



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

19 December 2017

Randall McAlister
Executive Manager, Environmental Remediation
General Electric Company
801 Main Avenue
The Towers at Merritt River
Norwalk, CT 06856

CERTIFIED MAIL
7017 1070 0000 8863 4406

NOTICE OF APPLICABILITY (NOA); LIMITED THREAT GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0076; GENERAL ELECTRIC COMPANY AND WELLMACED PRODUCTS COMPANY, FORMAL KENDALL SITE, MERCED COUNTY

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) adopted General Order R5-2016-0076 for Limited Threat Discharges to Surface Water (Limited Threat General Order) on 14 October 2016. Section II.B.2 of the Limited Threat General Order states that existing dischargers enrolled under previous Limited Threat General Order R5-2013-0073-01 are automatically authorized under the Limited Threat General Order to continue discharging; however, to maintain coverage, existing dischargers must have submitted a complete Notice of Intent (NOI) application by 31 July 2017.

General Electric Company (hereinafter Discharger) owns and maintains a groundwater remediation system in Merced (hereinafter Facility) that is situated on property owned by Wellmade Products Company. The Facility was enrolled under the previous Limited Threat General Order on 9 April 2015 (enrollee number R5-2013-0073-01-042). The Discharger submitted a NOI application for the Facility on 18 July 2017 for continued coverage under the renewed Limited Threat General Order. Based on the application packet and subsequent information submitted by the Discharger, Central Valley Water Board staff has determined that the project meets the required conditions for continued coverage under the Limited Threat General Order, as a Tier 2 discharge. Beginning **1 January 2018**, this NOA will become effective and the Facility will be assigned Limited Threat General Order R5-2016-0076-027. Please reference your Limited Threat General Order number, **R5-2016-0076-027**, in your correspondences 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

A copy of this NOA can be viewed at the following web address:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076_noas/index.shtml

You are urged to familiarize yourself with the contents of the entire Limited Threat General Order and this NOA. 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

The Facility is located at 1715 Kibby Road in Merced and is operated to treat contaminated groundwater. General Electric Company operated a transformer casing manufacturing and cleaning facility at the site from 1965 to 1971. General Electric Company utilized volatile organic compounds (VOCs) as cleaning agents and subsequently disposed of wastewater containing VOCs to an on-site unlined pond. Kendall Company purchased the site in 1972 and produced biodegradable paper fabric until 1981. The site was vacant beginning 1981, and trichloroethylene was found in elevated concentrations on-site and off-site. Wellmade Products Company, the current property owner, purchased the site in 1989, and General Electric Company has taken responsibility for defining the extent of pollution and for providing the necessary cleanup of VOCs.

Site remediation for soil and groundwater began in 1986. Cleanup work has included soil excavation, on-site air stripping, well-head treatment of off-site domestic wells, and on-site and off-site granular activated carbon (GAC) treatment. The Facility has historically utilized four on-site extraction wells for remediation, but only two wells have been in operation recently due to declining groundwater levels. The Discharger previously operated under a NPDES permit for the discharge of wastewater treated by the on-site air stripper and off-site GAC systems. The on-site air stripper and off-site GAC systems were replaced with an on-site GAC system, which began operation in January 2016. Currently, extracted groundwater passes through two 10,000-pound GAC vessels in series, where constituents of concern are adsorbed. All treated groundwater is sent to Merced Irrigation District's Hartley Lateral Canal. Hartley Lateral Canal is hydraulically connected to Miles Creek, a water of the United States. See enclosed project map. The treatment system is designed to accommodate a maximum flow rate of 1.0 million gallons per day (MGD). Since startup, the Discharger has been averaging a daily flow of 0.125 MGD with a maximum daily flow of 0.174 MGD.

During quarterly groundwater monitoring events, purge water from groundwater monitoring wells is collected prior to sampling. All purge water is treated and disposed of by the methods described in the *Work Plan for Treatment of Purge Water*, dated 2 July 2004, and approved by the Executive Officer. Any changes to the methods described in the work plan shall be reported to the Central Valley Water Board and are subject to Executive Officer approval.

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. Attachment I lists the most stringent objective/criteria (i.e., screening level) for receiving waters with and without the municipal and domestic (MUN) beneficial use.

Hartley Lateral Canal discharges to Miles Creek, a tributary of the San Joaquin River from Sack Dam to the mouth of the Merced River. The Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and the San Joaquin River Basins, Fourth Edition (Revised July 2016)* identifies beneficial uses for this river stretch, including potential MUN beneficial use. Therefore, the screening levels based on MUN are applicable to the Facility. Central Valley Water Board staff compared the representative data reported for the Facility to the applicable screening levels listed in Attachment I of the Limited Threat General Order. Review of the water quality data showed the only constituent detected in the effluent above the applicable screening levels was trichloroethylene in January 2016. Water Quality-Based Effluent Limitations for trichloroethylene are not established in this NOA, since more stringent Technology-Based Effluent Limitations are applicable to the discharge. Technology-Based Effluent Limitations have been established for trichloroethylene and cis-1,2-dichloroethylene due to the presence of these constituents in the extraction wells 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	
Trichloroethylene	µg/L	--	0.5	V.B.2
cis-1,2-Dichloroethylene	µg/L	--	0.5	V.B.2

1. **Flow (Section V.A.1.a).** The maximum daily discharge flow shall not exceed 1.0 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 Lake in Modoc County) 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 shall be no less than:
 - i. 70%, minimum for any one bioassay; and
 - ii. 90%, median for any three consecutive bioassays.

The receiving water, Hartley Lateral Canal, is not listed under the Clean Water Act 303(d) List of impaired water bodies. No additional 303(d) based effluent limitations or monitoring requirements will be added to this NOA.

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 Hartley Lateral Canal.
--	RSW-001	Hartley Lateral Canal, approximately 50 to 100 feet upstream of Discharge Point 001, or the first accessible sampling point upstream of this location.
--	RSW-002	Hartley Lateral Canal, approximately 50 to 100 feet west of the intersection of Doane Lateral Canal and East Childs Avenue, or the first accessible sampling point west of this location.
--	RSW-003	Doane Lateral Canal, approximately 50 to 100 feet south of the intersection of Hartley Lateral Canal and East Childs Avenue, or the first accessible sampling point south of this location.

Effluent Monitoring – When discharging to Hartley 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	Continuous	1
pH	standard units	Grab	1/Quarter	2,3
Temperature	°F	Grab	1/Quarter	2,3
Electrical Conductivity @ 25 °C	µmhos/cm	Grab	1/Quarter	2,3
Volatile Organic Compounds ⁴	µg/L	Grab	1/Quarter	3,5
Hardness, Total (as CaCO ₃)	mg/L	Grab	2/Year	3
Standard Minerals ⁶	mg/L	Grab	1/Year	3
Acute Toxicity	% survival	Grab	7	3,8
Chronic Toxicity	TUc	Grab	7	3

¹ The Discharger may substitute daily average flow when the continuous flow meter is non-operational. The Discharger must clearly indicate when the flow is measured as daily average and describe when the continuous flow meter is non-operational.

² 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.

- ³ 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.
- ⁴ Volatile Organic Compounds shall include the following: 1,1-Dichloroethene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,2-dichloroethene (cis and trans), 1,3-Dichlorobenzene, 1,3-Dichloropropene, 1,4-Dichlorobenzene, Acrolein, Benzene, Bromoform, Bromomethane, Carbon Tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroethane, Chloroform, Chloromethane, Dichloromethane, Dichlorobromomethane, Ethylbenzene, Tetrachloroethylene, Toluene, Trichloroethylene, and Vinyl Chloride.
- ⁵ 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.
- ⁶ 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).
- ⁷ Acute and chronic toxicity testing shall be conducted at least once between January 2019 and December 2019. See the Limited Threat General Order MRP (Attachment C, section V) for additional details regarding toxicity monitoring requirements.
- ⁸ The test species for acute toxicity testing shall be fathead minnows (*Pimephales promelas*).

Receiving Water Monitoring – If the discharge comprises the entire flow in the receiving water or if there is no discharge, receiving water monitoring is not required. The Discharger shall monitor the receiving water at RSW-001, RSW-002, and RSW-003 as follows:

Table 4. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab	1/Quarter	1,2
Temperature	°F	Grab	1/Quarter	1,2
Dissolved Oxygen	mg/L	Grab	1/Quarter	1,2
Turbidity	NTU	Grab	1/Quarter	1,2
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Quarter	1,2
Hardness, Total (as CaCO ₃)	mg/L	Grab	2/Year ³	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.
- ³ Monitoring is only required at Monitoring Location RSW-001.

In conducting receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001, RSW-002, and RSW-003. 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.

Monitoring Report Submittals - Monitoring in accordance with the Limited Threat General Order shall begin on 1 January 2018. Self-Monitoring Reports (SMRs) shall be submitted to the Central Valley Water Board on a quarterly basis, beginning with the **1st Quarter 2018**. This report shall be submitted by **1 May 2018**. If no discharge occurs during the quarter, the monitoring report must be submitted stating that there has been no discharge. Table 5, 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 5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	Quarterly Report Due Date
Continuous	NOA Effective Date (1 January 2018)	All	1 May 1 August 1 November 1 February, of the following year
1/Quarter	NOA Effective Date (1 January 2018)	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	NOA Effective Date (1 January 2018)	1 January through 30 June 1 July through 31 December	1 August 1 February, of the following year
1/Year	NOA Effective Date (1 January 2018)	1 January through 31 December	1 February, of the following year

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/NOEC) for all chronic toxicity end points. The monitoring trigger is not an effluent limitation; it is the toxicity threshold at which the Discharge 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. 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 by **20 June 2022**. Results must be submitted to the Central Valley Water Board by **1 August 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 having knowledge of noncompliance.

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.

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 228575, and the Order number R5-2016-0076-027. 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 responses 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 be reached at (559) 445-5128 or at Warren.Gross@waterboards.ca.gov.

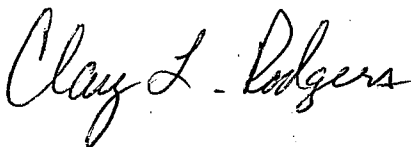
Questions regarding the permitting aspects of the Limited Threat General Order, and notification for termination of coverage under the Limited Threat General Order, shall be directed, via the paperless office system, to the NPDES Permitting Unit, attention Nicolette Dentoni. Ms. Dentoni can also be reached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


Randall McAlister
Executive Manager, Environmental Remediation
General Electric Company
Former Kendall Site

19 December 2017

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.

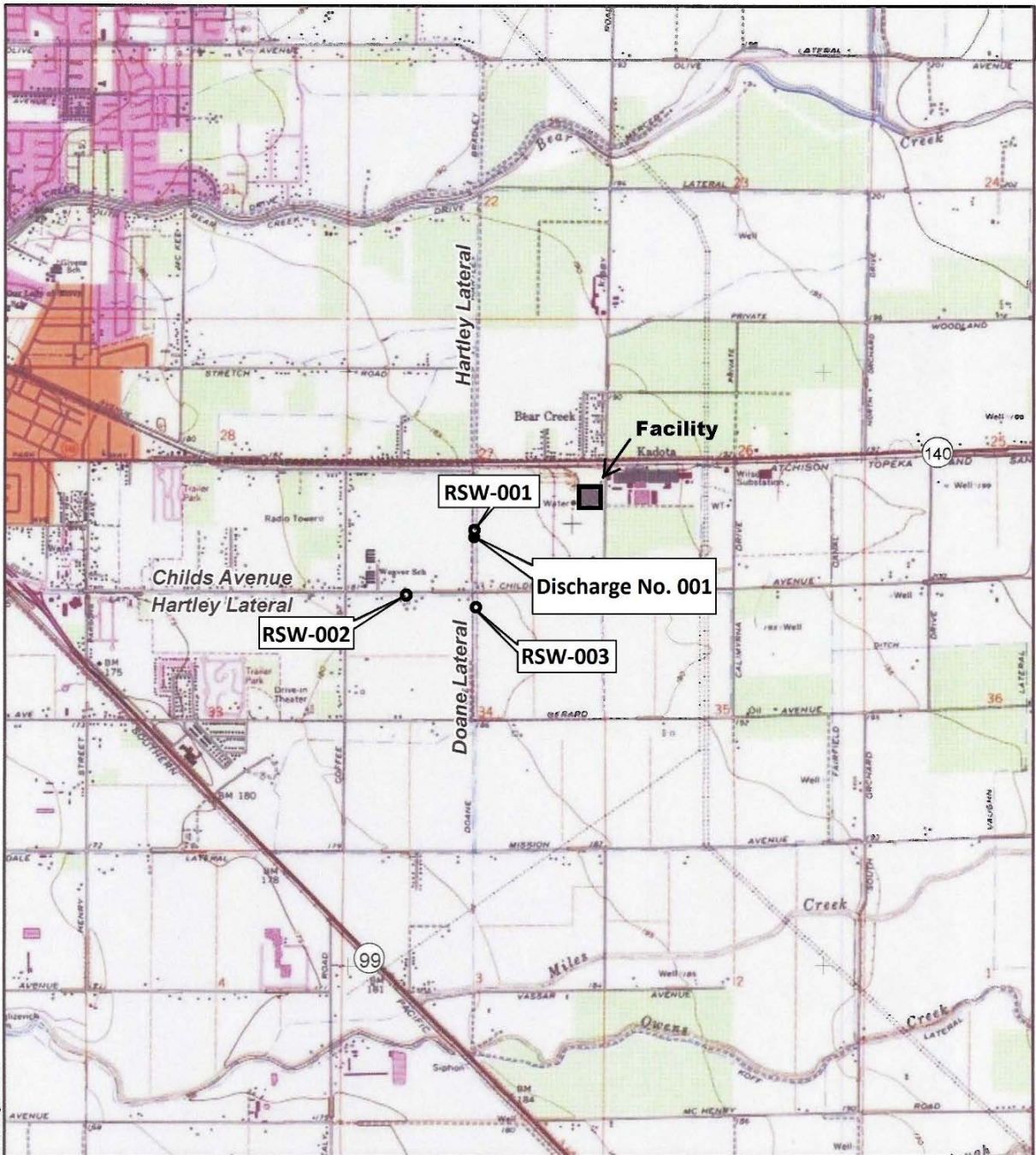


 Pamela C. Creedon
Executive Officer

Attachments: Attachment A, Project Maps

Enclosures: Limited Threat General Order R5-2016-0076 (Discharger only)

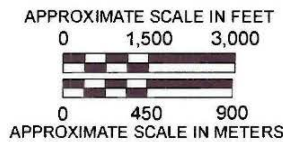
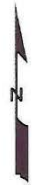
cc: David Smith, U.S. EPA, Region IX, San Francisco (via email)
Division of Water Quality, State Water Board, Sacramento (via email)
Merced Irrigation District, Merced
Steve Squires, Wellmade Products Company, Merced
Jill Ghelerter, Wood Group PLC (via email)
Bill Jennings, California Sportfishing Protection Alliance, Stockton



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Explanation

- Receiving water sampling location
- Treatment system discharge

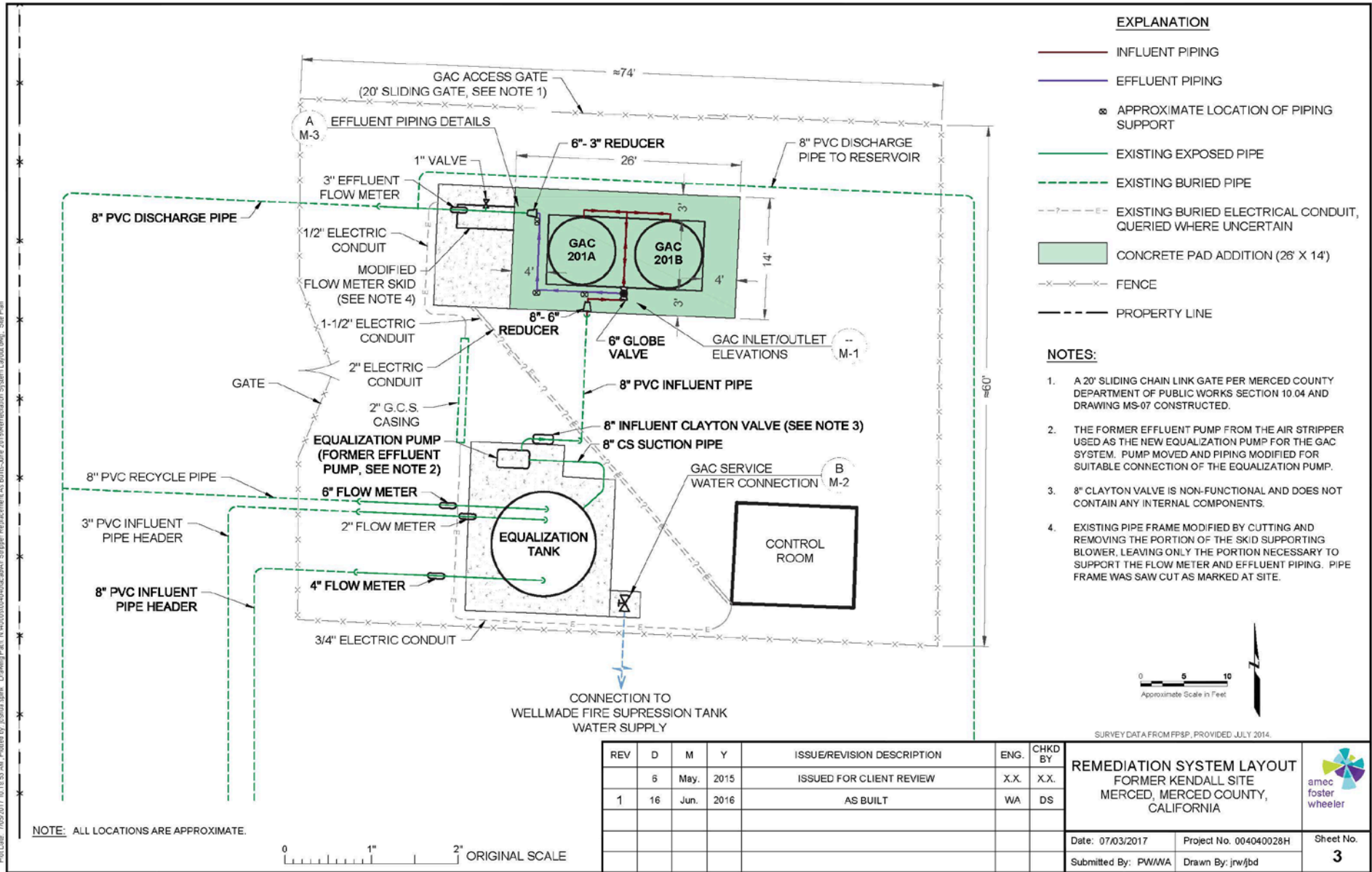


Basemap modified from National Geographic Society TOPOI, distributed 2008 (U.S. Geological Survey topographical map mosaic dataset).

TREATMENT SYSTEM DISCHARGE AND RECEIVING WATER SAMPLING LOCATIONS
 Former Kendall Site
 Merced, California

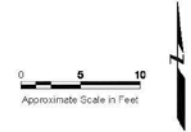
By: db	Date: 09/12/2013	Project No. 004040
		Figure 1

Attachment A – Project Maps
 General Electric Company, Former Kendall Site
 R5-2016-0076-027



- EXPLANATION**
- INFLUENT PIPING
 - EFFLUENT PIPING
 - ⊗ APPROXIMATE LOCATION OF PIPING SUPPORT
 - EXISTING EXPOSED PIPE
 - - - EXISTING BURIED PIPE
 - - - - - EXISTING BURIED ELECTRICAL CONDUIT, QUERIED WHERE UNCERTAIN
 - CONCRETE PAD ADDITION (26' X 14')
 - FENCE
 - PROPERTY LINE

- NOTES:**
1. A 20' SLIDING CHAIN LINK GATE PER MERCED COUNTY DEPARTMENT OF PUBLIC WORKS SECTION 10.04 AND DRAWING MS-07 CONSTRUCTED.
 2. THE FORMER EFFLUENT PUMP FROM THE AIR STRIPPER USED AS THE NEW EQUALIZATION PUMP FOR THE GAC SYSTEM. PUMP MOVED AND PIPING MODIFIED FOR SUITABLE CONNECTION OF THE EQUALIZATION PUMP.
 3. 8" CLAYTON VALVE IS NON-FUNCTIONAL AND DOES NOT CONTAIN ANY INTERNAL COMPONENTS.
 4. EXISTING PIPE FRAME MODIFIED BY CUTTING AND REMOVING THE PORTION OF THE SKID SUPPORTING BLOWER, LEAVING ONLY THE PORTION NECESSARY TO SUPPORT THE FLOW METER AND EFFLUENT PIPING. PIPE FRAME WAS SAW CUT AS MARKED AT SITE.



SURVEY DATA FROM FPS, PROVIDED, JULY 2014.

REV	D	M	Y	ISSUE/REVISION DESCRIPTION	ENG.	CHKD BY
	6	May.	2015	ISSUED FOR CLIENT REVIEW	X.X.	X.X.
1	16	Jun.	2016	AS BUILT	WA	DS

REMEDIATION SYSTEM LAYOUT
 FORMER KENDALL SITE
 MERCED, MERCED COUNTY,
 CALIFORNIA

Date: 07/03/2017 Project No. 004040028H Sheet No. **3**
 Submitted By: PWAWA Drawn By: jrw/fbd

Per Date: 7/05/2017 10:18:53 AM. Plotted by: jchua.sjg@f. Drawing Path: N:\4000\04040028H\1-5.dwg. Replacement As Built-June 2016-Remediation System Layout.dwg. Site Plan

NOTE: ALL LOCATIONS ARE APPROXIMATE.

