#### DOCUMENT 00 90 01 - ADDENDUM NO. 1

PROJECT: Imjin Lift Station Odor Control Program

CIP NO.: OS-0348

FROM: District Engineer

Marina Coast Water District 920 2<sup>nd</sup> Avenue, Suite A Marina, CA 93933

#### TO: **Prospective Bidders**

This Addendum forms a part of the Bidding Documents and will be incorporated into Contract Documents. Insofar as the Specifications or Drawings or both are inconsistent, this Addendum governs. Acknowledge receipt of the Addendum by inserting its number in Document 00 41 00 – Bid Form. **FAILURE TO DO SO WILL SUBJECT BID TO DISQUALIFICATION**.

#### PART 1 – BIDDER INFORMATION ITEMS

- A. The Engineer's Estimate for this project is \$571,900.
- B. Pre-Bid Meeting Agenda
- C. Pre-Bid Meeting Sign In Sheet
- D. Evoqua Bioxide Odor Control System Quote

#### PART 2 - CHANGES TO PROJECT MANUAL (NONE)

#### **PART 3 - CHANGES TO DRAWINGS**

1. Sheet GC-1, Detail 1 is renamed from "DOSING SCHEMATIC" to "CONTAINMENT PAD".

#### **PART 4 – QUESTIONS RECEIVED**

- Q1 Is Evoqua the sole source supplier for the odor control system?
- A1 Odor control system is not sole sourced. The original Evoqua quote is provided as part of Addendum 1. Note the following questions below.
- Q2 Can you please provide specs on the two dosing pumps? I cannot find information about these items on the plans or in the specifications.
- A2 The packaged odor control system specification can be found under item 15 of the material specification on sheet G-3. Dosing pumps are listed as line item 15.5. One dosing pump will operate at a constant rate, while the second pump will dose simultaneously when the sewage pumps in the wet well are running.

- Q3 Sheet C-1 has 8 different note symbols pointed out around the location of where the chemical tank will be located, but there are only two in the detail notes located on the right side of the page. Please clarify.
- A3 The circled call out symbols on the site plan indicate corner coordinates, as referenced below the Notes section on the right side of the sheet.
- Q4 Per Drawing Sheet GC-1, the current placement of the dosing pump and control assembly in relation to the 4" containment curb may potentially create a trip hazard and NEC code violation. For NEC compliance, the electrical control panel will require a minimum of 36" clearance in front of the panel, which must be kept clear and level to ensure a stable and safe environment for anyone working on the panel. Evoqua recommends placing the Dosing Pump and Control assembly flush with the curb to avoid a trip hazard in front of the panel.
- A4 Panel location is shown schematically and may be adjusted as needed within the fenced area to achieve 3-ft clearance.
- Q5 Per Drawing Sheet GC-2, chemical metering pumps are shown independently discharging to two separate application points. Pump 1 dosing to the upstream SS Manhole, and Pump 2 dosing into the force main injection point. Please note that Evoqua's standard chemical dosing system would not be capable of dosing in this manner, and a custom system with independent pump controls would be required should the End-User desire this capability. The custom system would be larger than the previously quoted Safe-L VersaDose LT system, may not fit onto the pad as shown, and result in additional cost to the project.
- A5 Owner requires both points of dosing as shown in the Contract Drawings. A customized dosing system is anticipated.
- Q6 It is our understanding that the End-User desires the option to dose to one location or the other, and not to dose both application points simultaneously. If this is the case, Evoqua recommends that the contractor supply manually adjustable valves on the discharge piping from the dosing skid to adjust where chemical is applied. This would allow for the use of standard equipment and minimize cost impacts to the project. Please see the modified process flow diagram below.
- A6 Chemical dosing at two locations simultaneity is intentional. As noted on Sheet GC-2 detail 1, one dosing pump shall be dedicated to dosing at a constant rate over a 24-hour period into the upstream SS manhole from the wet well. The second pump shall dose directly into the force main when the sewage pumps in the wet well are running.

#### **END OF DOCUMENT**

#### **Imjin Lift Station Odor Control**

#### **Project OS-0348**

#### Pre-Bid Conference and Site Walk July 8, 2025 10:00 AM

MCWD Engineering Office, 920 Second Avenue, Suite A, Marina, CA 93933

Bid Opening July 29, 2025 2:00 PM 920 Second Avenue, Suite A, Marina, CA 93933

Owner: Marina Coast Water District

**Engineer:** Schaaf & Wheeler

3 Quail Run Circle, Suite 101

Salinas, CA 93933

Phone: (831) 883-4848 x404 Attn: Andrew Sterbenz, P.E.

**Project Manager:** Marina Coast Water District

Engineering Department 920 Second Avenue, Suite A

Marina, CA 93933 Phone: (831) 883-5962 Fax: (831) 534-7158 Attn: Jack Gao

#### Agenda:

#### 1. Introductions

- 2. **Sign-In:** This is a non-mandatory pre-bid. Please sign in and leave a card (if available). Be sure to provide a fax number and email for addendums, responses to questions, or clarifications. Also, if you have not already done so, send an e-mail to <a href="mailto:sverduzco@mcwd.org">sverduzco@mcwd.org</a> to be added to the plan-holder's list to receive addenda.
- 3. **Plans/Specifications:** Plans and Specifications are available on the District website, <a href="www.mcwd.org">www.mcwd.org</a> under the Projects & Engineering drop-down menu. They are also available on the Central Coast Builder's Exchange Online Plans Room.

#### 4. Bid Opening:

- a. Option 1: The Bid Opening will be a public meeting held at the MCWD Conference Room, 920 Second Avenue, Suite A, Marina, CA 93933.
- b. Option 2: The Bid Opening will be a publicly accessible Zoom meeting. The meeting log-in credentials will be sent out with Addendum 1 and also posted on the District's website.
- 5. **Questions/Clarifications:** Questions and/or clarifications need to be transmitted via email to the Engineer in Request For Information (RFI) format (pose the question or item to be clarified with room for a response). Any questions or clarifications received (once answered) will be distributed to

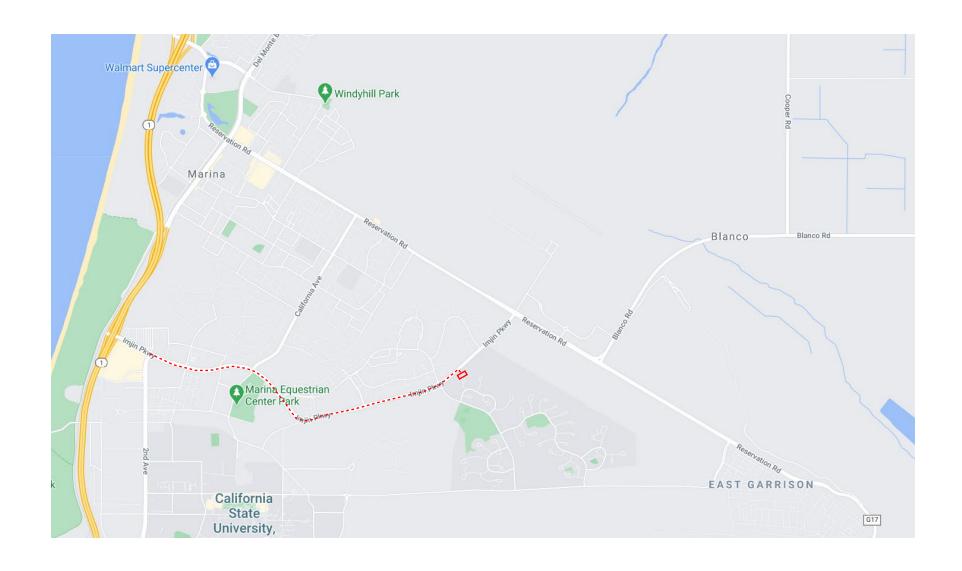
all bidders. Questions or clarifications will be responded to if received prior to **Close of Business (5PM) Tuesday, July 15, 2025**. Questions or clarifications received after that time will not receive a response prior to the bid opening. An addendum with the sign-in sheet, bid opening meeting information and the response to any questions received will be issued by close of business on Tuesday, July 22, 2025.

- Project Start and Duration: The projects will be awarded at the District's August 18 Board Meeting.
  The contract duration for OS-0348 is <u>180</u> calendar days to substantial completion and <u>210</u> calendar days to final completion.
- 7. **Review of Bid Documents:** Project Manager will provide a cursory review of the bidding documents to be submitted with any bid proposal to be considered responsive. Bid Submittal Checklist Article 1 "SUBMIT WITH BID. Note that the DIR registration number must be submitted for all listed subcontractors.
- 8. In accordance with **Section 6705 of the California Labor Code**, the Contractor shall submit to the District specific plans to show details of provisions for worker protection from caving ground during excavations of trenches of five feet or more in depth. Include payment for trench safety in the related work item.
- 9. **California Wage Rate Requirements:** This project requires the payment of the general prevailing rate of per diem wages, copies of which are on file at the State of California, Department of Consumer Affairs Office (Labor Code 1770, et seq.).
- 10. Review of the Plans: The Engineer, Schaaf & Wheeler, will provide a cursory explanation of the plans and their intent. Please note the contractor awarded this project is responsible for their take offs for all materials, labor, and/or equipment to complete this project. The contractor will also be responsible for any clean-up, debris removal, and/or remediation of affected areas due to construction activities.
- 11. **Questions:** Potential bidders can ask questions that may or may not be answered at this meeting, but may be addressed in an addendum. Changes and modifications relevant to Bid Documents in response to questions will be recorded in Addenda issued to all Prospective Bidders of Record. Oral statements may not be relied upon and will not be binding or legally effective.

Marina Coast Water District
Imjin Lift Station Odor Control Project
Site Visit, July 8, 2025, 11:00 a.m.

#### Directions to Imjin Lift Station from the MCWD Office on Second Avenue

- Exit the parking lot onto Second Avenue
- Turn left onto Imjin Parkway. Proceed about 2 miles
- Turn right into the Lift Station (first driveway after the Shell Gas Station)



# MATER DISTRICT

#### MARINA COAST WATER DISTRICT

920 2<sup>nd</sup> Ave., Suite A • MARINA, CA 93933-2099 Home Page: www.mcwd.org TEL: (831) 384-6131

### Imjin Lift Station Odor Control Program (OS-0348)

## **Pre-Bid Conference**

July 8, 2025 10:00 AM

# Pre-Bid Conference SIGN-IN SHEET

Name	Со	ntractor/Firm	E-Mail
1. ENDY	STELBENZ	Schapf & Whooler	ASTERBENZ & SUSV. CO
2. Aldo	Janio	Schaaf + Wheder	aljanio@swsv.com
3. Rache	l Dimaggio	MPE	rachel Empezoov-com
4. Todd	Welty	NVICO	Info@NViRo.com
5.	, 		
6.			
7.			
8			
9			
10.			



### **BIOXIDE® ODOR CONTROL SYSTEM**

IMJIN LIFT STATION

MARINA COAST WATER DISTRICT, CA

Quotation # 2022-538737R2 May 16, 2025

#### Sales Representative

Rhett Ussery
Evoqua Water Technologies LLC
Mobile: +1 (916) 390-8946
Email: robert.ussery@xylem.com

Tel: +1 (800) 345 3982 Fax: +1 (941) 359-7985

evoqua.com



May 16, 2025

Derek Cray Marina Coast Water District 2840 4<sup>th</sup> Avenue Marina, CA 93933 Phone: (821) 882 5003

Phone: (831) 883-5903 Email: dcray@mcwd.org

RE: ODOR AND CORROSION CONTROL BIOXIDE® FEED SYSTEM

MARINA COAST WATER DISTRICT, CA - IMJIN LIFT STATION

Evoqua Quote No. 2022-538737R2

Dear Mr. Cray,

Thank you for your interest in Evoqua Water Technologies LLC. Evoqua would like to submit the following proposal for our Bioxide® Chemical Feed and Storage System for the Imjin Lift Station. This proposed feed system will control odors in the downstream force main discharge.

Evoqua Water Technologies LLC is established as an industry leader for the supply of odor and corrosion control products and services. The Evoqua Utility Services Division employs over 175 engineers, chemists, technicians, transportation personnel and managerial/support staff to meet the odor and corrosion control needs of our customers nationwide.

Evoqua is committed to providing the highest standard of chemical quality and technical services in the industry. If you have any questions regarding this proposal, please do not hesitate to contact me at +1 (916) 390-8946.

Sincerely,

Rhett Ussery

Rhett Ussery Senior Sales Representative

**Evoqua Water Technologies LLC** 



#### 1. SUMMARY

This proposal is based upon Evoqua's standard equipment design offering. No other plans or specification sections are being referenced. Any additional engineering design requirements added beyond what is explicitly specified in the scope of supply might result in change order or rejection of P.O.

Evoqua Water Technologies LLC (Evoqua) proposes to furnish the equipment specified in this Quotation in accordance with the scope of supply described in this quotation and subject to the Clarifications/Exceptions and Standard Terms of Sale stated herein.

The information in this quotation is confidential and/or proprietary and has been prepared solely for the recipient's use in considering the purchase of the equipment and/or services described herein. Transmission of all or any part of this information to others, or use by the recipient, for other purposes is expressly prohibited without Evoqua's prior written consent.

**ITEM & DESCRIPTION** PRICE

Bioxide® Chemical Feed and Storage System, Qty (1), Equipment (Includes Installation, First Fill of Chemical, Startup & Training Services) \$136,287

Evoqua's price includes only the specific items detailed in this quotation. Items not specifically identified herein are to be furnished by others. Please refer to the excluded items in Section 5 of this quotation for a list of items to be furnished by others.

All taxes, levies, duties, tariffs and other governmental charges, and any incremental increases thereto, shall be paid by the Buyer. Seller reserves the right to adjust pricing and schedule of the affected goods to reflect any impact resulting from tariffs. Seller is not obligated to deliver the goods and/or services until an agreement on the new price and/or schedule has been reached.

Prices are exclusive of any tariffs or duties imposed on the goods and charged to Evoqua by its suppliers. Due to current global market conditions, if Seller's vendors or suppliers assert additional charges and/or fees due to the imposition of tariffs or duties, Seller shall be entitled to pass such charges through to Buyer as a separate line item on Buyer's invoice.

- **A. OPTIONS:** No options are listed under this proposal.
- B. FREIGHT: Pricing includes delivery, prepaid (PPD), delivered to jobsite.
- C. QUOTATION VALIDITY: This quotation is valid for a period of thirty (30) days unless extended in writing by Evoqua. Due to current raw material price fluctuation, Evoqua reserves the right to requote the equipment proposed herein after that time.
- D. FIELD SERVICES: Evoqua has included the services of a factory field service technician to check the installation, startup equipment and provide instruction of Owner's personnel; all of which shall be performed over a total of one (1) trip with one (1) day on site.

Evoqua shall provide a separate proposal for a Full Service Odor Control program.

E. SERVICE MANUALS: Our pricing includes an electronic version of the operation and maintenance (O&M) manual as an Adobe PDF file format only. If requested, Evoqua will supply hard copies of the service manual at the customer's expense. Drawings will be supplied in an unchangeable TIF, bitmap,



or PDF file format only. The rights to the content of Evoqua O&M manuals and drawings belong solely to Evoqua and Evoqua reserves the right to make changes to content at any time.

- **F. WARRANTY:** Evoqua warrants the Chemical Feed System complete for a period of twelve (12) months from acceptance or eighteen (18) months from shipment, whichever occurs first. In addition, the chemical storage tank shall be warranted for a period of five (5) years from warranty start date.
- **G. PAYMENT AND PRICE TERMS:** The terms of payment are NET 30 in accordance with the following milestones:
  - 10% on drawing submittal delivery;
  - 55% on shipment of equipment, or offer to ship;
  - 15% on installation;
  - 15% on first fill;
  - 5% on startup of equipment or 90 days from final delivery, whichever occurs first.
- **H. CANCELLATION POLICY:** If Evoqua is issued an order and the Buyer cancels or suspends its order for any reason other than Evoqua's breach, the Buyer shall promptly pay Evoqua for work performed prior to cancellation or suspension and any other costs incurred by Evoqua as a result of such cancellation or suspension. At a minimum, cancellation after executed contract will result in a cancellation fee of 10% of the total order value.

Evoqua's prices are exclusive of any taxes. If this project is not subject to sales or use tax, please issue a Tax-Exempt Certificate with any ensuing purchase order (P.O.). If applicable, please provide a copy of payment bond information with the P.O. With no exemption or if this project is subject to sales or use tax, the Purchaser will be invoiced for taxes at the then-current rate of sales, use or other tax for the jobsite location.



#### 2. DRAWING AND SHIPPING INFORMATION

Evoqua will furnish shop drawing submittals and equipment per the following project schedule:

Submittals: 5 – 7 weeks after contract acceptance

• Equipment: 20 – 25 weeks after receipt of approved submittals

This proposal includes one round of submittals for approval, consisting of electronic copies. Customer will be provided a five working-day approval turnaround. Evoqua assumes all submittals will be returned "Approved" or "Approved as Noted" and will incorporate such comments by the customer at no charge if they are in accordance with Evoqua's scope of work. Evoqua will transmit one copy of submittals "For Approval" and one "Final" copy of submittals. Any subsequent changes or modifications by Customer to these submittals will result in an additional fee and may result in project delays.

If Submittal Drawing Reviews/Approvals are not received by Evoqua in accordance with the project schedule noted above, Evoqua shall be entitled to a reasonable extension of the Shipment of Equipment times and/or a reasonable increase in the contract price to cover costs incurred because of Submittal Drawing Review/Approval delays unless the delay is the fault of Evoqua.

Evoqua has provided typical standard times and shipment dates. Actual times will be provided upon receipt of a Purchase Order based upon current backlog. Evoqua will work closely with the General Contractor and/or Engineer to provide delivery dates to meet the overall project schedule as possible.



#### 3. EQUIPMENT SCOPE

The following equipment and services are included in Evoqua's scope of work. The Chemical Feed and Storage System is suitable for outdoor installation in a non-hazardous duty location.

TABLE 1: BIOXIDE® SOLUTION FEED AND STORAGE SYSTEM, EQUIPMENT SCOPE

No.	Description	Quantity
1.	4,350 Nominal Gallon Double Wall, High-Density Cross-Linked Polyethylene, Black, Chemical Storage Tank, (10'-3" Diameter, 10'-4 1/4" Tall, Specific Gravity 1.90). The storage tank shall be equipped with the following standard fittings, designated for the following purposes (any unused fittings shall remain plugged):	1
	<ul> <li>Fill – 2" PVC Bulkhead Fitting</li> <li>Vent – 4" PVC U-Vent</li> <li>Suction – ¾" PVC Bulkhead Fitting</li> <li>Return – ½" PVC Bulkhead Fitting</li> <li>Level Indication – 2" PVC Bulkhead Fitting</li> <li>Overfill Indication – ½" PVC Bulkhead Fitting</li> <li>Leak Detection – 2" PVC Bulkhead Fitting</li> </ul>	
2.	Neoprene Tank Pad	1
3.	Electronic Double Wall Leak Monitoring Systems to provide a sensor sensitive to conductive liquids found in the interstice of double wall tank or double wall piping. This system shall include:	1
	<ul> <li>1- Leak Detection Sensor</li> <li>1- "Leak Detected" Indication Light</li> <li>1- "Leak Detected" Alarm Buzzer</li> <li>1- Relay</li> <li>1- Push to Test Button</li> <li>1- Push to Silence Button</li> <li>1- On / Off Switch</li> </ul>	
4.	Pressure Transducing Sensor for tank level monitoring	1
5.	Reverse Float Mechanical Level Indicator	1
6.	Double Wall Piping Kit, which shall consist of:	1
	<ul> <li>40'- ½" Polyethylene Tubing for Discharge Line</li> <li>1- 2" Stainless Steel Male Camlock</li> <li>1- 2" Plastic Female Camlock Cap</li> <li>1- Miscellaneous required fittings</li> <li>Provided by Installer:</li> <li>40'- 2" Schedule 80 PVC Pipe for Discharge Line Containment</li> <li>20'- 2" Schedule 80 PVC Tank Fill Piping</li> </ul>	



7.	Self-Contained Polyethylene Safe-L Skid Assembly, containing the following:	1	
	<ul> <li>Chemical Feed Pumps (see specifications below)</li> <li>Calibration Cylinder</li> <li>Pressure Relief Valve</li> <li>Back Pressure Valve</li> <li>Pressure Gauge</li> <li>Mechanical Float Leak Detection Assembly</li> <li>Integrated Electrical Control Panel with color display</li> <li>Off/Auto Soft Switches for pump control</li> <li>On/Off Soft Switches for auxiliary equipment</li> <li>Dry contacts to receive digital inputs</li> <li>Disconnect Switch</li> <li>Ground fault receptacle</li> </ul>		
8.	VersaDose® LT Advanced Dosing Package – The automation package will be programmed at the factory and can be optimized in the field to functionally control the dose rate using 24 hour / day per week dose curves or from station flow signals.		
9.	Prominent Sigma X Control Series Diaphragm Metering Pumps with an adjustable 2 feed rate up to 6.9 GPH and a maximum discharge pressure of 145 psi.		
10.	Force Main Injection Quill Assemblies 1 (Threaded connection size to be determined upon ordering)		
11.	First fill of nominal 4,000 gallons of Bioxide® solution Included		
12.	Manufacturer startup / training services as listed above in Section 1.D of this proposal.		
13.	Freight as listed above in Section 1.B of this proposal.  Included		



#### 4. ELECTRICAL CONTROL PANELS

Please note that the Evoqua VersaDose<sup>®</sup> LT chemical dosing system contains proprietary programming. Use of this "Linked" functionality would be provided to the customer at no additional cost while the system is feeding Evoqua chemical products. If the customer elects to purchase this system to feed another suppliers product, the VersaDose LT will be reprogrammed with a nonproprietary (basic) program, and the system will show reduced capabilities. A summary comparing the Linked and Basic functions of the VersaDose LT is listed in the following table:

TABLE 2: VERSADOSE LT FUNCTIONALITY (LINKED VS. BASIC)

	VersaDose® LT (Linked)	VersaDose <sup>®</sup> LT (Basic)
Dose Curves	24 hours / 7 days	24 hours
Temperature Compensation	Yes	No
Flow Pacing	Yes	Yes
Rain Compensation	Yes	No
Link2Site® Interface	Yes	No
Tank Level Interface	Yes	Yes
НМІ	Color / Touch Screen	Color / Touch Screen

Additionally, the VersaDose LT, as proposed, is a standard electrical control panel design with the following available Inputs / Outputs:

**TABLE 3: VERSADOSE LT INPUTS / OUTPUTS** 

	Digital In	Analog In	Digital Out	Analog Out
Tank Level		Х		
Tank High Level (Alarm)			Х	
Tank Low Level (Alarm)			Х	
Tank Empty Level (Alarm)			X	
Sewage Flow		Х		
Sewage Pump 1 Contact	X			
Sewage Pump 2 Contact	Х			
Sewage Pump 3 Contact	Х			
Leak Detection (Skid)	Χ			
Common Alarm			Χ	
Chemical Pump 1 Status			Χ	
Chemical Pump 2 Status			Х	

The VersaDose LT will not be customized to allow for any additional signals beyond what is explicitly listed in Table 3.



#### 5. EXCLUDED ITEMS

The price from Evoqua includes only those items listed in this Quotation. The items listed below are excluded:

- 1. Site preparation work, demolition, civil works, foundation design, concrete, grout, mastic, sealing compounds, shims, and any anchorage/structural calculations.
- 2. Modifications to existing equipment or structures.
- 3. Any secondary (carrier) pipe required to complete the piping runs for the odor control system if not provided in this scope of supply.
- 4. Design, supply, and installation of heat tracing and insulation of all exposed piping, including piping located within the chemical feed system.
- 5. Heat tracing and insulation of the chemical storage tank.
- 6. Any customization required to install the system in a hazardous location.
- 7. Electrical field wiring, materials, and their installation from the electrical control panel to any remote instruments.
- 8. Integration of the odor control system with the End Users SCADA / PLC shall be handled by a systems integrator, to be coordinated by the contractor.
- 9. Site / Utility Requirements:
  - a. Power 15A / 120VAC / 1PH (provided within 10' of equipment)
  - b. Floor Space 12' x 16' concrete pad preferred
  - c. Tanker Access for chemical delivery
  - d. Customer supplied dry contacts or 4-20 mA flow signal (if applicable)
  - e. Potable Rinse Water
- 10. Any temporary odor control system or temporary odor control measures.
- 11. Monitoring the odor control system operation and collecting/reporting data to Evoqua (or any other party) during the startup / optimization period.
- 12. Supervisory services; laboratory, shop, or field testing, unless specifically listed in Evoqua's scope.
- 13. Any additional services for installation, start-up, or testing other than included in Evoqua's scope.
- 14. Videotaping at the job site, including videotaping of operator training.
- 15. Any painting or surface preparation. All equipment is factory finish only.
- 16. Floor grating, stairways, ladders, platforms, handrailing.
- 17. Lubricants, grease piping, grease gun.
- 18. Tools or spare parts, unless specifically listed in Evoqua's quotation.
- 19. Safety equipment.
- 20. Detail shop fabrication drawings.
- 21. Any sales, federal, state, local user, excise, or other similar taxes.
- 22. All licenses and permits.
- 23. Any items not explicitly listed under Evoqua's scope of supply.



#### 6. CLARIFICATIONS / EXCEPTIONS

The following clarifications / exceptions shall apply:

Article, Section	Clarifications/Proposed Modifications	
General Terms and Conditions		
Engineering Deliverables	Evoqua Water Technologies shall furnish the submittal documentation and O&M materials as defined in the Engineering Deliverables List included in Section 8 of this proposal.	
System Design	The proposed system is based upon Evoqua's standard equipment design offering and is not in reference to any other plans or specifications. Any additional engineering design requirements added beyond what is explicitly listed in the proposal and/or attached reference specifications might result in change order or rejection of P.O.	

Evoqua's standard terms and conditions, including without limitation Evoqua's warranty obligations in Article 7 govern the purchase and sale of equipment, products, and related services, referred to in Evoqua's proposal. Evoqua's offer or acceptance is expressly conditioned on Buyer's assent to these terms. Evoqua rejects all additional or different terms in any of Buyer's forms or documents.



#### 7. INSTALLATION SERVICES

Evoqua Water Technologies will provide Mechanical Installation Services for the Chemical Feed System. The customer shall be responsible for having certain facets of site preparation completed prior to Evoqua's Mechanical Installation of the Chemical Feed System. This includes, but is not limited to dewatering, concrete work, trenching, containment piping, excavation, backfill, piping and electrical.

Mechanical Installation Services include:

- Setting of the tank or provision of crane (if needed)
- Tank penetrations
- Installation of fill piping on tank
- Installation of U-vent
- Installation of suction piping from tank to pumps
- Installation overfill site gauge, when included
- Installation of calibration relief/overfill line
- Installation of tank level monitoring equipment and/or level display systems, when included
- · Mounting and placement of feed system

Mechanical Installation Services exclude:

- Force main tap and/or provision of saddle
- Electrical supply or connections
- Any concrete work, trenching, excavation, and backfill
- Any below-grade piping

Rescheduling or cancellation of a field service trip once booked will incur the greater of either a \$1,500 cancellation or re-scheduling charge, or actual costs.

Evoqua will assume responsibility for workmen's compensation coverage of Evoqua employees only and will provide umbrella liability coverage during installation.



#### 8. ENGINEERING DELIVERABLES LIST

Evoqua Water Technologies shall furnish the following Engineering Submittals and O&M Documentation as part of the proposed scope.

<b>EVOQUA</b> WATER TECHNOLOGIES			Deliverables List
Description	Project No.	File / Drawing No.	Client
Imjin Lift Station	2022-538737R2		Marina Coast Water District

A - Approved as Submitted FA - For Approval NS - Not Submitted to Client RFD - Release for Design AN - Approved as Noted FRC - For Review & Comment NR - Not Required for Project RFQ - For Quote AP - Approved for Production IFI - Issued for Information RA - Resubmit for Approval RR - Resubmit for Record AR - As Requested FR - For Record **RFC - Release for Construction** SC - Submit for Distribution

Item No.	Category	CODE	DESCRIPTION	Submittal Purpose	Hard Copy Quantity	Soft Copy Format	Included in XXX (e.g. O&M)
1.00			ELECTRICAL				
1.01	ELECTRICAL	E-COT01	Electrical Nameplate Schedule(s)	FA	0	PDF	Submittal
1.02	ELECTRICAL	EC-DOS01	Electrical Schematic Diagram(s)	FA	0	PDF	Submittal
1.03	ELECTRICAL	EC-DOS03	Electrical Schematic(s) & Enclosure Diagram(s)	FA	0	PDF	Submittal
2.00			GENERAL / ADMIN / MANAGEMENT				
2.01	GENERAL/ADMIN/MNGMT	G-MAN01	Equipment Installation Manual(s)	IFI	0	PDF	O&M
2.02	GENERAL/ADMIN/MNGMT	G-MAN02	Operation & Maintenance Manual(s)	IFI	0	PDF	O&M
2.03	GENERAL/ADMIN/MNGMT	GP-SCH01	Project Execution Schedule(s)	IFI	0	PDF	Submittal
2.04	GENERAL/ADMIN/MNGMT	G-PRC02	Receiving, Handling & Storage Procedure(s)	IFI	0	PDF	Submittal
2.05	GENERAL/ADMIN/MNGMT	G-LST03	Recommended Spare Parts List(s)	IFI	0	PDF	O&M
2.06	GENERAL/ADMIN/MNGMT	G-LST06	Utility List(s)	FA	0	PDF	Submittal
3.00			MECHANICAL				
3.01	MECHANICAL	M-GA01	Equipment General Arrangement(s)	FA	0	PDF	Submittal
3.02	MECHANICAL	M-GA02	Tank Orientation and Nozzle Schedule Drawing(s)	FA	0	PDF	Submittal
4.00			PIPING/TUBING				
4.01	PIPING/TUBING	P-GA01	Equipment Piping / Manifold Drawing(s)	FA	0	PDF	Submittal
5.00			PROCESS				
5.01	PROCESS	DO-LST01	Chemical Usage List(s)	IFI	0	PDF	Submittal
5.02	PROCESS	D-DOS02	Piping & Instrumentation Diagram(s)	FA	0	PDF	Submittal
5.03	PROCESS	D-LGD01	Piping & Instrumentation Diagram Legend(s)	FA	0	PDF	Submittal
5.04	PROCESS	D-DS01	Safety Data Sheet(s)	FA	0	PDF	Submittal
6.00			SUPPLIER				
6.01	SUPPLIER	XG-MPL01	Manufacturer's Cutsheet(s)	IFI	0	PDF	Submittal



#### 9. ATTACHMENTS

- 9.1 General Equipment Layout
- 9.2 VersaDose® LT Brochure
- 9.3 Bioxide® Solution Brochure



# RE: ODOR AND CORROSION CONTROL BIOXIDE® FEED SYSTEM MARINA COAST WATER DISTRICT, CA – IMJIN LIFT STATION Evoqua Quote No. 2022-538737R2

Signature below indicates acceptance of this quotation including the Standard Terms of Sale attached hereto and will act as the purchase order document between Evoqua Water Technologies LLC, the Seller, and the Buyer. The Standard terms of Sale shall form the complete and only set of terms for this order.

Evoqua will process your order when we receive acceptance of this proposal by signing below and returning to <a href="mailto:utilityservicesinbox@xylem.com">utilityservicesinbox@xylem.com</a> or via fax to: (941) 359-7985.

Company Name:		
This day of	Month	Year
Ву:		
Title:		
P.O.Number		
Site Address:		

NOTE: Effective April 2022, you may be assessed a 3% fee if paying via Credit Card. Find more info on our website here > <a href="https://www.evoqua.com/en/about-us/terms-conditions-sale-products-services/credit-card-fee-faqs">https://www.evoqua.com/en/about-us/terms-conditions-sale-products-services/credit-card-fee-faqs</a>. Ask us how to avoid paying fees by migrating to ACH CTX payment type.

#### STANDARD TERMS OF SALE

- 1. <u>Applicable Terms.</u> These terms govern the purchase and sale of equipment, products, related services, leased products, and media goods if any (collectively herein "Work"), referred to in Seller's proposal ("Seller's Documentation"). Whether these terms are included in an offer or an acceptance by Seller, such offer or acceptance is expressly conditioned on Buyer's assent to these terms. Seller rejects all additional or different terms in any of Buyer's forms or documents.
- 2. <u>Payment.</u> Buyer shall pay Seller the full purchase price as set forth in Seller's Documentation. Unless Seller's Documentation specifically provides otherwise, freight, storage, insurance and all taxes, levies, duties, tariffs, permits or license fees or other governmental charges relating to the Work or any incremental increases thereto shall be paid by Buyer. If Seller is required to pay any such charges, Buyer shall immediately reimburse Seller. If Buyer claims a tax or other exemption or direct payment permit, it shall provide Seller with a valid exemption certificate or permit and indemnify, defend and hold Seller harmless from any taxes, costs and penalties arising out of same. All payments are due within thirty (30) days after receipt of invoice. Buyer shall pay interest on all late payments not received by the due date. The Buyer shall be charged the lesser rate of 1 ½% interest per month or the maximum interest rate permissible under applicable law, calculated daily and compounded monthly. Buyer shall also reimburse Seller for all costs incurred in collecting amounts due but unpaid, including without limitation, collections fees and attorneys' fees. All orders are subject to credit approval by Seller. Back charges without Seller's prior written approval shall not be accepted.
- 3. <u>Delivery.</u> Delivery of the Work shall be in material compliance with the schedule in Seller's Documentation. Unless Seller's Documentation provides otherwise, delivery terms are FOB Shipping Point, or for international orders, ExWorks Seller's factory (INCO™ Terms 2020). Title to all Work shall pass upon receipt of payment for the Work under the respective invoice. Unless otherwise agreed to in writing by Seller, shipping dates are approximate only and Seller shall not be liable for any loss or expense (consequential or otherwise) incurred by Buyer or Buyer's customer if Seller fails to meet the specified delivery schedule.
- 4. <u>Ownership of Materials and Licenses.</u> All devices, designs (including drawings, plans and specifications), estimates, prices, notes, electronic data, software, and other information prepared or disclosed by Seller, and all related intellectual property rights, shall remain Seller's property. Seller grants Buyer a non-exclusive, non-transferable license to use any written material solely for Buyer's use of the Work. Buyer shall not disclose any such material to third parties without Seller's prior written consent. Buyer grants Seller a non-exclusive, non-transferable license to use Buyer's name and logo for marketing purposes, including but not limited to, press releases, marketing and promotional materials, and web site content.
- 5. <u>Changes.</u> Neither party shall implement any changes in the scope of Work described in Seller's Documentation without a mutually agreed upon change order. Any change to the scope of the Work, delivery schedule for the Work, any Force Majeure Event, any law, rule, regulation, order, code, standard or requirement which requires any change hereunder shall entitle Seller to an equitable adjustment in the price and time of performance. If Buyer requests a proposal for a change in the Work from Seller and subsequently elects not to proceed with the change, a change order shall be issued to reimburse Seller for reasonable costs incurred for estimating services, design services, and services involved in the preparation of proposed changes.
- 6. <u>Force Majeure Event.</u> Neither Buyer nor Seller shall have any liability for any breach or delay (except for breach of payment obligations) caused by a Force Majeure Event. If a Force Majeure Event exceeds six (6) months in duration, the Seller shall have the right to terminate the Agreement without liability, upon fifteen (15) days written notice to Buyer, and shall be entitled to payment, including overhead and profit, for work performed prior to the date of termination. "<u>Force Majeure Event</u>" shall mean events or circumstances that are beyond the affected party's control and could not reasonably have been easily avoided or overcome by the affected party and are not substantially attributable to the other party. Force Majeure Event may include, but is not limited to, the following circumstances or events: war, act of foreign enemies, terrorism, riot, strike, or lockout by persons other than by Seller or its sub-suppliers, natural catastrophes, (with respect to on-site work) unusual weather conditions, epidemic, pandemic, communicable disease outbreak, quarantines, national emergency, or state or local order.
- Warranty. Subject to the following sentence, Seller warrants to Buyer that the (i) Work shall materially conform to the description in Seller's Documentation and shall be free from defects in material and workmanship and (ii) the Services shall be performed in a timely and workmanlike manner. Determination of suitability of treated water for any use by Buyer shall be the sole and exclusive responsibility of Buyer, and Seller disclaims any warranty regarding such suitability. The foregoing warranty shall not apply to any Work that is specified or otherwise demanded by Buyer and is not manufactured or selected by Seller, as to which (i) Seller hereby assigns to Buyer, to the extent assignable, any warranties made to Seller and (ii) Seller shall have no other liability to Buyer under warranty, tort or any other legal theory. The Seller warrants the Work, or any components thereof, through the earlier of (i) eighteen (18) months from delivery of the Work, or (ii) twelve (12) months from Buyer's initial operation of the Work, or in the case of services performed as part of the Work, ninety (90) days from the performance of the services (the "Warranty Period"). If Buyer gives Seller prompt written notice of breach of this warranty within the Warranty Period, Seller shall, at its sole option and as Buyer's sole and exclusive remedy, repair or replace the subject parts, re-perform the Service or refund the purchase price. Unless otherwise agreed to in writing by Seller, (i) Buyer shall be responsible for any labor required to gain access to the Work so that Seller can assess the available remedies and (ii) Buyer shall be responsible for all costs of installation of repaired or replaced Work. If Seller determines that any claimed breach is not, in fact, covered by this warranty, Buyer shall pay Seller its then customary charges for any repair or replacement made by Seller. Seller's warranty is conditioned on Buyer's (i) operating and maintaining the Work in accordance with Seller's instructions, (ii) not making any unauthorized repairs or alterations, and (iii) not being in default of any payment obligation to Seller. Seller's warranty does not cover (i) damage caused by chemical action or abrasive material, improper thermal or electrical capacity, misuse or improper installation (unless installed by Seller) and (ii) media goods (such as, but not limited to, resin, membranes, or granular activated carbon media) once media goods are installed. THE WARRANTIES SET FORTH IN THIS SECTION ARE THE SELLER'S SOLE AND EXCLUSIVE

WARRANTIES AND ARE SUBJECT TO THE LIMITATION OF LIABILITY PROVISION BELOW. SELLER MAKES NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.

- 8. <u>Indemnity.</u> Seller shall indemnify, defend, and hold Buyer harmless from any claim, cause of action, or liability incurred by Buyer as a result of third-party claims for personal injury, death, or damage to tangible property, to the extent caused by Seller's negligence. Seller shall have the sole authority to direct the defense of and settle any indemnified claim. Seller's indemnification is conditioned on Buyer (i) promptly notifying Seller of any claim, and (ii) providing reasonable cooperation in the defense of any claim. Buyer shall indemnify, defend, and hold harmless Seller from any claim, cause of action, or liability incurred by Seller as a result of third-party claims for personal injury, death, or damage to tangible property, to the extent caused by Buyer's negligence. Buyer shall have the sole authority to direct the defense of and settle any such indemnified claim. Buyer's indemnification is conditioned on Seller (i) promptly notifying Buyer of any claim, and (ii) providing reasonable cooperation in the defense of any claim.
- 9. <u>Assignment.</u> Neither party may assign this Agreement, in whole or in part, nor any rights or obligations hereunder without the prior written consent of the other party; provided, however, the Seller may assign its rights and obligations under these terms to its affiliates or in connection with the sale or transfer of the Seller's business, and Seller may grant a security interest in the Agreement and/or assign proceeds of the agreement without Buyer's consent.
- 10. <u>Termination.</u> Either party may, in addition to any other available remedy, terminate this agreement for a material breach upon issuance of a written notice of the breach and expiration of a thirty (30) day cure period. In the event of (i) a voluntary or involuntary petition in bankruptcy, (ii) an assignment for the benefit of a creditor, or (iii) a receivership, liquidation, or dissolution, Seller may terminate the agreement immediately, in addition to seeking any other available remedy. If Buyer suspends an order without a change order for ninety (90) or more days, Seller may thereafter terminate this Agreement without liability, upon fifteen (15) days written notice to Buyer, and shall be entitled to payment for work performed, whether delivered or undelivered, prior to the date of termination.
- 11. <u>Dispute Resolution.</u> In the event of any claim, dispute, or controversy arising out of or relating in any way to this Agreement (collectively, a "Claim"), Seller and Buyer shall first negotiate in good faith in an effort to resolve the Claim. If, despite good faith efforts, the parties are unable to resolve a Claim through negotiations, the parties shall mediate the Claim in accordance with the commercial mediation procedures of the American Arbitration Association ("AAA"), with such mediation to take place in Pittsburgh, Pennsylvania. If the parties are unable to resolve the Claim through such mediation, then the Claim shall be resolved through final and binding arbitration pursuant to the commercial arbitration procedures of the AAA, with such arbitration to take place in Pittsburgh, Pennsylvania before one arbitrator, who shall have authority to rule on jurisdiction over the Claim. Seller and Buyer agree to the exclusive jurisdiction of the federal and state courts situated in Allegheny County, Pennsylvania for purposes of entering judgment upon the arbitrator's award. The substantially prevailing party, as determined by the arbitrator, shall be entitled to recover all costs, expenses, and charges, including, without limitation, reasonable attorneys' fees and expert witness fees, incurred in connection with the Claim. In case of an Agreement under which Seller ships the Work outside of the United States, or under which Seller's and Buyer's places of business are in different countries, any Claim which is not resolved by the good faith negotiations and mediation required by this Section shall then be determined by arbitration administered by the International Center for Dispute Resolution in accordance with its International Arbitration. This Agreement and any Claim shall be governed by the laws of the Commonwealth of Pennsylvania, without giving effect to the choice of law principles thereof.
- 12. Export Compliance. All items, and technologies, software, and work products are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations. Any diversion contrary to U.S. law is prohibited. Buyer acknowledges that Seller is required to comply with applicable export laws and regulations relating to the sale, exportation, transfer, assignment, disposal, and usage of the Work provided under this Agreement, including any export license requirements. Buyer agrees that such Work shall not at any time directly or indirectly be used, exported, sold, transferred, assigned, or otherwise disposed of in a manner which will result in non-compliance with such applicable export laws and regulations. It shall be a condition of the continuing performance by Seller of its obligations hereunder that compliance with such export laws and regulations be maintained at all times. BUYER AGREES TO INDEMNIFY AND HOLD SELLER HARMLESS FROM ANY AND ALL COSTS, LIABILITIES, PENALTIES, SANCTIONS AND FINES RELATED TO NON-COMPLIANCE WITH APPLICABLE EXPORT LAWS AND REGULATIONS.
- 13. Anti-Kickback Statute Discounts. It is the intent of both Buyer and Seller to comply with the Anti-Kickback Statute (42 U.S.C. §1320a-7b(b)) and the Discount Safe Harbor and Warranties Safe Harbor regulations set forth in 42 C.F.R. 1001.952(h) and (g), respectively. Buyer's price may constitute a 'discount or other reduction in price' under the Anti-Kickback Statute. Seller shall provide Buyer with invoices that fully and accurately disclose the discounted price of all Products purchased under this Agreement to allow Buyer to comply with this Section and the Discount Safe Harbor regulations, including sufficient information to enable it to accurately report its actual cost for all purchases of Products. Buyer acknowledges that, if applicable, it will fully and accurately report all discounts or other price reductions, including warranty items, in the costs claimed or charges made under any Federal or State healthcare program and provide information upon request to third party reimbursement programs, including Medicare and Medicaid. Buyer will be solely responsible for determining whether any savings or discount or warranty item it receives must be reported or passed on to payors.
- 14. <u>Federal Program Participation.</u> Seller represents and warrants that neither it nor any of its current directors, officers, or key personnel: (i) are currently excluded, debarred or otherwise ineligible to participate in federal health care programs as defined in 42 U.S.C. §1320a-7b(f) (the "Federal Healthcare Programs"); (ii) have been convicted of a criminal offense related to the provision of healthcare items or services during the last five (5) years; or (iii) have been excluded, debarred or otherwise declared ineligible to participate during the last

five (5) years in Federal Healthcare Programs. Seller will notify Buyer of any change in the status of the representations and warranties set forth above.

- 15. <u>LIMITATION OF LIABILITY.</u> NOTWITHSTANDING ANYTHING ELSE TO THE CONTRARY, SELLER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE OR OTHER INDIRECT DAMAGES, AND SELLER'S TOTAL LIABILITY ARISING AT ANY TIME FROM THE SALE OR USE OF THE WORK, INCLUDING WITHOUT LIMITATION ANY LIABILITY FOR ALL WARRANTY CLAIMS OR FOR ANY BREACH OR FAILURE TO PERFORM ANY OBLIGATION UNDER THE AGREEMENT, SHALL NOT EXCEED THE PURCHASE PRICE PAID FOR THE WORK. THESE LIMITATIONS APPLY WHETHER THE LIABILITY IS BASED ON CONTRACT, TORT, STRICT LIABILITY OR ANY OTHER THEORY.
- 16. <u>Miscellaneous.</u> These terms, together with any related Contract Documents issued or signed by the Seller, comprise the complete and exclusive statement of the agreement between the parties (the "Agreement") and supersede any terms contained in Buyer's documents, unless separately signed by Seller. No part of the Agreement may be changed or cancelled except by a written document signed by Seller and Buyer. No course of dealing or performance, usage of trade or failure to enforce any term shall be used to modify the Agreement. To the extent the Agreement is considered a subcontract under Buyer's prime contract with an agency of the United States government, in case of Federal Acquisition Regulations (FARs) flow down terms, Seller will be in compliance with Section 44.403 of the FAR relating to commercial items and those additional clauses as specifically listed in 52.244-6, Subcontracts for Commercial Items (OCT 2014). If any of these terms is unenforceable, such term shall be limited only to the extent necessary to make it enforceable, and all other terms shall remain in full force and effect. The Agreement shall be governed by the laws of the Commonwealth of Pennsylvania without regard to its conflict of laws provisions. Both Buyer and Seller reject the applicability of the United Nations Convention on Contracts for the international sales of goods to the relationship between the parties and to all transactions arising from said relationship.

Only in the event that the Work contemplated in this Order is related to the provision of medical devices, the following additional terms apply:

17. Medical Devices Act and Regulatory Disclaimer. Buyer acknowledges that it is familiar with the U.S. Safe Medical Devices Act of 1990 (the "Devices Act") and the reporting obligations imposed on device users thereunder. In this regard, Buyer agrees to notify Seller within ten (10) days of the occurrence of any event identified in the Devices Act imposing a reporting obligation on Buyer and/or Seller (except for events representing an imminent hazard that require notification to the United States Food and Drug Administration (the "FDA") within seventy-two (72) hours (or such shorter time as required by law), in which case, such notice will be delivered to the FDA and Seller within said period). Buyer will maintain adequate tracking for the Products to enable Seller to meet the FDA requirements applicable to the tracking of medical devices. Although Seller has the required registrations, approvals, and licenses (e.g., U.S. 510(k) pre-market notifications) for all or substantially all of its systems, the purchase of parts and system components from Seller does not provide 510(k) compliance or compliance under any other law, rule or regulation for Buyer's system.

Only in the event that the Work contemplated in this Order is related to the provision of leased or rented equipment ("Leased Equipment"), the following additional terms apply:

18. Rental Equipment / Services. Any Leased Equipment provided by Seller shall at all times be the property of Seller with the exception of certain miscellaneous installation materials purchased by the Buyer, and no right or property interest is transferred to the Buyer, except the right to use any such Leased Equipment as provided herein. Buyer agrees that it shall not pledge, lend, or create a security interest in, part with possession of, or relocate the Leased Equipment. Buyer shall be responsible to maintain the Leased Equipment in good and efficient working order. At the end of the initial term specified in the order, the terms shall automatically renew for the identical period unless canceled in writing by Buyer or Seller not sooner than three (3) months nor later than one (1) month from termination of the initial order or any renewal terms. Upon any renewal, Seller shall have the right to issue notice of increased pricing which shall be effective for any renewed terms unless Buyer objects in writing within fifteen (15) days of issuance of said notice. If Buyer timely cancels service in writing prior to the end of the initial or any renewal term this shall not relieve Buyer of its obligations under the order for the monthly rental service charge which shall continue to be due and owing. Upon the expiration or termination of this Agreement, Buyer shall promptly make any Leased Equipment available to Seller for removal. Buyer hereby agrees that it shall grant Seller access to the Leased Equipment location and shall permit Seller to take possession of and remove the Leased Equipment without resort to legal process and hereby releases Seller from any claim or right of action for trespass or damages caused by reason of such entry and removal.



#### **VERSADOSE® LT DOSING CONTROLLER**

The VersaDose® LT dosing controller is an advanced system designed for liquid phase odor control dosing. The VersaDose LT controller is able to dose odor control product on a curve – or variable rate – rather than operating at a fixed speed. In order to be effective, the feed rate of the odor control product must be varied to match the levels of odor-causing hydrogen sulfide being generated.

Developed by Evoqua, the VersaDose LT controller incorporates field knowledge collected over many years of experience with liquid phase odor control (LPOC). This provides the user with a control system that is familiar with hundreds of possible operating conditions. The controller features proven 24 hour, 7 day set points (168 unique dosing set points) to optimally dose a wide range of chemical products. The VersaDose LT system controller is applicable to both municipal and industrial wastewater collection systems.

#### **Features and Benefits**

- Easy-to-read user interface with password protection
- Stainless steel NEMA 4X enclosure with calibration stand or FRP NEMA 4X enclosure on a contained polyethylene skid
- Automatic dose reduction on rain events
- Automatic dose reduction/increase on water temperature
- Product usage alarms based on tank drop vs. dosing rate
- Automated system alarms allow for easy troubleshooting
- Interfaces with Evoqua Link2Site® website, which monitors your control point H<sub>2</sub>S gas data and provides remote control of the VersaDose LT controller



#### VersaDose® LT Dosing System



The VersaDose LT dosing controller, when combined with a storage tank and piping kit, provides a state-of-the-art advanced dosing system that will create an intelligent, effective and efficient odor control solution for your application.

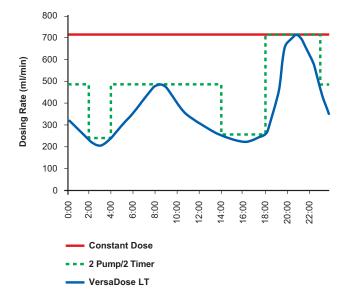
#### VersaDose LT Dosing Controller User Interface

The operator interface for the VersaDose LT dosing controller is an easy-to-read display for simple navigation. An intuitive menu structure brings expertise in dose-to-demand technology to your application.

#### **Odor Control Programs**

The VersaDose LT dosing controller plays an integral role in Full Service Odor Control<sup>SM</sup> (FSOC). A FSOC program uses the best tools to deliver results. This advanced dosing controller was designed from the beginning to provide the most accurate liquid phase odor control system available, yet be simple to operate. Adjusting profiles is another key feature of a good FSOC program that the VersaDose LT controller fulfills. Matching dose to demand maintains efficiency and effectiveness in odor control.

The effectiveness of dosing the liquid phase odor control product to match actual system demands is shown in the comparison below where three methods of dosing are used to achieve the same level of odor and corrosion control.





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All information presented herein is believed reliable and in accordance with accepted engineering practices. Evoqua makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. Evoqua assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products.



## BIOXIDE® BIOCHEMICAL SOLUTION - THE NATURAL CHOICE FOR ODOR AND CORROSION CONTROL

BIOXIDE® solution is a unique, proven product because it achieves sewage odor control naturally, rather than chemically. This process eliminates the odor, prevents corrosion and overcomes safety concerns associated with atmospheric hydrogen sulfide.

BIOXIDE solution controls hydrogen sulfide odors and corrosion biologically. Introduction of nitrate oxygen via addition of BIOXIDE solution into a waste stream creates an environment in which certain naturally occurring bacteria thrive. These bacteria utilize the dissolved hydrogen sulfide which is present as a part of their metabolism, thereby cost effectively removing any dissolved hydrogen sulfide from the wastewater. As a result, BIOXIDE solution both removes dissolved hydrogen sulfide and prevents its formation.

In addition to hydrogen sulfide, BIOXIDE also combats most other odors commonly found in wastewater treatment systems. BIOXIDE solution has proven effective treatment in many types of wastewater facilities, in widely varying flows, and in any kind of weather.

#### **TYPICAL PHYSICAL PROPERTIES**

Nitrate Oxygen Content	3.5 lb/gal	
Appearance	Clear and colorless to slightly tan	
Odor	Odorless	
Solubility in Water	Complete	
Specific Gravity	1.42 - 1.48 at 68°F	
Density	11.8 - 12.4 lb/gal at 68°F	
Freezing Point	-30°F	
рН	4 - 8	

Typical properties are listed for information only, and are not to be considered as specification requirements. These items are not analyzed on a routine basis.

#### **Typical Applications**

- Force mains/Pressure mains
- Gravity interceptors
- Lift Stations
- Biosolids processing
- Ponds and lagoons

Proper dosage (as determined by Evoqua Water Technologies) of BIOXIDE treatment solution to a sludge or a wastewater stream, provides for a population of beneficial bacteria which oxidize dissolved hydrogen sulfide and other reduced sulfur compounds as part of their metabolism. By treating the hydrogen sulfide both in flow and solids of the wastewater stream, the process prevents release of hydrogen sulfide into the air, reducing odors and corrosion.

#### **Typical Feed Requirements**

Treatment is typically applied in a collection system upstream of the odorous control point. From a carefully selected point(s), the benefits will spread throughout the collection system to the influent of the treatment plant. The process has been documented to reduce dissolved hydrogen sulfide from over 50 mg/l to < 0.1 mg/l in numerous wastewater collection force mains, wet wells and gravity interceptors. Similar results have been achieved with BIOXIDE treatment in sludge lagoons and storage tanks. Due to the biochemical nature of this process, complete sulfide removal is extremely cost effective in applications where extended detention times produce septic conditions.

For additional treatment information, including dosage specific to your application, please contact your Evoqua Water Technologies representative.

#### Storage and Handling

Bioxide solution contains no substances that are listed on the Extremely Hazardous Substances (EHS) under Section 302 of EPCRA or on the Extremely Hazardous Substances (EHS) Release Notification under Section 304 of the EPCRA. Bioxide Solution is not listed as a CERCLA hazardous substance. The active ingredient is nitrate oxygen which is a stable compound found in nature. This compound is selected as the active ingredient for BIOXIDE solution because it specifically interacts with naturally occurring bacteria to remove and prevent dissolved sulfide, resulting in an effective, safe and cost efficient product.

Can be stored outdoors in ambient conditions. Follow all local, state and federal regulations for storage. Do not dump on the ground or release into any body of water. All disposal methods must be in compliance with all Federal, State, Local and Provincial laws, and regulations. Regulations may vary in different locations.

See Safety Data Sheet for additional safety and handling information before storing or handling BIOXIDE solution.

#### **Packaging**

BIOXIDE solution is normally shipped in 3,800 gallon bulk tanker loads. Mini bulk deliveries (<2,000 gallons) are available in many parts of the country. For further information, please contact your Evoqua Water Technologies representative. For reorders and customer service, call 1.800.345.3982.



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All information presented herein is believed reliable and in accordance with accepted engineering practices. Evoqua makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. Evoqua assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products.