



Central Valley Regional Water Quality Control Board

20 July 2017

Mike Anderson, President
Glenn Springs Holdings, Inc. and
Miller Springs Remediation Management, Inc.
5 Greenway Plaza, Ste. 110
Houston, TX 77046

CERTIFIED MAIL
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NOTICE OF APPLICABILITY (NOA); LIMITED THREAT GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0076; GLENN SPRINGS HOLDINGS, INC. AND MILLER SPRINGS REMEDIATION MANAGEMENT INC., FORMER J.R. SIMPLOT FACILITY, MERCED COUNTY

Our office received a Notice of Intent (NOI) application on 26 July 2016 from Glenn Springs Holdings, Inc. and Miller Springs Remediation Management, Inc. (collectively hereinafter Discharger), for the discharge of treated groundwater to surface water at the Former J.R. Simplot Facility in Winton (hereinafter Facility). The application was deemed incomplete, as the Discharger awaited completion of constructing the new treatment system. Updates and additional monitoring information were later submitted to the Central Valley Regional Water Quality Control Board (Central Valley Water Board), and the application was deemed complete on 23 June 2017. Based on the application packet and subsequent information submitted by the Discharger, staff has determined that the project meets the required conditions for approval under the General Order for Limited Threat Discharges to Surface Water (Limited Threat General Order), as a Tier 2 discharge. This Facility is hereby assigned Limited Threat General Order R5-2016-0076-010 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG995002. Please reference your Limited Threat General Order number, **R5-2016-0076-010**, in your correspondence and submitted documents.

The enclosed Limited Threat General Order may also be viewed at the following web address: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076_mod.pdf. You are urged to familiarize yourself with the contents of the entire document. The Limited Threat General Order prescribes mandatory discharge monitoring and reporting requirements. The project activities shall be operated in accordance with the requirements contained in this NOA and the Limited Threat General Order.

PROJECT DESCRIPTION

From about 1971 to 1982, the Occidental Petroleum Corporation operated a retail fertilizer distribution facility at this site. The J.R. Simplot Company operated the same type of facility at the site from about 1982 to 1992. Miller Springs Remediation Management, Inc. (subsidiary to Glenn Springs Holdings, Inc.) purchased the site in 2000 and remains the owners of the property. Glenn Springs Holdings, Inc. (subsidiary to Occidental Petroleum Corporation) manages the Facility on behalf of Miller Springs Remediation Management, Inc. and Occidental Petroleum Corporation. The Facility is a groundwater extraction and treatment system that is addressing impacts emanating from the releases of

constituents of concern, including 1,2,3-trichloropropane and nitrate from the retail fertilizer distribution facilities, which have impacted both soil and groundwater.

Four groundwater extraction wells pump groundwater to the treatment system at a combined design flow rate of 0.115 million gallons per day (mgd) on average, with a maximum design combined flow of 0.216 mgd. Flow passes through bag filters in two parallel trains of two vessels in series for particulate removal. Following bag filtration, flow enters 2,000-pound granular activated carbon (GAC) vessels, configured in two parallel trains of two vessels in series. Depending on the nitrate concentrations in the wastewater stream, a portion of the flow may be sent to the ion exchange system, consisting of four parallel trains of two vessels in series for nitrate removal. The waste stream that bypasses the ion exchange system is blended, as necessary, with the ion exchange effluent. The blended and treated groundwater is then sent, via underground pipeline, to Middle Lateral Canal, which is owned by Merced Irrigation District. Middle Lateral Canal flows south to Livingston Canal, which in turn flows north to the Merced River, a water of the United States. See enclosed project map. Middle Lateral Canal is an intermittent, concrete-lined canal that is used for delivery of irrigation water.

CALIFORNIA TOXICS RULE / STATE IMPLEMENTATION POLICY MONITORING

The Limited Threat General Order incorporates the requirements of the California Toxics Rule (CTR) and the State Water Resources Control Board's (State Water Board), *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, 2005*, also known as the State Implementation Policy (SIP). Screening levels for CTR constituents and other constituents of concern are found in Attachment I of the Limited Threat General Order. Review of your water quality data in comparison to the screening values shows reasonable potential for the discharge to cause or contribute to an exceedance of lead, zinc, nitrate, and 1,1-dichloroethylene water quality objectives in Middle Lateral Canal. However, the proposed treatment system addresses the water quality concern by reducing constituent concentrations below water quality objectives; therefore, the project qualifies for the Limited Threat General Order, Tier 2. Water Quality-Based Effluent Limitations have been established for lead, zinc, nitrate, and 1,1-dichloroethylene based on the discharge's reasonable potential to exceed water quality standards. Additionally, Technology-Based Effluent Limitations have been established for 1,1-dichloroethane, 1,2,3-trichloropropane, acetone, chloroform, tetrachloroethylene, and trichloroethylene due to the presence of these constituents in groundwater and based on the expected performance of the treatment technology.

EFFLUENT LIMITATIONS

Effluent limitations are specified in Section V. Effluent Limitations of the Limited Threat General Order. The following effluent limitations are applicable to this discharge and are contained in Section V.A and V.B of the Limited Threat General Order:

Table 1. Effluent Limitations

Parameter	Units	Effluent Limitations		Section Reference
		Average Monthly	Maximum Daily	
Nitrate Nitrogen, Total (as N)	mg/L	10	20	V.A.1.e
Lead, Total Recoverable	µg/L	2.4	4.9	V.A.1.g
Zinc, Total Recoverable	µg/L	60	120	V.A.1.g
1,1-Dichloroethylene	µg/L	0.057	0.114	V.A.1.f

Parameter	Units	Effluent Limitations		Section Reference
		Average Monthly	Maximum Daily	
1,1-Dichloroethane	µg/L	--	0.5	V.B.2
1,2,3-Trichloropropane	µg/L	--	0.5	V.B.2
Acetone	µg/L	--	0.5	V.B.2
Chloroform	µg/L	--	0.5	V.B.2
Tetrachloroethylene	µg/L	--	0.5	V.B.2
Trichloroethylene	µg/L	--	0.5	V.B.2

1. **Flow (Section V.A.1.a).** The maximum daily discharge flow shall not exceed 0.216 million gallons per day.
2. **pH (Section V.A.1.b.i).** The pH of all limited threat dischargers within the Sacramento and San Joaquin River Basins (except Goose Creek) shall at all times be within the range of 6.5 to 8.5.
3. **Whole Effluent Toxicity, Chronic (Section V.A.2.a).** There shall be no chronic toxicity in the discharge.
4. **Whole Effluent Toxicity, Acute (Section V.A.3.a).** Survival of aquatic organisms in 96-hour bioassays of undiluted waste for all limited threat discharges shall be no less than:
 - i. 70%, minimum for any one bioassay; and
 - ii. 90%, median for any three consecutive bioassays.

The receiving water, Middle Lateral Canal, is not listed under the Clean Water Act 303(d) List of impaired water bodies. Therefore, no additional 303(d) based effluent limitations or monitoring requirements will be added to this Limited Threat General Order.

MONITORING AND REPORTING

Monitoring and reporting requirements are contained in Attachment C of the Limited Threat General Order. The Discharger is required to comply with the following specific monitoring and reporting requirements in accordance with Attachment C of the Limited Threat General Order.

Monitoring Locations – The Discharger shall monitor the effluent and the receiving water at the specified locations as follows:

Table 2. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	A location where a representative sample of the effluent can be collected prior to discharging to Middle Lateral Canal.
--	RSW-001U	Middle Lateral Canal, approximately 200 feet upstream from the point of discharge.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	RSW-001D	Middle Lateral Canal, approximately 200 feet downstream from the point of discharge.
--	IX-001	A location where representative measurements of the ion exchange system can be obtained.

Effluent Monitoring – When discharging to Middle Lateral Canal, the Discharger shall monitor the effluent at EFF-001 as follows:

Table 3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Meter	Continuously	
pH	standard units	Grab	1/Month	1,2
Temperature	°F	Grab	1/Month	1,2
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month	1,2
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/Month	2
Lead, Total Recoverable	µg/L	Grab	1/Month	2,3
Zinc, Total Recoverable	µg/L	Grab	1/Month	2,3
Volatile Organic Comounds ⁴	µg/L	Grab	1/Month ⁵	2,3
Persistent Chlorinated Hydrocarbon Pesticides ⁶	µg/L	Grab	1/Month ⁵	2,3
Hardness, Total (as CaCO ₃)	mg/L	Grab	1/Quarter ^{7,8}	1,2
Acute Whole Effluent Toxicity (WET)	% Survival	Grab	2/Year ⁹	2,10,11
Chronic WET	TU _c	Grab	1/Year ⁹	2,10
Standard Minerals ¹²	mg/L	Grab	1/Year	2

¹ A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

² Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

³ For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

⁴ Volatile Organic Compounds shall include the following: 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,2-Dichloroethylene (cis and trans), 1,2,3-Trichloropropane, 1,3-Dichlorobenzene, 1,3-Dichloropropene (cis and trans), 1,4-Dichlorobenzene, Acetone, Acrolein, Acrylonitrile, Benzene, Bromoform, Bromomethane, Carbon Tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroethane, Chloroform, Chloromethane, Dichloromethane, Dichlorobromomethane, Ethylbenzene, Tetrachloroethylene, Toluene, Trichloroethylene, and Vinyl Chloride.

⁵ Monthly monitoring is required for the first 12 months of discharge, after which the Discharger may request the Executive Officer amend the NOA to reduce monitoring to 1/Quarter.

- ⁶ Persistent Chlorinated Hydrocarbon Pesticides shall include the following: aldrin, dieldrin, chlordane, endrin, endrin aldehyde, heptachlor, heptachlor epoxide, hexachlorocyclohexane (alpha-BHC, beta-BHC, delta- BHC, and gamma-BHC), endosulfan (alpha and beta), endosulfan sulfate, toxaphene, 4,4'DDD, 4,4'DDE, and 4,4'DDT.
- ⁷ Quarterly monitoring shall be required for the first two years of discharge, after which the Discharger may request the Executive Officer amend the NOA to reduce monitoring to 2/Year.
- ⁸ Monitoring for hardness shall be performed concurrently with effluent sampling for lead and zinc.
- ⁹ After three years of monitoring, the Discharger may request the Executive Officer amend the NOA to reduce Acute WET monitoring to 1/Year and Chronic WET to 1/Two Years.
- ¹⁰ See the Limited Threat General Order MRP (Attachment C, section V) for toxicity monitoring requirements.
- ¹¹ The test species for acute toxicity testing shall be fathead minnows (*Pimephales promelas*).
- ¹² Standard Minerals shall include the following: boron, calcium, iron, magnesium, potassium, sodium, chloride, manganese, phosphorus, total alkalinity (including alkalinity series), and hardness, and include verification that the analysis is complete (i.e., cation/anion balance).

Receiving Water Monitoring – When discharging to Middle Lateral Canal, the Discharger shall monitor the receiving water at RSW-001U and RSW-001D as follows:

Table 4. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab	1/Month	1,2
Temperature	°F	Grab	1/Month	1,2
Dissolved Oxygen	mg/L	Grab	1/Month	1,2
Turbidity	NTU	Grab	1/Month	1,2
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month	1,2
Hardness, Total (as CaCO ₃)	mg/L	Grab	1/Quarter	1,2

¹ A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

² Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

In conducting receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001U and RSW-001D. Attention shall be given to the presence or absence of:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits
- d. Aquatic Life
- e. Visible films, sheens, or coatings
- f. Fungi, slimes, or objectionable growths
- g. Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring reports.

Ion Exchange Monitoring – The Discharger shall monitor the waste stream being routed to the ion exchange system at IX-001 as follows:

Table 5. Ion Exchange System Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Meter	1/Day	

Monitoring Report Submittals - Monitoring in accordance with the Limited Threat General Order shall begin upon initiation of discharge. Self-Monitoring Reports (SMRs) shall be submitted to the Central Valley Water Board on a quarterly basis, beginning with the **Third Quarter 2017**. This report shall be submitted on **1 November 2017**. If no discharge occurs during the quarter, the monitoring report must be submitted stating that there has been no discharge. Table 6, below, summarizes the monitoring report due dates required under the Limited Threat General Order. Quarterly monitoring reports must be submitted until your coverage is formally terminated in accordance with the Limited Threat General Order, even if there is no discharge during the reporting quarter.

Table 6. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	Quarterly Report Due Date
Continuous	NOA Effective Date	All	1 May 1 August 1 November 1 February, of the following year
1/Day	NOA Effective Date	Midnight through 11:59 PM (or any 24-hour period that reasonably represents a calendar day for purposes of sampling)	1 May 1 August 1 November 1 February, of the following year
1/Month	First day of calendar month following NOA effective date or on NOA effective date if that date is the first day of the month	1 st day of calendar month through last day of calendar month	1 May 1 August 1 November 1 February, of the following year
1/Quarter	Closest of 1 January, 1 April, 1 July, or 1 October following NOA effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February, of the following year
2/Year	1 January or 1 July following (or on) NOA effective date	1 January through 30 June 1 July through 31 December	1 August 1 February, of the following year
1/Year	1 January following (or on) NOA effective date	1 January through 31 December	1 February, of the following year

Beginning with the **Fourth Quarter 2017** SMR, the Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website http://www.waterboards.ca.gov/water_issues/programs/ciwqs/. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

TOXICITY REDUCTION EVALUATION REQUIREMENTS

For compliance with the Basin Plan's narrative toxicity objective, the Limited Threat General Order requires all Dischargers of Tier 2 and Tier 3 discharges to conduct chronic whole effluent toxicity (WET) testing, as specified in the Monitoring and Reporting Program (Attachment C, section V). Furthermore, the Toxicity Reduction Evaluation Requirements provision (Section IX.C.2.a) requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. The Provision includes a numeric monitoring trigger and accelerated monitoring specifications. This NOA includes a site-specific numeric toxicity monitoring trigger as shown below:

Numeric Toxicity Monitoring Trigger – The numeric toxicity monitoring trigger to initiate accelerated monitoring is >1 TUc (where TUc = $100/\text{NOEC}$) for all chronic toxicity end points. The monitoring trigger is not an effluent limitation; it is the toxicity threshold at which the Discharger is required to begin the accelerated monitoring, as specified in Section IX.C.2.a.ii.

EFFLUENT CHARACTERIZATION MONITORING

The Limited Threat General Order requires effluent characterization monitoring every 5 years from the date of the NOA. Effluent samples shall be collected at monitoring location EFF-001 and analyzed for the constituents specified in Table I-1 of Attachment I of the Limited Threat General Order, with results submitted to the Central Valley Water Board by **20 July 2022**. In accordance with Table I-1, the Discharger shall monitor for constituents for Tier 2 discharges of groundwater (not related to mines).

GENERAL INFORMATION AND REQUIREMENTS

The Discharger must notify Central Valley Water Board staff within 24 hours of 1) the start of the discharge, and 2) having knowledge of noncompliance. The Central Valley Water Board shall be notified immediately if any effluent limit violation is observed during implementation of the project.

Discharge of material other than what is described in the application is prohibited. The required annual fee (as specified in the annual billing you will receive from the State Water Resources Control Board) shall be submitted until this NOA is officially terminated. You must notify this office in writing when the discharge regulated by the Limited Threat General Order is no longer necessary by submitting the Request for Termination of Coverage (Attachment E of the Limited Threat General Order). If a timely written request is not received, the Discharger will be required to pay additional annual fees as determined by the State Water Resources Control Board.

ENFORCEMENT

Failure to comply with the Limited Threat General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations are subject to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation. In addition, late monitoring reports may be subject to MMPs or discretionary penalties of up to \$1,000 per day late. When discharges do not occur during a quarterly report monitoring period, the Discharger must still submit a quarterly monitoring report indicating that no discharge occurred to avoid being subject to enforcement actions.

20 July 2017

COMMUNICATION

The Central Valley Regional Water Quality Control Board has transitioned to a paperless office system, therefore, please convert all documents to a searchable Portable Document Format (pdf) and email them to CentralValleyFresno@waterboards.ca.gov. Please include the following information in the body of the email: Discharger's name, Facility name, County name, CIWQS Place ID 272841, and the Order number R5-2016-0076-010. Documents that are 50 megabytes or larger shall be transferred to a CD, DVD, or flash drive and mailed to our office at 1685 "E" Street, Fresno, California 93706.

All documents, including monitoring reports (only applies to the Third Quarter 2017 SMR), response to inspections, and written notifications, submitted to comply with this NOA and the Limited Threat General Order shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention Warren Gross. Mr. Gross can also be reached at (559) 445-5128 or Warren.Gross@waterboards.ca.gov.

All questions regarding the permitting aspects of the Limited Threat General Order, and notification for termination of coverage under the Limited Threat General Order, shall be directed, via the paperless office system, to the NPDES Permitting Unit, attention Nicolette Dentoni. Ms. Dentoni can also be reached at (559) 444-2505 or at Nicolette.Dentoni@waterboards.ca.gov.

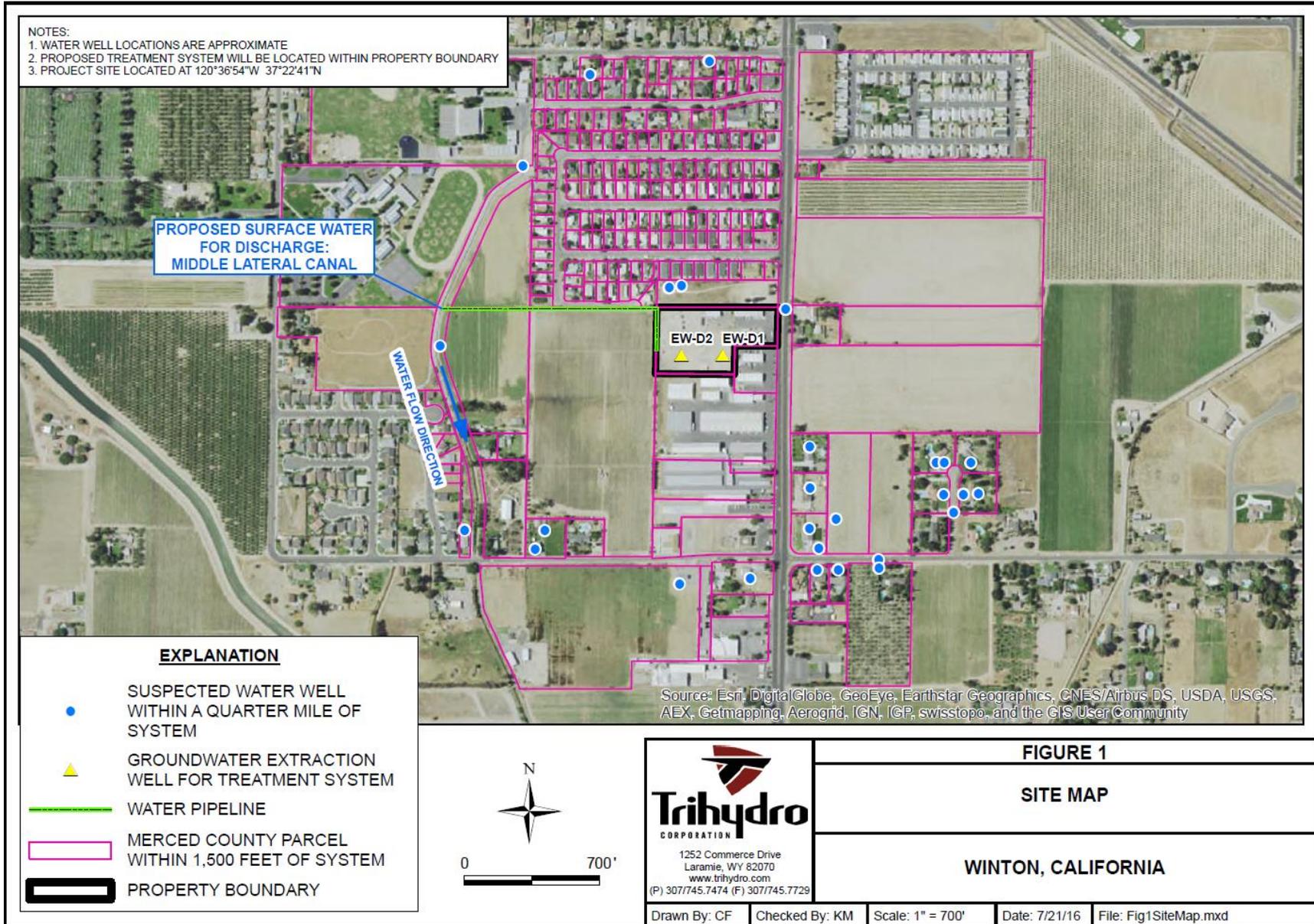
Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Resources Control Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet at:

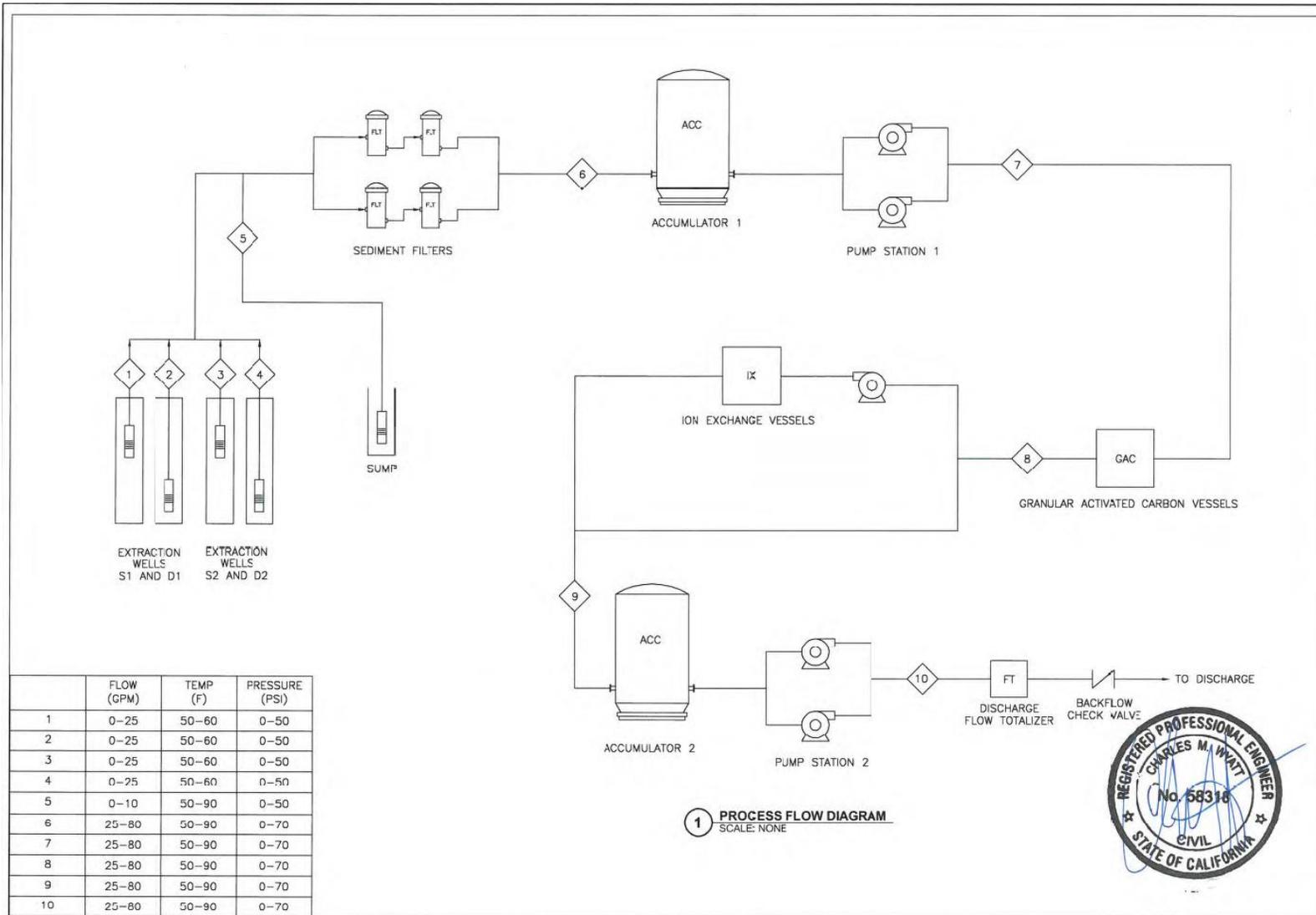
http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.


for Pamela C. Creedon
Executive Officer

Enclosures: Enclosure A, Project Maps
Limited Threat General Order R5-2016-0076 (Discharger only)

cc: David Smith, U.S. EPA, Region IX, San Francisco (via email)
Division of Water Quality, State Water Resources Control Board, Sacramento (via email)
Siddharth Sewalia, Regional Water Quality Control Board, Rancho Cordova (via email)
Merced Irrigation District, Merced
Roger Smith, Glenn Springs Holdings, Inc. (via email)
Monty Johnson, J.R. Simplot Company (via email)
Allison Riffel, Trihydro Corporation (via email)
Mark Collar, Trihydro Corporation (via email)





REV	DATE	DESCRIPTION	BY	CHK

DRAWN BY: JLP
 CHECKED BY: JB
 DATE: 7/11/2016
 SCALE: NONE
 FILE: 276-CWWS-1-LOW-06-2016

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 GROUNDWATER TREATMENT FACILITY
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SHEET 11
 11 OF 26
 REV #

