

November 10, 2016

Jeff Telmo City of Stockton Department of Municipal Utilities 2500 Navy Drive Stockton, CA 95206

Phone: (209) 937-5647 Cell: (209) 639-6350

Email: Jeffrey.telmo@stocktonca.gov

RE: ODOR CONTROL - STOCKTON, CA

PROGRAM RECOMMENDATIONS - SANGUINETTI PUMP STATION

Evoqua Quote No. 2016-143866r1

Thank you choosing Evoqua Water Technologies LLC for your odor control needs. Evoqua is pleased to offer the following proposal for the supply of product, equipment and services for odor control downstream of the Sanguinetti Pump Station. The design basis shall be provided with a scope of work for equipment as part of the odor control program as follows.

Background

Figure 1 shows a schematic of the system.



Figure 1 - Sanguinetti Pump Station Wastewater Schematic

Odor control is needed at the discharge of the force main to control hydrogen sulfide emissions from the wastewater system. Hydrogen sulfide is generated in the system from the conversion of naturally occurring sulfate by naturally occurring sulfur reducing bacteria under anaerobic conditions such as a long force main.

Treatment Discussion

Table 1 below contains a summary of major treatment techniques utilized in sulfide reduction for wastewater collection and treatment facilities and all of these chemistries can be provided safely by Evoqua Water Technologies.

The Sanguinetti force main has a very long retention time and a moderate flow with a treatment objective of 0-0.1 mg/L of dissolved sulfide. Three chemistries are typically suited for these conditions as follows:

1. Iron Salts - Iron salts react with dissolved sulfide to form ferrous sulfate, a black percipitate. Iron salts typically cannot remove all the dissolved sulfide. Evoqua does not recommend iron salts in applications where dissolved sulfide elimination below 1 mg/L. Iron salts are less than \$1.00 per gallon but are acidic in nature and have a reportable quantity if spilled.

- 2. pH Shift Addition of alkalinity in the form of hydroxide is typically used to trap sulfide versus eliminate it and control emmissions. Both calcium and magnesium hydroxide pose a slight hazard with no reportable quantity. The elimination of sulfide is recommended as sulfide could be released further down the collection system or at the plant, therefore, pH shift chemistry is not recommended for this application.
- 3. Nitrate Salts Nitrate salts are commonly used for sulfide elimination in long retention systems. Nitrate salts are slightly hazardous with no reportable quantity. Nitrate salts react with sulfide to form sulfate and harmless nitrogen gas. Nitrate salts typically cannot impact wastewater treatment processes. Evoqua has over 2000 installations across the US of nitrate salts for use in odor control applications for municipal wastewater.

Evoqua recommends the use of nitrate salt chemistry to eliminate sulfides downstream of the Sanguinetti Pump Station. Bioxide® SB is the product brand recommended.

A dose rate of 90-110 gpd of Bioxide® SB is expected in the winter and 130-150 gpd is expected in the summer depending on water temperatore.

Product	Cost per LB H ₂ S Treated	Ideal RT	ldeal Flow (MGD)	Hazard	Sulfide Removal	Prevent Sulfide Formation	Prevent Sulfide Release	VOC Treatment
Nitrate	В	1-36	Any	А	A	А	А	D
Iron Salt	Α	<4	Large	С	В	F	С	D
Oxidizer	С	0-1	Any	F	А	D	Α	А
pH Shift	В	0-8	Small	А	F	D	В	С

Table 1 – Major Treatment Techniques for Odor Control

Other Technologies considered:

- 1. Biological Products Ineffective for high flow long gravity collection system lines.
- 2. Vapor Phase Control Ineffective for multiple control points and control at manholes (areas with no easement).
- Biocide (Caustic Burn) Ineffective for large applications (>0.5 MGD).
 Other key factors:
 - ▶ Major risk to the wastewater treatment plant for large volume applications. (Biocidal application in the collection system could easily carry over to upset nitrification-denitrification.) Chemical shocking in large applications is never done commonly for this reason.
 - No method of control exists to prevent overdose.
 - ► Expected to be overly expensive as up to 1000 gals per dose could be required to raise pH for a larger application with little effect on the system.
 - ► Hazardous materials used in large amounts.

1.0 TREATMENT OBJECTIVES

The following treatment objectives are recognized for the odor control program at Stockton:

- a. Provide a liquid phase treatment program to eliminate sulfide.
- b. Provide safe feed and storage platforms for odor control liquid phase products.
- c. Reduce vapor phase hydrogen sulfide at the country club MH < 10 ppm.
- d. Reduce liquid phase dissolved sulfide to <0.1 ppm at the Sanguinetti force main effluent.

Evoqua is proposing the use of a nitrate salt to react with sulfides present in the wastewater before release as vapor from the force main effluent.

2.0 SCOPE OF SERVICES

2.1 Odor Control Solution

Evoqua shall provide a supply of Bioxide® SB solution in minimum 2000 gallon loads. The two existing tanks shall be utilized.

2.2 Equipment

Figure 2 shows a picture of existing feed equipment at Sanguinetti Pump Station.



Figure 2 - Existing Tanks and Feed System

Evoqua will provide the following equipment:

- (1) Control Box containing the following components:
 - (1) Operator Interface with touch-screen controls
 - (1) Tank level readout
 - (2) Auto/Off Switches with indicator lights
 - (2) Analog inputs
 - (2) Dry contacts to receive digital inputs

- (1) Disconnect switch
- (1) Calibration Cylinder
- (2) Positive displacement pumps
- (1) Step-functioning Dosing Package The package will be programmed at the factory. A functional description will be included in the submittal package. The programming logic shall remain registered in the CPU memory and cannot be changed.
- (1) Single Wall Piping Kit shall consist of:

40 ft 1/2" Polyethylene Tubing

1- 2" Stainless Steel Male Camlock1- 2" Plastic Female Camlock Cap.

- 1- 2" Schedule 80 PVC Tank Fill Piping
- (1) Delivery of Bioxide® SB
- (1) Installation Services

Existing tanks shall be used with the Evoqua feed and storage system.

Figure 3 shows a schematic of the unit proposed.

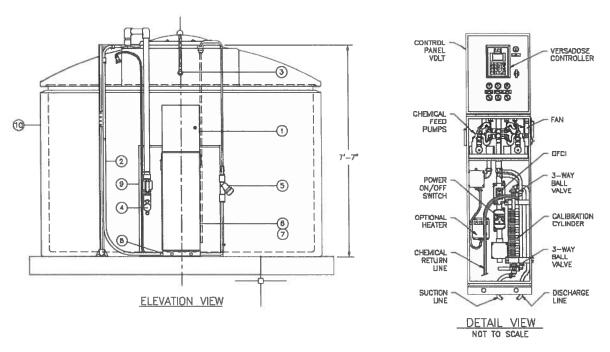


Figure 3 – VDLT Unit (Shown with tank as a reference)

3.0 SCHEDULE

Delivery Schedule:

Submittals: 2-3 weeks after contract acceptance for review only

Equipment: 8-10 weeks after receipt of order

*The delivery schedule is based on credit approval and receipt of approved P.O.

4.0 STORAGE/ SITE

The customer shall be responsible for all civil works, mechanical, electrical, and plumbing at the site, including the following:

Existing tanks to be utilized for Bioxide® SB		
Existing tanks are tied together at the bottom fitting		
Rinse water only for convenience		
Safety Shower in Place		
120 VAC, Three Phase; Dedicated 20 Amp circuit breaker		
15' H x 15' W x 15" D		
2"		
Fencing is not provided by Evoqua		
Flat level area is needed on a paved surface		
Product is fed to wet well under no backpressure		

Table 2- Site Requirements

It is the responsibility of the owner/site contractor to properly prepare the site for receipt and installation of the odor control equipment.

5.0 WARRANTY

Equipment is provided as part of a full service program. Parts and service are provided as part of the full service program.

6.0 SERVICES

6.1 Installation

Installation service is provided as part of this quotation. Evoqua plans to use the existing tanks at the site. The tanks were inspected in June and verified to be clean.

6.2 Start-up and Training Services

Evoqua shall provide a service representative during the startup phase of the project. One day shall be dedicated for training and system start up.

7.0 PRICE

Capital Equipment Offering - VDLT

Line	Description	Price
1	Stainless Steel VDLT Design	\$25,149.00
	Total Sale Price	\$25,149.00

Table 3 - Purchase Order Line Items

Price includes delivery, Prepaid (PPD). Invoicing will be upon shipment/completion per line item basis as shown above. Terms of payment are NET 30 days from date of invoice. These prices do not include <u>any</u> applicable taxes.

Bioxide® SB solution pricing will be in accordance with the Bay Area Chemical Consortium (BACC) agreement, Bid No. 04-2016, which is valid through June 30, 2017.

Bioxide® SB solution: \$2.10/ gallon. Delivered in minimum 2,000 gallon bulk loads. An additional fee will be included on any shipments less than 2,000 gallons as per the BACC agreement.

Terms of payment are NET 30 days from date of invoice. The price does not include <u>any</u> applicable taxes.

The attached Evoqua Terms and Conditions are considered part of this proposal and shall prevail.

Should a purchase order result from this proposal, please return the entire proposal, signed where indicated below, and address the order to:

Evoqua Water Technologies LLC 2650 Tallevast Road Sarasota, FL 34243

The price associated with this quote will remain in effect for a period of ninety (90) days. If we are not in receipt of an order by the end of this firm price period, we reserve the right to modify the prices quoted.

Evoqua is committed to providing the highest standard of chemical quality and technical services in the industry. If the above proposal does not meet your application requirements, I would appreciate the opportunity to discuss alternatives with you.

Thank you again for this opportunity to allow Evoqua to assist you in supplying an odor and corrosion program. If you have any questions or need additional information, please contact me at (916) 390-8946.

Evoqua Water Technologies LLC

Rhett Ussery

Rhett Ussery Technical Sales Representative

RE: ODOR CONTROL - STOCKTON, CA

PROGRAM RECOMMENDATIONS - SANGUINETTI PUMP STATION

Evoqua Quote No. 2016-143866r1

Evoqua will process your order when we receive acceptance of this proposal, by signing below and returning to sheri.whalen@evoqua.com or via fax to: (941) 359-7985.

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

EVOQUA WATER TECHNOLOGIES LLC

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. Payment. 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 30 days after receipt of invoice. Buyer shall be charged the lower of 1 ½% interest per month or the maximum legal rate on all amounts not received by the due date and shall pay all of Seller's reasonable costs (including attorneys' fees) of collecting amounts due but unpaid. 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 ExWorks Seller's factory (Incoterms 2010). 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 documents or 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 such 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.
- 6. Force Majeure Event. 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 for work performed prior to the date of termination. "Force Majeure Event" 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 or (with respect to on-site work), unusual weather conditions.
- 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. 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 initial operation of the Work or ninety (90) days from the performance of 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 (a) operating and maintaining the Work in accordance with Seller's instructions, (b) not making any unauthorized repairs or alterations, and (c) 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, 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 7 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 (a) promptly, within the Warranty Period, notifying Seller of any claim, and (b) 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 terminate this agreement, upon issuance of a written notice of breach and a thirty (30) day cure period, for a material breach (including but not limited to, filing of bankruptcy, or failure to fulfill the material obligations of this agreement). 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.
- Dispute Resolution. Seller and Buyer shall negotiate in good faith to resolve any dispute relating hereto. If, despite good faith efforts, the parties are unable to resolve a dispute or claim arising out of or relating to this Agreement or its breach, termination, enforcement, interpretation or validity, the parties will first seek to agree on a forum for mediation to be held in a mutually agreeable site. If the parties are unable to resolve the dispute through mediation, then any dispute, claim or controversy arising out of or relating to this Agreement or the breach, termination, enforcement, interpretation or validity thereof, including the determination of the scope or applicability of this agreement to arbitrate, shall be determined by arbitration in Pittsburgh, Pennsylvania before three arbitrators who are lawyers experienced in the discipline that is the subject of the dispute and shall be jointly selected by Seller and Buyer. The arbitration shall be administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures. The Arbitrators shall issue a reasoned decision of a majority of the arbitrators, which shall be the decision of the panel. Judgment may be entered upon the arbitrators' decision in any court of competent jurisdiction. The substantially prevailing party as determined by the arbitrators shall be reimbursed by the other party for all costs, expenses and charges, including without limitation reasonable attorneys' fees, incurred by the prevailing party in connection with the arbitration. For any order shipped outside of the United States, any dispute shall be referred to and finally determined by the International Center for Dispute Resolution in accordance with the provisions of its International Arbitration Rules, enforceable under the New York Convention (Convention on the Recognition and Enforcement of Foreign Arbitral Awards) and the governing language shall be English.
- 12. Export Compliance. 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. <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 CONTRACT, 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.
- Rental Equipment / Services. Any leased or rented equipment ("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 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.
- Miscellaneous. These terms, together with any 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.