promulgated the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), currently found in 40 Code of Federal Regulations 61(M). The Asbestos NESHAP has been amended several times, most comprehensively in November 1990. In 1995, the rule was amended to correctly cross-reference citations to Occupational Safety and Health Administration, Department of Transportation, and other EPA rules governing asbestos. Air toxics regulations under the CAA have guidance on reducing asbestos in renovation and demolition of buildings; institutional, commercial, and industrial building; large-scale residential demolition; exceptions to the asbestos removal requirements; asbestos control methods; waste disposal and transportation; and milling, manufacturing, and fabrication.

4.2 State

4.2.1 California Clean Air Act

The California Clean Air Act (CCAA) was adopted by CARB in 1988. The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for O_3, CO, SO_2, and NO_2 by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the CCAA provides districts with authority to regulate indirect sources. CARB and local air districts are responsible for achieving CAAQS, which are to be achieved through district-level air quality management plans (AQMPs) that would be incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which in turn, has delegated that authority to individual air districts. Each district plan is required to either 1) achieve a 5% annual reduction, averaged over consecutive 3-year periods, in districtwide emissions of each nonattainment pollutant or its precursors or 2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

The State of California began to set its ambient air quality standards (i.e., CAAQS) in 1969, under the mandate of the Mulford-Carrell Act. The CCAA requires all air districts of the state to achieve and maintain the CAAQS by the earliest practical date. Table 1 shows the CAAQS currently in effect for each of the criteria pollutants, as well as the other pollutants recognized by the state. As shown in Table 1, the CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, H_2S, vinyl chloride, and visibility-reducing particles.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including the following:

- 20 CCR: Appliance Energy Efficiency Standards
- 24 CCR 6: Building Energy Efficiency Standards
- 24 CCR 11: Green Building Standards Code

4.2.2 California Code of Regulations

The CCR is the official compilation and publication of regulations adopted, amended, or repealed by the state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, 13 CCR 2485 states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to 5 minutes at any location. In addition, 17 CCR 93115 states that operation of any stationary, diesel-fueled, compression-ignition engine shall meet specified fuel and fuel additive requirements and emission standards.

4.2.3 Toxic Air Contaminants Regulations

California regulates TACs primarily through the Toxic Air Contaminant Identification and Control Act of 1983 (AB 1807, also known as the Tanner Air Toxics Act) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588 – Connelly). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Air Toxics Act (AB 1807) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks (CARB 2011).

In August 1998, CARB identified DPM emissions from diesel-fueled engines as a TAC. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles (CARB 2000b). The goal of the plan is to reduce diesel PM_{10} (inhalable particulate matter) emissions and the associated health risk by 75% in 2010, and by 85% by 2020. The plan identified 14 measures that target new and existing on-road vehicles (e.g., heavy-duty trucks and buses, etc.), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps, etc.), and stationary engines (e.g., stand-by power generators, etc.). During the control measure phase, specific statewide regulations designed to further reduce DPM emissions from diesel-fueled engines and vehicles were evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce DPM emissions. The project would be required to comply with applicable diesel control measures.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR 2485 – Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- 13 CCR 2480 – Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR 2477 and Article 8 – Airborne Toxic Control Measure for In-Use Diesel-Fueled TRUs and TRU Generator Sets and Facilities Where TRUs Operate

The proposed project would be required to comply with the applicable diesel control measures.

4.2.4 Advanced Clean Car Regulations

In 2012, CARB approved the Advanced Clean Cars program, a new emissions control program for model years 2015 through 2025. The components of the advance clean car standards include the Low-Emission Vehicle regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the ZEV regulation, which requires manufacturers to produce an increasing number of pure ZEVs, with provisions to also produce plug-in hybrid electric vehicles in the 2018 through 2025 model years period. In March 2017, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV programs for cars and light trucks sold in California through 2025.

4.3 Local

4.3.1 Bay Area Air Quality Management District

The BAAQMD is the agency responsible for ensuring that the NAAQS and CAAQS are attained and maintained in the SFBAAB. Air quality conditions in the SFBAAB have improved significantly since the BAAQMD was created in 1955. The BAAQMD prepares AQMPs to attain ambient air quality standards in the SFBAAB. The BAAQMD prepares O_3 attainment plans for the national O_3 standard and clean air plans for the California O_3 standard. The BAAQMD prepares these AQMPs in coordination with Association of Bay Area Governments and Metropolitan Transportation Commission to ensure consistent assumptions about regional growth. In 2023 the BAAQMD CEQA guideline chapters were updated to include the thresholds of significance chapter, which outlines the current thresholds of significance for determining the significance of air pollutants and climate impacts.

The BAAQMD currently has 14 regulations containing more than 100 rules that control and limit emissions from sources of pollutants. Table 3 below presents the major BAAQMD rules and regulation that may apply to the proposed project.

Table 3. Potentially Applicable BAAQMD Rules and Regulations

Regulation	Rule	Description
1 – General Provisions and Definitions	1 – General Provisions and Definitions	301 – Public Nuisance: Establishes that no person shall discharge quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number or person or the public; or which endangers the comfort, repose, health or safety of any such person or the public.
2 – Permits	2 – New Source Review	Provides for the review of new and modified sources of pollutants; requires use of Best Available Control Technology and emissions offsets to achieve no net increase in nonattainment pollutants; implements Prevention of Significant Deterioration review for attainment pollutants.
	5 – New Source Review of Toxic Air Contaminants	Provides for the review of new and modified sources of toxic air contaminants; requires use of Best Available Control Technology for sources that have a risk above certain thresholds and limits total project risks to 10.0 in a million cancer risk, 1.0 chronic hazard index, and 1.0 acute hazard index.
6 – Particulate Matter	1 – General Requirements	Limits visible particulate matter emissions.
	6 – Prohibition of Trackout	Limits particulate matter emissions from trackout from construction sites greater than 1 acre.

Regulation	Rule	Description
7 – Odorous substances	Odorous Substances	Establishes general limitations on odorous substances and specific emission limitations on certain odorous compounds, such as ammonia.
9 – Inorganic Gaseous Pollutants	8 – NO_x and CO from Stationary Internal Combustion Engines	Limits emissions of NOx and CO from stationary internal gas combustion engines more than 50 brake-horsepower.
11 – Hazardous Pollutants	2 – Asbestos Demolition, Renovation, and Manufacturing	Controls emissions of asbestos to the atmosphere during demolition.

Source: BAAQMD (2024).

4.3.1.1 BAY AREA AIR QUALITY MANAGEMENT DISTRICT 2017 CLEAN AIR PLAN

The BAAQMD adopted the 2017 *Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) (BAAQMD 2017) on April 19, 2017, making it the most recently adopted comprehensive plan. The 2017 Clean Air Plan incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools (BAAQMD 2017). The 2017 Clean Air Plan focuses on the three following goals: attain all state and national air quality standards; eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and reduce Bay Area GHG emissions to 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. The 2017 Clean Air Plan serves as an update to the adopted Bay Area 2010 Clean Air Plan (BAAQMD 2015) and continues to provide the framework for SFBAAB to achieve attainment of the NAAQS and CAAQS. The 2017 Clean Air Plan updates the Bay Area's O_3 plan, which is based on the "all feasible measures" approach to meet the requirements of the CCAA. It sets a goal of reducing health risk impacts to local communities by 20% between 2015 and 2020 and lays the groundwork for reducing GHG emissions in the Bay Area to meet the state's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electricity-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A multipollutant control strategy was developed to be implemented in the next 3 to 5 years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of O_3, PM, TACs, and GHGs from a full range of emission sources. These control measures cover the following sectors:

1. Stationary (industrial) sources
2. Transportation
3. Energy
4. Agriculture
5. Natural and working lands
6. Waste management
7. Water
8. Super-GHG pollutants
9. Buildings

The proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and TACs from all key sources.
- Reduce emissions of "super-GHGs" such as CH_4, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
- Increase efficiency of the energy and transportation systems.
- Reduce demand for vehicle travel and high-carbon goods and services.
- Decarbonize the energy system.
- Make the electricity supply carbon free.
- Electrify the transportation and building sectors.

4.3.1.2 BAAQMD PERMIT TO OPERATE:

The BAAQMD Community Operations at the existing FERRF site are currently permitted through BAAQMD PTO No. 1246, which covers two sources: 1) the Menlo Pump Station and 2) flow equalization facilities. In accordance with the PTO, the flow equalization facilities would continue to be required to maintain aerobic conditions to minimize odors. The project would also be included in this BAAQMD PTO.

4.3.1.3 ASSEMBLY BILL 617 COMMUNITY ACTION PLANS

AB 617 was signed into law in July 2017 to develop a new community-focused program to reduce exposure more effectively to air pollution and preserve public health in environmental justice communities. AB 617 directs CARB and all local air districts to take measures to protect communities disproportionally impacted by air pollution through monitoring and implementing air pollution control strategies.

On September 27, 2018, CARB approved BAAQMD's recommended communities for monitoring and emission reduction planning. The State approved communities for year 1 of the program as well as communities that would move forward over the next 5 years. Recommendations for the Bay Area included all the Community Air Risk Evaluation Program areas, areas with large sources of air pollution (refineries, seaports, airports, etc.), areas identified through statewide screening tools as having pollution and/or health burden vulnerability, and areas with low life expectancy (BAAQMD 2024b).

4.3.2 Southern California Association of Governments

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements, including applicable federal, state, and air district laws and regulations. As the federally designated metropolitan planning organization for the six-county Southern California region, SCAG is required by law to ensure that transportation activities conform to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. In addition, SCAG is a co-producer, with South Coast Air Quality Management District (SCAQMD), of the transportation strategy and transportation control measure sections of the 2022 AQMP (SCAQMD 2022). The development of the 2022 AQMP relies on population and transportation growth projections contained in the SCAG *2016 through 2040 Regional Transportation Plan/ Sustainable Communities Strategy* (RTP/SCS) (SCAG 2016).

On September 3, 2020, SCAG's Regional Council adopted an updated RTP/SCS known as the 2020–2045 RTP/SCS or Connect SoCal (SCAG 2020). As with the 2016–2020 RTP/SCS, the purpose of the 2020–2045 RTP/SCS is to meet the mobility needs of the six-county SCAG region over the subject planning period through a roadmap identifying sensible ways to expand transportation options, improve air quality, and bolster Southern California long-term economic viability. The goals and policies of the 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS.

4.3.3 County of San Mateo General Plan

The General Plan is the County's vision for future development. It identifies goals, policies, and objectives to govern the physical development of the county (County of San Mateo 1986). State law requires each city and county to adopt a General Plan with a minimum of seven elements: Land Use, Circulation, Housing, Conservation, Open-Space, Noise, and Safety. The San Mateo General Plan contains 17 chapters addressing each of the required elements and additional elements like transportation and climate element. Many of the general plan policies affect air quality emissions for the county. For example, the General Plan Climate Change Element (County of San Mateo 2022b) demonstrates the County's commitment to achieve energy efficiency consistent with state legislation.

4.3.4 City of Menlo Park General Plan

The *City of Menlo Park General Plan Open Space/Conservation, Noise and Safety Elements* (City of Menlo Park 2013) contains the following open space/conservation (OSC) goal and policies:

Goal OSC5 – Ensure Healthy Air Quality and Water Quality

OSC5.1 **Air and Water Quality Standards.** Continue to apply standards and policies established by the Bay Area Air Quality Management District (BAAQMD), San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), and City of Menlo Park Climate Action Plan through the California Environmental Quality Act (CEQA) process and other means as applicable.

OSC5.2 **Development in Industrial Areas.** Evaluate development projects in industrial areas for impacts to air and water resources in relation to truck traffic, hazardous materials use and production-level manufacturing in accordance with the California Environmental Quality Act (CEQA) and require measures to mitigate potential impacts to less than significant levels. (City of Menlo Park 2013)

5 THRESHOLDS OF SIGNIFICANCE

5.1 Air Quality

Based on the environmental checklist presented in Appendix G of the State CEQA Guidelines, the project would have a significant impact on air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under applicable federal or state ambient air quality standards;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

A discussion of applicable thresholds of significance and significance determination follows.

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance (Table 4), BMPs for construction (referred to as mitigation measures or standard control measures), and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and GHG emissions. These thresholds are designed to establish the level at which the applicant-believed air pollution emissions would cause significant environmental impacts under CEQA. BAAQMD's CEQA Air Quality Guidelines indicate that any projects in the SFBAAB with daily regional emissions that exceed any of the indicated thresholds in Table 4 should be considered as having an individually and cumulatively significant air quality impacts.

Table 4. BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Phase	Operational Phase	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Maximum Annual Emissions (tons/year)
Reactive organic gases	54	54	10
NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
PM_{10} and $PM_{2.5}$ fugitive dust	BMPs	None	None

In any case, regardless of the size of the project, the BAAQMD standard control measures for construction equipment and fugitive PM_{10} must be implemented at all construction sites. The list of control measures that would be implemented for the project is provided in Section 7.3 of this report.

Projects that do not exceed the emissions in Table 4 would not cumulatively contribute to health effects in the air basin. If projects exceed the emissions in Table 4, emissions will cumulatively contribute to the nonattainment status and would contribute to elevating health effects associated with these criteria air pollutants. Known health effects related to O_3 include worsening of bronchitis, asthma, and emphysema

and a decrease in lung function. Health effects associated with particulate matter include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants.

For projects that exceed the emissions in Table 4, it is speculative to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment, as mass emissions are not correlated with concentrations of emissions or how many additional individuals in the air basin would be affected by the health effects cited above. The air district is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the air basin and at the present time, it has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health in order to address the issue raised in *Sierra Club* v. *County of Fresno (Friant Ranch, L.P.) (2018) 6 Cal.5th 502, Case No. S21978* (Friant Ranch).

Ozone concentrations are dependent upon a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level O_3 concentrations in relation to the NAAQS and CAAQS, it is speculative to link health risks to the magnitude of emissions exceeding the significance thresholds. To achieve the health-based standards established by the EPA, the air districts prepare AQMPs that detail regional programs to attain the applicable ambient air quality standards; however, if a project within the air district exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until such time the attainment standards are met in the air basin.

Impacts related to odors were also assessed qualitatively, based on proposed construction activities, equipment types and duration of use, overall construction schedule, proposed operational activities, and distance to nearby sensitive receptors.

5.1.1 Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hot spots are caused by vehicular emissions, primarily when idling at congested intersections.

However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SFBAAB is designated as in attainment. Detailed modeling of project-specific CO hot spots is not necessary, and thus this potential impact is addressed qualitatively.

A CO hot spot would occur if an exceedance of the state 1-hour standard of 20 ppm or the 8-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment published in the SCAQMD 1992 Federal Attainment Plan for Carbon Monoxide in Los Angeles County (SCAQMD 1992) and a modeling and attainment demonstration prepared by SCAQMD as part of the 2003 AQMP (SCAQMD

2003) can be used to demonstrate the potential for CO exceedances of these standards. SCAQMD is the air pollution control officer for much of Southern California. CAQMD conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods (SCAQMD 1992). The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). To establish a more accurate record of baseline CO concentrations affecting Los Angeles, a CO hot spot analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods which is the most recent analysis conducted that addresses CO concentrations. This hot spot analysis did not predict any violation of CO standards. The highest 1-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest 8-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Thus, there was no violation of CO standards.

Similar considerations are employed by other air districts when evaluating potential CO concentration impacts. More specifically, the BAAQMD—the air pollution control officer for the San Francisco Bay Area—concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix in order to generate a significant CO impact.

The project would require up to four trips per day during operations because the project is autonomous and would only generate trips from the employee visiting the site for maintenance and operation and chemical deliveries. Thus, the project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per day), and there is no likelihood of the project traffic exceeding CO values.

5.1.2 Toxic Air Contaminants

The BAAQMD's significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and new receptor. Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. The proposed project would generate TACs and $PM_{2.5}$ during construction activities, the heavy-duty, diesel-powered, off-road construction equipment, as well as diesel-powered vendor and haul tucks, would emit DPM as part of their exhaust emissions that could elevate concentrations of air pollutants nearby.

The thresholds for construction-related local community risk and hazard impacts are the same as for project operations. BAAQMD has adopted screening tables for air toxics evaluation during construction (BAAQMD 2022). Construction-related TAC and $PM_{2.5}$ impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site and on-site receptors, as applicable.

Project-level emissions of TACs or $PM_{2.5}$ from individual sources that exceed any of the thresholds listed below are considered a potentially significant community health risk:

- An excess cancer risk level of more than 10 in one million, or a noncancer (i.e., chronic or acute) hazard index greater than 1.0 would be a significant project contribution.
- An incremental increase of greater than 0.3 $\mu g/m^3$ annual average $PM_{2.5}$ from a single source would be a significant project contribution.

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone. A project would have a cumulative considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds any of the following:

- An excess cancer risk level of more than 100 in one million or a chronic noncancer hazard index (from all local sources) greater than 10.0.
- 0.8 $\mu g/m^3$ annual average $PM_{2.5}$.

In February 2015, the OEHHA adopted new health risk assessment guidance that includes several efforts to be more protective of children's health. These updated procedures include the use of age sensitivity factors to account for the higher sensitivity of infants and young children to cancer causing chemicals, and age-specific breathing rate (OEHHA 2015).

6 METHODOLOGY

This analysis focuses on the potential change in the air quality environment due to implementation of the project. Air pollution emissions would result from both construction and operation of the project. Specific methodologies used to evaluate these emissions are discussed below.

The analysis is based on project specifics and default values in the latest versions of the California Emission Estimator Model (CalEEMod) (CAPCOA 2023). Accordingly, this analysis has been conducted with the most recent available tools prepared and accepted by the regulatory agencies.

6.1 Construction Emissions

The project's emissions will be evaluated based on significance thresholds and CEQA guidance established by BAAQMD, as discussed above. Daily emissions during construction are estimated by assuming a conservative construction schedule and applying the multiple source and fugitive dust emission factors derived from BAAQMD-recommended CalEEMod version 2022.1.1.25. Details of the modeling assumptions and emission factors are provided in Appendix A for the proposed project. The calculations of the emissions generated during project construction activities reflect the types and quantities of construction equipment that would be used to complete the project.

6.1.1 Construction Assumptions

Construction emissions associated with the project, including emissions associated with the operation of off-road equipment, haul truck trips, on-road worker vehicle trips, vehicle travel on paved and unpaved surfaces, and fugitive dust from material handling activities, were calculated using CalEEMod version 2022.1.1.25 (CAPCOA 2023). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operation of a variety of land use projects. The model uses widely accepted federal and state models for emission estimates and default data from sources such as EPA AP-42 emission factors, CARB vehicle emission models, and studies from California agencies such as the California Energy Commission. The model quantifies direct emissions from construction and operations, as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model was developed in collaboration with the air districts in California. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions.

Emissions modeling including emissions generated during the project have been grouped into five phases in CalEEMod, based on the types of equipment and workload:

1. **Demolition**, including the decommissioned wastewater treatment plant, concrete sedimentation tanks, chlorination building, headworks, pretreatment structure, digester tanks, and an operations building. The total proposed 74,000-square-foot demolition would result in approximately 2,100 CY of material, which would be hauled from the project site.
2. **Utilities associated with the Bayfront RWF**, including erosion control measures, removal of trees, rough, light grading of site, leveling, utility set-ups, and import of 2,800 CY of fill.
3. **RWF construction**, including construction of the updated 33,000-square-foot Bayfront RWF, which includes the 5,200-square-foot storage building and the 1,700-square-foot operations building, accessory structures, new pipeline alignments, and parking area pavement.
4. **Paving**, including the paving of approximately 70,500 square feet around the new facility, on-site access, and employee and maintenance worker parking.
5. **Architectural coating**, including the interior and exterior of buildings and the parking area.

The following CalEEMod land uses were used to represent the project:

- General Light Industry – User defined for the 33,000-square-foot building (30,500-square-foot Bayfront RWF [includes the 5,200-square-foot storage building] and the 1,700-square-foot operations building)
- Parking Lot – User defined for the 70,500-square-foot paved area

Modeling input data were based on this anticipated construction schedule and phasing. Construction equipment and usage required for each stage were obtained using CalEEMod defaults for the land use types that make up the project site, information provided by the applicant, and default parameters contained in the model for the project site (San Mateo County) and land uses.

The construction duration is assumed to be approximately 27 months, from September 2024 through the end of November 2026. Project construction would consist of different activities undertaken in stages, through to the operation of the project. Typical construction equipment would be used during all stages of project construction and would be stored within the staging area, potentially including bulldozers, backhoes, graders, and water trucks. Table 5 shows the project's anticipated construction schedule, presents an estimate of the maximum number of pieces of equipment for each construction stage, and conservatively assumes that equipment would be operating 8 hours per day, 5 days per week for the duration of the construction stage. Table 5 also shows the project's anticipated work and haul truck trips necessary during construction. Haul truck trips include all hauling associated with the project such as materials, equipment and water deliveries. During demolition, the haul trucks on-road trip lengths have been modified to 22.5 miles, which is the distance to the Ox Mountain Sanitary Landfill. The unmitigated construction emissions include dust control measures to comply with any BAAQMD fugitive dust control rules or client-committed control measures, discussed further in Section 7.3. In CalEEMod, the following control measures were included in the unmitigated model to reflect these standard fugitive dust controls: water exposed areas two times per day and water the unpaved roads traveled to the project a minimum of two times per day.

Table 5. Project Construction Anticipated Schedule, Trips, and Equipment

Phase (Duration)	Equipment Used			Daily Vehicle Trips
	Type	Number	Hours/day	
1. Demolition 9/1/2024–3/1/2025 (130 working days)	Rubber-tired Dozers	1	8	10 one-way worker trips, No one-way vendor trips, 7 one-way haul truck trips, 2 miles of on-site truck travel
	Excavators	3	8	
	Concrete/Industrial Saws	1	8	
2. Utilities Associated with Bayfront RWF- Grading 3/1/2025–5/1/2025 (44 working days)	Tractors/Loaders/Backhoes	2	8	20 one-way worker trips, No one-way vendor trips, 8 one-way haul truck trips, 2 miles of on-site truck travel
	Rubber-tired Dozers	1	8	
	Excavators	2	8	
	Graders	1	8	
	Scrapers	2	8	
3. RWF Construction 5/1/2025–10/1/2026 (371 working days)	Tractors/Loaders/Backhoes	3	8	60 one-way worker trips, 10 one-way vendor trips, No one-way haul truck trips, 2 miles of on-site truck travel
	Bore/Drill Rigs	1	8	
	Rubber-tired Dozers	2	8	
	Excavators	2	8	
	Rollers	1	8	
	Cranes	1	8	
	Off-highway Trucks	1	8	
4. Paving 10/1/2026–11/30/2026 (43 working days)	Pavers	2	8	15 one-way worker trips, No one-way vendor trips, No one-way haul truck trips, No on-site truck travel
	Rollers	2	8	
	Paving Equipment	2	8	
5. Architectural Coating 10/1/2026–11/30/2026 (43 working days)	Air Compressors	1	8	3 one-way worker trips, No one-way vendor trips, No one-way haul truck trips, 2 miles of on-site truck travel

Note: For the parameters that are not provided in the table (e.g., equipment horsepower and load factor, on-road trip lengths), CalEEMod defaults were used.

In addition to BAAQMD standard control measures detailed in Section 7.3 of this report, California regulations also limit idling from both on-road and off-road diesel-powered equipment.

The 2021 EIR was also rerun using the current version of CalEEMod as the 2021 EIR used CalEEMod 2016.3.2, with the same construction assumptions described in the 2021 EIR (Section 4.3.3.1). Appendix B also presents the updated construction schedule assumed for the 2021 EIR remodeling, the emission factors details, and the emission results.

6.2 Operational Emissions

When construction is completed, the project would be an operational recycled water facility using nanofiltration, owned and operated by the West Bay Sanitary District. Criteria pollutant and GHG emissions from the operation of the project were estimated using CalEEMod version 2022.1.1.25. Year 2027 was assumed as the first full year of operations after completion of construction. The operational emissions were calculated based on CalEEMod defaults associated with the project's land use types.

Analysis of the project's likely impact on regional air quality during project operation takes into consideration six source types associated with the on-site buildings and site maintenance:

1. Area
2. Energy
3. Water
4. Waste
5. Stationary
6. Mobile

6.2.1 Area Sources

The model conservatively includes all area sources. CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment.

Consumer products are chemically formulated products used by businesses including detergents; cleaning compounds; polishes; floor finishes; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Consumer product VOC emissions are estimated in CalEEMod based on the floor area of buildings and on the default factor of pounds of VOC per building square foot per day. For parking lot land uses, CalEEMod estimates VOC emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of VOC per square foot per day.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers using during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of residential and nonresidential surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The model default reapplication rate of 10% of area per year is assumed. Architectural coating for the parking surface area was also estimated with CalEEMod defaults.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. For San Mateo County, the average annual "summer" days are estimated to 180 days; and it is assumed that landscaping equipment would operate 180 days per year in CalEEMod. Emissions associated with potential landscape maintenance equipment were included and no emission reduction features related to electric landscape equipment were assumed, to conservatively capture potential project operational emission sources.

6.2.2 Energy Sources, Waste, Water, and Refrigeration

As represented in CalEEMod, energy sources include emissions associated with building electricity, with no natural gas included. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off-site. Electricity use is calculated using CalEEMod defaults for a 33,000-square-foot general industrial building and 70,500-square-foot paved area. The project would be autonomous, generating mobile emissions only from the potential of four worker trips per day (employee visiting the site for maintenance and operation and

chemical deliveries). Emissions from waste have also been calculated for the buildings. Emissions from water are calculated for the indoor water use associated with the buildings. Stationary equipment included during operations included the diesel emergency generator and two electric pumps.

The default model generated trip lengths for commercial-work were used for the workers' commute; light-duty and heavy-duty trucks were chosen to represent the worker vehicles and chemical delivery trucks, and trip purpose was designated as 100% primary trips.

The 2021 EIR was also rerun using the current version of CalEEMod as the 2021 EIR used CalEEMod 2016.3.2, with the same operational assumptions described in the 2021 EIR (Section 4.3.3.2). Appendix B presents the operation assumptions assumed for the 2021 EIR remodeling, the emission factors details, and the emission results.

6.3 Toxic Air Contaminants Impacts (Construction and Operations)

Potential TAC impacts are evaluated by conducting a qualitative analysis consistent with the CARB Air Quality and Land Use Handbook (CARB 2005) followed by a more detailed analysis (i.e., dispersion modeling), if necessary. The qualitative analysis consists of reviewing the project to identify any new or modified TAC emission sources. The TAC that is the focus of this analysis is DPM because it is known that DPM would be emitted during project construction and operation. Construction-related activities that would result in temporary, intermittent emissions of DPM would be from the exhaust of off-road equipment and on-road heavy-duty trucks. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they do not operate at any one location for extended periods of time such that they would expose a single receptor to excessive DPM emissions. The project is consistent with TAC-related rules and regulations, and the CalEEMod modeling shows the low-exhaust DPM during construction and operation (see Appendix A). Furthermore, implementation of BAAQMD standard control measures, as discussed in Section 7.3, would result in the reduction of DPM exhaust emissions in addition to criteria pollutant emissions, particularly the measures to minimize engine idling time and maintain construction equipment in proper working condition and according to manufacturer's specifications. No residential uses are within 1,000 feet of the project. Due to the project location and consistency with TAC-related rules and regulations a health risk assessment was not conducted for construction.

The operational TAC emissions from the wastewater treatment process are discussed for the 2021 EIR (see Sections 4.3.3.2 and 4.3.4.2 in WBSD [2021]). These operational TAC emissions constitute a new source that would be subject to permitting by the BAAQMD. The BAAQMD Permit Handbook (BAAQMD 2006) provides default emission factors for various TAC constituents, based on the average daily influent treated by wastewater treatment plants; however, the current project (Addendum #2) includes nanofiltration, which would potentially reduce these operational TAC emissions. Table 4-9 of the 2021 EIR summarizes the TAC emissions that could be generated by previously proposed RO system and compares them against the BAAQMD's acute TAC trigger levels, as identified in BAAQMD Regulation 2, Rule 5. The 2021 EIR Table 4-9 shows that all hourly TAC emissions associated with operation of the proposed Bayfront RWF would be considerably below the BAAQMD's acute TAC trigger levels. Implementation of the 2021 EIR would not result in operational TAC emissions that have the potential to expose sensitive receptors to substantial pollutant concentrations. With operation of the project, the brine treatment process will consist of nanofiltration instead of RO. The nanofiltration waste will achieve a smaller waste stream than RO and can be sent back to the sewer system. Therefore, inclusion of the nanofiltration system would also have TAC emissions below levels of significance. The TAC concentrations for the project will be submitted to the BAAQMD as part of the permitting process.

6.4 Odors

The BAAQMD CEQA Air Quality Guidelines identify wastewater treatment plants as a land uses that have the potential to generate odor impacts. The project would not result in the generation of odors that adversely affect a substantial number of people. The Bayfront RWF would be constructed at a site that is currently used for flow equalization purposes. The existing flow equalization basins provide temporary storage for combined stormwater and sewer flows during peak flow events to prevent overflows within the system or for conveyance system maintenance. Therefore, odors emanating from the site are part of existing conditions.

As discussed in the 2021 EIR, implementation of the proposed project would result in the construction of a new Bayfront RWF that would treat wastewater and have the potential to be a new source of odor. The treatment generally consists of the following elements:

- Foul air fans would be in the headworks building and used to draw the foul air form the headworks screen, headworks building, equalization basin, and anoxic basis, and move it to the bio-trickling towers (BTTs).
- BTTs consist of cylinders that are filled with packing material covered in a neutralizing chemical liquid. Odorous air passing through the BTT at low pressure would provide sufficient residence time for the odorous air components to be neutralized by the chemicals on the packing material. Odorous air passing through the BTT at low pressure would provide sufficient residence time for the odorous air components to be neutralized by the chemicals on the packing material.
- Carbon adsorbers may be used to further treat or "polish" the air after having been passed through the BTT.

The addition of an approximately 250-square-foot odor control room which would purify air from the headworks (screens and grit). Air handling will be within both the headworks and odor control area.

7 IMPACT ANALYSIS

7.1 Environmental Impacts

Impact AQ-1. Would the project conflict with or obstruct implementation of the applicable air quality plan? (Less-than-significant Impact)

A project conforms with applicable adopted plans if it complies with the rules, regulations, and emission control strategies in the applicable air quality attainment plans. The project would comply with the applicable rules and regulations, including the use of standard control measures for construction equipment and fugitive PM_{10}.

The 2017 Clean Air Plan is the current applicable regional air quality plan for the SFBAAB (BAAQMD 2017). The primary goals of the 2017 Clean Air Plan are to protect public health and protect the climate, and the plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants and GHG emissions. Because the proposed project does not involve population or employment growth, determining consistency with the 2017 Clean Air Plan involves assessing whether applicable control measures contained in the 2017 Clean Air Plan are implemented and whether implementation of the proposed project would disrupt or hinder implementation of air quality plan control measures. The control measures are organized into five categories: 1) stationary and area source control

measures; 2) mobile source measures; 3) transportation control measures; 4) land use and local impact measures; and 5) energy and climate measures. The control measures are geared toward traditional land uses (e.g., residential, commercial, industrial uses) and buildings. The project would comply with all applicable control measures contained in the 2017 Clean Air Plan and within BAAQMD's jurisdiction are required to implement the BAAQMD BMPs during construction activities. The proposed project would implement all BMPs for construction activities and would be consistent with the assumptions in the air quality plan. Furthermore, the proposed project would not include any special features that would disrupt or hinder implementation of the air quality plan control measures. Therefore, the proposed project would not obstruct implementation of the 2017 Clean Air Plan.

Furthermore, the thresholds of significance, adopted by BAAQMD, can also determine compliance with the goals of attainment plans in the region. As such, emissions below the BAAQMD significance thresholds would not conflict with or obstruct implementation of the applicable air quality plans. The project implementation would generate emissions of criteria air pollutants during construction and operation. The emissions from project construction (Table 6) and operation (Table 7) are below the thresholds of significance; therefore, the project does not conflict with implementation of BAAQMD applicable air quality plans. The detailed assumptions and calculations, as well as CalEEMod outputs, are provided in Appendix A. Therefore, the project would have less-than-significant impacts, and no mitigation measures are required.

Appendix B provides the detailed assumptions and calculations for the 2021 EIR, as well as CalEEMod outputs which are the remodel of the 2021 EIR information. The emissions from the 2021 EIR construction and operation are below the thresholds of significance. Therefore, the 2021 EIR and the project does not conflict with implementation of BAAQMD applicable air quality plans and the less-than-significant impact determination for the 2021 EIR would remain less than significant for the project.

Impact AQ-2. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? (Less-than-significant Impact)

The BAAQMD's thresholds of significance represent the allowable emissions a project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed BAAQMD's thresholds of significance on a project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. The region is nonattainment for the federal and state O_3 standards, state PM_{10} standards, and federal and state $PM_{2.5}$ standards. Impacts related to construction and operation of the proposed project are addressed separately below.

Construction

Project implementation would generate emissions of criteria air pollutants during construction. The estimated unmitigated emissions from construction of the project are summarized in Table 6, which include the standard fugitive control measures. In CalEEMod, the following measures were included to reflect standard measures for fugitive dust control: water exposed areas two times per day, and water the unpaved roads traveled to the project a minimum of two times per day. The detailed assumptions and calculations, as well as CalEEMod outputs, are provided in Appendix A of this report.

Table 6. Unmitigated Construction Emissions Summary

Construction Year	Unmitigated Construction Emissions Summary					
	ROG	NO_X	CO	PM_{10}*	$PM_{2.5}$*	SO_2
Pollutant Emission (pounds per day)						
2024 Average Daily Emission	0.63	6.19	5.42	1.05	0.33	0.009
2025 Average Daily Emission	2.43	21.91	22.41	3.52	1.26	0.044
2026 Average Daily Emission	3.61	17.11	19.16	2.64	0.86	0.036
BAAQMD Significance Thresholds	*54*	*54*	*N/A*	*82*	*54*	*N/A*
Threshold Exceeded?	*No*	*No*	*N/A*	*No*	*No*	*N/A*
Pollutant Emission (tons per year)						
2024 Max Annual	0.11	1.12	0.99	0.19	0.06	0.002
2025 Max Annual	0.44	4.00	4.09	0.64	0.23	0.008
2026 Max Annual	0.65	3.12	3.50	0.48	0.16	0.007
BAAQMD Significance Thresholds	*10*	*10*	*N/A*	*15*	*10*	*N/A*
Threshold Exceeded?	*No*	*No*	*N/A*	*No*	*No*	*N/A*

Source: Emissions were quantified using CalEEMod version 2022.1.1.25 (CAPCOA 2023). Maximum winter reported for pound/day emissions.

Notes:
Model results (summer, winter, and annual) and assumptions are provided in Appendix A of this report.
*Exhaust emissions only.
N/A = Not applicable.
ROG = Reactive organic gases.

As shown in Table 6, even without incorporation of mitigation measures, estimated unmitigated construction emissions for all pollutants are below BAAQMD daily and annual significance thresholds. The combined construction emissions from all components of the project are below the recommended BAAQMD thresholds of significance. As presented above, the project would not violate any air quality significance thresholds or contribute considerably to an existing or projected air quality violation; however, for all proposed projects, BAAQMD requires the use of standard control measures for construction equipment and fugitive PM_{10}, regardless of whether construction-related emissions exceed applicable thresholds of significance (see Section 7.3 of this report). Therefore, project construction would have a less-than-significant impact.

Operations

Project operations include emission from building and site operations, permitted operational sources, on-road emissions from employees and deliveries, which is assumed to be four vehicle trips per day. Project operations would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from mobile sources, waste, and water use. The estimated emissions from operation of the project are summarized in Table 7. Complete details of the emissions calculations are provided in Appendix A.

Table 7. Unmitigated Operational Emissions Summary

Operation Year 2027	Unmitigated Operational Emissions Summary					
	ROG	**NO_X**	**CO**	**PM_{10*}**	**$PM_{2.5*}$**	**SO_2**
Pollutant Emission (pounds per day)						
Area	1.17	0.01	1.44	0.003	0.002	<0.001
Energy	0.02	0.39	0.33	0.03	0.03	0.002
Mobile	0.008	0.06	0.13	0.04	0.009	<0.001
Water	0	0	0	0	0	0
Stationary	7.48	0.58	19.48	0.04	0.04	0.003
Waste	0	0	0	0	0	0
Total	8.68	1.04	21.37	0.11	0.08	0.006
BAAQMD Significance Thresholds	*54*	*54*	*N/A*	*82*	*54*	*N/A*
Threshold Exceeded?	*No*	*No*	*N/A*	*No*	*No*	*N/A*
Pollutant Emission (tons per year)						
Area	0.19	0.001	0.13	0.0002	0.0001	0.00
Energy	0.004	0.07	0.06	0.005	0.005	<0.001
Mobile	0.001	0.01	0.02	0.006	0.001	<0.001
Water	0	0	0	0	0	0
Stationary	0.11	0.009	0.29	0.001	0.001	<0.001
Waste	0	0	0	0	0	0
Total	0.31	0.09	0.50	0.01	0.01	0.0005
BAAQMD Significance Thresholds	*10*	*10*	*N/A*	*15*	*10*	*N/A*
Threshold Exceeded?	*No*	*No*	*N/A*	*No*	*No*	*N/A*

Source: Emissions were quantified using CalEEMod version 2022.1.1.25 (CAPCOA 2023). Maximum summer reported for pound/day emissions.

Notes:
Model results (summer, winter, and annual) and assumptions are provided in Appendices A and B.
*Daily emissions are exhaust only.
ROG = Reactive organic gases.

The life of the project is assumed to be 30 years, after which decommissioning would be considered. The emissions associated with decommissioning of the project are not quantitatively estimated, as the extent of activities and emissions factors for equipment and vehicles at the time of decommissioning are unknown. The overall activity would be anticipated to be somewhat less than project construction, and the emissions from off- and on-road equipment are expected to be much lower than those for the project construction. However, without changes in fugitive dust control methods, it is likely that fugitive dust emissions would be closer to those estimated for construction. Overall, similar to construction, emissions associated with decommissioning would be less than significant.

As Table 7 shows, estimated unmitigated operational emissions for all pollutants are below BAAQMD significance thresholds; however, per requirements of BAAQMD, dust control would be implemented during construction of the project. The BAAQMD standard control measures are listed in Section 7.3 of this report. Also, project operations would not affect traffic volumes at any affected intersection. Therefore, the project would not exceed the CO screening criteria or the General Conformity de minimis thresholds and the project would have a less-than-significant impact related to CO hot spots.

The combined construction emissions and combined operational emissions from all components of the project are below the recommended BAAQMD thresholds of significance. Therefore, the project would not be anticipated to exceed any significance thresholds and would have a less-than-significant contribution to cumulative impacts.

Impact AQ-3. Would the project expose sensitive receptors to substantial pollutant concentrations? (Less-than-significant Impact)

Some population groups, such as children, the elderly, and acutely and chronically ill persons are considered more sensitive to air pollution than others. Sensitive receptor locations typically include residential areas, hospitals, elder-care facilities, rehabilitation centers, daycare centers, and parks.

There are no sensitive receptors within 1,000 feet of the project site, with the closest residences approximately 0.8 mile from the project at the Bayshore Villa Mobile Home Park and off Rolison Road. Construction emission activities would only occur intermittently, generally between the hours of 8:00 a.m. and 6:00 p.m., Monday through Friday, consistent with the noise ordinances for the City of Menlo Park. The construction activities associated with most of the project would be adjacent to sloughs, salt evaporation ponds, and a park. Any receptors at the Bedwell Bayfront Park would be transient in nature, passing through the park, or there for a temporary amount of time on a daily basis, and therefore would not continuously be exposed to DPM emissions pollutant concentrations continuously throughout the day, week, or construction period as a whole.

The project would not produce high doses of any TACs during construction. Short-term construction activities (27 months) could result in temporary increases in pollutant concentrations. Emissions of all criteria pollutants are below the BAAQMD thresholds and would not have any significant impact. The project's emissions of TACs would be minimal and would consist of DPM emissions during construction activities. Construction-related activities that would result in temporary, intermittent emissions of DPM would be from the exhaust of off-road equipment and on-road, heavy-duty trucks. On-road, diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they do not operate at any one location for extended periods of time such that they would expose a single receptor to excessive DPM emissions.

Based on the construction-related emissions modeling conducted (see Appendix A), maximum daily emissions of exhaust PM_{10} (used as a surrogate for DPM since exhaust emission contain any diesel particulates) would be 2.52 pounds during peak construction. A portion of these emissions would be related to haul trucks traveling to and from the project site. In addition, studies show that DPM is highly dispersive and that concentrations of DPM decline with distance from the source (e.g., 500 feet from a freeway, the concentration of DPM decreases by 70%) (Roorda-Knape et al. 1999; Zhu et al. 2002 as cited in CARB 2005:9). Additionally, there are no nearby sensitive receptors close to the project site. Construction would not be limited to only one portion of the project site but would occur throughout the project site in stages. Construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk greater than 10 in 1 million or a hazard index greater than 1.0 because the low exposure level reflects the: 1) relatively low mass of DPM emissions that would be generated by construction activity on the project site (i.e., less than 3 pounds per day of exhaust PM_{10}), 2) the relatively short duration of DPM-emitting construction activity at the project site (27 months), and 3) the highly dispersive properties of DPM. The intermittent nature of project construction activities would provide time for emitted pollutants to disperse on an hourly and daily basis according to the prevailing wind in the area, which would be toward the southeast.

Operations-related TAC emissions would occur from water processing however, and the project would be controlled remotely, with few visits to the site for maintenance. Also, any on-road, diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern

because they do not operate at any one location for extended periods of time such that they would expose a single receptor to excessive DPM emissions. No other TAC emission sources will occur during operations. Therefore, construction- and operations-generated emissions of TACs would be less than significant.

The operational TAC emissions from the wastewater treatment process are discussed for the 2021 EIR (see Sections 4.3.3.2 and 4.3.4.2 in WBSD [2021]). Although TACs exist (e.g., benzene, 1,4-dichlorobenzene, methylene chloride, chloroform, 1,1,1-trichloroethane, trichloroethylene, toluene, tetrachloroethylene, and xylenes), they are primarily associated with water processing operations and the project would not include any industrial sources of other TACs. These operational TAC emissions constitute a new source that would be subject to permitting by the BAAQMD. The BAAQMD Permit Handbook provides default emission factors for various TAC constituents, based on the average daily influent treated by wastewater treatment plants (BAAQMD 2006); however, the current project (Addendum #2) includes nanofiltration, which would potentially reduce these operational TAC emissions. Table 4-9 of the 2021 EIR summarizes the TAC emissions that could be generated by previously proposed RO system and compares them against the BAAQMD's acute TAC trigger levels, as identified in BAAQMD Regulation 2, Rule 5. The 2021 EIR Table 4-9 shows that all hourly TAC emissions associated with operation of the proposed Bayfront RWF would be considerably below the BAAQMD's acute TAC trigger levels. Implementation of the 2021 EIR would not result in operational TAC emissions that have the potential to expose sensitive receptors to substantial pollutant concentrations. With operation of the project, the brine treatment process will consist of nanofiltration instead of RO. The nanofiltration waste will achieve a smaller waste stream than RO and can be sent back to the sewer system. Therefore, inclusion of the nanofiltration system would also have TAC emissions below levels of significance. The TAC concentrations for the project will be submitted to the BAAQMD as part of the permitting process.

Fugitive Dust

During construction activities, the project would implement dust control measures as shown in Section 7.3 of this report to ensure receptors in the project vicinity would not be impacted by the project's short-term dust emissions during construction.

Naturally Occurring Asbestos

Airborne asbestos is classified as a known human carcinogen; CARB identified asbestos as a TAC in 1986. The project is not in a geologic setting with a potential to host asbestos and, therefore, the project would not expose sensitive receptors to asbestos (CARB 2000a).

Impact AQ-4. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less-than-significant Impact)

Construction of the project could result in emission of odors from construction equipment and vehicles. During construction, a limited number of diesel engines would be operated on the project site for limited durations. Diesel exhaust and VOCs from these diesel engines would be emitted; however, the short duration of construction activities is expected to last approximately 27 months, limited in extent at any given time, and distributed throughout the project site. In addition, emissions would disperse rapidly from the project site and diesel exhaust odors would be consistent with existing vehicle odors in the area.

Operational land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The project is a wastewater treatment plants and therefore has the potential to generate odor impacts. As discussed in the

2021 EIR, the treatment generally consists of the following elements: foul air fans, BTTs, and carbon adsorbers. As part of the project there will be the addition of an approximately 250-square-foot odor control room would purify air from the headworks (screens and grit). Air handling will be within both the headworks and odor control area.

The project would result in a less-than-significant impact with respect to odors for the following reasons:

1. The FERRF site is currently used for WBSD operations, which generate odors that would be similar to those occurring under implementation of the project;
2. Prevailing winds at the project site are likely from the northwest, meaning that potential odors would generally not disperse in the direction of the nearest sensitive receptors (southeast of the project site);
3. Receptors within the immediate vicinity of the project would be transient in nature, meaning they would not be subject to odors day after day, week after week;
4. The Bayfront RWF would include an on-site odor control system and odor control room; and
5. The Bayfront RWF would be subject to permitting by the BAAQMD, at which time odors from the project would be considered and evaluated for compliance with BAAQMD Regulation 7 – Odorous Substances.

The Bayfront RWF is approximately 0.8 mile from the nearest permanent residential receptors at the Bayshore Villa Mobile Home Park and off Rolison Road, and there is not a substantial number of people within the vicinity. Therefore, construction and operation of the project would not create other emissions or odors adversely affecting a substantial number of people; impacts would be less than significant.

7.2 Cumulative Impacts

The cumulative setting for air quality includes the air basin. The air basin is designated as:

- A nonattainment area for state standards of O_3, PM_{10}, and $PM_{2.5}$ and federal standards of O_3 and $PM_{2.5}$
- An attainment and serious maintenance area for federal PM_{10} standards
- Unclassified or attainment for all other pollutants

Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards. The BAAQMD CEQA Air Quality Guidelines do not include separate significance thresholds for cumulative construction and operational emissions. However, with respect to regional air pollution, the development of the project would not increase the population and due to the autonomous operations, there is a small increase in vehicle traffic. Therefore, the project would not affect the 2017 Clean Air Plan population forecasts. As described in threshold discussion, above, the project would also be consistent with the appropriate 2017 Clean Air Plan control measures, which are provided to reduce air quality emissions for the entire Bay Area region. Additionally, the previous threshold discussion, above, addresses cumulative impacts and demonstrates that the project would not exceed the applicable BAAQMD thresholds for construction or operations. The BAAQMD CEQA Air Quality Guidelines note that the nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Consistency with the 2017 Clean Air Plan control measures would ensure that the project would not cumulatively contribute to air quality impacts in the Basin; therefore, impacts would be less than significant.

7.3 Control Measures

As discussed, all construction projects within BAAQMD jurisdiction must comply with the BMPs regarding fugitive dust and equipment exhaust emissions. The BMPs to be included in the project consistent with regional rules and regulations are as follows:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) shall be watered with nonpotable water two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All roadways, driveways, and sidewalks shall be paved as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxic Control Measure in 13 CCR 2485). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City of Menlo Park regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

Implementation of these control measures would ensure that the recommended BAAQMD BMPs are in place to reduce impacts. The BAAQMD's standard control measures should be stipulated in contract requirements and detailed on all construction plans.

7.4 Mitigation Measures

As discussed, all construction projects within BAAQMD must comply with the BMPs regarding fugitive dust and equipment exhaust emissions. No additional mitigation measures were necessary.

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APPENDIX A

CalEEMod Results – Project Air Pollutant and GHG Emission Calculations

WBSD Bayfront RWF (Addendum) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	WBSD Bayfront RWF (Addendum)
Construction Start Date	9/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.20
Precipitation (days)	18.8
Location	37.493713477587235, -122.17700259139099
County	San Mateo
City	Menlo Park
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1209
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.26

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Light Industry	20.0	1000sqft	20.0	33,000	0.00	0.00	—	—

Parking Lot	70,500	1000sqft	20.0	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.36	6.92	63.0	64.0	0.13	2.55	9.77	12.3	2.34	2.17	4.51	—	14,965	14,965	0.68	0.26	4.20	15,064
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	19.1	18.2	54.0	50.4	0.11	2.17	10.0	12.2	1.99	2.18	4.18	—	11,498	11,498	0.60	0.29	0.08	11,599
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.00	3.61	21.9	22.4	0.04	0.88	2.64	3.52	0.81	0.44	1.26	—	4,984	4,984	0.22	0.09	0.66	5,018
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.73	0.66	4.00	4.09	0.01	0.16	0.48	0.64	0.15	0.08	0.23	—	825	825	0.04	0.02	0.11	831

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	3.26	2.66	25.9	22.7	0.04	1.07	3.47	4.53	0.98	0.41	1.39	—	4,119	4,119	0.23	0.13	1.50	4,165
2025	8.36	6.92	63.0	64.0	0.13	2.55	9.77	12.3	2.34	2.17	4.51	—	14,965	14,965	0.68	0.26	4.20	15,064
2026	4.19	3.50	30.0	33.3	0.06	1.19	3.22	4.41	1.09	0.40	1.49	—	7,546	7,546	0.31	0.10	2.13	7,587
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.26	2.66	25.9	22.7	0.04	1.07	3.47	4.53	0.98	0.41	1.39	—	4,115	4,115	0.23	0.13	0.04	4,159
2025	6.97	5.70	54.0	50.4	0.11	2.17	10.0	12.2	1.99	2.18	4.18	—	11,498	11,498	0.60	0.29	0.08	11,599
2026	19.1	18.2	38.4	45.1	0.08	1.54	6.02	7.56	1.42	0.70	2.12	—	9,362	9,362	0.39	0.14	0.07	9,414
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.78	0.63	6.19	5.42	0.01	0.25	0.79	1.05	0.23	0.09	0.33	—	982	982	0.06	0.03	0.15	993
2025	2.93	2.43	21.9	22.4	0.04	0.88	2.64	3.52	0.81	0.44	1.26	—	4,984	4,984	0.22	0.09	0.66	5,018
2026	4.00	3.61	17.1	19.2	0.04	0.68	1.96	2.64	0.62	0.24	0.86	—	4,250	4,250	0.18	0.07	0.52	4,275
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.14	0.12	1.13	0.99	< 0.005	0.05	0.15	0.19	0.04	0.02	0.06	—	163	163	0.01	0.01	0.03	164
2025	0.53	0.44	4.00	4.09	0.01	0.16	0.48	0.64	0.15	0.08	0.23	—	825	825	0.04	0.02	0.11	831
2026	0.73	0.66	3.12	3.50	0.01	0.12	0.36	0.48	0.11	0.04	0.16	—	704	704	0.03	0.01	0.09	708

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.80	8.68	1.04	21.4	0.01	0.07	0.03	0.11	0.07	0.01	0.08	22.2	1,698	1,720	3.40	0.04	8.73	1,827
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.55	8.44	1.03	19.9	0.01	0.07	0.03	0.11	0.07	0.01	0.08	22.2	1,691	1,713	3.40	0.04	8.59	1,819

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.25	1.70	0.51	2.76	< 0.005	0.03	0.03	0.07	0.03	0.01	0.04	22.2	1,255	1,278	2.49	0.04	8.65	1,361
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.23	0.31	0.09	0.50	< 0.005	0.01	0.01	0.01	0.01	< 0.005	0.01	3.68	208	212	0.41	0.01	1.43	225

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	63.1	63.1	0.01	0.01	0.14	65.3
Area	1.19	1.17	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.90	5.90	< 0.005	< 0.005	—	5.92
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,135	1,135	0.15	0.01	—	1,143
Water	—	—	—	—	—	—	—	—	—	—	—	8.86	16.7	25.6	0.91	0.02	—	54.9
Waste	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	46.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.59	8.59
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Stationary	1.55	7.48	0.58	19.5	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	478	478	1.00	0.00	0.00	503
Total	2.80	8.68	1.04	21.4	0.01	0.07	0.03	0.11	0.07	0.01	0.08	22.2	1,698	1,720	3.40	0.04	8.73	1,827
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.07	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.7	61.7	0.01	0.01	< 0.005	63.8
Area	0.94	0.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,135	1,135	0.15	0.01	—	1,143

Water	—	—	—	—	—	—	—	—	—	—	—	8.86	16.7	25.6	0.91	0.02	—	54.9
Waste	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	46.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.59	8.59
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Stationary	1.55	7.48	0.58	19.5	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	478	478	1.00	0.00	0.00	503
Total	2.55	8.44	1.03	19.9	0.01	0.07	0.03	0.11	0.07	0.01	0.08	22.2	1,691	1,713	3.40	0.04	8.59	1,819
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.07	0.12	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	61.8	61.8	0.01	0.01	0.06	63.9
Area	1.06	1.05	0.01	0.71	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.91	2.91	< 0.005	< 0.005	—	2.92
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,135	1,135	0.15	0.01	—	1,143
Water	—	—	—	—	—	—	—	—	—	—	—	8.86	16.7	25.6	0.91	0.02	—	54.9
Waste	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	46.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.59	8.59
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.13	0.61	0.05	1.60	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	39.3	39.3	0.08	0.00	0.00	41.3
Total	1.25	1.70	0.51	2.76	< 0.005	0.03	0.03	0.07	0.03	0.01	0.04	22.2	1,255	1,278	2.49	0.04	8.65	1,361
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.6
Area	0.19	0.19	< 0.005	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.48	0.48	< 0.005	< 0.005	—	0.48
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	188	188	0.02	< 0.005	—	189
Water	—	—	—	—	—	—	—	—	—	—	—	1.47	2.77	4.24	0.15	< 0.005	—	9.09
Waste	—	—	—	—	—	—	—	—	—	—	—	2.21	0.00	2.21	0.22	0.00	—	7.74
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.42	1.42
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Stationary	0.02	0.11	0.01	0.29	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	6.50	6.50	0.01	0.00	0.00	6.84
Total	0.23	0.31	0.09	0.50	< 0.005	0.01	0.01	0.01	0.01	< 0.005	0.01	3.68	208	212	0.41	0.01	1.43	225

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.60	0.60	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	19.1	19.1	< 0.005	< 0.005	0.03	20.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.60	0.60	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	19.1	19.1	< 0.005	< 0.005	< 0.005	20.1
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.74	0.62	5.94	5.19	0.01	0.25	—	0.25	0.23	—	0.23	—	818	818	0.03	0.01	—	821
Demolition	—	—	—	—	—	—	0.14	0.14	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.60	0.60	< 0.005	0.06	0.06	—	4.55	4.55	< 0.005	< 0.005	< 0.005	4.80
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	1.08	0.95	< 0.005	0.05	—	0.05	0.04	—	0.04	—	135	135	0.01	< 0.005	—	136
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.80
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.31	85.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	0.01	0.93	0.61	0.01	0.01	0.14	0.14	0.01	0.04	0.04	—	591	591	0.09	0.10	1.16	623
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.31	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	79.6	79.6	< 0.005	< 0.005	0.01	80.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	0.01	0.97	0.61	0.01	0.01	0.14	0.14	0.01	0.04	0.04	—	591	591	0.09	0.10	0.03	622
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.1	19.1	< 0.005	< 0.005	0.03	19.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.23	0.14	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	141	141	0.02	0.02	0.12	149

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.15	3.15	< 0.005	< 0.005	0.01	3.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.4	23.4	< 0.005	< 0.005	0.02	24.6

3.3. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.60	0.60	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	18.7	18.7	< 0.005	< 0.005	< 0.005	19.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.28	2.61	2.34	< 0.005	0.11	—	0.11	0.10	—	0.10	—	402	402	0.02	< 0.005	—	404
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.30	0.30	< 0.005	0.03	0.03	—	2.19	2.19	< 0.005	< 0.005	< 0.005	2.31
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.06	0.05	0.48	0.43	< 0.005	0.02	—	0.02	0.02	—	0.02	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Demoliti on	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.38
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.29	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.8	77.8	< 0.005	< 0.005	0.01	78.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	0.01	0.92	0.60	0.01	0.01	0.14	0.14	0.01	0.04	0.04	—	578	578	0.09	0.09	0.03	607
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.17	9.17	< 0.005	< 0.005	0.01	9.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.11	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	67.8	67.8	0.01	0.01	0.06	71.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.8

3.5. Utilities Associated with Bayfront RWF (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	18.7	18.7	< 0.005	< 0.005	0.03	19.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	18.7	18.7	< 0.005	< 0.005	< 0.005	19.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.39	3.58	3.41	0.01	0.15	—	0.15	0.14	—	0.14	—	795	795	0.03	0.01	—	798
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.17	0.17	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.30	0.30	< 0.005	0.03	0.03	—	2.25	2.25	< 0.005	< 0.005	< 0.005	2.37

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.65	0.62	< 0.005	0.03	—	0.03	0.02	—	0.02	—	132	132	0.01	< 0.005	—	132
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.39
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.62	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	165	165	< 0.005	< 0.005	0.54	166
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	0.01	0.96	0.65	0.01	0.01	0.15	0.15	0.01	0.04	0.05	—	625	625	0.09	0.10	1.24	659
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.58	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	156	156	< 0.005	0.01	0.01	158
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	0.01	1.01	0.65	0.01	0.01	0.15	0.15	0.01	0.04	0.05	—	625	625	0.09	0.10	0.03	658
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.8	18.8	< 0.005	< 0.005	0.03	19.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	75.4	75.4	0.01	0.01	0.06	79.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.12	3.12	< 0.005	< 0.005	< 0.005	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1

3.7. RWF Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.17	3.50	31.7	32.2	0.06	1.30	—	1.30	1.20	—	1.20	—	6,757	6,757	0.27	0.05	—	6,780
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	18.7	18.7	< 0.005	< 0.005	0.03	19.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.17	3.50	31.7	32.2	0.06	1.30	—	1.30	1.20	—	1.20	—	6,757	6,757	0.27	0.05	—	6,780
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	18.7	18.7	< 0.005	< 0.005	< 0.005	19.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.00	1.68	15.2	15.5	0.03	0.62	—	0.62	0.57	—	0.57	—	3,240	3,240	0.13	0.03	—	3,251
Onsite truck	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	1.21	1.21	< 0.005	0.12	0.12	—	8.96	8.96	< 0.005	< 0.005	0.01	9.44
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.31	2.77	2.82	0.01	0.11	—	0.11	0.10	—	0.10	—	536	536	0.02	< 0.005	—	538

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	—	1.48	1.48	< 0.005	< 0.005	< 0.005	1.56
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.11	1.87	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	494	494	0.01	< 0.005	1.63	497
Vendor	0.04	0.01	0.41	0.25	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.72	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.15	1.73	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	467	467	0.01	0.02	0.04	473
Vendor	0.04	0.01	0.43	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.02	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.80	0.00	0.00	0.23	0.23	0.00	0.06	0.06	—	225	225	< 0.005	0.01	0.34	228
Vendor	0.02	< 0.005	0.20	0.12	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	138	138	0.01	0.02	0.15	144
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	37.2	37.2	< 0.005	< 0.005	0.06	37.7
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.8	22.8	< 0.005	< 0.005	0.02	23.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. RWF Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.00	3.36	29.5	31.3	0.06	1.18	—	1.18	1.09	—	1.09	—	6,762	6,762	0.27	0.05	—	6,785
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	18.3	18.3	< 0.005	< 0.005	0.03	19.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.00	3.36	29.5	31.3	0.06	1.18	—	1.18	1.09	—	1.09	—	6,762	6,762	0.27	0.05	—	6,785
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	18.3	18.3	< 0.005	< 0.005	< 0.005	19.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.14	1.80	15.8	16.8	0.03	0.64	—	0.64	0.58	—	0.58	—	3,626	3,626	0.15	0.03	—	3,638
Onsite truck	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	1.35	1.35	< 0.005	0.13	0.13	—	9.82	9.82	< 0.005	< 0.005	0.01	10.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.33	2.89	3.06	0.01	0.12	—	0.12	0.11	—	0.11	—	600	600	0.02	< 0.005	—	602
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.25	0.25	< 0.005	0.02	0.02	—	1.63	1.63	< 0.005	< 0.005	< 0.005	1.71
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.15	0.14	0.11	1.73	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	484	484	0.01	< 0.005	1.44	487
Vendor	0.04	0.01	0.39	0.24	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	282	282	0.03	0.04	0.66	296
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.13	1.60	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	457	457	0.01	0.02	0.04	464
Vendor	0.04	0.01	0.41	0.25	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	282	282	0.03	0.04	0.02	295
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.83	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	246	246	< 0.005	0.01	0.33	250
Vendor	0.02	0.01	0.21	0.13	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	151	151	0.01	0.02	0.15	158
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	40.7	40.7	< 0.005	< 0.005	0.06	41.3
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.1	25.1	< 0.005	< 0.005	0.03	26.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.10	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.84	1.17	< 0.005	0.04	—	0.04	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.5	29.5	< 0.005	< 0.005	—	29.6
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.40	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	0.01	116
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.24	2.24	< 0.005	< 0.005	< 0.005	2.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.14	1.51	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	13.6	13.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	2.65	2.65	< 0.005	0.26	0.26	—	18.3	18.3	< 0.005	< 0.005	< 0.005	19.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.0	21.0	< 0.005	< 0.005	—	21.0

Architect Coatings	1.61	1.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.30	0.30	< 0.005	0.03	0.03	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.27
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.47	3.47	< 0.005	< 0.005	—	3.48
Architectural Coatings	0.29	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.38
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.1	21.1	< 0.005	< 0.005	< 0.005	21.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.50	2.50	< 0.005	< 0.005	< 0.005	2.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.41	0.41	< 0.005	< 0.005	< 0.005	0.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	63.1	63.1	0.01	0.01	0.14	65.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	63.1	63.1	0.01	0.01	0.14	65.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.07	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.7	61.7	0.01	0.01	< 0.005	63.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.01	0.07	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.7	61.7	0.01	0.01	< 0.005	63.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.6
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.6

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	201	201	0.03	< 0.005	—	203
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	427	427	0.07	0.01	—	431
undefined	—	—	—	—	—	—	—	—	—	—	—	—	43.8	43.8	0.01	< 0.005	—	44.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	672	672	0.11	0.01	—	678
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	201	201	0.03	< 0.005	—	203
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	427	427	0.07	0.01	—	431
undefined	—	—	—	—	—	—	—	—	—	—	—	—	43.8	43.8	0.01	< 0.005	—	44.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	672	672	0.11	0.01	—	678
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	33.3	33.3	0.01	< 0.005	—	33.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	70.6	70.6	0.01	< 0.005	—	71.3

undefine	—	—	—	—	—	—	—	—	—	—	—	—	7.25	7.25	< 0.005	< 0.005	—	7.32
Total	—	—	—	—	—	—	—	—	—	—	—	—	111	111	0.02	< 0.005	—	112

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	463	463	0.04	< 0.005	—	464
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	463	463	0.04	< 0.005	—	464
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	463	463	0.04	< 0.005	—	464
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	463	463	0.04	< 0.005	—	464
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	76.7	76.7	0.01	< 0.005	—	76.9
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	76.7	76.7	0.01	< 0.005	—	76.9

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.90	5.90	< 0.005	< 0.005	—	5.92
Total	1.19	1.17	0.01	1.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.90	5.90	< 0.005	< 0.005	—	5.92
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.94	0.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	0.14	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.02	< 0.005	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.48	0.48	< 0.005	< 0.005	—	0.48
Total	0.19	0.19	< 0.005	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.48	0.48	< 0.005	< 0.005	—	0.48

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	8.86	16.7	25.6	0.91	0.02	—	54.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.86	16.7	25.6	0.91	0.02	—	54.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	8.86	16.7	25.6	0.91	0.02	—	54.9

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.86	16.7	25.6	0.91	0.02	—	54.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1.47	2.77	4.24	0.15	< 0.005	—	9.09
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.47	2.77	4.24	0.15	< 0.005	—	9.09

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	46.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	46.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	46.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	46.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	2.21	0.00	2.21	0.22	0.00	—	7.74
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.21	0.00	2.21	0.22	0.00	—	7.74

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.59	8.59
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.59	8.59
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.59	8.59
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.59	8.59
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.42	1.42
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.42	1.42

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pumps	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pumps	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pumps	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergency	1.55	7.48	0.58	19.5	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	478	478	1.00	0.00	0.00	503
Total	1.55	7.48	0.58	19.5	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	478	478	1.00	0.00	0.00	503
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.55	7.48	0.58	19.5	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	478	478	1.00	0.00	0.00	503
Total	1.55	7.48	0.58	19.5	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	478	478	1.00	0.00	0.00	503
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.02	0.11	0.01	0.29	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	6.50	6.50	0.01	0.00	0.00	6.84
Total	0.02	0.11	0.01	0.29	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	6.50	6.50	0.01	0.00	0.00	6.84

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/1/2024	3/1/2025	5.00	130	1
Utilities Associated with Bayfront RWF	Grading	3/1/2025	5/1/2025	5.00	44.0	2
RWF Construction	Building Construction	5/1/2025	10/1/2026	5.00	371	3
Paving	Paving	10/1/2026	11/30/2026	5.00	43.0	4
Architectural Coating	Architectural Coating	10/1/2026	11/30/2026	5.00	43.0	4

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Utilities Associated with Bayfront RWF	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Utilities Associated with Bayfront RWF	Graders	Diesel	Average	1.00	8.00	148	0.41
Utilities Associated with Bayfront RWF	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Utilities Associated with Bayfront RWF	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Utilities Associated with Bayfront RWF	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
RWF Construction	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
RWF Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
RWF Construction	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
RWF Construction	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
RWF Construction	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
RWF Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
RWF Construction	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	0.00	8.40	HHDT,MHDT
Demolition	Hauling	6.55	22.5	HHDT
Demolition	Onsite truck	2.00	2.00	HHDT

Utilities Associated with Bayfront RWF	—	—	—	—
Utilities Associated with Bayfront RWF	Worker	20.0	11.7	LDA,LDT1,LDT2
Utilities Associated with Bayfront RWF	Vendor	0.00	8.40	HHDT,MHDT
Utilities Associated with Bayfront RWF	Hauling	7.95	20.0	HHDT
Utilities Associated with Bayfront RWF	Onsite truck	2.00	2.00	HHDT
RWF Construction	—	—	—	—
RWF Construction	Worker	60.0	11.7	LDA,LDT1,LDT2
RWF Construction	Vendor	10.0	8.40	HHDT,MHDT
RWF Construction	Hauling	0.00	20.0	HHDT
RWF Construction	Onsite truck	2.00	2.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	2.77	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	2.00	2.00	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	0.00	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	0.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction

Water unpaved roads twice daily	55%	55%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	49,500	16,500	52,272

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	74,000	—
Utilities Associated with Bayfront RWF	2,800	0.00	132	0.00	—
Paving	0.00	0.00	0.00	0.00	1.62

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%
Parking Lot	1.62	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	4.00	4.00	4.00	1,460	46.1	46.1	46.1	16,836
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	49,500	16,500	52,272

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	360,035	204	0.0330	0.0040	1,445,041
Parking Lot	763,171	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	4,625,000	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	24.8	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Pumps	Electric	Average	2.00	24.0	20.0	0.30

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	1.00	30.0	850	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	10.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	10.6
AQ-PM	16.4
AQ-DPM	87.6
Drinking Water	29.1
Lead Risk Housing	96.6
Pesticides	0.00
Toxic Releases	25.1
Traffic	94.4
Effect Indicators	—
CleanUp Sites	82.2
Groundwater	71.7
Haz Waste Facilities/Generators	91.9
Impaired Water Bodies	0.00
Solid Waste	67.4
Sensitive Population	—
Asthma	23.9
Cardio-vascular	10.4
Low Birth Weights	45.3
Socioeconomic Factor Indicators	—

Education	78.5
Housing	86.1
Linguistic	87.2
Poverty	56.8
Unemployment	36.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	42.61516746
Employed	87.75824458
Median HI	40.5363788
Education	—
Bachelor's or higher	33.61991531
High school enrollment	100
Preschool enrollment	68.52303349
Transportation	—
Auto Access	16.95110997
Active commuting	77.53111767
Social	—
2-parent households	34.64647761
Voting	49.83959964
Neighborhood	—
Alcohol availability	49.37764661
Park access	18.02900038
Retail density	78.37803157
Supermarket access	71.53856025

Tree canopy	69.94738868
Housing	—
Homeownership	32.22122418
Housing habitability	26.98575645
Low-inc homeowner severe housing cost burden	15.44976261
Low-inc renter severe housing cost burden	56.30694213
Uncrowded housing	19.8639805
Health Outcomes	—
Insured adults	48.91569357
Arthritis	0.0
Asthma ER Admissions	81.6
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	56.1
Cognitively Disabled	78.9
Physically Disabled	69.8
Heart Attack ER Admissions	92.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	13.0
Children	10.6
Elderly	82.5
English Speaking	22.4
Foreign-born	77.9
Outdoor Workers	25.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	46.6
Traffic Density	83.5
Traffic Access	65.0
Other Indices	—
Hardship	69.0
Other Decision Support	—
2016 Voting	43.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	60.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	20-acre lot. 33,000-SF Facility including 5,200 sq ft storage building and 1,700 sq ft operations building, Approximately 70,500 square feet of asphalt paving is proposed around the new facility and would provide on-site access and employee and maintenance worker parking.
Construction: Trips and VMT	Per applicant: "Ox Mountain Sanitary Landfill is the nearest landfill for the export of demolished material for the Bayfront RWF" Landfill is approximately 22.5 miles away from project site.
Operations: Vehicle Data	Per applicant: "We conservatively estimate 4 trips a day in total."
Operations: Emergency Generators and Fire Pumps	1 850 hp generator anticipated
Operations: Off-Road Equipment	Per DEIR: The pump station would include two, approximately 10- to 20-horsepower submersible pumps
Construction: Construction Phases	Per applicant: "Construction duration is anticipated to be 09/01/2024 to 11/30/2026. The Bayfront Recycled Water Facility (RWF) Project is scheduled to take 27 months to complete. Phase lengths provided by applicant.
Construction: Off-Road Equipment	Per applicant: "For Bayfront RWF, Excavator (2), Loader (2), Dozer (2), Water Truck (1), Roller (1), Mobile Crane (1), Impact or Vibrational Hammer / Pile Driver (1), Backhoe (1)."
Operations: Fleet Mix	Modified for anticipated vehicle mix
Construction: Paving	Paved area is 70,500 sq ft

APPENDIX B

2021 EIR CalEEMod Rerun Assumptions and Results – Air Pollutant and GHG Emission Calculations

Table B-1. Construction Anticipated Schedule, Trips, and Equipment – 2021 EIR

Phase (Duration)	Equipment Used			Daily Vehicle Trips
	Type	Number	Hours/Day	
1. Sheet Pile Installation 9/1/2024–9/30/2024 (21 working days)	Tractors/Loaders/Backhoes	1	8	10 one-way worker trips, 18 one-way vendor trips, No one-way haul truck trips, 1 mile of on-site truck travel
	Bore/Drill Rigs	1	8	
	Rubber-tired Dozers	1	8	
	Excavators	1	8	
2. Levee/Ecotone Levee & Storm Drain Improvements 10/1/2024–11/30/2024 (44 working days)	Tractors/Loaders/Backhoes	2	8	8 one-way worker trips, 10 one-way vendor trips, 92 one-way haul truck trips, 1 mile of on-site truck travel
	Rubber-tired Dozers	1	8	
	Excavators	1	8	
	Concrete/Industrial Saws	1	8	
	Generator Sets	2	12	
	Rollers	1	8	
3. FERRF Entrance / Marsh Road Grade and Util Installation 12/1/2024–5/31/2025 (130 working days)	Tractors/Loaders/Backhoes	1	8	8 one-way worker trips, 10 one-way vendor trips, No one-way haul truck trips, 1 mile of on-site truck travel
	Rubber-tired Dozers	1	8	
	Excavators	1	8	
	Rollers	1	8	
4. RWF Construction 6/1/2025–11/30/2026 (391 working days)	Tractors/Loaders/Backhoes	2	8	60 one-way worker trips, 10 one-way vendor trips, No one-way haul truck trips, 1 mile of on-site truck travel
	Bore/Drill Rigs	1	8	
	Rubber-tired Dozers	2	8	
	Excavators	2	8	
	Concrete/Industrial Saws	1	8	
	Rollers	1	8	
	Cranes	1	8	
	Paving Equipment	1	8	

Note: For the parameters that are not provided in the table (e.g., equipment horsepower and load factor, on-road trip lengths), CalEEMod defaults were used.

Table B-2. Mitigated Construction Emissions Summary – 2021 EIR Remodel

Construction Year	Unmitigated Construction Emissions Summary					
	ROG	NO_X	CO	PM_{10}*	$PM_{2.5}$*	SO_2
Pollutant Emission (pounds per day)						
2024 Average Daily Emission	0.44	5.41	4.72	0.17	0.16	0.016
2025 Average Daily Emission	1.81	16.72	17.38	0.67	0.62	0.029
2026 Average Daily Emission	2.11	19.03	20.89	0.74	0.68	0.036
BAAQMD Significance Thresholds	*54*	*54*	*N/A*	*82*	*54*	*N/A*
Threshold Exceeded?	*No*	*No*	*N/A*	*No*	*No*	*N/A*
Pollutant Emission (tons per year)						
2024 Max Annual	0.08	0.98	0.86	0.03	0.02	0.002
2025 Max Annual	0.33	3.05	3.17	0.12	0.11	0.005
2026 Max Annual	0.38	3.47	3.81	0.13	0.12	0.006
BAAQMD Significance Thresholds	*10*	*10*	*N/A*	*15*	*10*	*N/A*
Threshold Exceeded?	*No*	*No*	*N/A*	*No*	*No*	*N/A*

Source: Emissions were quantified using 2021 EIR assumptions with an updated schedule and CalEEMod Version 2022.1 (CAPCOA 2022).

Notes:
*These are exhaust emissions only.
N/A = not applicable, no threshold.
ROG = Reactive organic gases.
Model results (summer, winter, and annual) and assumptions are provided in Appendix A.

Table B-3. Unmitigated Operational Emissions Summary

Operation Year 2029	**Unmitigated Operational Emissions Summary**					
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**
Pollutant Emission (pounds per day)						
Area	0.33	0.002	0.25	0.00	0.00	0.00001
Energy	<0.01	0.14	0.11	0.01	0.01	0.0008
Mobile	<0.01	0.06	0.11	0.03	0.01	0.0005
Water	0	0	0	0	0	0
Waste	0	0	0	0	0	0
Total	0.34	0.20	0.49	0.04	0.02	0.0014
BAAQMD Significance Thresholds	*54*	*54*	*N/A*	*82*	*54*	*N/A*
Threshold Exceeded?	*No*	*No*	*N/A*	*No*	*No*	*N/A*
Pollutant Emission (tons per year)						
Area	0.06	0.0003	0.04	0.00008	0.00006	0.000002
Energy	0.001	0.02	0.02	0.0019	0.0019	0.0001
Mobile	0.001	0.01	0.02	0.006	0.001	0.0001
Water	0	0	0	0	0	0
Waste	0	0	0	0	0	0
Total	0.063	0.037	0.09	0.0083	0.0037	0.00025
BAAQMD Significance Thresholds	*10*	*10*	*N/A*	*15*	*10*	*N/A*
Threshold Exceeded?	*No*	*No*	*N/A*	*No*	*No*	*N/A*

Source: Emissions were quantified using CalEEMod Version 2022.1 (CAPCOA 2022).

Notes:
N/A = Not applicable, no threshold.
ROG = Reactive organic gases.
Model results (summer, winter, and annual) and assumptions are provided in Appendix A.

WBSD - FERRF (Draft EIR) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	WBSD - FERRF (Draft EIR)
Construction Start Date	9/1/2024
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.20
Precipitation (days)	18.8
Location	37.491865645686985, -122.17372215709804
County	San Mateo
City	Menlo Park
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1209
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

General Light Industry	12.0	1000sqft	0.28	12,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.08	3.40	31.2	33.3	0.06	1.26	15.1	16.4	1.16	7.02	8.17	—	6,464	6,464	0.27	0.09	2.36	6,501
Mit.	4.08	3.40	31.2	33.3	0.06	1.26	7.15	8.41	1.16	2.91	4.07	—	6,464	6,464	0.27	0.09	2.36	6,501
% Reduced	—	—	—	—	—	—	53%	49%	—	59%	50%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.08	3.40	31.3	33.1	0.11	1.26	15.1	16.4	1.16	7.02	8.17	—	10,527	10,527	1.28	1.27	0.40	10,937
Mit.	4.08	3.40	31.3	33.1	0.11	1.26	7.15	8.41	1.16	2.91	4.07	—	10,527	10,527	1.28	1.27	0.40	10,937
% Reduced	—	—	—	—	—	—	53%	49%	—	59%	50%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.54	2.12	19.0	20.9	0.04	0.75	9.85	10.6	0.69	4.58	5.27	—	4,201	4,201	0.18	0.16	0.85	4,226

Mit.	2.54	2.12	19.0	20.9	0.04	0.75	4.62	5.37	0.69	1.90	2.58	—	4,201	4,201	0.18	0.16	0.85	4,226
% Reduced	—	—	—	—	—	—	53%	49%	—	59%	51%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.46	0.39	3.47	3.81	0.01	0.14	1.80	1.93	0.13	0.84	0.96	—	695	695	0.03	0.03	0.14	700
Mit.	0.46	0.39	3.47	3.81	0.01	0.14	0.84	0.98	0.13	0.35	0.47	—	695	695	0.03	0.03	0.14	700
% Reduced	—	—	—	—	—	—	53%	49%	—	59%	51%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.74	1.44	14.3	14.4	0.02	0.60	8.18	8.78	0.55	3.55	4.11	—	2,575	2,575	0.12	0.06	1.04	2,598
2025	4.08	3.40	31.2	33.3	0.06	1.26	15.1	16.4	1.16	7.02	8.17	—	6,464	6,464	0.27	0.09	2.36	6,501
2026	3.88	3.24	29.1	32.2	0.06	1.15	15.1	16.3	1.05	7.02	8.07	—	6,452	6,452	0.27	0.09	2.11	6,488
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.85	2.24	31.3	25.9	0.11	0.88	9.94	10.8	0.82	4.03	4.84	—	10,527	10,527	1.28	1.27	0.40	10,937
2025	4.08	3.40	31.2	33.1	0.06	1.26	15.1	16.4	1.16	7.02	8.17	—	6,437	6,437	0.27	0.11	0.06	6,476
2026	3.88	3.24	29.1	32.0	0.06	1.15	15.1	16.3	1.05	7.02	8.07	—	6,425	6,425	0.27	0.11	0.05	6,464
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.67	0.44	5.42	4.72	0.02	0.18	2.14	2.32	0.16	0.90	1.07	—	1,557	1,557	0.17	0.16	0.85	1,610
2025	2.18	1.82	16.7	17.4	0.03	0.68	8.70	9.37	0.62	3.98	4.60	—	3,378	3,378	0.15	0.06	0.55	3,401
2026	2.54	2.12	19.0	20.9	0.04	0.75	9.85	10.6	0.69	4.58	5.27	—	4,201	4,201	0.18	0.07	0.60	4,226

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.12	0.08	0.99	0.86	< 0.005	0.03	0.39	0.42	0.03	0.16	0.19	—	258	258	0.03	0.03	0.14	267
2025	0.40	0.33	3.05	3.17	0.01	0.12	1.59	1.71	0.11	0.73	0.84	—	559	559	0.02	0.01	0.09	563
2026	0.46	0.39	3.47	3.81	0.01	0.14	1.80	1.93	0.13	0.84	0.96	—	695	695	0.03	0.01	0.10	700

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.74	1.44	14.3	14.4	0.02	0.60	4.18	4.78	0.55	1.50	2.05	—	2,575	2,575	0.12	0.06	1.04	2,598
2025	4.08	3.40	31.2	33.3	0.06	1.26	7.15	8.41	1.16	2.91	4.07	—	6,464	6,464	0.27	0.09	2.36	6,501
2026	3.88	3.24	29.1	32.2	0.06	1.15	7.15	8.30	1.05	2.91	3.96	—	6,452	6,452	0.27	0.09	2.11	6,488
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.85	2.24	31.3	25.9	0.11	0.88	5.89	6.77	0.82	1.96	2.78	—	10,527	10,527	1.28	1.27	0.40	10,937
2025	4.08	3.40	31.2	33.1	0.06	1.26	7.15	8.41	1.16	2.91	4.07	—	6,437	6,437	0.27	0.11	0.06	6,476
2026	3.88	3.24	29.1	32.0	0.06	1.15	7.15	8.30	1.05	2.91	3.96	—	6,425	6,425	0.27	0.11	0.05	6,464
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.67	0.44	5.42	4.72	0.02	0.18	1.18	1.36	0.16	0.41	0.57	—	1,557	1,557	0.17	0.16	0.85	1,610
2025	2.18	1.82	16.7	17.4	0.03	0.68	4.17	4.85	0.62	1.65	2.28	—	3,378	3,378	0.15	0.06	0.55	3,401
2026	2.54	2.12	19.0	20.9	0.04	0.75	4.62	5.37	0.69	1.90	2.58	—	4,201	4,201	0.18	0.07	0.60	4,226
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.12	0.08	0.99	0.86	< 0.005	0.03	0.22	0.25	0.03	0.08	0.10	—	258	258	0.03	0.03	0.14	267
2025	0.40	0.33	3.05	3.17	0.01	0.12	0.76	0.88	0.11	0.30	0.42	—	559	559	0.02	0.01	0.09	563
2026	0.46	0.39	3.47	3.81	0.01	0.14	0.84	0.98	0.13	0.35	0.47	—	695	695	0.03	0.01	0.10	700

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.39	0.21	0.77	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	316	329	1.38	0.02	3.25	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.31	0.21	0.24	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	312	325	1.38	0.02	3.13	369
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.35	0.21	0.49	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	313	327	1.38	0.02	3.18	371
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.06	0.04	0.09	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	2.21	51.9	54.1	0.23	< 0.005	0.53	61.4

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.9	61.9	0.01	0.01	0.13	64.0
Area	0.09	0.38	< 0.005	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.15
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	242	242	0.03	< 0.005	—	243
Water	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Waste	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	0.12	0.39	0.21	0.77	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	316	329	1.38	0.02	3.25	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.06	0.12	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	60.5	60.5	0.01	0.01	< 0.005	62.5
Area	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	242	242	0.03	< 0.005	—	243
Water	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Waste	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	0.03	0.31	0.21	0.24	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	312	325	1.38	0.02	3.13	369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.06	0.12	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	60.6	60.6	0.01	0.01	0.05	62.6
Area	0.05	0.33	< 0.005	0.26	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.06	1.06	< 0.005	< 0.005	—	1.06
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	242	242	0.03	< 0.005	—	243
Water	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Waste	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	0.07	0.35	0.21	0.49	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	313	327	1.38	0.02	3.18	371
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10.4
Area	0.01	0.06	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Energy	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	40.0	40.0	< 0.005	< 0.005	—	40.2
Water	—	—	—	—	—	—	—	—	—	—	—	0.88	1.66	2.54	0.09	< 0.005	—	5.46
Waste	—	—	—	—	—	—	—	—	—	—	—	1.33	0.00	1.33	0.13	0.00	—	4.65
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.52
Total	0.01	0.06	0.04	0.09	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	2.21	51.9	54.1	0.23	< 0.005	0.53	61.4

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.9	61.9	0.01	0.01	0.13	64.0
Area	0.09	0.38	< 0.005	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.15
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	242	242	0.03	< 0.005	—	243
Water	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Waste	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	0.12	0.39	0.21	0.77	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	316	329	1.38	0.02	3.25	373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.06	0.12	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	60.5	60.5	0.01	0.01	< 0.005	62.5
Area	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	242	242	0.03	< 0.005	—	243
Water	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Waste	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	0.03	0.31	0.21	0.24	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	312	325	1.38	0.02	3.13	369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.06	0.12	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	60.6	60.6	0.01	0.01	0.05	62.6
Area	0.05	0.33	< 0.005	0.26	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.06	1.06	< 0.005	< 0.005	—	1.06
Energy	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	242	242	0.03	< 0.005	—	243
Water	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0

Waste	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	0.07	0.35	0.21	0.49	< 0.005	0.01	0.03	0.05	0.01	0.01	0.02	13.3	313	327	1.38	0.02	3.18	371
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10.4
Area	0.01	0.06	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Energy	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	40.0	40.0	< 0.005	< 0.005	—	40.2
Water	—	—	—	—	—	—	—	—	—	—	—	0.88	1.66	2.54	0.09	< 0.005	—	5.46
Waste	—	—	—	—	—	—	—	—	—	—	—	1.33	0.00	1.33	0.13	0.00	—	4.65
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.52
Total	0.01	0.06	0.04	0.09	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	2.21	51.9	54.1	0.23	< 0.005	0.53	61.4

3. Construction Emissions Details

3.1. Sheet Pile Intal (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.66	1.40	13.9	13.7	0.02	0.60	—	0.60	0.55	—	0.55	—	2,192	2,192	0.09	0.02	—	2,199
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.60	5.60	< 0.005	< 0.005	0.01	5.92

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	126	126	0.01	< 0.005	—	127
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.34
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.9	20.9	< 0.005	< 0.005	—	20.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.31	85.5
Vendor	0.04	0.01	0.44	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	293	293	0.03	0.04	0.72	307
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.59	4.59	< 0.005	< 0.005	0.01	4.66
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.9	16.9	< 0.005	< 0.005	0.02	17.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	< 0.005	0.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.79	2.79	< 0.005	< 0.005	< 0.005	2.92
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Sheet Pile Intal (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.66	1.40	13.9	13.7	0.02	0.60	—	0.60	0.55	—	0.55	—	2,192	2,192	0.09	0.02	—	2,199
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.60	5.60	< 0.005	< 0.005	0.01	5.92
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	126	126	0.01	< 0.005	—	127

Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.34
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.9	20.9	< 0.005	< 0.005	—	20.9
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.31	85.5
Vendor	0.04	0.01	0.44	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	293	293	0.03	0.04	0.72	307
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.59	4.59	< 0.005	< 0.005	0.01	4.66
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.9	16.9	< 0.005	< 0.005	0.02	17.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	< 0.005	0.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.79	2.79	< 0.005	< 0.005	< 0.005	2.92

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Levee/Ecotone Levee & Stormdrain Imp (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.44	2.04	18.5	17.7	0.03	0.79	—	0.79	0.73	—	0.73	—	2,798	2,798	0.11	0.02	—	2,808
Dust From Material Movement	—	—	—	—	—	—	6.63	6.63	—	3.38	3.38	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.59	5.59	< 0.005	< 0.005	< 0.005	5.90
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.25	2.23	2.14	< 0.005	0.10	—	0.10	0.09	—	0.09	—	337	337	0.01	< 0.005	—	338
Dust From Material Movement	—	—	—	—	—	—	0.80	0.80	—	0.41	0.41	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.17	0.17	< 0.005	0.02	0.02	—	0.67	0.67	< 0.005	< 0.005	< 0.005	0.71
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	55.8	55.8	< 0.005	< 0.005	—	56.0

Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	63.6	63.6	< 0.005	< 0.005	0.01	64.5
Vendor	0.04	0.01	0.46	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	293	293	0.03	0.04	0.02	307
Hauling	1.34	0.17	12.3	7.64	0.08	0.08	1.70	1.78	0.08	0.47	0.55	—	7,367	7,367	1.13	1.20	0.37	7,752
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.70	7.70	< 0.005	< 0.005	0.01	7.81
Vendor	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.3	35.3	< 0.005	0.01	0.04	37.0
Hauling	0.16	0.02	1.46	0.92	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	888	888	0.14	0.14	0.75	935
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.27	1.27	< 0.005	< 0.005	< 0.005	1.29
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.85	5.85	< 0.005	< 0.005	0.01	6.13
Hauling	0.03	< 0.005	0.27	0.17	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	147	147	0.02	0.02	0.12	155

3.4. Levee/Ecotone Levee & Stormdrain Imp (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.44	2.04	18.5	17.7	0.03	0.79	—	0.79	0.73	—	0.73	—	2,798	2,798	0.11	0.02	—	2,808
Dust From Material Movement	—	—	—	—	—	—	2.58	2.58	—	1.32	1.32	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.59	5.59	< 0.005	< 0.005	< 0.005	5.90
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.25	2.23	2.14	< 0.005	0.10	—	0.10	0.09	—	0.09	—	337	337	0.01	< 0.005	—	338
Dust From Material Movement	—	—	—	—	—	—	0.31	0.31	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.17	0.17	< 0.005	0.02	0.02	—	0.67	0.67	< 0.005	< 0.005	< 0.005	0.71
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	55.8	55.8	< 0.005	< 0.005	—	56.0
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	63.6	63.6	< 0.005	< 0.005	0.01	64.5
Vendor	0.04	0.01	0.46	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	293	293	0.03	0.04	0.02	307
Hauling	1.34	0.17	12.3	7.64	0.08	0.08	1.70	1.78	0.08	0.47	0.55	—	7,367	7,367	1.13	1.20	0.37	7,752
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.70	7.70	< 0.005	< 0.005	0.01	7.81
Vendor	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.3	35.3	< 0.005	0.01	0.04	37.0
Hauling	0.16	0.02	1.46	0.92	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	888	888	0.14	0.14	0.75	935
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.27	1.27	< 0.005	< 0.005	< 0.005	1.29
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.85	5.85	< 0.005	< 0.005	0.01	6.13
Hauling	0.03	< 0.005	0.27	0.17	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	147	147	0.02	0.02	0.12	155

3.5. FERRF Entrance / Marsh Road Grade and Util Inst (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70	1.43	13.3	12.4	0.02	0.59	—	0.59	0.54	—	0.54	—	1,952	1,952	0.08	0.02	—	1,958

Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.59	5.59	< 0.005	< 0.005	< 0.005	5.90
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.81	0.75	< 0.005	0.04	—	0.04	0.03	—	0.03	—	118	118	< 0.005	< 0.005	—	119
Dust From Material Movement	—	—	—	—	—	—	0.40	0.40	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.36
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.6	19.6	< 0.005	< 0.005	—	19.7
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	63.6	63.6	< 0.005	< 0.005	0.01	64.5
Vendor	0.04	0.01	0.46	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	293	293	0.03	0.04	0.02	307
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.87	3.87	< 0.005	< 0.005	0.01	3.93
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.8	17.8	< 0.005	< 0.005	0.02	18.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.94	2.94	< 0.005	< 0.005	< 0.005	3.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. FERRF Entrance / Marsh Road Grade and Util Inst (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70	1.43	13.3	12.4	0.02	0.59	—	0.59	0.54	—	0.54	—	1,952	1,952	0.08	0.02	—	1,958
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.59	5.59	< 0.005	< 0.005	< 0.005	5.90
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.81	0.75	< 0.005	0.04	—	0.04	0.03	—	0.03	—	118	118	< 0.005	< 0.005	—	119

Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.36
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.6	19.6	< 0.005	< 0.005	—	19.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	63.6	63.6	< 0.005	< 0.005	0.01	64.5
Vendor	0.04	0.01	0.46	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	293	293	0.03	0.04	0.02	307
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.87	3.87	< 0.005	< 0.005	0.01	3.93
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.8	17.8	< 0.005	< 0.005	0.02	18.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.94	2.94	< 0.005	< 0.005	< 0.005	3.08

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. FERRF Entrance / Marsh Road Grade and Util Inst (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.55	1.30	11.9	11.4	0.02	0.51	—	0.51	0.47	—	0.47	—	1,952	1,952	0.08	0.02	—	1,958
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.50	5.50	< 0.005	< 0.005	0.01	5.81
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.55	1.30	11.9	11.4	0.02	0.51	—	0.51	0.47	—	0.47	—	1,952	1,952	0.08	0.02	—	1,958
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.79
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.38	3.52	3.38	0.01	0.15	—	0.15	0.14	—	0.14	—	577	577	0.02	< 0.005	—	579

Dust From Material Movement	—	—	—	—	—	—	1.94	1.94	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.41	0.41	< 0.005	0.04	0.04	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.71
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.64	0.62	< 0.005	0.03	—	0.03	0.03	—	0.03	—	95.5	95.5	< 0.005	< 0.005	—	95.8
Dust From Material Movement	—	—	—	—	—	—	0.35	0.35	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.25	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	65.9	65.9	< 0.005	< 0.005	0.22	66.3
Vendor	0.04	0.01	0.41	0.25	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.72	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.23	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	62.3	62.3	< 0.005	< 0.005	0.01	63.1
Vendor	0.04	0.01	0.43	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.02	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.5	18.5	< 0.005	< 0.005	0.03	18.7
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	85.0	85.0	0.01	0.01	0.09	88.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.06	3.06	< 0.005	< 0.005	< 0.005	3.10
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.1	14.1	< 0.005	< 0.005	0.02	14.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. FERRF Entrance / Marsh Road Grade and Util Inst (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.55	1.30	11.9	11.4	0.02	0.51	—	0.51	0.47	—	0.47	—	1,952	1,952	0.08	0.02	—	1,958
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.50	5.50	< 0.005	< 0.005	0.01	5.81
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.55	1.30	11.9	11.4	0.02	0.51	—	0.51	0.47	—	0.47	—	1,952	1,952	0.08	0.02	—	1,958
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.79
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.46	0.38	3.52	3.38	0.01	0.15	—	0.15	0.14	—	0.14	—	577	577	0.02	< 0.005	—	579
Dust From Material Movement	—	—	—	—	—	—	0.76	0.76	—	0.39	0.39	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.41	0.41	< 0.005	0.04	0.04	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.71
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.64	0.62	< 0.005	0.03	—	0.03	0.03	—	0.03	—	95.5	95.5	< 0.005	< 0.005	—	95.8
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.25	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	65.9	65.9	< 0.005	< 0.005	0.22	66.3
Vendor	0.04	0.01	0.41	0.25	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.72	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.23	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	62.3	62.3	< 0.005	< 0.005	0.01	63.1
Vendor	0.04	0.01	0.43	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.02	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.5	18.5	< 0.005	< 0.005	0.03	18.7

Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	85.0	85.0	0.01	0.01	0.09	88.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.06	3.06	< 0.005	< 0.005	< 0.005	3.10
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.1	14.1	< 0.005	< 0.005	0.02	14.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. RWF Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.87	3.25	30.6	31.1	0.05	1.25	—	1.25	1.15	—	1.15	—	5,677	5,677	0.23	0.05	—	5,696
Dust From Material Movement	—	—	—	—	—	—	13.1	13.1	—	6.73	6.73	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.50	5.50	< 0.005	< 0.005	0.01	5.81
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.87	3.25	30.6	31.1	0.05	1.25	—	1.25	1.15	—	1.15	—	5,677	5,677	0.23	0.05	—	5,696
Dust From Material Movement	—	—	—	—	—	—	13.1	13.1	—	6.73	6.73	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.79
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	13.0	0.02	0.52	—	0.52	0.48	—	0.48	—	2,377	2,377	0.10	0.02	—	2,386
Dust From Material Movement	—	—	—	—	—	—	5.49	5.49	—	2.82	2.82	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.58	0.58	< 0.005	0.06	0.06	—	2.30	2.30	< 0.005	< 0.005	< 0.005	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.34	2.38	< 0.005	0.10	—	0.10	0.09	—	0.09	—	394	394	0.02	< 0.005	—	395
Dust From Material Movement	—	—	—	—	—	—	1.00	1.00	—	0.51	0.51	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.40
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.11	1.87	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	494	494	0.01	< 0.005	1.63	497
Vendor	0.04	0.01	0.41	0.25	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.72	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.15	1.73	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	467	467	0.01	0.02	0.04	473
Vendor	0.04	0.01	0.43	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.02	301

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.70	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	196	196	< 0.005	0.01	0.30	199
Vendor	0.02	< 0.005	0.18	0.11	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.13	126
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.5	32.5	< 0.005	< 0.005	0.05	32.9
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.0	20.0	< 0.005	< 0.005	0.02	20.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. RWF Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.87	3.25	30.6	31.1	0.05	1.25	—	1.25	1.15	—	1.15	—	5,677	5,677	0.23	0.05	—	5,696
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.50	5.50	< 0.005	< 0.005	0.01	5.81
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.87	3.25	30.6	31.1	0.05	1.25	—	1.25	1.15	—	1.15	—	5,677	5,677	0.23	0.05	—	5,696

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.79
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	13.0	0.02	0.52	—	0.52	0.48	—	0.48	—	2,377	2,377	0.10	0.02	—	2,386
Dust From Material Movement	—	—	—	—	—	—	2.14	2.14	—	1.10	1.10	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.58	0.58	< 0.005	0.06	0.06	—	2.30	2.30	< 0.005	< 0.005	< 0.005	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.34	2.38	< 0.005	0.10	—	0.10	0.09	—	0.09	—	394	394	0.02	< 0.005	—	395
Dust From Material Movement	—	—	—	—	—	—	0.39	0.39	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.40
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.11	1.87	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	494	494	0.01	< 0.005	1.63	497
Vendor	0.04	0.01	0.41	0.25	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.72	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.16	0.14	0.15	1.73	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	467	467	0.01	0.02	0.04	473
Vendor	0.04	0.01	0.43	0.26	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	288	288	0.03	0.04	0.02	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.70	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	196	196	< 0.005	0.01	0.30	199
Vendor	0.02	< 0.005	0.18	0.11	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.13	126
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.5	32.5	< 0.005	< 0.005	0.05	32.9
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.0	20.0	< 0.005	< 0.005	0.02	20.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. RWF Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.69	3.10	28.6	30.2	0.05	1.14	—	1.14	1.05	—	1.05	—	5,680	5,680	0.23	0.05	—	5,699
Dust From Material Movement	—	—	—	—	—	—	13.1	13.1	—	6.73	6.73	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.40	5.40	< 0.005	< 0.005	0.01	5.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.69	3.10	28.6	30.2	0.05	1.14	—	1.14	1.05	—	1.05	—	5,680	5,680	0.23	0.05	—	5,699
Dust From Material Movement	—	—	—	—	—	—	13.1	13.1	—	6.73	6.73	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.39	5.39	< 0.005	< 0.005	< 0.005	5.68
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.41	2.02	18.7	19.7	0.03	0.75	—	0.75	0.69	—	0.69	—	3,713	3,713	0.15	0.03	—	3,725
Dust From Material Movement	—	—	—	—	—	—	8.57	8.57	—	4.40	4.40	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.91	0.91	< 0.005	0.09	0.09	—	3.53	3.53	< 0.005	< 0.005	< 0.005	3.72
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	3.41	3.60	0.01	0.14	—	0.14	0.13	—	0.13	—	615	615	0.02	< 0.005	—	617
Dust From Material Movement	—	—	—	—	—	—	1.56	1.56	—	0.80	0.80	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.17	0.17	< 0.005	0.02	0.02	—	0.58	0.58	< 0.005	< 0.005	< 0.005	0.62
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.11	1.73	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	484	484	0.01	< 0.005	1.44	487
Vendor	0.04	0.01	0.39	0.24	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	282	282	0.03	0.04	0.66	296
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.13	1.60	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	457	457	0.01	0.02	0.04	464
Vendor	0.04	0.01	0.41	0.25	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	282	282	0.03	0.04	0.02	295
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.01	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	300	300	0.01	0.01	0.41	304
Vendor	0.02	0.01	0.26	0.16	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	185	185	0.02	0.03	0.19	193
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	49.7	49.7	< 0.005	< 0.005	0.07	50.4
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.03	32.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. RWF Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.69	3.10	28.6	30.2	0.05	1.14	—	1.14	1.05	—	1.05	—	5,680	5,680	0.23	0.05	—	5,699
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.40	5.40	< 0.005	< 0.005	0.01	5.69

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.69	3.10	28.6	30.2	0.05	1.14	—	1.14	1.05	—	1.05	—	5,680	5,680	0.23	0.05	—	5,699
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.47	1.47	< 0.005	0.15	0.15	—	5.39	5.39	< 0.005	< 0.005	< 0.005	5.68
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.41	2.02	18.7	19.7	0.03	0.75	—	0.75	0.69	—	0.69	—	3,713	3,713	0.15	0.03	—	3,725
Dust From Material Movement	—	—	—	—	—	—	3.34	3.34	—	1.72	1.72	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.91	0.91	< 0.005	0.09	0.09	—	3.53	3.53	< 0.005	< 0.005	< 0.005	3.72
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	3.41	3.60	0.01	0.14	—	0.14	0.13	—	0.13	—	615	615	0.02	< 0.005	—	617
Dust From Material Movement	—	—	—	—	—	—	0.61	0.61	—	0.31	0.31	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.17	0.17	< 0.005	0.02	0.02	—	0.58	0.58	< 0.005	< 0.005	< 0.005	0.62
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.11	1.73	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	484	484	0.01	< 0.005	1.44	487

Vendor	0.04	0.01	0.39	0.24	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	282	282	0.03	0.04	0.66	296
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.13	1.60	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	457	457	0.01	0.02	0.04	464
Vendor	0.04	0.01	0.41	0.25	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	282	282	0.03	0.04	0.02	295
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.01	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	300	300	0.01	0.01	0.41	304
Vendor	0.02	0.01	0.26	0.16	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	185	185	0.02	0.03	0.19	193
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	49.7	49.7	< 0.005	< 0.005	0.07	50.4
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.03	32.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.9	61.9	0.01	0.01	0.13	64.0
Total	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.9	61.9	0.01	0.01	0.13	64.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.06	0.12	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	60.5	60.5	0.01	0.01	< 0.005	62.5
Total	0.01	0.01	0.06	0.12	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	60.5	60.5	0.01	0.01	< 0.005	62.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10.4
Total	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10.4

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.9	61.9	0.01	0.01	0.13	64.0
Total	0.01	0.01	0.06	0.13	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	61.9	61.9	0.01	0.01	0.13	64.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.01	0.06	0.12	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	60.5	60.5	0.01	0.01	< 0.005	62.5

Total	0.01	0.01	0.06	0.12	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	60.5	60.5	0.01	0.01	< 0.005	62.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10.4
Total	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10.4

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	73.2	73.2	0.01	< 0.005	—	73.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	73.2	73.2	0.01	< 0.005	—	73.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	73.2	73.2	0.01	< 0.005	—	73.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	73.2	73.2	0.01	< 0.005	—	73.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1	< 0.005	< 0.005	—	12.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1	< 0.005	< 0.005	—	12.2

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	73.2	73.2	0.01	< 0.005	—	73.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	73.2	73.2	0.01	< 0.005	—	73.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	73.2	73.2	0.01	< 0.005	—	73.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	73.2	73.2	0.01	< 0.005	—	73.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1	< 0.005	< 0.005	—	12.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1	< 0.005	< 0.005	—	12.2

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	169
Total	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	169
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	169
Total	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	169
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.9	27.9	< 0.005	< 0.005	—	28.0
Total	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.9	27.9	< 0.005	< 0.005	—	28.0

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	169
Total	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	169
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	169

Total	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	169
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.9	27.9	< 0.005	< 0.005	—	28.0
Total	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.9	27.9	< 0.005	< 0.005	—	28.0

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.09	0.09	< 0.005	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.15
Total	0.09	0.38	< 0.005	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.15
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Total	0.01	0.06	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.09	0.09	< 0.005	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.15
Total	0.09	0.38	< 0.005	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.15

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Total	0.01	0.06	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Total	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Total	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.88	1.66	2.54	0.09	< 0.005	—	5.46
Total	—	—	—	—	—	—	—	—	—	—	—	0.88	1.66	2.54	0.09	< 0.005	—	5.46

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Total	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0

Total	—	—	—	—	—	—	—	—	—	—	—	5.32	10.0	15.4	0.55	0.01	—	33.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.88	1.66	2.54	0.09	< 0.005	—	5.46
Total	—	—	—	—	—	—	—	—	—	—	—	0.88	1.66	2.54	0.09	< 0.005	—	5.46

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1.33	0.00	1.33	0.13	0.00	—	4.65
Total	—	—	—	—	—	—	—	—	—	—	—	1.33	0.00	1.33	0.13	0.00	—	4.65

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Total	—	—	—	—	—	—	—	—	—	—	—	8.02	0.00	8.02	0.80	0.00	—	28.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1.33	0.00	1.33	0.13	0.00	—	4.65
Total	—	—	—	—	—	—	—	—	—	—	—	1.33	0.00	1.33	0.13	0.00	—	4.65

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.52
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.52

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.52
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.52

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Sheet Pile Intal	Grading	9/1/2024	9/30/2024	5.00	21.0	—
Levee/Ecotone Levee & Stormdrain Imp	Grading	10/1/2024	11/30/2024	5.00	44.0	—
FERRF Entrance / Marsh Road Grade and Util Inst	Grading	12/1/2024	5/31/2025	5.00	130	—
RWF Construction	Grading	6/1/2025	11/30/2026	5.00	391	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Sheet Pile Intal	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Sheet Pile Intal	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Sheet Pile Intal	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Sheet Pile Intal	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Levee/Ecotone Levee & Stormdrain Imp	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Levee/Ecotone Levee & Stormdrain Imp	Excavators	Diesel	Average	1.00	8.00	36.0	0.38

Levee/Ecotone Levee & Stormdrain Imp	Generator Sets	Diesel	Average	2.00	12.0	14.0	0.74
Levee/Ecotone Levee & Stormdrain Imp	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Levee/Ecotone Levee & Stormdrain Imp	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Levee/Ecotone Levee & Stormdrain Imp	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
FERRF Entrance / Marsh Road Grade and Util Inst	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
FERRF Entrance / Marsh Road Grade and Util Inst	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
FERRF Entrance / Marsh Road Grade and Util Inst	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
FERRF Entrance / Marsh Road Grade and Util Inst	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
RWF Construction	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
RWF Construction	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
RWF Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
RWF Construction	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
RWF Construction	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
RWF Construction	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
RWF Construction	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
RWF Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Sheet Pile Intal	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Sheet Pile Intal	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Sheet Pile Intal	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Sheet Pile Intal	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Levee/Ecotone Levee & Stormdrain Imp	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Levee/Ecotone Levee & Stormdrain Imp	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Levee/Ecotone Levee & Stormdrain Imp	Generator Sets	Diesel	Average	2.00	12.0	14.0	0.74
Levee/Ecotone Levee & Stormdrain Imp	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Levee/Ecotone Levee & Stormdrain Imp	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Levee/Ecotone Levee & Stormdrain Imp	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
FERRF Entrance / Marsh Road Grade and Util Inst	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
FERRF Entrance / Marsh Road Grade and Util Inst	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
FERRF Entrance / Marsh Road Grade and Util Inst	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
FERRF Entrance / Marsh Road Grade and Util Inst	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
RWF Construction	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
RWF Construction	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73

RWF Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
RWF Construction	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
RWF Construction	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
RWF Construction	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
RWF Construction	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
RWF Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Sheet Pile Intal	—	—	—	—
Sheet Pile Intal	Worker	10.0	11.7	LDA,LDT1,LDT2
Sheet Pile Intal	Vendor	10.0	8.40	HHDT,MHDT
Sheet Pile Intal	Hauling	0.00	20.0	HHDT
Sheet Pile Intal	Onsite truck	1.00	1.00	HHDT
Levee/Ecotone Levee & Stormdrain Imp	—	—	—	—
Levee/Ecotone Levee & Stormdrain Imp	Worker	8.00	11.7	LDA,LDT1,LDT2
Levee/Ecotone Levee & Stormdrain Imp	Vendor	10.0	8.40	HHDT,MHDT
Levee/Ecotone Levee & Stormdrain Imp	Hauling	91.6	20.0	HHDT
Levee/Ecotone Levee & Stormdrain Imp	Onsite truck	1.00	1.00	HHDT
FERRF Entrance / Marsh Road Grade and Util Inst	—	—	—	—

FERRF Entrance / Marsh Road Grade and Util Inst	Worker	8.00	11.7	LDA,LDT1,LDT2
FERRF Entrance / Marsh Road Grade and Util Inst	Vendor	10.0	8.40	HHDT,MHDT
FERRF Entrance / Marsh Road Grade and Util Inst	Hauling	0.00	20.0	HHDT
FERRF Entrance / Marsh Road Grade and Util Inst	Onsite truck	1.00	1.00	HHDT
RWF Construction	—	—	—	—
RWF Construction	Worker	60.0	11.7	LDA,LDT1,LDT2
RWF Construction	Vendor	10.0	8.40	HHDT,MHDT
RWF Construction	Hauling	0.00	20.0	HHDT
RWF Construction	Onsite truck	1.00	1.00	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Sheet Pile Intal	—	—	—	—
Sheet Pile Intal	Worker	10.0	11.7	LDA,LDT1,LDT2
Sheet Pile Intal	Vendor	10.0	8.40	HHDT,MHDT
Sheet Pile Intal	Hauling	0.00	20.0	HHDT
Sheet Pile Intal	Onsite truck	1.00	1.00	HHDT
Levee/Ecotone Levee & Stormdrain Imp	—	—	—	—
Levee/Ecotone Levee & Stormdrain Imp	Worker	8.00	11.7	LDA,LDT1,LDT2
Levee/Ecotone Levee & Stormdrain Imp	Vendor	10.0	8.40	HHDT,MHDT
Levee/Ecotone Levee & Stormdrain Imp	Hauling	91.6	20.0	HHDT

Levee/Ecotone Levee & Stormdrain Imp	Onsite truck	1.00	1.00	HHDT
FERRF Entrance / Marsh Road Grade and Util Inst	—	—	—	—
FERRF Entrance / Marsh Road Grade and Util Inst	Worker	8.00	11.7	LDA,LDT1,LDT2
FERRF Entrance / Marsh Road Grade and Util Inst	Vendor	10.0	8.40	HHDT,MHDT
FERRF Entrance / Marsh Road Grade and Util Inst	Hauling	0.00	20.0	HHDT
FERRF Entrance / Marsh Road Grade and Util Inst	Onsite truck	1.00	1.00	HHDT
RWF Construction	—	—	—	—
RWF Construction	Worker	60.0	11.7	LDA,LDT1,LDT2
RWF Construction	Vendor	10.0	8.40	HHDT,MHDT
RWF Construction	Hauling	0.00	20.0	HHDT
RWF Construction	Onsite truck	1.00	1.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Sheet Pile Intal	0.00	0.00	10.5	0.00	—
Levee/Ecotone Levee & Stormdrain Imp	32,250	0.00	22.0	0.00	—
FERRF Entrance / Marsh Road Grade and Util Inst	0.00	0.00	65.0	0.00	—
RWF Construction	0.00	0.00	391	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	4.01	4.01	4.01	1,463	46.2	46.2	46.2	16,870

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	4.01	4.01	4.01	1,463	46.2	46.2	46.2	16,870

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	18,000	6,000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	130,922	204	0.0330	0.0040	525,469

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	130,922	204	0.0330	0.0040	525,469

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	2,775,000	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	2,775,000	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

General Light Industry	14.9	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	14.9	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	10.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	10.6
AQ-PM	16.4
AQ-DPM	87.6
Drinking Water	29.1
Lead Risk Housing	96.6
Pesticides	0.00
Toxic Releases	25.1
Traffic	94.4
Effect Indicators	—
CleanUp Sites	82.2
Groundwater	71.7
Haz Waste Facilities/Generators	91.9
Impaired Water Bodies	0.00
Solid Waste	67.4

Sensitive Population	—
Asthma	23.9
Cardio-vascular	10.4
Low Birth Weights	45.3
Socioeconomic Factor Indicators	—
Education	78.5
Housing	86.1
Linguistic	87.2
Poverty	56.8
Unemployment	36.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	42.61516746
Employed	87.75824458
Median HI	40.5363788
Education	—
Bachelor's or higher	33.61991531
High school enrollment	100
Preschool enrollment	68.52303349
Transportation	—
Auto Access	16.95110997
Active commuting	77.53111767
Social	—
2-parent households	34.64647761

Voting	49.83959964
Neighborhood	—
Alcohol availability	49.37764661
Park access	18.02900038
Retail density	78.37803157
Supermarket access	71.53856025
Tree canopy	69.94738868
Housing	—
Homeownership	32.22122418
Housing habitability	26.98575645
Low-inc homeowner severe housing cost burden	15.44976261
Low-inc renter severe housing cost burden	56.30694213
Uncrowded housing	19.8639805
Health Outcomes	—
Insured adults	48.91569357
Arthritis	0.0
Asthma ER Admissions	81.6
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	56.1
Cognitively Disabled	78.9
Physically Disabled	69.8
Heart Attack ER Admissions	92.6

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	13.0
Children	10.6
Elderly	82.5
English Speaking	22.4
Foreign-born	77.9
Outdoor Workers	25.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	46.6
Traffic Density	83.5
Traffic Access	65.0
Other Indices	—
Hardship	69.0
Other Decision Support	—
2016 Voting	43.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	60.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Consistent with 10/30/2020 CalEEMod run and Table 2-2 of Draft EIR.
Construction: Off-Road Equipment	Consistent with 10/30/2020 CalEEMod run and Table 2-2 of Draft EIR.
Operations: Vehicle Data	Consistent with 10/30/2020 CalEEMod run.
Operations: Fleet Mix	Consistent with 10/30/2020 CalEEMod run.
Construction: Trips and VMT	Consistent with 10/30/2020 CalEEMod run and Table 2-2 of Draft EIR. Add onsite truck travel.

Print Form

Notice of Determination

Appendix D

To:

☐ Office of Planning and Research

U.S. Mail: P.O. Box 3044 Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113 Sacramento, CA 95814

☐ County Clerk
County of: _____
Address: _____
_____

From:
Public Agency: _____
Address: _____
_____
Contact: _____
Phone: _____

Lead Agency (if different from above):
_____
Address: _____
_____
Contact: _____
Phone: _____

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2020050414

Project Title: ADDENDUM #2 TO THE 2021 FINAL ENVIRONMENTAL IMPACT REPORT FOR THE V

Project Applicant: West Bay Sanitary District

Project Location (include county): Marsh Road, Menlo Park, San Mateo County

Project Description:

This is to advise that the West Bay Sanitary District has approved the above
(☐ Lead Agency or ☐ Responsible Agency)

described project on _____ and has made the following determinations regarding the above
(date)
described project.

1. The project [☐ will ☐ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☐ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☐ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☐ was not] adopted for this project.
6. Findings [☐ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
www.westbaysanitary.org

Signature (Public Agency): _____ Title: _____

Date: _____ Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

WEST BAY SANITARY DISTRICT
AGENDA ITEM 7

To: ***Board of Directors***

From: ***Fariborz Heydari, P.E., District Engineer***

Subject: ***Consideration to Appropriate Additional Funding to Pump Station Improvements FY 2024-25 Budget, Consideration Awarding Bid for the Pump Stations Telemetry System Project to Blocka Construction, Inc., and Record Notice of Exemption with the San Mateo County***

Background

The District uses ISAC a regular phone line telemetry system to monitor the eleven publicly owned pump stations. The existing telemetry system is at the end of its reliable lifespan.

At the Regular Meeting on July 12, 2023 the Board considered approving Purchase of Flygt MultiSmart to upgrade ten publicly owned pump stations. Staff received a quote from Shape Incorporated (Vendor) for $396,273.44; however, the Vendor later notified staff that they cannot meet the requirements for prevailing wages in the contract documents and register with the Department of Industrial Relations (DIR).

On October 11, 2023, the Board authorized the General Manager to enter into an agreement with Freyer and Laureta (F&L) for engineering design and construction support services to upgrade the District's pump stations telemetry systems.

On June 12, 2024, the Board authorized the General Manager to issue the call for bids for Pump Stations Telemetry Project No. 1766.0. In that staff report the staff mentioned that after the bid opening, additional funding may be needed to award the project.

Analysis

The anticipated cost for construction of the project was approximately $700,000. The bid opening for this project was on July 23, 2024 at 2:00 PM. The District received a total of one (1) bid from Blocka Construction, Inc. as follows:

Bidder	City	Bid Total
Blocka Construction, Inc.	Pleasanton, CA	$1,160,000.00

The bid received from Blocka Construction, Inc. is about 65.7% over the engineer's estimate. The reason for the bid being so high could be due to several factors such as complexity of the project, very specialized trade performing the work, not many

competitors, and not having complete as-builts information for all 10 pump stations ISAC regular phone line telemetry system, and supply-chain issues.

Staff have done their due diligence for the past 2 years by first getting a quote from Shape Incorporated (Vendor) in 2023 which the Vendor later removed their quote because they could not meet the requirements for prevailing wages in the contract documents and register with the Department of Industrial Relations (DIR), and then by hiring Freyer & Laureta to prepare the plans and specifications for the project.

Furthermore, after receiving the bid from Blocka Construction, Inc., the staff discussed the possibility of doing this project in-house and save money, but after lengthy discussions with the Operations Superintendent and Pump Facility Supervisor, it was determined that staff do not have the bandwidth or expertise to do this project as a pilot project in-house which could take more than a couple of years to complete. Having Blocka Construction, Inc. constructing this project will bring all of our 10 pump stations telemetry system to current industry standards in a timely manner and will also provide the District with as-builts that do not currently exist. Blocka Construction, Inc. will implement removal of ten (10) existing telemetry control panels, and install Flygt MultiSmart Panels, including programing, startup, and testing.

Since labor and materials costs are keep increasing every year, staff, despite receiving only one bid for $1,160,000 from Blocka Construction, Inc., is in an opinion that the Board should consider awarding the project to the responsible bidder Blocka Construction, Inc. so the District could have a reliable telemetry system.

Fiscal Impact

The Pump Station Telemetry has a carryover budget of $332K from FY 2023-24 budget with an added cost of $262K. The total budget allocated towards upgrading the pump stations' telemetry systems is $600K. The contractor's bid is $1,160,000 which is $560,000 higher than the approved budget for the project. The District in FY 2023-24 received a couple of favorable bids for Point Repair Phase I and Point Repair Phase II Projects which were approximately $3.5M under the engineer's estimates and what were budgeted. Since the upgrades to the pump stations telemetry system is part of the District's overall operational system, it is imperative that the Board considers allocating a portion the money saved and unincumbered from the point repair project to pay for the budget shortfall on this project.

Therefore, staff is requesting the Board to appropriate and allocate an additional $560,000 to the Pump Station Improvements FY 2024-2025 Fund, and appropriate a 15% contingency for additional work to the bid price. Therefore, an additional $85,000 for additional work would need to be allocated for a total amount of $650,000 additional funds (rounded up to $1,000).

Recommendation

The District Engineer recommends that the District Board: 1) adopt the appropriation of additional funding in $650,000 to the Pump Station Improvements FY 2024-2025 Fund; 2) adopt the attached Resolution and authorize the General Manager to award the

contract for the Upgrade Pump Stations Telemetry System Project to the bid received from Blocka Construction, Inc. for $1,160,000; 3) apportion an additional $85,000 for 15% contingency for additional work for a total project amount of $1,245,000 (rounded up to $1,000); and 4) record the Notice of Exemption with the San Mateo County.

Attachments: Resolution
Notice of Exemption

RESOLUTION NO. _____(2024)

RESOLUTION APPROPRIATING ADDITIONAL FUNDING TO PUMP STATION IMPROVEMENTS FY 2024-2025 AND AWARDING A CONSTRUCTION CONTRACT FOR THE UPGRADE PUMP STATIONS TELEMETRY SYSTEM PROJECT TO BLOCKA CONSTRUCTION, INC.

*****

WHEREAS, The Upgrade Pump Stations Telemetry System Project plans and specifications were prepared by Freyer & Laureta, Inc. of San Francisco, California, and

WHEREAS, Blocka Construction, Inc. is the only bidder for the project, and

WHEREAS, There was no informality in Blocka Construction, Inc.'s bid package, and

WHEREAS, Blocka Construction, Inc.'s base bid amount was $1,160,000, and

WHEREAS, this was the responsible base bid received, and

WHEREAS, Based on available funds, that the Bid be awarded to Blocka Construction, Inc. for $1,160,000, and

WHEREAS, The total project cost, if awarded to Blocka Construction, Inc. with 15% contingencies for $85,000.00 is estimated at $1,245,000; and

WHEREAS, There will be a fiscal impact to the Pump Station Improvements Fund. The Pump Station Improvements Fund for Fiscal Year 2024-2025 for this project is $600,000 which is less than $1,245,000 needed to award this project.

WHEREAS, Additional funding of $650,000 is needed to award this project to Blocka Construction, Inc.

NOW, THEREFORE, BE IT RESOLVED that the District Board of the West Bay Sanitary District, County of San Mateo, State of California, does hereby is appropriating additional funding of $650,000 to this project, and award a construction contract to Blocka Construction, Inc. in the amount of $1,160,000.00 for the Pump Stations Telemetry System Project, and authorizes the General Manager to execute the construction contract, and allocate an additional $85,000.00 for construction contingencies.

*****

PASSED AND ADOPTED by the District Board of the West Bay Sanitary District at a regular meeting thereof held on the 14th day of August, 2024, by the following votes:

Ayes:

Noes:

Absent:

Abstain:

_____
President of the District Board of the
West Bay Sanitary District of San
Mateo County, State of California

Attest:

_____
Secretary of the District Board of the
West Bay Sanitary District of San Mateo
County, State of California

Notice of Exemption

To: County Clerk
County of San Mateo
555 County Center
Redwood City CA 94063

From: West Bay Sanitary District
500 Laurel Street
Menlo Park, CA 94025

Project Title: Upgrade Pump Stations Telemetry System Project

Project Location – Specific: 10 Locations.
Hamilton Henderson Pump Station: 595 Hamilton, Menlo Park
Menlo Park Industrial PS: 1002 Hamilton Ct., Menlo Park
Willow Road Pump Station: 1298 Willow Rd., Menlo Park
University Pump Station: 1595 O'Brien Dr., Menlo Park
Illinois Pump Station: 335 Demeter St., East Palo Alto
Vintage Oaks #1 Pump Station: 100 Seminary Rd., Menlo Park
Vintage Oaks #2 Pump Station: 190 Seminary Rd., Menlo Park
Village Square Pump Station: 884 Portola Rd., Portola Valley
Sausal Vista Pump Station: 250 Georgia Ln., Portola Valley
Los Trancos Pump Station: 63 Los Trancos Rd., Portola Valley

Project Location – City: East Palo Alto, Menlo Park, Portola Valley

Project Location – County: San Mateo County

Description of Project: The project includes removing existing telemetry and control panels, installing Flygt MultiSmart Panels, including programming, startup and testing for West Bay Sanitary District's 10 Pump Stations referenced above.

Name of Public Agency Approving Project: West Bay Sanitary District

Name of Person or Agency Carrying Out Project: West Bay Sanitary District

Exempt Status:

CEQA Guidelines Section 15601(b)(3), General Rule;
Categorical Exemption: Class 1 – Section 15301(b), Existing Facilities, and Class 2 – Section 15302(c), Replacement or Reconstruction.

Reasons why project is exempt:

This project is exempt from CEQA because it can be "seen with certainty that there is no possibility that the activity in question may have a significant impact on the environment." This certainty is based on past experience with numerous sewer construction and rehabilitation and pump stations projects of this nature, and the mitigated measures included in all such projects to alleviate any impacts.

Most project elements also are exempt as minor alteration and repair of existing public facilities or topographical features involving negligible or no expansion of use beyond that previously exist.

Lead Agency: West Bay Sanitary District

Lead Agency Contact Person: Sergio Ramirez (650) 321-0384

_____ Date: _____ Title: General Manager
Signature

"PRELIMINARY REVIEW"

UPGRADE PUMP STATION TELEMETRY SYSTEM PROJECT
SAN MATEO COUNTY

August 6, 2024

INTRODUCTION. At the August 14, 2024 District Board Meeting, the Board will consider approving the bidding of this Project and authorization for the filling of a California Environmental Quality Act (CEQA) "Notice of Exemption" for the project. The District proposes this project.

EXEMPTION REVIEW. In compliance with CEQA Guidelines, this "preliminary review" of the Upgrade Pump Stations Telemetry System Project were conducted to determine whether the project is exempt from CEQA. Based on this review, staff has concluded that the project is exempt from CEQA under several sections of the guidelines. In summary, the project would not have any significant impacts on the environment because it includes little or no expansion of capacity and will employ mitigation measures to alleviate any impacts.

This preliminary review presents and elaborates upon the rationale for the conclusions reached by staff.

> Staff has concluded that all project elements are exempt under CEQA Guidelines section 15061(b)(3) (known as the "General Rule"), since it can be "seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment."

This certainty is based on past experience with numerous sewer construction projects and pump stations construction of this nature, and the mitigation measures included in all such projects to alleviate any impacts.

Past Experience. The District has completed the construction of many miles of sewer pipeline and pump station construction projects throughout San Mateo County. While construction-related impacts on land use, traffic, noise, air quality, erosion, drainage, public safety, and cultural resources can occur, no significant environmental impacts have resulted from this work.

The reasons these have been "less-than-significant" include the short-term nature of construction activities, application of the District's standard construction mitigation measures, good community relations outreach programs to inform project area residents of construction activities, and active coordination with local jurisdictions.

Construction Mitigation Measures. Specific impact mitigation measures will be included in the proposed project to avoid, minimize, reduce, or rectify construction-related impacts. These measures are used on all sewer construction projects and will be required in the project plans and specifications. The measures address dust control; erosion control; noise control; protection of soils; provision for adequate drainage; protection and restoration of structures; public health and safety precautions; community notifications; traffic control; and preservation of cultural resources.

Staff has concluded that most project elements are “categorically exempt” under CEQA Guidelines Section 15301(b) (existing facilities); or Section 15302(c) (replacement or reconstruction). These exemptions require repair, maintenance, or minor alteration of existing structures or facilities.

The existing telemetry system is at the end of its reliable lifespans and are in need of replacement. This project is being implemented to remove ten (10) existing telemetry control panels, and install Flygt MultiSmart Panels, including programing, startup and testing, and as-builts.

CONCLUSION. Based on the information presented herein, staff has concluded that the subject project is exempt from CEQA under the CEQA Guidelines Section15061(b)(3) (the General Rule), and that most project elements are also exempt under CEQA Guideline Section 15301(b), (existing facilities) or Section 15302(c), (replacement or reconstruction).

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WEST BAY SANITARY DISTRICT
AGENDA ITEM 8

To: ***Board of Directors***

From: ***Fariborz Heydari, P.E., District Engineer***

Subject: ***Consider Awarding Bid for Stowe Lane Pump Station Replacement Project to Casey Construction, Inc.***

Background

The Stowe Lane Pump Station was built in 1950 and it is the last Wet Well/Dry Well station at West Bay.

On December 13, 2023, the Board authorized the General Manager to issue the call for bids for Stowe Lane Pump Station Replacement Project No. 1764.0.

The Stowe Lane Pump Station Replacement Project includes removal of the existing pump station above grade structure and abandonment of place of existing below grade structure, construction of a new and more efficient wet well and valve pit layouts, re-routing of gravity lines to the wet well, new pumps and switchgear controls, incorporation of multi-smart panel, and replacement of the pump station generator set. Safety features addressed as part of the project include improved lighting, fall protection access hatches, 8-foot-high perimeter fencing, passive wet well ventilation, and provision for security cameras.

Analysis

The anticipated cost for construction of the project was approximately $1,600,000. The bid opening for this project was on July 24, 2024, at 2:00 PM. The District received a total of one (1) bid from Casey Construction, Inc. as follows:

Bidder	City	Bid Total
Casey Construction, Inc.	Emerald Hills	$1,799,000.00

The project shall be awarded to the responsible bidder Casey Construction, Inc.

Fiscal Impact

On June 14, 2023, the District adopted FY 2023-24 Budget. The Pipeline Replacement & Rehab Construction summary table on Page 14 of the FY 2023-24 Budget shows $3 million allocated towards construction of Stowe Lane Pump Station in 2024.

On July 12, 2023, the Board approved design contract with Freyer & Laureta for $208,400 for the Stowe Lane Pump Station leaving approximately $2.7 million unincumbered for the construction phase.

The bid received from Casey Construction is about 12% over the engineer's estimate but it is still within the budget that was approved by the Board. The staff is requesting the appropriation of approximately 15% contingency due to the complexity of the project for additional unforeseen work to the bid price. Therefore, an additional $270,000 for additional work would need to be allocated for a total project amount of $2,069,000.00 (rounded up to $1,000).

Recommendation

The District Engineer recommends that the Board: 1) adopt the attached Resolution and authorize the General Manager to award the contract for the Stowe Lane Pump Station Replacement Project to Casey Construction, Inc. for $1,799,000.00; 2) apportion an additional $270,000 for 15% contingency for additional unforeseen work for a total project amount of $2,069,000.00 (rounded up to $1,000); and 3) record Notice of Exemption with San Mateo County.

Attachment: Resolution
Notice of Exemption

RESOLUTION NO. _____(2024)

RESOLUTION AWARDING A CONSTRUCTION CONTRACT FOR THE STOWE LANE PUMP STATION REPLACEMENT PROJECT TO CASEY CONSTRUCTION, INC.

*****

WHEREAS, The Stowe Lane Pump Station Replacement Project plans and specifications were prepared by Freyer & Laureta, Inc. of San Francisco, California, and

WHEREAS, Casey Construction, Inc. is the only bidder for the project, and

WHEREAS, There was no informality in Casey Construction, Inc.'s bid package, and

WHEREAS, Casey Construction, Inc.'s base bid amount was $1,799,000.00, and

WHEREAS, this was the responsible base bid received, and

WHEREAS, Based on available funds, that the Bid be awarded to Casey Construction, Inc. for $1,799,000.00, and

WHEREAS, The total project cost, if awarded to Casey Construction, Inc. with 15% contingencies for $270,000.00 is estimated at $2,069,000.00; and

WHEREAS, There will be no fiscal impact to the General Fund. The Capital Assets Fund for Fiscal Year 2023-2024 for this project is approximately $2,700,000.00 of which $2,069,000.00 will be allocated towards the construction of Stowe Lane Pump Station Replacement Project.

NOW, THEREFORE, BE IT RESOLVED that the District Board of the West Bay Sanitary District, County of San Mateo, State of California, does hereby award a construction contract to Casey Construction, Inc. in the amount of $1,799,000.00 for the Stowe Lane Pump Station Replacement Project and authorizes the General Manager to execute the construction contract, and allocate an additional $270,000.00 for construction contingencies.

*****

PASSED AND ADOPTED by the District Board of the West Bay Sanitary District at a regular meeting thereof held on the 14th day of August, 2024, by the following votes:

Ayes:

Noes:

Absent:

Abstain:

_____
President of the District Board of the
West Bay Sanitary District of San
Mateo County, State of California

Attest:

_____
Secretary of the District Board of the
West Bay Sanitary District of San Mateo
County, State of California

Notice of Exemption

To: County Clerk
County of San Mateo
555 County Center
Redwood City CA 94063

From: West Bay Sanitary District
500 Laurel Street
Menlo Park, CA 94025

Project Title: Stowe Lane Pump Station Replacement Project

Project Location – Specific: Stowe Lane

Project Location – City: Menlo Park

Project Location – County: San Mateo

Description of Project: Replace the sanitary sewer pumping station (known as Stowe Lane Pump Station). The Stowe Lane Pump Station Replacement Project includes removal of the existing pump station above grade structure and abandonment of place of existing below grade structure, construction of a new and more efficient wet well and valve pit layouts, re-routing of gravity lines to the wet well, new pumps and switchgear controls, incorporation of multi-smart panel, and replacement of the pump station generator set. Safety features addressed as part of the project include improved lighting, fall protection access hatches, 8-foot-high perimeter fencing, passive wet well ventilation, and provision for security cameras at Stowe Lane in Menlo Park.

Name of Public Agency Approving Project: West Bay Sanitary District

Name of Person or Agency Carrying Out Project: West Bay Sanitary District

Exempt Status:

CEQA Guidelines Section 15601(b)(3), General Rule;
Categorical Exemption: Class 1 – Section 15301(b), Existing Facilities, and Class 2 – Section 15302(c), Replacement or Reconstruction.

Reasons why project is exempt:

This project is exempt from CEQA because it can be “seen with certainty that there is no possibility that the activity in question may have a significant impact on the environment.” This certainty is based on past experience with numerous sewer construction and rehabilitation projects of this nature, and the mitigated measures included in all such projects to alleviate any impacts.

Most project elements also are exempt as minor alteration and repair of existing public facilities or topographical features involving negligible or no expansion of use beyond that previously exist.

Lead Agency: West Bay Sanitary District

Lead Agency Contact Person: Sergio Ramirez (650) 321-0384

_____ Date: _____ Title: General Manager
Signature

"PRELIMINARY REVIEW"

STOWE LANE PUMP STATION REPLACEMENT PROJET
SAN MATEO COUNTY

August 6, 2024

INTRODUCTION. At the August 14, 2024 District Board Meeting, the Board will consider approving the bidding of this Project and authorization for the filling of a California Environmental Quality Act (CEQA) "Notice of Exemption" for the project. The District proposes this project.

EXEMPTION REVIEW. In compliance with CEQA Guidelines, this "preliminary review" of the Stowe Lane Pump Station Replacement Project at Stowe Lane was conducted to determine whether the project is exempt from CEQA. Based on this review, staff has concluded that the project is exempt from CEQA under several sections of the guidelines. In summary, the project would not have any significant impacts on the environment because it includes little or no expansion of capacity and will employ mitigation measures to alleviate any impacts.

This preliminary review presents and elaborates upon the rationale for the conclusions reached by staff.

> Staff has concluded that all project elements are exempt under CEQA Guidelines section 15061(b)(3) (known as the "General Rule"), since it can be "seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment."

This certainty is based on past experience with numerous sewer construction projects of this nature, and the mitigation measures included in all such projects to alleviate any impacts.

Past Experience. The District has completed the construction of many miles of sewer pipeline and pump station construction projects throughout San Mateo County. While construction-related impacts on land use, traffic, noise, air quality, erosion, drainage, public safety, and cultural resources can occur, no significant environmental impacts have resulted from this work.

The reasons these have been "less-than-significant" include the short-term nature of construction activities, application of the District's standard construction mitigation measures, good community relations outreach programs to inform project area residents of construction activities, and active coordination with local jurisdictions.

Construction Mitigation Measures. Specific impact mitigation measures will be included in the proposed project to avoid, minimize, reduce, or rectify construction-related impacts. These measures are used on all sewer construction projects and will be required in the project plans and specifications. The measures address dust control; erosion control; noise control; protection of soils; provision for adequate drainage; protection and restoration of structures; public health and safety precautions; community notifications; traffic control; and preservation of cultural resources.

Staff has concluded that most project elements are “categorically exempt” under CEQA Guidelines Section 15301(b) (existing facilities); or Section 15302(c) (replacement or reconstruction). These exemptions require repair, maintenance, or minor alteration of existing structures or facilities.

The pump station has reached its expected life and is in need of replacement. This project is being implemented to replace the sanitary sewer pumping station (known as Stowe Lane Pump Station). The Stowe Lane Pump Station Dry/Wet Well Replacement and Discharge Piping Replacement Project includes removal of the existing pump station above grade structure and abandonment of place of existing below grade structure, construction of a new and more efficient wet well and valve pit layouts, re-routing of gravity lines to the wet well, new pumps and switchgear controls, incorporation of multi-smart panel, and replacement of the pump station generator set. Safety features addressed as part of the project include improved lighting, fall protection access hatches, 8-foot-high perimeter fencing, passive wet well ventilation, and provision for security cameras located at Stowe Lane in Menlo Park. The project shall reduce operations and maintenance costs, energy consumption, and risk of pump failure.

CONCLUSION. Based on the information presented herein, staff has concluded that the subject project is exempt from CEQA under the CEQA Guidelines Section15061(b)(3) (the General Rule), and that most project elements are also exempt under CEQA Guideline Section 15301(b), (existing facilities) or Section 15302(c), (replacement or reconstruction).

WEST BAY SANITARY DISTRICT
AGENDA ITEM 9

To: ***Board of Directors***

From: ***Robert J Scheidt, Assistant Operations Superintendent***

Subject: ***Consider Authorizing the General Manager to Enter into a Purchase Order Agreement with Jack Doheny Company through Sourcewell for an IBAK CCTV Unit***

Background

In the 2024-25 fiscal year budget the District Board approved the replacement of the CCTV Unit for the inspection and evaluation of sewer mainlines within the District as part of our strategic goals.

The new CCTV Unit will replace the District's ten (10) year old CCTV Unit which has surpassed its useful life.

According to the Purchasing Policy, cooperative purchase agreements can be utilized to provide financial benefits to the District when purchasing equipment, furniture, vehicles, etc. The District recognizes cooperatives such as Source well (Formerly NJPA) National Joint Powers Alliance, California Multiple Awards Schedule (CMAS), General Services Administration (GSA), California State Bids, H-GAC (Houston-Galveston Area Council) cooperative and other multi-government agency agreements.

Analysis

Staff performs CCTV inspection to assess the District's Collection System on a 6-year cycle. This information is used to update the District's LAMP program and 10 year Master Plan. Additionally, CCTV inspections are performed for the LAH and TOW maintenance contracts. The CCTV Unit is also used to verify the cleaning crews are cleaning line segments properly as part of our on-going Quality Control (Q/C) as addressed in the District's Sewer System Management Plan.

District staff spent several months analyzing the latest technology in CCTV Units and found that numerous improvements have been made in the past ten years. Staff had four separate vendors demonstrate their latest equipment and technology options and IBAK proved to perform the best as it has an advanced Ultra HD 4K picture quality with twin digital cameras in one unit. The IBAK panoramic camera system provides high-definition imagery and can help increase CCTV footage. The control room includes an ergonomic keyboard, touch screen controls, joystick camera controls, and 22" monitors. The IKAS software integrates well with the district's GIS and Lucity. The

new system includes two separate cameras. The smaller steerable tractor with lift can inspect from 6” to 24” pipe. The tractor is versatile enough to maneuver around voids, and over offsets and records in High-Definition. The 360-degree panorama camera can scan 6” to 12” pipes and allows for more efficient coding. IBAK is developing the ability to use AI pipe coding in the future. The CCTV Unit will be mounted on a 16’ Ford E450 gas powered chassis.

The District obtained a bid for the purchase of the CCTV Unit through Sourcewell and Jack Doheny Company (JDC). Staff was not able to obtain a third quote for the IBAK unit because JAC is the only Northern California Supplier

Utilizing this cooperative purchasing program will ensures the District receives a competitive price for the equipment.

Fiscal Impact

The price for the CCTV Unit through Sourcewell is $484,349.94 including sales tax. An additional quote or the CCTV Unit from Jack Doheny Company (JDC) is $493,183.54 including sales tax. The unit will need to be outfitted with more safety lights and equipment not to exceed $8,000.00.

Unfortunately, the quotes we received exceeded the Equipment Replacement Budget of $425,000 to replace this Unit. Fiscal impact for the purchase and outfitting of the new IBAK CCTV Unit, is not to exceed $492,349.94 and will be funded from the Vehicle and Equipment Replacement Fund.

Recommendation

The Assistant Operations Superintendent recommends the Board authorize the General Manager to enter into a Purchase Order Agreement with JDC through Sourcewell for an IBAK CCTV Unit.

Attachments: Sourcewell Quote
JDC Quote

Date: 7/24/24
Branch: 1700

Sourcewell Contract #120721-RVL

CUSTOMER: West Bay Sanitary District
ADDRESS: 500 Laurel Street
CITY, STATE, ZIP: Menlo Park, CA 94025
PHONE: 650-321-0384
EMAIL:
ATTN:

RV # 30384
CRM Quote #

TEAMJDC.COM

Type	Product #	Description	Price	Quantity	Price / Unit
Camera Cable	80072300	FOX2 FO4 HD 4K Camera Cable Type 00/20 (NEW)	$ 17,377.20	1	$ 17,377.20
Camera Head Accessories	901601040	Pressure Test Set	$ 529.20	1	$ 529.20
Computer Systems	V0001017	19" Industrial PC	$ 6,773.31	1	$ 6,773.31
	VSP00200	IBAK EVOLUTION - VEHICLE	$ 15,795.00	1	$ 15,795.00
	VSP00300	IKAS EVOLUTION - OFFICE	$ 9,315.00	1	$ 9,315.00
	VS004521	SHAPE FILE IMPORT/EXPORT- IKAS EVOLUTION	$ 4,185.00	1	$ 4,185.00
	VS004504	MAP VIEWER - IKAS EVOLUTION	$ 3,963.60	2	$ 1,981.80
	VS004505	MAP EDITOR - IKAS EVOLUTION	$ 3,780.00	1	$ 3,780.00
	VS004550	PANORAMO ANALYSIS (PIPELINE + SI) - IKAS EVOLUTION	$ 9,180.00	1	$ 9,180.00
Cutter System and Accessories	V4702467	VM4C9 Full HD MPEG Encoder Card	$ 3,694.74	1	$ 3,694.74
HD Systems	V9052009	T66.1 HD Camera Tractor	$ 13,506.75	1	$ 13,506.75
	V9052021	Camera Connection Type 2-8 SD/HD for SD cameras and ORION 3 (SD or HD modes)	$ 2,266.65	1	$ 2,266.65
	V9052100	CC Electric Lift for HD	$ 7,344.00	1	$ 7,344.00
IKAS Evolution Support	IKAS Evolution Support	IKAS Evolution Support	$ 3,113.67	1	$ 3,113.67
Panoramo 150 System and Accessories	V9055004	PANORAMO 150 4K Camera System	$108,373.95	1	$108,373.95
	905501631	PANORAMO 150 Weight Kit	$ 1,156.95	1	$ 1,156.95
Rapid View Chassis	VZ000700	E450 GAS CHASSIS for 16' BOX, 176" WB, 7.3L V8 Premium Rated Engine, 6-Speed Automatic	$ 52,864.29	1	$ 52,864.29
Rapid View Build Out Options	VZ000602	FRP Cargo 16' Box	$ 22,870.99	1	$ 22,870.99
	VZ000621	Inspection Conversion for 16' Commercial RapidView FRP Box or Trailer	$ 29,739.79	1	$ 29,739.79
	VZOP000102	Box bathroom Addition - requires 16' Box *Holding Tank *Toilet *Privacy door *Installed in wc	$ 5,036.21	1	$ 5,036.21
	VZP000100	Generator Gas 5.5Kw, 120VAC	$ 8,730.95	1	$ 8,730.95
	VZM000102	Monitor, 22" Widescreen	$ 2,660.21	3	$ 886.74
	VZM000104	Monitor Mount - Double	$ 324.00	1	$ 324.00
	VZ000306	KW Reel cabinet, (W-22", L-39" & H-34"), with a slide out tray for the LISY Synchro drum and c	$ 2,238.44	1	$ 2,238.44
Reel Accessories	904350020	Cable Deflection Pulley KUV 2.7 with rope and holder (50ft of rope)	$ 756.00	1	$ 756.00
	802617031	Cable Deflection Pulley KW305/505	$ 1,150.20	1	$ 1,150.20
	802975001	Cable Cleaning Brush for KW305/310/505	$ 522.45	1	$ 522.45
	800500841	KW Reel foot-operated winch switch (KW505, 310 and 305)	$ 1,080.00	1	$ 1,080.00
Reels	V8029020	KW505 FO2 4K Synchronized Power Cable Reel	$ 38,357.55	1	$ 38,357.55
Standard Cameras	V0494050	ORION 3.0 Zoom HD/SD Adaptive PAN & TILT CAMERA	$ 22,026.60	1	$ 22,026.60
T66 Tractor and Accessories	905211031	Additional Weight for T66	$ 781.65	1	$ 781.65
	905253031	T66 Lowering Claw Used With Pole Adapter	$ 348.30	1	$ 348.30
	905210091	Treaded Wheel Set 75 Complete - BROWN -	$ 684.45	1	$ 684.45
	905210191	Treaded Wheel Set 105 PUR Complete - Brown -	$ 935.55	1	$ 935.55
	905210991	Treaded Wheel Set 118 PUR Complete - Brown-	$ 1,278.45	1	$ 1,278.45
	905216291	High-Traction Tungsten Carbide Wheel Set 70	$ 1,250.10	1	$ 1,250.10
	905215991	High-Traction Tungsten Carbide Wheels for 6" and up	$ 1,452.60	1	$ 1,452.60
	905216791	High-Traction Tungsten Carbide Wheels for 8" and up	$ 1,656.45	1	$ 1,656.45
	902211090	Pneumatic Wheels and Adapters for KRA65 / T66 Tractor Carriage	$ 1,458.00	1	$ 1,458.00
T76 Tractor and Accessories	V1971003	BS7-10X Vehicle Mounted Control	$ 33,297.75	1	$ 33,297.75
	RAM-2461U	VESA 75 Mounting Plate With Ball - C Size	$ 41.31	1	$ 41.31
	RAM-201U-B	Double Socket Arm - C Size Short	$ 48.49	1	$ 48.49
	RAM-TRACK-EXA-9BU	9BU 9" Modulare Aluminum Black Tough Track	$ 38.07	1	$ 38.07
	RAP-354U-TRA1	Track Ball With T-Bolt Attachment - C Size	$ 35.75	1	$ 35.75
	10TS7M	10 Inch Touch Screen	$ 664.47	1	$ 664.47
	GV-N710D3-2GL	Graphics Card With HDMI Output	$ 91.80	1	$ 91.80
Accessories	TRP01	Top Manhole Roller	$ 592.73	1	$ 592.73
	52846	3" Tiger Tail	$ 49.09	1	$ 49.09
	POLESET	18' of Fiberglass Poles, Mounting Bracket, and Ibak Adapter	$ 498.18	1	$ 498.18
		Sale Price	$443,915.89		
		Sourcewell Discount (4%)	$ (17,711.04)		
		Subtotal	$426,204.85		
		Freight / PDI	$ 9,629.38		
		Equipment Training (2 Days):	$ 3,500.00		
		Software Training (2 Days):	$ 3,500.00		
		Subtotal Sale Price	$442,834.23		
		Tax (9.375%)	$ 41,515.71		
		Final Sale Price	$484,349.94		

optional items for you to consider not included in the above package

Optional Items			
	VZ000817	Powered Retractable Rear Canopy	$ 4,522.93

VZ000700
E450 GAS CHASSIS for 16' BOX, 176" WB, 7.3L V8 Premium Rated Engine, 6-Speed Automatic Transmission with Overdrive w/ Tow-Haul Mode, Includes; Remote Keyless Entry, 40-Gallon Fuel Tank, Grey Vinyl Seats and Flooring, Cruise Control, Power Group, Air Conditioning and AM/FM Stereo.
VZ000602
FRP Cargo 16' Box
* Dim: 16'x8'x6'6",
* Chassis purchased separately, call for required chassis specifications,
* Includes installation of box on approved chassis,
* Dual swing open rear doors,

* Side entry door,
* Aluminum plank flooring for easy cleaning and higher traction
VZ000621
Inspection Conversion for 16' Commercial RapidView FRP Box or Trailer
* Walk-thru design with partition wall and door.
* Tinted glass viewing window in bulkhead wall.
* 12v LED lighting.
* Roof Air.
* Rear back up camera.
* Exterior shore power package with extension cord.
* Auxiliary battery and charging system installed with generator and MEPs systems.
FRONT OFFICE:
* Carpeted walls in Studio.
* Laminated base cabinetry.
* Laminate countertops in studio.
* Vibration resistant electronics cabinet with rear door access to outside of truck for easy installation and troubleshooting.
* Bench seat over generator.
WORKSPACE:
* Heavy-duty, 5 drawer toolbox.
* Monitor mount in workspace for installing monitor (monitor sold separately).
* 14 Gallon pressurized wash down system.
* Butcher block workbench.
* Rugged FRP cabinets.
* Closet with aluminum storage shelves.
* Rugged FRP overhead cabinets with easy-open hardware.
SAFETY:
* Directional arrow board at rear.
* Strobe light mounted on front roof.
* LED side markers on Box.
VZOP000101
Side door delete
VZOP000102
Box bathroom Addition - requires 16' Box *Holding Tank *Toilet *Privacy door *Installed in work area *Replaces closet in standard conversion
VZP000100
Generator Gas 5.5Kw, 120VAC
VZM000102
Monitor, 22" Widescreen
VZM000104
Monitor Mount - Double
VZ000306
KW Reel cabinet, (W-22", L-39" & H-34"), with a slide out tray for the LISY Synchro drum and one locking drawer with a divider. All aluminum drawer construction.
V0494050
ORION 3.0 Zoom HD/SD Adaptive PAN & TILT CAMERA
* Pan, Tilt and Zoom for 4" and up
* May be used on tractor or pushrod
* Auto-uprighting, LED Lighting and 33 kHz Transmitter for locate
* High resolution and superior picture quality
* Laser diameter, deformation, defect and object measurement (third party software required - not included)
V9052009
T66.1 HD Camera Tractor
* For use with HD camera cable/systems
* For camera operation in pipelines 4" and larger
* Zero turn radius, full steering with ATC (Automatic Tilt Compensation)
* Incl. test adapter, tool set and lowering claw.
* Includes 4", 6" and 8" wheelsets
* REQUIRES Camera Connection (Sold Separately)
905211031
Additional Weight for T66
* For 6" and up
* Light and heavy weights included
* Additional weight = additional traction = greater distance
905253031
T66 Lowering Claw Used With Pole Adapter
V9052021
Camera Connection Type 2-8 SD/HD for SD cameras and ORION 3 (SD or HD modes)
* Solid front connector for camera on T66.1 HD or T66.1

* Accepts Standard Definition cameras (ORION, NANO) and the ORION 3 SD/HD Camera.

* If used on a T66.1 HD the ORION 3 will operate in HD mode.
905210091
Treaded Wheel Set 75 Complete - BROWN -
** For T66/PANORAMO 150 Tractor only**

(((T66 - 5" / 125mm Pipe Size & Up)))
((PANORANO 150 - 6" / 150mm & Up))
Uses Replacement Tire P/N 905206142
905210191
Treaded Wheel Set 105 PUR Complete - Brown -
T66 & PAMORAMO 150 Only
T66 Used In 6" / 150mm & Up Pipe
PANORAMO 150 Used In 8" / 200mm & Up Pipe
(((Uses Replacement Tire P/N 905206342)))
905210991
Treaded Wheel Set 118 PUR Complete - Brown-
T66 & PANORAMO 150
T66 Used In 8" / 200mm & Up Pipe
PANORAMO 150 Used In 10" / 250mm & Up Pipe
(((Uses Replacement Tire P/N 900411042))
905216291
High-Traction Tungsten Carbide Wheel Set 70
* For use with T66 & Panoramo 150 Tractors
**For use In 125mm or 5" (T66) & 150mm or 6" (Panoramo 150) and up Pipe
* Large Grit
((Uses Countersunk Screw 6001541)))
905215991
High-Traction Tungsten Carbide Wheels for 6" and up
* For use with T66 and PANO 150 Tractors
* Large Grit
(((Uses Countersunk Screw 6001541)))
905216791
High-Traction Tungsten Carbide Wheels for 8" and up
* For use with T66 for 8" and up
* For use with PANO 150 Tractors for 10" and up.
* Large Grit
Comes With 12 Each, 6001562 M5x20 Countersunk Torx, 6001043 M5x25 Cheese Head and 6000081 A5.3 Flat Washers
902211090
Pneumatic Wheels and Adapters for KRA65 / T66 Tractor Carriage
Set of 4 with bolts and spacers
(((Replacement Tire With Tube 4415370)))
V1971003
BS7-10X Vehicle Mounted Control
- For operation of all camera and the tractor functions
- For permanent installation in a vehicle in 19" technology

- Separate keyboard surround with 2 joysticks, emergency stop, microphone for intercom

- - Includes V0000189 on/off switch
- Requires control monitor panel and monitor mount.
- Requires PC for operation
- HD, SD, LISY and PANORAMO operation
- For use with KW505 and KW310 FO drums.
RAM-2461U
VESA 75 Mounting Plate With Ball - C Size
RAM-201U-B
Double Socket Arm - C Size Short
RAM-TRACK-EXA-9BU
9BU 9" Modulare Aluminum Black Tough Track
RAP-354U-TRA1
Track Ball With T-Bolt Attachment - C Size
10TS7M
10 Inch Touch Screen
GV-N710D3-2GL
Graphics Card With HDMI Output
V8029020
KW505 FO2 4K Synchronized Power Cable Reel

* Designed for use with 00/12 FO2 X2 fiber optic cable required for PANORAMO 4K systems

* Synchronized cable payout and retraction
* Automatic level wind
* Requires vehicle installation
* Includes remote control pendant and LED boom light
* Distance counter with rear display
* Holds up to 2000' on 00/12 FO2 X2 fiber optic cable
* Includes integrated tractor lowering winch and control
80072300
FOX2 FO4 HD 4K Camera Cable Type 00/20 (NEW)
* 1640 feet of dual fiber cable
* Requires KW505.1 FOX2 FO4 HD 4K Cable Drum with v.8 board

* Older drums may require upgrade to use this cable. Please contact your representative for more information.
904350020
Cable Deflection Pulley KUV 2.7 with rope and holder (50ft of rope)
802617031
Cable Deflection Pulley KW305/505
*Attaches to the boom for off-manhole setups
802975001
Cable Cleaning Brush for KW305/310/505
*Attaches to drum boom and cleans cable during retrieval
800500841
KW Reel foot-operated winch switch (KW505, 310 and 305)
* Control the lowering winch with foot to allow more control while lowering the tractor into the manhole
901601040
Pressure Test Set
V9055004
PANORAMO 150 4K Camera System
* For 6" to 12" pipelines
* Includes PANORAMO 150 Tractor and Cameras
* Includes 6" wheelset
* Lowering claw, toolsets and spare parts
* Includes integrated, manual lift
* Includes (2) V9022005 axle extenders
* PANORAMO scan software
905501631
PANORAMO 150 Weight Kit
* Includes both light and heavy weights.
* Increases traction and pulling distance.
V0001017
19" Industrial PC
These specifications or greater:
* Ruggedized Rack Mount Cabinet
* Intel Quad Core Processor
* 16 GB RAM
* 256 GB Solid State Drive for Applications / OS
* 2 T8 Hard Drive for Data
* DVD-R/CD-RW drive
* Keyboard and Optical Mouse
* Operating system Windows 10 Professional
*** NO Video Capture Device included (to be supplied by software vendor)
V4702467
VM4C9 Full HD MPEG Encoder Card
VSP00200
IBAK EVOLUTION - VEHICLE

Powerful database application for all types of inspections: including lateral launch, mainline, Panoramo, HD, laser scan and more. This software will allow you to capture video and images, and produce complete reports with defect identification and scoring. Data and videos can be exported for the customer to view the information. The software has an extensive list of expansion modules available to further its capabilities.

- Basic sewer data projects – basic module type
- Managed sewer objects: sections, manholes and laterals
- Standard-compliant sewer data acquisition
- Operation with task-related menus and dialogues
- Assistant for condition data acquisition
- Management of inspection projects with customer, project and job data
- Management of sewer objects with master and condition data, photo and video data
- Import and attribution of digital photos to condition data
- Digital single image capture from linked videos
- Data transfer assistant
- License-free sewer MPEG player for data transfer (without an MPEG decoder)
- Digital MPEG recording with:
- Internal MPEG mobile encoder (Sensoray)
- Configurable video overlay of master and condition data
- Condition data acquisition synchronized with video recording
- Single monitor display with:
- Live video display
- Switchover between the video picture and the IKAS dialogs
- Also for Panoramo systems, Panoramo scanner control included
- High performance MPEG encoder driver (requires Vitec)
> MPEG format see encoder description
- Job rule management! Any desired number of profiles can be managed.
IKAS Evolution Full HD
- Full HD performance MPEG encoder driver (requires Vitec HD)
> Up to full HD video with MPEG4 AVC(H264)

> Adjustable resolution
> Software data overlay
IKAS Evolution Laser Diameter Measurement
- For IBAK laser cameras
- During push rod operation for diameter estimation only with push cameras
IKAS Evolution PACP & LACP Interface Extension
VSP00300
IKAS EVOLUTION - OFFICE
Office support application to allow users to review and manage data, generate reports, and produce viewer disk for delivery. Several expansion extensions are available to allowing post field inspection coding and further analysis.
- Basic sewer data projects – basic module type
- Managed sewer objects: sections, manholes and laterals
- Standard-compliant sewer data acquisition
- Operation with task-related menus and dialogues
- Assistant for condition data acquisition
- Management of inspection projects with customer, project and job data
- Management of sewer objects with master and condition data, photo and video data
- Import and attribution of digital photos to condition data
- Digital single image capture from linked videos
- Data transfer assistant
- License-free sewer MPEG player for data transfer (without an MPEG decoder)
- Import of videos with optional attribution to the inspection data
- Condition data acquisition synchronized with video playback
- Digital single image capture from video playback
- No MPEG recording
IKAS Evolution PACP & LACP Interface Extension
VS004521
SHAPE FILE IMPORT/EXPORT- IKAS EVOLUTION
Data exchange in the ESRI ArcGIS Shape format for object parameters regarding section, manhole and laterals*
-Primary keys must be available in the Shapes.
- Export:
>Object geometry as Shape
- User configuration of the object parameters that are to be exported (Alignment of the object data fields to the Shape
file)
- Import:
> User configuration of the object parameters that are to be imported (Alignment of the Shape data fields to
the IKAS/IKIS object fields)
> load/save different field allgnments
* Depending on the data base configuration
VS004504
MAP VIEWER - IKAS EVOLUTION
- Graphical display of the sewer network with manholes, sections and laterals from the coordinates of the sewer data
according to the data interface
- Interactive operation with links to the sewer and inspection data
- Work progress indicator for graphical processing of the TV inspection
- Display of pipe runs with inflection points
- Site plans/background maps:
-- Display in raster and vector format (DXF, TIF, JPG, PNG, BMP)
-- Geo-referenced
-- Fitting in of (scanned) background maps with 3 possible modes:
1. Aligning matching points;
2. Entering known co-ordinates;
3. Setting the scale and position of background maps
-- Management of plan directories
- Display configuration with GIS layer management
- Per each IKAS Evolution workstation
VS004505
MAP EDITOR - IKAS EVOLUTION
- Extends the Map Viewer with:
- Graphical sewer network editing/digitizing functions
- Digitization of sections, manholes and laterals
> Includes run of sections (laterals) via inflection points
- Shifting of manholes and pipe run inflection points
- Setting parameter texts free
- ...(without a run assistant!)
** Map Viewer is required ! **
VS004550
PANORAMO ANALYSIS (PIPELINE + SI) - IKAS EVOLUTION

Assistant for analysis of the recorded PANORAMO scan data for sections and manholes

- Import of Panoramo films with optional attribution to the inspection data

- Condition data acquisition on the basis of the recorded Panoramo films
- Replaces conventional EDE mode
- Inspection data acquisition – Panoramo analysis;
- For section and manhole Panoramo films
- Single image digitization,
- Defects measurement in Panoramo films (optional 3D measurement)
- Data transfer with freeware Panoramo Viewer
IKAS Evolution Support
IKAS Evolution Support
• Ongoing updates and support by phone or online via TeamViewer
• First 6 months included with initial purchase
• The service contract will automatically renew on January 1st of each subsequent calendar year.
• Paid yearly upon renewal
• Customer outside of contract will receive no updates and minimal support
* Upon initial purchase, customer will be charged a pro-rated amount to include support for the current year, and until December 31st of the following calendar year.
Description
*** OPTIONAL ITEMS -- PRICES NOT INCLUDED IN ESTIMATE TOTAL ***
V4004025
ORPHEUS HD Pan & Tilt Camera WITH TRANSMITTER
* Pan&Tilt, Zoom Camera of 6" pipelines
* Full HD 1920x1080 Resolution, HD-SDI Standard (patent pending)
* 160x Zoom (10x Optical, 16x Digital)
* Pan-able zoom optics
* High-power LED lighting with gap lighting
* Intelligent Auto-Focus
* Innovative HUD display
* Includes installed 33hz transmitter
V9049001
T76 HD TRACTOR
* HD Version required for HD System operation
* Mainline tractor for use in pipelines 5" and up
* Zero turn radius, full steering with ATC (Automatic Tilt Compensation)
* Includes lowering claw, toolset and 5"/6"/8"/10" wheelsets
* T76 can be used as the chassis for the LISY 3.2 HD Extension
* Requires a HD Camera Base module for normal mainline operations
* Add the Remote Elevator (904116031) to help in larger pipelines
904055000
Adapter 8 HD - 10 HD
- For plug-in installation of IBAK ORION 3
- for Camera Connection CB 3.2 S HD
- for Camera Connection CC 2.1 HD
- for Camera Connection CC 4.1 HD
- for Camera Connection CC 5.1 HD
V9040013
HD Camera Base Module for T76/86 Tractor
* Required for operation of T76/86 HD as mainline tractor
* Includes 33kHz and 512Hz transmitters for location
904116031
Remote Elevator for T76/86
* Raises the camera to allow centering in pipeline
* Lifts camera above water line in pipes with flow
904401491
High-Traction Tungsten Carbide Wheels for 6" and up
* For use with T76 / T86 / PANO2 Tractors
* Large Grit
* Uses Wheel Bolt 6002104
900406691
High-Traction Tungsten Carbide Wheels for 8" and up
>>>Complete Set of 4 with bolts and washers<<<
* For use with T76 / T86 / PANO2 Tractors
* Large Grit
* Uses Wheel Bolt 60000291
* Uses Flat Washer 6000082
900410391
T76 Treaded Wheelset Complete for 8" and up pipe
(((Brown/Hard Compound)))
*RAD 122 PUR
Uses Replacement Tire #900411042
Set Contains:
4 - Single Rim Size 122 + Tire = 900410541
16 - Cheese Head Screw 6000291
6 - Cheese Head Screw 6000291
900410891
T76 RAD 150 Complete Treaded Wheelset for 12" And Up

(Brown / Hard)
- For 16" and up on a T86
- For 12" and up on a T76
- For 10" and up on a T66
Uses Single Replacement Tire 900411742
Uses 6000412 M6x35 Cheese Head Screws
Uses 6002116 M4x8 Torx Countersunk Screw
904110390
Large Black Pneumatic Tires, Tubes and Rims (Set of 4) for T76/86/PANORAMO/LISY (Black) - 3.00-4
Comes with 6000082 x 8 (A6.4 Washer), 6001522 x 8 (M6x113) and 6000510 x 8 (M6x75)
904100890
X-Large Pneumatic Tires for T76/86/PANORAMO/LISY (Black)
Set of 4 with bolts and washers
--Comes With:
-- 6000082 A6.4 Washers X8
--6001522 M6x113 Bolts X8
--6001991 M6x80 Bolts X8
V9051020
PANORAMO 2 4K High Resolution Camera System
* 3-D Spherical Optoscanner
* For 8" to 36" pipelines
* Light and Heavy additional weights
* Wheel set 108 additional wheelsets available seperately
* Small axle extenders included
* IPAS PANORAMO software
* PANORAMO Scan software (vehicle)
* PANORAMO View software
V9051003
PANORAMO 2/4K height adjusting lift
* Raises the camera in the pipe
* Works with both PANO 2 and PANO 4K

Terms and Conditions

******Surcharges or rate increases issued by manufacturer that affect this quote following quote acceptance, but prior to order delivery, will be the responsibility of Buyer. Any surcharge or increase that is applied to this purchase will be applied at same cost as issued by manufacturer.******

- *Acceptance of this Proposal is subject to availability of the Equipment listed above.*
- *Sales Price does not include any applicable sales taxes. Buyer is responsible for and agrees to pay all applicable sales tax.*
- *The Sale of New Equipment Terms and Conditions are incorporated into and made a part of this Proposal upon acceptance and execution of this Proposal by both parties.*
- *Execution of this Proposal by Seller and Buyer constitutes a binding agreement between the parties.*
- *If this Proposal is not executed by both parties within thirty (30) calendar days from the Proposal Date, this Proposal shall become null and void, unless subsequently executed by both Buyer and Seller.*

Thank you for your consideration of this proposal.

Sincerely yours,

Stephanie Prescott

Stephanie Prescott
Regional Sales Manager - Inspection
760/644-5147
StephaniePrescott@TeamJDC.com

This proposal becomes a contract for delivery and payment of the merchandise listed above only when signed by the customer or one of its officers.

Customer: _____

By: _____

Date: _____

Email: _____

Purchase Order#: _____

SALE OF NEW EQUIPMENT
TERMS AND CONDITIONS

1. THE AGREEMENT. Jack Doheny Companies, Inc., (the "Seller") agrees to sell, transfer and convey its right, title and interest in the new goods, equipment, vehicles and/or other new items (collectively, the "Equipment") described in Seller's written invoice for the Sale of New Equipment (the "Invoice") to the Buyer subject to the terms and conditions contained herein, which are incorporated into the Invoice, agreed to by the parties hereto, and together consists of the entire agreement between the Seller and Buyer (collectively, the "Agreement"). The Agreement shall be for the benefit of the Seller and Buyer and not for the benefit of any other person or entity. Prior courses of dealing, trade usage and verbal agreements not reduced to a writing signed by the Seller and Buyer, to the extend they differ from, modify, add to or change from the Agreement shall not be binding on the Seller.

2. TERMS OF PAYMENT.
   - 2.1 *Payment Date*. All payments for the Equipment are due from Buyer on the date of the invoice unless other terms are agreed to in writing between Seller and Buyer. Payment shall be made to Seller at the address specified in the Agreement, without any offset or deduction for any reason.
   - 2.2 *Shipping Delays*. If any shipment is delayed at the request of Buyer, payment shall become due based on the date Seller is prepared to make shipment, and Seller may invoice Buyer based on such date. All prices for Equipment are F.O.B. Seller's shipping point.
   - 2.3 *Delinquent Payments*.
     - 2.3.1 Any payment not made by Buyer on or before its due date shall be subject to a late charge on any unpaid balance at a rate of 18% per annum, or the highest interest rate allowed by law, whichever is greater.
     - 2.3.2 If a payment is not made on or before its due date, Buyer agrees that Seller may elect, in addition to any other remedy at law or in equity, to cease performance under the Agreement and any other agreement between Buyer and Seller until such payment is rendered to Seller.

3. DELIVERY. Seller does not guarantee delivery dates.

4. RISK OF LOSS. Buyer assumes all risk of loss of Equipment upon delivery by Seller to carrier if Equipment is shipped. For Equipment that is shipped, Seller agrees to: (a) prepare the Equipment for shipment to Buyer; (b) deliver custody of the Equipment to carrier; (c) make appropriate arrangements for the transportation to carrier; and deliver documents to enable Buyer to obtain possession of the Equipment. Seller shall not be obligated to obtain insurance or to prepay transportation/carrier costs for the Equipment. Buyer agrees to be responsible for and to timely pay all loading, unloading and other charges incidental to transportation of the Equipment. Whether Seller pays transportation charges or not, risk of loss shall pass to Buyer upon delivery of the Equipment to a carrier.

5. INSPECTION OF EQUIPMENT. Buyer has inspected the Equipment and is satisfied with the Equipment's condition.

6. INDEMNIFICATION. Buyer shall indemnify, hold harmless and release Seller from any and all liabilities, losses, damages, claims, costs and expenses, including attorney fees, arising out of, in whole or in part, from (a) the design, or manufacture of the Equipment; or (b) the use of the Equipment by Buyer and those acting on Buyer's behalf.

7. MISCELLANEOUS.
   - 7.1 *No Assignment*. There shall be no assignment of the Agreement by Buyer without the prior written approval of Seller. Any assignment of the Agreement shall not relieve Buyer of its obligations under the Agreement.
   - 7.2 *Force Majeure*. Neither party will be liable for any delay or failure to perform its obligations hereunder, other than a payment obligation, due to any cause beyond its reasonable control including without limitation, acts of God or of the public enemy, including terrorists, acts of the government in its sovereign capacity, fires, floods, epidemic, strikes, picketing or boycotts, or any other circumstances caused by natural occurrences or third party actions beyond the reasonable control and without the fault or negligence of the party whose performance is affected ("Force Majeure Events"); provided that the affected party provides the other party prompt notice of the applicable circumstance and uses commercially reasonable efforts to re-commence performance as promptly as possible; provided, further, that if the duration of such Force Majeure Event exceeds thirty (30) days, the other party may terminate the Agreement upon delivery of written notice to the affected party.
   - 7.3 *Venue*. The parties agree that any dispute under the Agreement shall be brought in the applicable state or federal court located in the county in which the Originating Branch is located and the parties waive any right to a jury trial.
   - 7.4 *Construction and Captions*. The parties acknowledge that each has reviewed the Agreement and that the normal rules of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Agreement or any exhibits or amendments hereto; and that section headings appearing in the Agreement are for convenience of reference only and they are not intended, to any extent or for any purpose, to limit or define the text of any section or any subsection hereof. In the event any part of the Agreement is found to be ambiguous, such ambiguity shall not be construed against any party.
   - 7.5 *Entire Agreement*. The Agreement constitutes the sole and entire agreement between the parties and supersedes all prior and contemporaneous statements, promises, understandings or agreements, whether written or oral.
   - 7.6 *Amendments*. The Agreement may be amended, modified or altered at any time upon the approval of the Seller and Buyer; however, any such amendment must be in writing and signed by the Seller and Buyer in order for such amendment to be of any force and effect.
   - 7.7 *Partial Invalidity*. In the event that any provision of the Agreement is declared by any court of competent jurisdiction or any administrative judge to be void or otherwise invalid, all of the other terms, conditions and provisions of the Agreement shall remain in full force and effect to the same extent as if that part declared void or invalid had never been incorporated in the Agreement and in such form, the remainder of the Agreement shall continue to be binding upon the parties.
   - 7.8 *Counterparts*. The Agreement and any amendment thereto may be signed and executed in one or more counterparts, each of which shall be deemed an original and all of which together shall constitute one Agreement. Delivery of an executed counterpart of a signature page of the Agreement by facsimile or email shall be effective as delivery of an originally executed counterpart of the Agreement.
   - 7.9 *Authority*. Each person(s) executing the Agreement as an agent or in a representative capacity warrants that he or she is duly authorized to do so.

   NO WARRANTY. SELLER MAKES NO WARRANTIES OR REPRESENTATIONS EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MARKETABILITY OR FITNESS FOR PARTICULAR PURPOSE, ALL OF WHICH ARE SPECIFICALLY HEREBY DISCLAIMED. To the extent allowed by law and those agreements, Seller transfers and assigns to Buyer the Equipment manufacturer's warranties, if any such warranty is provided by the Equipment manufacturer. In no event shall Seller be liable to Buyer for any incidental, consequential, special, exemplary, and/or punitive damages, including without limitations, loss of revenue or profit.

Date: 7/24/24
Branch: 1700

CUSTOMER: West Bay Sanitary District
ADDRESS: 500 Laurel Street
CITY, STATE, ZIP: Menlo Park, CA 94025
PHONE: 650-321-0384
EMAIL:
ATTN:

RV # 30384
CRM Quote #

TEAMJDC.COM

Type	Product #	Description	Price
Camera Cable	80072300	FOX2 FO4 HD 4K Camera Cable Type 00/20 (NEW)	
Camera Head Accessories	901601040	Pressure Test Set	
Computer Systems	V0001017	19" Industrial PC	
	VSP00200	IBAK EVOLUTION - VEHICLE	
	VSP00300	IKAS EVOLUTION - OFFICE	
	VS004521	SHAPE FILE IMPORT/EXPORT- IKAS EVOLUTION	
	VS004504	MAP VIEWER - IKAS EVOLUTION	
	VS004505	MAP EDITOR - IKAS EVOLUTION	
	VS004550	PANORAMO ANALYSIS (PIPELINE + SI) - IKAS EVOLUTION	
Cutter System and Accessories	V4702467	VM4C9 Full HD MPEG Encoder Card	
HD Systems	V9052009	T66.1 HD Camera Tractor	
	V9052021	Camera Connection Type 2-8 SD/HD for SD cameras and ORION 3 (SD or HD modes)	
	V9052023	Camera Connection Type 4-8 SD/HD for SD cameras and ORION 3 (SD or HD modes)	
IKAS Evolution Support	IKAS Evolution Support	IKAS Evolution Support	
Panoramo 150 System and Accessories	V9055004	PANORAMO 150 4K Camera System	
	905501631	PANORAMO 150 Weight Kit	
Rapid View Chassis	VZ000700	E450 GAS CHASSIS for 16' BOX, 176" WB, 7.3L V8 Premium Rated Engine, 6-Speed Automatic T	
Rapid View Build Out Options	VZ000602	FRP Cargo 16' Box	
	VZ000621	Inspection Conversion for 16' Commercial RapidView FRP Box or Trailer	
	VZOP000102	Box bathroom Addition - requires 16' Box *Holding Tank *Toilet *Privacy door *Installed in wc	
	VZP000100	Generator Gas 5.5Kw, 120VAC	
	VZM000102	Monitor, 22" Widescreen	
	VZM000104	Monitor Mount - Double	
	VZ000306	KW Reel cabinet, (W-22", L-39" & H-34"), with a slide out tray for the LISY Synchro drum and o	
Reel Accessories	904350020	Cable Deflection Pulley KUV 2.7 with rope and holder (50ft of rope)	
	802617031	Cable Deflection Pulley KW305/505	
	802975001	Cable Cleaning Brush for KW305/310/505	
	800500841	KW Reel foot-operated winch switch (KW505, 310 and 305)	
Reels	V8029020	KW505 FO2 4K Synchronized Power Cable Reel	
Standard Cameras	V0494050	ORION 3.0 Zoom HD/SD Adaptive PAN & TILT CAMERA	
T66 Tractor and Accessories	905211031	Additional Weight for T66	
	905253031	T66 Lowering Claw Used With Pole Adapter	
	905210091	Treaded Wheel Set 75 Complete - BROWN -	
	905210191	Treaded Wheel Set 105 PUR Complete - Brown -	
	905210991	Treaded Wheel Set 118 PUR Complete - Brown-	
	905216291	High-Traction Tungsten Carbide Wheel Set 70	
	905215991	High-Traction Tungsten Carbide Wheels for 6" and up	
	905216791	High-Traction Tungsten Carbide Wheels for 8" and up	
	902211090	Pneumatic Wheels and Adapters for KRA65 / T66 Tractor Carriage	
T76 Tractor and Accessories	V1971003	BS7-10X Vehicle Mounted Control	
	RAM-2461U	VESA 75 Mounting Plate With Ball - C Size	
	RAM-201U-B	Double Socket Arm - C Size Short	
	RAM-TRACK-EXA-9BU	9BU 9" Modulare Aluminum Black Tough Track	
	RAP-354U-TRA1	Track Ball With T-Bolt Attachment - C Size	
	10TS7M	10 Inch Touch Screen	
	GV-N710D3-2GL	Graphics Card With HDMI Output	
Accessories	TRP01	Top Manhole Roller	
	52846	3" Tiger Tail	
	POLESET	18' of Fiberglass Poles, Mounting Bracket, and Ibak Adapter	

Sale Price	**$434,281.29**
Freight / PDI	$ 9,629.38
Equipment Training (2 Days):	$ 3,500.00
Software Training (2 Days):	$ 3,500.00
Subtotal Sale Price	**$450,910.67**
Tax (9.375%)	$ 42,272.88
Final Sale Price	**$493,183.54**

optional items for you to consider not included in the above package

Optional Items

HD Systems	V4004025	ORPHEUS HD Pan & Tilt Camera WITH TRANSMITTER	**$ 35,129.33**
	V9049001	T76 HD TRACTOR	**$ 23,528.00**
	V9040013	HD Camera Base Module for T76/86 Tractor	**$ 6,601.33**
Panoramo 2 System and Accessories	V9051020	PANORAMO 2 4K High Resolution Camera System	**$156,520.00**
	V9051003	PANORAMO 2/4K height adjusting lift	**$ 8,340.00**
Standard Cameras	904055000	Adapter 8 HD - 10 HD	**$ 2,238.67**
T76 Tractor and Accessories	904116031	Remote Elevator for T76/86	**$ 7,714.67**
	904401491	High-Traction Tungsten Carbide Wheels for 6" and up	**$ 1,434.67**
	900406691	High-Traction Tungsten Carbide Wheels for 8" and up	**$ 1,521.33**
	900410391	T76 Treaded Wheelset Complete for 8" and up pipe	**$ 1,262.67**
	900410891	T76 RAD 150 Complete Treaded Wheelset for 12" And Up	**$ 1,664.00**
	904110390	Large Black Pneumatic Tires, Tubes and Rims (Set of 4) for T76/86/PANORAMO/LISY (Black) - 3	**$ 1,457.33**
	904100890	X-Large Pneumatic Tires for T76/86/PANORAMO/LISY (Black)	**$ 2,094.67**

VZ000700
E450 GAS CHASSIS for 16' BOX, 176" WB, 7.3L V8 Premium Rated Engine, 6-Speed Automatic Transmission with Overdrive w/ Tow-Haul Mode, includes; Remote Keyless Entry, 40-Gallon Fuel Tank, Grey Vinyl Seats and Flooring, Cruise Control, Power Group, Air Conditioning and AM/FM Stereo.
VZ000602
FRP Cargo 16' Box
* Dim: 16'x8'x6'6",
* Chassis purchased separately, call for required chassis specifications,
* Includes installation of box on approved chassis,
* Dual swing open rear doors,
* Side entry door,
* Aluminum plank flooring for easy cleaning and higher traction
VZ000621
Inspection Conversion for 16' Commercial RapidView FRP Box or Trailer
* Walk-thru design with partition wall and door.
* Tinted glass viewing window in bulkhead wall.
* 12v LED lighting.
* Roof Air.
* Rear back up camera.
* Exterior shore power package with extension cord.
* Auxiliary battery and charging system installed with generator and MEPs systems.
FRONT OFFICE:
* Carpeted walls in Studio.
* Laminated base cabinetry.
* Laminate countertops in studio.
* Vibration resistant electronics cabinet with rear door access to outside of truck for easy installation and troubleshooting.
* Bench seat over generator.
WORKSPACE:
* Heavy-duty, 5 drawer toolbox.
* Monitor mount in workspace for installing monitor (monitor sold separately).
* 14 Gallon pressurized wash down system.
* Butcher block workbench.
* Rugged FRP cabinets.
* Closet with aluminum storage shelves.
* Rugged FRP overhead cabinets with easy-open hardware.
SAFETY:
* Directional arrow board at rear.
* Strobe light mounted on front roof.
* LED side markers on Box.
VZOP000101
Side door delete
VZOP000102
Box bathroom Addition - requires 16' Box *Holding Tank *Toilet *Privacy door *Installed in work area *Replaces closet in standard conversion
VZP000100
Generator Gas 5.5Kw, 120VAC
VZM000102
Monitor, 22" Widescreen

VZM000104
Monitor Mount - Double
VZ000306
KW Reel cabinet, (W-22", L-39" & H-34"), with a slide out tray for the LISY Synchro drum and one locking drawer with a divider. All aluminum drawer construction.
V0494050
ORION 3.0 Zoom HD/SD Adaptive PAN & TILT CAMERA
* Pan, Tilt and Zoom for 4" and up
* May be used on tractor or pushrod
* Auto-uprighting, LED Lighting and 33 kHz Transmitter for locate
* High resolution and superior picture quality
* Laser diameter, deformation, defect and object measurement (third party software required - not included)
V9052009
T66.1 HD Camera Tractor
* For use with HD camera cable/systems
* For camera operation in pipelines 4" and larger
* Zero turn radius, full steering with ATC (Automatic Tilt Compensation)
* Incl. test adapter, tool set and lowering claw.
* Includes 4", 6" and 8" wheelsets
* REQUIRES Camera Connection (Sold Separately)
905211031
Additional Weight for T66
* For 6" and up
* Light and heavy weights included
* Additional weight = additional traction = greater distance
905253031
T66 Lowering Claw Used With Pole Adapter
V9052021
Camera Connection Type 2-8 SD/HD for SD cameras and ORION 3 (SD or HD modes)
* Solid front connector for camera on T66.1 HD or T66.1

* Accepts Standard Definition cameras (ORION, NANO) and the ORION 3 SD/HD Camera.

* If used on a T66.1 HD the ORION 3 will operate in HD mode.
V9052023
Camera Connection Type 4-8 SD/HD for SD cameras and ORION 3 (SD or HD modes)
* Manual lift front for camera on T66.1 HD or T66.1

* Accepts Standard Definition cameras (ORION, NANO) and the ORION 3 SD/HD Camera.

* If used on a T66.1 HD the ORION 3 will operate in HD mode.
905210091
Treaded Wheel Set 75 Complete - BROWN -
** For T66/PANORAMO 150 Tractor only**
(((T66 - 5" / 125mm Pipe Size & Up)))
((PANORANO 150 - 6" / 150mm & Up))
Uses Replacement Tire P/N 905206142
905210191
Treaded Wheel Set 105 PUR Complete - Brown -
T66 & PAMORAMO 150 Only
T66 Used In 6" / 150mm & Up Pipe
PANORAMO 150 Used In 8" / 200mm & Up Pipe
(((Uses Replacement Tire P/N 905206342)))
905210991
Treaded Wheel Set 118 PUR Complete - Brown-
T66 & PANORAMO 150
T66 Used In 8" / 200mm & Up Pipe
PANORAMO 150 Used In 10" / 250mm & Up Pipe
(((Uses Replacement Tire P/N 900411042))
905216291
High-Traction Tungsten Carbide Wheel Set 70
* For use with T66 & Panoramo 150 Tractors
**For use in 125mm or 5" (T66) & 150mm or 6" (Panoramo 150) and up Pipe
* Large Grit
((Uses Countersunk Screw 6001541)))
905215991
High-Traction Tungsten Carbide Wheels for 6" and up

* For use with T66 and PANO 150 Tractors
* Large Grit
(((Uses Countersunk Screw 6001541)))
905216791
High-Traction Tungsten Carbide Wheels for 8" and up
* For use with T66 for 8" and up
* For use with PANO 150 Tractors for 10" and up.
* Large Grit
Comes With 12 Each, 6001562 M5x20 Countersunk Torx, 6001043 M5x25 Cheese Head and 6000081 A5.3 Flat Washers
902211090
Pneumatic Wheels and Adapters for KRA65 / T66 Tractor Carriage
Set of 4 with bolts and spacers
(((Replacement Tire With Tube 4415370)))
V1971003
BS7-10X Vehicle Mounted Control
- For operation of all camera and the tractor functions
- For permanent installation in a vehicle in 19" technology

- Separate keyboard surround with 2 joysticks, emergency stop, microphone for intercom

- - Includes V0000189 on/off switch
- Requires control monitor panel and monitor mount.
- Requires PC for operation
- HD, SD, LISY and PANORAMO operation
- For use with KW505 and KW310 FO drums.
RAM-2461U
VESA 75 Mounting Plate With Ball - C Size
RAM-201U-B
Double Socket Arm - C Size Short
RAM-TRACK-EXA-9BU
9BU 9" Modulare Aluminum Black Tough Track
RAP-354U-TRA1
Track Ball With T-Bolt Attachment - C Size
10TS7M
10 Inch Touch Screen
GV-N710D3-2GL
Graphics Card With HDMI Output
V8029020
KW505 FO2 4K Synchronized Power Cable Reel

* Designed for use with 00/12 FO2 X2 fiber optic cable required for PANORAMO 4K systems

* Synchronized cable payout and retraction
* Automatic level wind
* Requires vehicle installation
* Includes remote control pendant and LED boom light
* Distance counter with rear display
* Holds up to 2000' on 00/12 FO2 X2 fiber optic cable
* Includes integrated tractor lowering winch and control
80072300
FOX2 FO4 HD 4K Camera Cable Type 00/20 (NEW)
* 1640 feet of dual fiber cable
* Requires KW505.1 FOX2 FO4 HD 4K Cable Drum with v.8 board
* Older drums may require upgrade to use this cable. Please contact your representative for more information.
904350020
Cable Deflection Pulley KUV 2.7 with rope and holder (50ft of rope)
802617031
Cable Deflection Pulley KW305/505
*Attaches to the boom for off-manhole setups
802975001
Cable Cleaning Brush for KW305/310/505
*Attaches to drum boom and cleans cable during retrieval
800500841
KW Reel foot-operated winch switch (KW505, 310 and 305)
* Control the lowering winch with foot to allow more control while lowering the tractor into the manhole

901601040
Pressure Test Set
V9055004
PANORAMO 150 4K Camera System
* For 6" to 12" pipelines
* Includes PANORAMO 150 Tractor and Cameras
* Includes 6" wheelset
* Lowering claw, toolsets and spare parts
* Includes integrated, manual lift
* Includes (2) V9022005 axle extenders
* PANORAMO scan software
905501631
PANORAMO 150 Weight Kit
* Includes both light and heavy weights.
* Increases traction and pulling distance.
V0001017
19" Industrial PC
These specifications or greater:
* Ruggedized Rack Mount Cabinet
* Intel Quad Core Processor
* 16 GB RAM
* 256 GB Solid State Drive for Applications / OS
* 2 TB Hard Drive for Data
* DVD-R/CD-RW drive
* Keyboard and Optical Mouse
* Operating system Windows 10 Professional
*** NO Video Capture Device Included (to be supplied by software vendor)
V4702467
VM4C9 Full HD MPEG Encoder Card
VSP00200
IBAK EVOLUTION - VEHICLE

Powerful database application for all types of inspections: including lateral launch, mainline, Panoramo, HD, laser scan and more. This software will allow you to capture video and images, and produce complete reports with defect identification and scoring. Data and videos can be exported for the customer to view the information. The software has an extensive list of expansion modules available to further its capabilities.

- Basic sewer data projects – basic module type
- Managed sewer objects: sections, manholes and laterals
- Standard-compliant sewer data acquisition
- Operation with task-related menus and dialogues
- Assistant for condition data acquisition
- Management of inspection projects with customer, project and job data
- Management of sewer objects with master and condition data, photo and video data
- Import and attribution of digital photos to condition data
- Digital single image capture from linked videos
- Data transfer assistant
- License-free sewer MPEG player for data transfer (without an MPEG decoder)
- Digital MPEG recording with:
- Internal MPEG mobile encoder (Sensoray)
- Configurable video overlay of master and condition data
- Condition data acquisition synchronized with video recording
- Single monitor display with:
- Live video display
- Switchover between the video picture and the IKAS dialogs
- Also for Panoramo systems, Panoramo scanner control included
- High performance MPEG encoder driver (requires Vitec)
> MPEG format see encoder description
- Job rule management! Any desired number of profiles can be managed.
IKAS Evolution Full HD
- Full HD performance MPEG encoder driver (requires Vitec HD)
> Up to full HD video with MPEG4 AVC(H264)
> Adjustable resolution
> Software data overlay
IKAS Evolution Laser Diameter Measurement
- For IBAK laser cameras

- During push rod operation for diameter estimation only with push cameras
IKAS Evolution PACP & LACP Interface Extension
VSP00300
IKAS EVOLUTION - OFFICE
Office support application to allow users to review and manage data, generate reports, and produce viewer disk for delivery. Several expansion extensions are available to allowing post field inspection coding and further analysis.
- Basic sewer data projects – basic module type
- Managed sewer objects: sections, manholes and laterals
- Standard-compliant sewer data acquisition
- Operation with task-related menus and dialogues
- Assistant for condition data acquisition
- Management of inspection projects with customer, project and job data
- Management of sewer objects with master and condition data, photo and video data
- Import and attribution of digital photos to condition data
- Digital single image capture from linked videos
- Data transfer assistant
- License-free sewer MPEG player for data transfer (without an MPEG decoder)
- Import of videos with optional attribution to the inspection data
- Condition data acquisition synchronized with video playback
- Digital single image capture from video playback
- No MPEG recording
IKAS Evolution PACP & LACP Interface Extension
VS004521
SHAPE FILE IMPORT/EXPORT- IKAS EVOLUTION
Data exchange in the ESRI ArcGIS Shape format for object parameters regarding section, manhole and laterals*
-Primary keys must be available in the Shapes.
- Export:
>Object geometry as Shape
- User configuration of the object parameters that are to be exported (Alignment of the object data fields to the Shape
file)
- Import:
> User configuration of the object parameters that are to be imported (Alignment of the Shape data fields to
the IKAS/IKIS object fields)
> load/save different field alignments
* Depending on the data base configuration
VS004504
MAP VIEWER - IKAS EVOLUTION
- Graphical display of the sewer network with manholes, sections and laterals from the coordinates of the sewer data
according to the data interface
- Interactive operation with links to the sewer and inspection data
- Work progress indicator for graphical processing of the TV inspection
- Display of pipe runs with inflection points
- Site plans/background maps:
-- Display in raster and vector format (DXF, TIF, JPG, PNG, BMP)
-- Geo-referenced
-- Fitting in of (scanned) background maps with 3 possible modes:
1. Aligning matching points;
2. Entering known co-ordinates;
3. Setting the scale and position of background maps
-- Management of plan directories
- Display configuration with GIS layer management
- Per each IKAS Evolution workstation
VS004505
MAP EDITOR - IKAS EVOLUTION
- Extends the Map Viewer with:
- Graphical sewer network editing/digitizing functions
- Digitization of sections, manholes and laterals
> Includes run of sections (laterals) via inflection points
- Shifting of manholes and pipe run inflection points
- Setting parameter texts free
- ...(without a run assistant!)

** Map Viewer is required! **
VS004550
PANORAMO ANALYSIS (PIPELINE + SI) - IKAS EVOLUTION

Assistant for analysis of the recorded PANORAMO scan data for sections and manholes

- Import of Panoramo films with optional attribution to the inspection data
- Condition data acquisition on the basis of the recorded Panoramo films
- Replaces conventional EDE mode
- Inspection data acquisition – Panoramo analysis;
- For section and manhole Panoramo films
- Single image digitization,
- Defects measurement in Panoramo films (optional 3D measurement)
- Data transfer with freeware Panoramo Viewer
IKAS Evolution Support
IKAS Evolution Support
• Ongoing updates and support by phone or online via TeamViewer
• First 6 months included with initial purchase
• The service contract will automatically renew on January 1st of each subsequent calendar year.
• Paid yearly upon renewal
• Customer outside of contract will receive no updates and minimal support
* Upon initial purchase, customer will be charged a pro-rated amount to include support for the current year, and until December 31st of the following calendar year.
Description
*** OPTIONAL ITEMS - - PRICES NOT INCLUDED IN ESTIMATE TOTAL ***
V4004025
ORPHEUS HD Pan & Tilt Camera WITH TRANSMITTER
* Pan&Tilt, Zoom Camera of 6" pipelines
* Full HD 1920x1080 Resolution, HD-SDI Standard (patent pending)
* 160x Zoom (10x Optical, 16x Digital)
* Pan-able zoom optics
* High-power LED lighting with gap lighting
* Intelligent Auto-Focus
* Innovative HUD display
* Includes installed 33hz transmitter
V9049001
T76 HD TRACTOR
* HD Version required for HD System operation
* Mainline tractor for use in pipelines 5" and up
* Zero turn radius, full steering with ATC (Automatic Tilt Compensation)
* Includes lowering claw, toolset and 5"/6"/8"/10" wheelsets
* T76 can be used as the chassis for the LISY 3.2 HD Extension
* Requires a HD Camera Base module for normal mainline operations
* Add the Remote Elevator (904116031) to help in larger pipelines
904055000
Adapter 8 HD - 10 HD
- For plug-in installation of IBAK ORION 3
- for Camera Connection CB 3.2 S HD
- for Camera Connection CC 2.1 HD
- for Camera Connection CC 4.1 HD
- for Camera Connection CC 5.1 HD
V9040013
HD Camera Base Module for T76/86 Tractor
* Required for operation of T76/86 HD as mainline tractor
* Includes 33kHz and 512Hz transmitters for location
904116031
Remote Elevator for T76/86
* Raises the camera to allow centering in pipeline
* Lifts camera above water line in pipes with flow
904401491
High-Traction Tungsten Carbide Wheels for 6" and up
* For use with T76 / T86 / PANO2 Tractors
* Large Grit
* Uses Wheel Bolt 6002104
900406691
High-Traction Tungsten Carbide Wheels for 8" and up

>>>Complete Set of 4 with bolts and washers<<<
* For use with T76 / T86 / PANO2 Tractors
* Large Grit
* Uses Wheel Bolt 60000291
* Uses Flat Washer 6000082
900410391
T76 Treaded Wheelset Complete for 8" and up pipe
(((Brown/Hard Compound)))
*RAD 122 PUR
Uses Replacement Tire #900411042
Set Contains:
4 - Single Rim Size 122 + Tire = 900410541
16 - Cheese Head Screw 6000291
6 - Cheese Head Screw 6000291
900410891
T76 RAD 150 Complete Treaded Wheelset for 12" And Up
(Brown / Hard)
- For 16" and up on a T86
- For 12" and up on a T76
- For 10" and up on a T66
Uses Single Replacement Tire 900411742
Uses 6000412 M6x35 Cheese Head Screws
Uses 6002116 M4x8 Torx Countersunk Screw
904110390
Large Black Pneumatic Tires, Tubes and Rims (Set of 4) for T76/86/PANORAMO/LISY (Black) - 3.00-4
Comes with 6000082 x 8 (A6.4 Washer), 6001522 x 8 (M6x113) and 6000510 x 8 (M6x75)
904100890
X-Large Pneumatic Tires for T76/86/PANORAMO/LISY (Black)
Set of 4 with bolts and washers
--Comes With:
-- 6000082 A6.4 Washers X8
--6001522 M6x113 Bolts X8
--6001991 M6x80 Bolts X8
V9051020
PANORAMO 2 4K High Resolution Camera System
* 3-D Spherical Optoscanner
* For 8" to 36" pipelines
* Light and Heavy additional weights
* Wheel set 108 additional wheelsets available seperately
* Small axle extenders included
* IPAS PANORAMO software
* PANORAMO Scan software (vehicle)
* PANORAMO View software
V9051003
PANORAMO 2/4K height adjusting lift
* Raises the camera in the pipe
* Works with both PANO 2 and PANO 4K

Terms and Conditions

******Surcharges or rate increases issued by manufacturer that affect this quote following quote acceptance, but prior to order delivery, will be the responsibility of Buyer. Any surcharge or increase that is applied to this purchase will be applied at same cost as issued by manufacturer.******

- *Acceptance of this Proposal is subject to availability of the Equipment listed above.*
- *Sales Price does not include any applicable sales taxes. Buyer is responsible for and agrees to pay all applicable sales tax.*
- *The Sale of New Equipment Terms and Conditions are incorporated into and made a part of this Proposal upon acceptance and execution of this Proposal by both parties.*
- *Execution of this Proposal by Seller and Buyer constitutes a binding agreement between the parties.*
- *If this Proposal is not executed by both parties within thirty (30) calendar days from the Proposal Date, this Proposal shall become null and void, unless subsequently executed by both Buyer and Seller.*

Thank you for your consideration of this proposal.

Sincerely yours,

Stephanie Prescott

Stephanie Prescott
Regional Sales Manager - Inspection
760/644-5147
StephaniePrescott@TeamJDC.com

This proposal becomes a contract for delivery and payment of the merchandise listed above only when signed by the customer or one of its officers.

Customer: _____

By: _____

Date: _____

Email: _____

Purchase Order#: _____

SALE OF NEW EQUIPMENT
TERMS AND CONDITIONS

1. THE AGREEMENT. Jack Doheny Companies, Inc., (the "Seller") agrees to sell, transfer and convey its right, title and interest in the new goods, equipment, vehicles and/or other new items (collectively, the "Equipment") described in Seller's written invoice for the Sale of New Equipment (the "Invoice") to the Buyer subject to the terms and conditions contained herein, which are incorporated into the Invoice, agreed to by the parties hereto, and together consists of the entire agreement between the Seller and Buyer (collectively, the "Agreement"). The Agreement shall be for the benefit of the Seller and Buyer and not for the benefit of any other person or entity. Prior courses of dealing, trade usage and verbal agreements not reduced to a writing signed by the Seller and Buyer, to the extend they differ from, modify, add to or change from the Agreement shall not be binding on the Seller.

2. TERMS OF PAYMENT.
   - 2.1 *Payment Date*. All payments for the Equipment are due from Buyer on the date of the invoice unless other terms are agreed to in writing between Seller and Buyer. Payment shall be made to Seller at the address specified in the Agreement, without any offset or deduction for any reason.
   - 2.2 *Shipping Delays*. If any shipment is delayed at the request of Buyer, payment shall become due based on the date Seller is prepared to make shipment, and Seller may invoice Buyer based on such date. All prices for Equipment are F.O.B. Seller's shipping point.
   - 2.3 *Delinquent Payments*.
     - 2.3.1 Any payment not made by Buyer on or before its due date shall be subject to a late charge on any unpaid balance at a rate of 18% per annum, or the highest interest rate allowed by law, whichever is greater.
     - 2.3.2 If a payment is not made on or before its due date, Buyer agrees that Seller may elect, in addition to any other remedy at law or in equity, to cease performance under the Agreement and any other agreement between Buyer and Seller until such payment is rendered to Seller.

3. DELIVERY. Seller does not guarantee delivery dates.

4. RISK OF LOSS. Buyer assumes all risk of loss of Equipment upon delivery by Seller to carrier if Equipment is shipped. For Equipment that is shipped, Seller agrees to: (a) prepare the Equipment for shipment to Buyer; (b) deliver custody of the Equipment to carrier; (c) make appropriate arrangements for the transportation to carrier; and deliver documents to enable Buyer to obtain possession of the Equipment. Seller shall not be obligated to obtain insurance or to prepay transportation/carrier costs for the Equipment. Buyer agrees to be responsible for and to timely pay all loading, unloading and other charges incidental to transportation of the Equipment. Whether Seller pays transportation charges or not, risk of loss shall pass to Buyer upon delivery of the Equipment to a carrier.

5. INSPECTION OF EQUIPMENT. Buyer has inspected the Equipment and is satisfied with the Equipment's condition.

6. INDEMNIFICATION. Buyer shall indemnify, hold harmless and release Seller from any and all liabilities, losses, damages, claims, costs and expenses, including attorney fees, arising out of, in whole or in part, from (a) the design, or manufacture of the Equipment; or (b) the use of the Equipment by Buyer and those acting on Buyer's behalf.

7. MISCELLANEOUS.
   - 7.1 *No Assignment*. There shall be no assignment of the Agreement by Buyer without the prior written approval of Seller. Any assignment of the Agreement shall not relieve Buyer of its obligations under the Agreement.
   - 7.2 *Force Majeure*. Neither party will be liable for any delay or failure to perform its obligations hereunder, other than a payment obligation, due to any cause beyond its reasonable control including without limitation, acts of God or of the public enemy, including terrorists, acts of the government in its sovereign capacity, fires, floods, epidemic, strikes, picketing or boycotts, or any other circumstances caused by natural occurrences or third party actions beyond the reasonable control and without the fault or negligence of the party whose performance is affected ("Force Majeure Events"); provided that the affected party provides the other party prompt notice of the applicable circumstance and uses commercially reasonable efforts to re-commence performance as promptly as possible; provided, further, that if the duration of such Force Majeure Event exceeds thirty (30) days, the other party may terminate the Agreement upon delivery of written notice to the affected party.
   - 7.3 *Venue*. The parties agree that any dispute under the Agreement shall be brought in the applicable state or federal court located in the county in which the Originating Branch is located and the parties waive any right to a jury trial.
   - 7.4 *Construction and Captions*. The parties acknowledge that each has reviewed the Agreement and that the normal rules of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Agreement or any exhibits or amendments hereto; and that section headings appearing in the Agreement are for convenience of reference only and they are not intended, to any extent or for any purpose, to limit or define the text of any section or any subsection hereof. In the event any part of the Agreement is found to be ambiguous, such ambiguity shall not be construed against any party.
   - 7.5 *Entire Agreement*. The Agreement constitutes the sole and entire agreement between the parties and supersedes all prior and contemporaneous statements, promises, understandings or agreements, whether written or oral.
   - 7.6 *Amendments*. The Agreement may be amended, modified or altered at any time upon the approval of the Seller and Buyer; however, any such amendment must be in writing and signed by the Seller and Buyer in order for such amendment to be of any force and effect.
   - 7.7 *Partial Invalidity*. In the event that any provision of the Agreement is declared by any court of competent jurisdiction or any administrative judge to be void or otherwise invalid, all of the other terms, conditions and provisions of the Agreement shall remain in full force and effect to the same extent as if that part declared void or invalid had never been incorporated in the Agreement and in such form, the remainder of the Agreement shall continue to be binding upon the parties.
   - 7.8 *Counterparts*. The Agreement and any amendment thereto may be signed and executed in one or more counterparts, each of which shall be deemed an original and all of which together shall constitute one Agreement. Delivery of an executed counterpart of a signature page of the Agreement by facsimile or email shall be effective as delivery of an originally executed counterpart of the Agreement.
   - 7.9 *Authority*. Each person(s) executing the Agreement as an agent or in a representative capacity warrants that he or she is duly authorized to do so.

   NO WARRANTY. SELLER MAKES NO WARRANTIES OR REPRESENTATIONS EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MARKETABILITY OR FITNESS FOR PARTICULAR PURPOSE, ALL OF WHICH ARE SPECIFICALLY HEREBY DISCLAIMED. To the extent allowed by law and those agreements, Seller transfers and assigns to Buyer the Equipment manufacturer's warranties, if any such warranty is provided by the Equipment manufacturer. In no event shall Seller be liable to Buyer for any incidental, consequential, special, exemplary, and/or punitive damages, including without limitations, loss of revenue or profit.

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WEST BAY SANITARY DISTRICT
AGENDA ITEM 10

To: ***Board of Directors***

From: ***Sergio Ramirez, General Manager***

Subject: ***Discussion and Direction on the West Bay and Sharon Heights Recycled Water Facility***

A discussion will be held on the Sharon Heights Recycled Water Facility and other events related to the recycled water plant. The Board will have the opportunity to provide direction to staff and legal counsel.

Recycled Water Facility Production Data:

2024	Processed	Delivered
January	5.8MG	175K gallons
February	5.6MG	464K
March	6.5MG	1.5MG
April	8.1MG	4.4MG
May	10.6MG	9.3MG
June	10.7MG	9.9MG
July	11.3MG	9.9MG

2023	Processed	Delivered
January	5MG	0 gallons
February	3.3MG	0 gallons
March	3.5MG	0 gallons
April	4.9MG	32k gals. Dust Control
May	5.1MG	432k gals. Dust Control
June	4.8MG	456k gals. Dust Control
July	6.2MG	1.05MG Dust Control
August	8.1MG	2.7MG (+ 1.5 MG Dust Control)
September	8.4MG	4MG (+ 1.04 MG Dust Control)
October	9.6MG	7.4MG
November	7.7MG	3.7MG
December	7.4MG	970K

2022	Processed	Delivered
January	4.4MG	97,000 gallons
February	4.4MG	1.5MG
March	6.6MG	3.5MG
April	7.6MG	3.8MG
May	9.2MG	7.4MG
June	9.8MG	8.7MG
July	9.6MG	8.1MG
August	9.2MG	8.1MG
September	8.6MG	6.7MG
October	7.9MG	4.6MG
November	5.9MG	310,000 gallons
December	5.4MG	154,690 gallons

2021	Total Processed	Total Delivered
Yearly Total	88.2MG	56.26MG (*) (**)
2020	**Total Processed**	**Total Delivered**
August-Dec.	34.1MG	19.75MG

* Sharon Heights substantially tapered off their water usage for September which is the reason for the large discrepancy between treated and delivered.
** Treatment was reduced in the second half of the month. Rain in late October and an irrigation equipment malfunctions caused water delivery to decrease.

The following is a disclosure statement required for any document, written report or brochure prepared in whole or in part pursuant to the Finance Agreement with the State Water Resources Control Board for the West Bay Sanitary District Recycled Water Project - Sharon Heights: Funding for this project has been provided in full or in part through an agreement with the State Water Resources Control Board. California's Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and state bond proceeds. The contents of this document do not necessarily reflect the views and policies of the foregoing, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

WEST BAY SANITARY DISTRICT
AGENDA ITEM 11

To: ***Board of Directors***

From: ***Sergio Ramirez, General Manager***

Subject: ***Discussion and Direction on the Bayfront Recycled Water Project and Status Update***

A discussion will be held on the District's Bayfront Recycled Water Projects and other events related to the recycled water projects including financing, environmental review, design/build issues and grant applications.

The Board will have the opportunity to provide direction to staff and general counsel.

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WEST BAY SANITARY DISTRICT
AGENDA ITEM 12

To: ***Board of Directors***

From: ***Sergio Ramirez, General Manager***

Subject: ***Report, Discussion, and Direction on South Bayside Waste Management Authority (SBWMA) including the Solid Waste Franchise Re-Assignment***

The District's representative to South Bayside Waste Management Authority (SBWMA), President Fran Dehn, will report on any pertinent items regarding SBWMA business. General Manager Ramirez will report and seek direction on the solid waste franchise re-assignment.

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WEST BAY SANITARY DISTRICT
AGENDA ITEM 13

To: ***Board of Directors***

From: ***Sergio Ramirez, General Manager***

Subject: ***Report and Discussion on Silicon Valley Clean Water (SVCW) Plant***

The District's representative to Silicon Valley Clean Water (SVCW), Commissioner George Otte, will report on pertinent items regarding SVCW Operations, CIP and Finance.

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