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Filer:	Anwar Ali
Organization:	PG&E
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CGS2023-L-003

February 28, 2023

Dr. Anwar Ali
Compliance Project Manager
California Energy Commission
1516 Ninth Street, MS 2000
Sacramento, California 95814

Reference: **Colusa Generating Station**

Subject: **Colusa Generating Station (06-AFC-9)**
Condition of Certification COM-7 (BIO-2; HAZ-1; Noise-8; Soil and Water 2, 7, 8, 9; TLSN-3; VIS-1, 3; Waste-5) – Annual Operating Report

Dear Mr. Ali:

Please find the attached, pursuant to Colusa Generating Station (CGS) Conditions of Certification COM-7. This is the Annual Compliance Report for CGS and represents the operational period of January 1, 2022 through December 31, 2022. Within this report you will find the following information.

1. Attachment A: an updated compliance matrix showing the status of all Conditions of Certification (with exception to fully satisfied conditions as they do not need to be included after they have been reported as completed);

2. Attachment B: a summary of the current project operating status with explanations of any significant changes to facility operations during the reporting year;

3. Attachment C: documents required by specific conditions to be submitted along with the Annual Compliance Report.

4. Attachment D: a cumulative listing of all post-certification changes approved by the California Energy Commission or cleared by the CPM;

5. Attachment E: an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided;

6. Attachment F: a listing of filings submitted to, or permits issued by, other governmental agencies during the year;

7. Attachment G: a projection of project compliance activities scheduled during the next year;

8. Attachment H: a listing of the year's additions to the on-site compliance files;

9. Attachment I: an evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions necessary for bringing the plan up to update;

10. Attachment J: a listing of complaints, notices of violations, official warnings, and citations received during the year, a description of the resolution of any resolved matters, and the status of any unresolved matters.

11. Attachment K: verification of funding to the Maxwell Fire Department

Should you have any questions or comments please do not hesitate to contact me.

Sincerely,

TJ Gomez
Sr. Environmental Field Specialist
Colusa Generating Station

Enclosure

cc: Josh Harris, PG&E (electronic)
Sam Garcia, PG&E (electronic)

Attachment A
Compliance Matrix

COLUSA GENERATING STATION COMPLIANCE MATRIX BASED ON CEC FINAL DECISION

Color code key:	Construction Item	Commissioning Item	Operations Item	Submitted to CEC or Agency	Approved by CEC/No Longer Applicable

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
AQ-01	COMM	All facility operating staff shall be advised of and familiar with these permit conditions.	Provide CPM and APCO with signed records of facility operating staff indicating review of permit conditions and maintain training and records documenting this training at the site.	30 days prior to first fire	PG&E	**On file in Environmental Managers Office**		**Ongoing with New Hires**	
AQ-02	CONS	Right of entry shall be provided at all times.	Project Owner shall make site available to reps of the District, ARB and CEC for inspection, etc.	As required	PG&E			Ongoing	
AQ-03	OPS	In the case of shutdown or restart of air pollution control equipment for necessary scheduled maintenance, notify CPM and APCO of such shutdown 24 hours prior.	Notify the CPM and APCO 24 hours in advance of planned shutdowns for maintenance.	As required	PG&E			Ongoing	
AQ-04	OPS	If any upset or breakdown occurs with permitted equipment that causes excess emissions of air contaminants, the APCO shall be notified with 24 hours or by 9:00am by the following work day.	In addition to phone call, also submit a written statement of full disclosure to the APCO within 72 hours, including date, time, duration, estimated emissions, cause and remedy.	As required	PG&E			Ongoing	
AQ-05	OPS	Fugitive emissions, including dust and odors, shall be controlled at all times such that a nuisance is not created at any point beyond the facility's property lines.	Project Owner shall document any complaints received from the public in the Quarterly Operation Reports (QORs) required by AQ-22 and make site available to APCO, ARB, and CEC representatives.	Quarterly after COD	PG&E			Ongoing	
AQ-07.2	COMM	A source test protocol will be submitted to the APCD for approval.	Submit source test protocol to the APCD for approval by the APCO.	45 days prior to conducting annual source tests	PG&E			Annual Requirement	
AQ-07.3	COMM	Notify the CPM and District 10 days prior to actual source test.	Notify the CPM and APCD prior to any compliance source test.	10 days prior to conducting any compliance source test	PG&E			Annual Requirement	
AQ-08	COMM	**CONDITION MODIFIED BY CEC ORDER 7-15-09:** Stack gas testing shall be required on an annual basis for NOx, VOC, and CO on the HRSG stacks. The HRSG stacks shall also be tested for SOx and PM10 emissions during the first year and in subsequent years if requested by APCO. The natural gas water bath heater shall be tested for NOx, SOx, VOC, CO, and PM10 during the first year and thereafter only as requested by APCO.	The results and field data colleced during source tests shall be submitted to the CPM and the District within 60 days of testing.	Within 60 days of testing	PG&E			Annual Requirement	
AQ-09	COMM	Annual testing of the HRSG stacks shall include quantification of formaldehyde and NH3 emissions for compliance with permit limits.Verify by continuous recording the ammonia injection rate to the system. The ammonia source test shall be conducted over the expected operating rate of the turbine as set forth in the Condition.	Provide results and field data collected during source tests to CPM and APCD. Submit proposed ammonia injection/emission rate correlation to the APCD and CPM for approval with the ammonia source test report.	Within 60 days of testing	PG&E			Annual Requirement	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
AQ-10	OPS	**CONDITION MODIFIED BY CEC ORDER 7-15-09:** The gas turbines, duct burners, and natural gas water heater shall be fired exclusively on pipeline quality natural gas.	Submit information on the quality and type of fuel used for the gas turbines, duct burners, and natural gas water bath heater to the CPM/APCO in the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-11	OPS	The average annual sulfur content in the natural gas shall be less than or equal to 0.3 grains per 100 SCF. Conduct monthly testing at the site using approved methods to determine sulfur content. Natural gas testing info from Burney will also be reviewed and provided to the APCD.	Compile the required data on the sulfur content of the natural gas and submit to the CPM and APCO in the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-13a	OPS	All applicable federal standards and test procedures of Subpart KKKK shall be met.	Provide copies of all correspondence with EPA regarding compliance with Subpart KKKK to the APCD and CEC.	Quarterly after COD	PG&E			Ongoing	
AQ-14	OPS	CTGs shall meet a VOC limit of 2.0 ppmvd w/ duct burner firing and 1.38 ppmvd w/o duct firing at 15% O2 averaged over 1 hour. Maximum hourly steady state VOC emission limits for each CTG are 7.2 pounds with duct firing and 3.4 pounds w/o duct firing	Submit to the CPM and APCO CTG source test emissions data demonstrating compliance with this condition as required by condition AQ-8 and provide operating data that establishes ongoing compliance as part of AQ-22.	Within 60 days of testing	PG&E			Ongoing	
AQ-15	OPS	The CTGs shall meet a NOx limit of 2.0 ppmvd @15% O2 averaged over one hour except during commissioning. Maximum hourly steady state NOx emission limits for each CTG are 20.7 pounds with duct firing and 15.3 pounds without duct firing.	Submit to the CPM and APCO CTG continuous emissions data demonstrating compliance with this condition as part of the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-16	OPS	The CTGs shall meet a CO limit of 3.0 ppmvd @15% O2 over a three-hour rolling average except during commissioning. Maximum hourly steady state CO emission limits for each CTG are 18.9 pounds with duct firing and 14.0 pounds without duct firing.	Submit to the CPM and APCO CTG continuous emissions data demonstrating compliance with this condition as part of the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-18	OPS	Ammonia slip shall be limited to 5.0 pmvd @15% O2 over one hour. Formaldehyde emissions will be limited to 0.917 lbs per MMscf of natural gas. Maximum hourly steady state NH3 emission limits for each CTG are 19.2 pounds with duct firing and 14.2 pounds without duct firing.	Submit to the CPM and APCO CTG source test emissions data demonstrating compliance with this condition a part of the QOR. Provide to the CPM and APCO for approval a calculation method to determine the ammonia slip emissions, using source test data, based on the NOx concentration and the ammonia injection rate; this calculation shall be revised for approval as necessary after each source test performed under AQ-9.	Within 60 days of testing	PG&E			Annual Requirement	
AQ-19a	OPS	CEMS shall be installed to sample, analyze, and record NOx, CO, and O2 concentration in the exhaust gas of both HRSG stacks.	Make the site available for inspection by the APCD, ARB, and CEC to verify CEMS is properly installed and operational.	As required	PG&E			Ongoing	
AQ-19b	OPS	CEMS will generate reports of emissions data in accordance with permit requirements and will send alarm signals to the plant DCS control room when emissions levels approach or exceed pre-selected limits.	Submit emissions data generated by the CEMS to the CPM and APCO as part of the QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-19c	OPS	RATA tests will be conducted annually to verify performance of the CEMS.	Provide RATA test results along with annual source test report as required under AQ-8.	Annually	PG&E			Ongoing	
AQ-22	OPS	Quarterly reports of CEMS and process data, including startup info, shall be submitted to the District within 30 days after the end of each quarter.	Provide information as part of QORs. (Format will be determined by the District and may include both electronic spreadsheet and hard copy files.)	Quarterly after COD	PG&E			Ongoing	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
AQ-25	OPS	**CONDITION MODIFIED BY CEC ORDER 7-15-09:** The total emissions from the CTGs and HRSGs shall not exceed those established in the Condition for hourly and daily operations (see emission limits set forth in table in condition).	Submit CTG and HRSG emissions data to CEC CPM and APCO demonstrating compliance with the condition as part of QORs.	Quarterly after COD	PG&E			Ongoing	
AQ-26	OPS	**CONDITION MODIFIED BY CEC ORDER 7-15-09:** The total emissions from the Colusa Power Plant shall not exceed the quarterly and annual combustion emission limits established in the Condition [all numbers have been revised from original Final Decision]	Submit to the CPM and APCO the plant emissions data demonstrating compliance with this condition.	Quarterly after COD	PG&E			Ongoing	
AQ-29	OPS	Total facility emissions of Hazardous Air Pollutants shall not exceed 10 tons/year for any single pollutant except ammonia, formaldehyde, and propylene.		Annually	PG&E			Ongoing	
AQ-SC6	OPS	Submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. Project Owner shall submit to the CPM any modification to any permit proposed by the District of EPA and any revised permit issued by the District of EPA.	Submit any proposed air permit modification to the CPM.	Within 5 working days of its submittal	PG&E			Ongoing	
AQ-SC9	OPS	Submit to the CPM Quarterly Operation Reports following the end of each calendar quarter and containing the info required by Condition AQ-19.	Submit QORs to the CPM and APCO no later than 30 days following the end of each calendar quarter.	Quarterly after COD	PG&E			Ongoing	
AQ-SC11	OPS	**NEW CONDITION PER CEC ORDER 7-15-09:** The wet surface air cooler spray water shall be tested for total dissolved solids and that data shall be used to determine and report the particulate matter emissions from the wet surface air cooler. The wet surface air cooler spray water shall be tested at least once annually during the anticipated summer operation peak period (July through September).	The project owner shall provide the water quality test results and the wet surface air cooler particulate (PMI *0/PM2.5)* emissions estimates to the CPM as part of the fourth quarter's quarterly operational report (AQ-SC9).	At least once annually during summer peak period				Ongoing	
BIO-07	OPS	Incorporate biological mitigation measures into the BRMIMP and permanent or unexpected permanent closure plans.	Address all biological resource related issues associated with facility closure and provide final measures in a biological resources element of the final closure plan.	12 months prior to start of closure activities	PG&E			Ongoing	
COM-01	OPS	Unrestricted Access		Ongoing	PG&E			Ongoing access provided during construction	
COM-02	OPS	Compliance Record--The files are to contain copies of all "as-built" drawings, all documents submitted as verification for conditions, and all other project-related documents.		Ongoing	PG&E			Ongoing	
COM-05	OPS	Compliance Matrix	Submit a compliance matrix with each MCR and also in ACR	Include in MCR and in ACR	PG&E			Ongoing	
COM-07	OPS	Annual Compliance Report	Submit to CPM on an annual basis	Annually	PG&E			Ongoing	
COM-09	OPS	Annual Energy Facility Compliance Fee	Submit annual compliance fee to CEC	During life of project	PG&E			Ongoing	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
COM-10	OPS	Reporting of Complaints, Notices and Citations	Report to the CPM all notices, complaints, and citations within 10 days of receipt.	As required	PG&E			Ongoing	
COM-11	OPS	Planned Facility Closure	Submit a closure plan to the CPM at least 12 months prior to commencement of a planned closure	12 months prior to start of closure activities	PG&E				
COM-13	OPS	Unplanned Permanent Facility Closure	The on-site contingency plan required for unplanned temporary closure shall also cover unplanned permanent facility closure. All of the requirements specified for unplanned temporary closure shall also apply to unplanned permanent closure.	Within 90 days of permanent closure	PG&E	9/29/2010	CGS10-L-0111	Approved via email 10/15/10	
COM-14	CONS	Post-Certification Changes to the Decision		As required	PG&E			Amendments are discussed in MCR	
CUL-04	CONS	Prepare the Cultural Resources Report (CRR) in ARMR format. Include all information specified in Condition.	Submit CRR within 90 days after completion of ground disturbance (including landscaping).	Within 90 days after completion of landscaping	PG&E	7/28/2011	CGS11-L-0026	Approved 4/9/13	
GEN-01c	OPS	Once the certificate of occupancy has been issued, inform the CPM of any construction, addition, alterations, moving, demolition, repair, or maintenance to be performed on any portions of the completed facility for the purpose of complying with the above stated codes.	Submit required info to the CPM.	At least 30 days prior to such work	PG&E				
GEN-08	CONS	Obtain the CBO's final approval of all completed work that has undergone CBO design review and approval. The Project Owner shall request the CBO to inspect the completed structure and review the submitted documents. The Project Owner shall retain one set of approved engineering plans, specifications, and calculations at the project site or other accessible location during the operation of the project.	Submit to the CBO a written notice that the completed work is ready for inspection and a signed statement that the work conforms to the final approved plans.	Within 15 days of completion of any work	PG&E/CBO				
HAZ-01	OPS	Do not use any hazardous material in any quantity or strength not listed in Appendix C unless approved in advance by the CEC CPM.	Report to the CPM a list of hazardous materials and storage quantities contained at the facility	Include in Annual Compliance Report	PG&E			Ongoing	
NOISE-02	OPS	Throughout the construction and operation of the project, document, investigate, evaluate, and attempt to resolve all project-related noise complaints. Noise Complaint Resolution process will be used.	File a Noise Complaint Resolution Form with the City and the CPM documenting resolution of the compliant.	Within 5 days of receiving a noise compliant	PG&E				
NOISE-08	OPS	In the event legitimate noise complaints are made by owners or occupants at the two residences locate at ML1, ML2, or RC1 during operation of the CGS, the Project Owner shall offer to pay for the following noise attenuating upgrades (see list in Condition).	Upgrades shall be installed (unless impossible due to circumstances beyond Project Owner's control) within six months of the receipt of the compliance. Provide documentation certifying the items listed in the Condition.	As required	PG&E			Ongoing	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
PAL-06	OPS	Through the designated PRS, shall ensure that all components of the PRMMP are adequately performed including collection of fossil materials, preparation of fossil materials for analysis, analysis of fossils, identification and inventory of fossils, the preparation of fossils for curation, and the delivery for curation of all significant paleontological resource materials encountered and collected during project construction .	Maintain in compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. Maintain these files for a period of three years after completion and approval of the CPM-approved Paleontological Resources Report.	As required					
SOIL & WATER-04b	OPS	Notify the CEC of any violations of the agreement requirements, limits or amounts.	Provide copies of any NOVs from the GCID. Fully explain corrective actions in next MCR.	Within 10 days of NOV	PG&E			Ongoing	
SOIL & WATER-07b	OPS	Submit any required monitoring information to the CPM in the annual compliance report.	Submit requested information.	Include in ACR	PG&E			Ongoing	
SOIL & WATER-07c	OPS	Submit copies of an NOVs to the CPM.	Submit requested info to CPM.	Within 10 days of receipt of NOV; explain correction actions in ACR	PG&E			Ongoing	
SOIL & WATER-08b	OPS	Prepare an annual water use summary which includes the monthly range and monthly average of daily raw water usage in gpd and total water used by the project on a monthly and annual basis in acre-feet. Potable water use on the site shall be recorded on a monthly basis. (See additional details for annual water use summary in Condition)	Submit requested info to CPM.	Annually	PG&E			Ongoing	
SOIL & WATER-09c	OPS	Monitor the waste water system following the general standards adopted in the SWRCB's onsite wastewater treatment system regs or the procedures outlined in the CPM-approved O&M manual. Provide testing results.	Provide requested into to CPM.	Include in ACR	PG&E			Ongoing	
TLSN-03	OPS	Take reasonable steps to resolve any complaints of interference with radio or TV signals from operation of the proposed lines.	Provide reports of line-related complaints along with related mitigation measures in the annual report for the first five year.	Include in ACR	PG&E			Ongoing	
VIS-01b	OPS	Notify the CPM that the surface treatment of all listed structures and buildings has been completed and is ready for inspection and submit electronic color photographs taken from the same KOPs	Set up an inspection appointment.	Within 90 days of start of commercial ops	PG&E	3/24/2011	CGS11-L-0014	4/11/2011	
VIS-02b	COMM	Notify the CPM that the lighting has been completed and is ready for inspection.	Set up an inspection appointment.	Prior to start of commercial operation	Gemma	9/19/2011	CGS11-L-0036	Approved 9/29/2011	
VIS-02c	OPS	Notify the CPM of any complaints re: lighting.	Submit a complaint resolution form to the CPM record each lighting complaint and document resolution of that complaint.	Within 48 hours after receiving a complaint	PG&E			Ongoing	

Cond. #	Sort Code	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Lead Respons. Party	Date sent to CEC, CBO or agency	Log Number	Status	Comments
VIS-03	CONS	Provide landscaping that reduces the visibility of the power plant structures and complies with local policies and ordinances. Trees shall be strategically placed along the southern, eastern, and northern facility boundaries as appropriate and of sufficient density and height to screen the plant structures to the greatest feasible extent within the shortest feasible time.	Prepare and submit a landscaping plan (see Condition for details on info to include in plan) to the CPM for review and approval and to the County for review and comment.Notify the CPM and County within 7 days after completing installation of landscaping. Report on landscape maintenance activities in ACR.	At least 90 days prior to installation of landscaping -	PG&E			Submitted 8/25/2010 Approved 9/14/2010 Ongoing for Annual Report	
WASTE-04	CONS	Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the Project Owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.	Notify the CPM in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the manner in which project-related wastes are managed.	As required	PG&E			Ongoing	
WASTE-05b	OPS	Prepare an Operations Waste Management Plan for all wastes generated during construction of the facility.	Submit plan to the CPM for review and approval. See Final Decision WASTE-5 for plan requirements.	Provide training sign-in sheets in first MCR Report in Annual Report	PG&E	9/23/2010	CGS10-L-0109	Approved on 10/18/10	

Attachment B
Project Operating Status Summary

Per Com-7 Item 2 we are to provide; "A Summary of the current project operating status and an explanation of any significant changes to the facility operations during the year"

There were no significant changes to the facility and the plant is operating normally.

Attachment C
Accompanying Documents

CEC 2017 Annual Compliance Report		
Reporting Conditions, per COM-7, Item 3		
Condition of Certification	**Reporting**	**Comments**
BIO-2	Designated Biologist Record Summaries	See attached documentation, Appendix 1
HAZ-1	List of chemicals onsite	See attached documentation, Appendix 2
Noise-8	Noise Complaints	See attached documentation, Appendix 3
SOIL & WATER-2	SWPPP Monitoring and Maintenance Activities	See attached documentation, Appendix 4
SOIL & WATER-7	GCID Monitoring Requirements / Violations	See attached documentation, Appendix 5
SOIL & WATER-8	Annual Water Use Summary	See attached documentation, Appendix 6
SOIL & WATER-9	Septic Tank	See attached documentation, Appendix 7
TLSN-3	Electro Magnetic Interference Complaints	See attached documentation, Appendix 8
VIS-1	Surface Treatment Report	See attached documentation, Appendix 9
VIS-3	Landscape Report	See attached documentation, Appendix 10
WASTE-5	Waste Management Plan	See attached documentation, Appendix 11

Pacific Gas and Electric Company®

Appendix 1, BIO-2

Colusa Generating Station
4780 Dirks Road
Pacific Gas and Electric Company
Maxwell, California, 95955

PG&E's Colusa Generating Station (06-AFC-09C), California Energy Commission Annual Compliance Report Biology Section 2022

Date:	February 9, 2023
Project Name:	Colusa Generating Station 2022 Environmental On-call Support Project
Project No:	D31321CU
Attention:	TJ Gomez, Compliance Manager (PG&E)
Company:	Pacific Gas and Electric (PG&E)
Prepared By:	Scott Lindemann/CGS Designated Biologist and Rick Crowe/Jacobs Biologist
Document No:	1.0
Copies To:	Dean Linville and Joshua Harris (PG&E), Jerry Salamy (Jacobs)

1. Introduction

The California Energy Commission's (CEC) Condition of Certification (COC) for the Colusa Generating Station (CGS) 2022 Environmental On-call Support Project (the Project) requires Pacific Gas and Electric Company (PG&E) to designate a biologist to supervise compliance with mitigation measures outlined in the CEC-approved Biological Resources Mitigation, Implementation, and Monitoring Plan (BRMIMP) during CGS's operations phase. This report fulfills CEC COC BIO-2, Subsection 8 (BRMIMP, LCPA 2010). PG&E has complied with the CEC's COC by directing the Designated Biologist (DB) to perform pre-disturbance surveys, when necessary, perform wildlife relocation when dangerous animals (e.g., rattlesnakes) are encountered on site, and coordinate with CGS staff to avoid or minimize impacts to the environment. This report covers the reporting period from February 1, 2022, to February 2, 2023 (the 2022 Reporting Period).

1.1 Project Location

The CGS site is located approximately four miles west of Interstate 5, 7.1 miles northwest of Maxwell, in Colusa County, California. The plant is immediately west of PG&E's Delevan Natural Gas Compressor Station on Dirks Road. The power plant site is in the eastern half of Section 35, Township 18 North, Range 4 West, and is in the Sites USGS 7.5-minute quadrangle map.

1.2 Background

The CGS was designed to avoid biological resources to the greatest extent through the development of mitigation and protection measures in consultation with the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), Central Valley Regional Water Quality Control Board (CVRWQCB), and the CEC. Applicable COCs were complied with during construction and continue to be implemented during CGS operations, including routine maintenance and outage events.

2. Methods

The CEC-approved Designated Biologist (DB) or Biological Monitor (BM) performed pre-disturbance surveys, captured and relocated wildlife encountered on site, in harm's way, or that could harm facility employees, and coordinated with CGS staff to avoid or minimize impacts to the environment. The DB remained on call throughout the Reporting Period.

All new CGS employees and contract workers received the CEC-approved Worker Environmental Awareness Training (WEAP) via video, an illustrated pamphlet, as well as lecture and daily tailgate training with the DB or the PG&E CGS Compliance Manager.

During the active season for rattlesnakes (defined for this document as approximately March to October), the DB or BM conducted surveys of the CGS approximately weekly to detect and relocate rattlesnakes before they were able to enter the plant and pose a danger to operations staff. CGS management has requested the DB/BM and CGS Compliance Manger to monitor the following areas for to humanely reduce the population of rattlesnakes in the areas, and therefore improve staff safety: the erosional areas along the switchyard perimeter, the detention pond slopes, and a backup water supply pump at the Glenn-Colusa Canal (GCC) (which is owned and maintained by PG&E, and maintained in case the water in the Tehama-Colusa Canal is not available or usable). These areas are surveyed because they are part of the power plant infrastructure and historically a location of high rattlesnake activity. All rattlesnakes captured in 2022 were released unharmed off-site.

The DB or BM also conducted surveys to count the number of bat carcasses observed within or beneath the air-cooled condenser (ACC) throughout the bat migration and breeding season (defined for this document as approximately May through October).

3. Results

The CGS complied with all biological mitigation and protection measures covered in the BRMIMP applicable to this operating facility during the Reporting Period. Monitoring and compliance for the Reporting Period are documented in chronological order in **Appendix A**. Photos are presented in **Appendix B**.

3.1 Rattlesnakes

Northern Pacific rattlesnakes (*Crotalus oreganus oreganus*) continued to be an issue during the Reporting Period. A total of 28 rattlesnakes were observed: four live rattlesnakes and one dead rattlesnake were detected inside the CGS, while the remaining 23 rattlesnakes were detected outside and adjacent to the CGS facility (**Table 1 and Appendix C**). All the observations occurred within the PG&E CGS parcel (+/- 100 acres in size). The number of rattlesnakes detected in the 2022 Reporting Period was 59 percent lower than the number detected in 2021, when 68 rattlesnakes were detected (9 inside the facility and 59 outside).

Table 1. Rattlesnakes Detected in 2022

	Outside Plant	Inside Plant	Total
Rattlesnakes	23	5	28

3.2 Bats

The bat fatalities are a concern of PG&E, CGS management, the CEC, and CDFW. In 2019, CGS staff installed screening to cover an 11-inch gap between the ACC grating and the bottom of the fan plenum, which eliminated raptors and passerines from entering the ACC. However, it did not exclude bats from entering the ACC. In the fall of 2020, CGS staff installed new light-emitting diode (LED) lighting inside and outside of the ACC. During 2021, CGS operated the lighting inside the ACC and on the walkway 24 hours a day, which may have contributed to less bat mortality in and under the ACC in 2021. CDFW has installed a year-round bat acoustic detector to help understand the level of bat activity in the area. The DB regularly sends the SD card to CDFW for download and analysis. The DB will continue to monitor and report on-site bat fatalities during the 2023 Reporting Period.

A total of 241 bat carcasses were detected on the CGS property in the 2022 Reporting Period (**Table 2** and **Table D-1 in Appendix D**). Bat species detected in 2022 include myotis species (little brown bat [*Myotis lucifugus*] or Yuma myotis [*Myotis yumanesis*]), Mexican free-tailed bat (*Tadarida brasiliensis*), western red bat (*Lasiurus borealis*, a CDFW Species of Special Concern), big brown bat (*Eptesicus fuscus*), and hoary bat (*Lasiurus cinereus*). In comparison, during the 2021 Reporting Period 272 bat carcasses were detected, included 266 non-special-status bats (a majority of which were myotis species and Mexican free-tailed bats, with six big brown bats), five red bats, and one pallid bat (*Antrozous pallidus,* a CDFW Species of Special Concern).

Table 2. Bat Carcasses by Species and Location

Bat Species Observed	Under ACC	Inside ACC	Outside ACC	Totals
Myotis (little brown bat or Yuma myotis)	120	53	25	198
Mexican free-tailed bat	8	7	1	16
Western red bat	2	0	0	2
Big brown bat	1	0	0	1
Hoary bat	1	0	0	1
Unidentified	6	17	0	23
Totals:	**138**	**77**	**26**	**241**

During the 2022 Reporting Period, bat fatalities were mainly observed inside or under ACC. Some bats were also detected around the rest of the CGS site, usually inside the warehouse. 138 bat carcasses were detected and collected throughout the Reporting Period under the ACC, and 77 carcasses were detected inside.

During the ACC cleanout on February 2, 2023, the largest concentration of bat carcasses (30 carcasses, or 39.5 percent) was observed in Street #6, this street is located at the western end of the ACC. The next largest concentrations of carcasses were observed in Streets #5 and #4 (13 and 12 carcasses, respectively), which are towards the middle of the ACC (**Tables D-2 and D-3 in Appendix D**). Of the 241 bat carcasses, 26 were not observed under the ACC. Instead, they were observed and collected in different areas around the CGS during the 2022 Reporting Period rattlesnake surveys.

3.3 Other Special-status Species Encountered in or Near the CGS

Giant garter snake (*Thamnophis gigas*) was encountered several times near the rip rap at Glenn Colusa Canal (GCC) bridge approximately 0.7 mile east of the CGS facility: on May 4 and 11, and June 7, 2022. During this time the rice fields west of the GCC, which are typically irrigated, were dry; this may have caused the snake to utilize the canal bank as it was only source of water available in the area. You might state that the GGS was observed but not touched, disturbed or moved. A CNDDB occurrence was submitted for these occurrences and is included in **Appendix E**.

On October 19, 2022, a burrowing owl (*Athene cunicularia*, a CDFW Species of Special Concern) was spotted near a culvert northwest of the CGS on the way to release rattlesnake #28. A single burrowing owl was also observed during the previous 2021 Reporting Period on January 20, 2021, perched on a tumbleweed at the CGS detention pond outlet pipe. Burrowing owls have been occasionally observed in the vicinity of the CGS property in the past so burrow inspection for burrowing owl sign prior to mowing, erosion repair or other surface disturbance is a standard survey protocol.

Appendix A
Biological Monitoring Site Visit Logs

Table A-1. Biological Monitoring Site Visit Log

Date	Biologist	Description
1/25/2022	CGS CM TJ Gomez	CGS CM notified DB Rick Crowe concerning the discovery of Rattlesnake #1, a dead juvenile found under the distillate tank in the Zero Liquid Discharge (ZLD) area. The DB arrived at the site to dispose of the rattlesnake carcass and survey the inside of CGS.
2/17/2022	DB Rick Crowe	DB was on site to conduct a rattlesnake and bat survey at CGS. The DB placed 16 snake basking boards around the outside of the perimeter to provide accessible shelter outside the fence line for roaming rattlesnakes. Pitfall traps at the front and back gates were opened and left covered until the warmer weather arrives in the spring. The SD card in the bioacoustics monitoring station was changed and sent to Amelia Tauber at CDFW. No rattlesnakes were observed inside or outside of CGS. The DB detected four bat carcasses under the ACC and one inside the warehouse. These carcasses are likely holdovers from last year that dropped after the ACC cleaning on January 12th, 2022. From the bat carcasses, three were identified as myotis species, one as a red bat, and one as a Mexican free-tail bat (Appendix B, Photo 1).
3/1/2022	DB Rick Crowe	DB was on site to conduct a rattlesnake and bat survey at CGS at the first day of the annual planned spring outage, March 1-March 29, 2022. The outside survey at Glenn Colusa Canal (GCC) bridge detected Rattlesnake #2, a female rattlesnake, and an additional large rattlesnake in an unreachable position (Appendix B, Photo 2). No bat carcasses or nests were observed during the survey.
3/9/2022	DB Rick Crowe	DB was on site to conduct a rattlesnake and bat survey at CGS. Rattlesnakes were observed during the survey outside of CGS. Rattlesnakes #3 and #4 were captured at the GCC bridge and released off-site. An additional two juvenile rattlesnakes were observed at GCC bridge deep in riprap and could not be captured. While surveying the inside of the CGS, the DB observed a European starling (*Sturnus vulgaris*) carcass under a natural gas trailer. The DB disposed of the starling carcass on site. No bat carcasses or nests were found inside the site.
3/14/2022	DB Rick Crowe	DB was on site to conduct a rattlesnake and bat survey at CGS. Rattlesnake #5 was found inside a pit trap at the front gate with a Botta's pocket gopher (*Thomomys bottae*), both deceased were removed from the trap and disposed of (Appendix B, Photo 3). Rattlesnake #6, a large female discovered in a rock pile north of the Delevan substation, was released off-site (Appendix B, Photo 4). Similar to last week's visit, two juvenile rattlesnakes were observed at GCC bridge and avoided capture. The triangle-shaped road median area southwest of the front gate was surveyed for nesting birds at plant management's request (before its upcoming use as a staging area for helicopter work) but no nests or nesting behavior was observed. No bat carcasses under the ACC were detected. The facility was down for scheduled maintenance and the ACC has not been running since the first of March.
3/17/2022	DB Rick Crowe	DB was on site to conduct a rattlesnake and bat survey at CGS. In addition, the DB surveyed the grassland areas southwest of the site for nesting birds before next week's vegetation disking (Appendix B, Photo 5). No nesting birds were observed during the survey. In anticipation of next week's ground disturbance, the DB installed a snake board near the front gate guard and taped up holes in the porta-potties (Appendix B, Photo 6 and 7). Rattlesnakes and other wildlife will disperse away from the scheduled ground disturbance. No rattlesnakes, bat carcasses, or bird nests were observed during the site visit. The SD card in the bioacoustics monitoring station was exchanged and sent to Amelia Tauber at CDFW.

Date	Biologist	Description
3/21/2022	DB Rick Crowe	DB was on site to monitor the mowing and disking of the grassland areas west of CGS for fire suppression (Appendix B, Photo 8). The DB observed no wildlife activity during the vegetation clearing. Rattlesnake #7, an adult female rattlesnake, was captured at GCC bridge and released off-site.
3/22/2022	DB Rick Crowe	DB was on site to monitor the mowing and disking of the grassland areas to the south and east of CGS for fire suppression. Rattlesnake #8 was observed and captured at the GCC bridge. A large gopher snake carcass was observed near the detention pond with no signs of injury (Appendix B, Photos 9 and 10).
3/23/2022	DB Rick Crowe	DB was on site to monitor the mowing and disking of the grassland areas north of CGS for fire suppression. Rattlesnakes #9 and #10, both juveniles, were captured at the GCC bridge and released off-site. While the DB was on site, a Eurasian collared dove (*Streptopelia decaocto*) nest was observed in the walkway of the wet sac (Appendix B, Photo 11). The nest was left in place and CGS personnel were notified of the nest's location. While weeding the portion of grassland west of the new switchyard expansion, a second Eurasian collared dove nest was observed (Appendix B, Photo 12). Vegetation clearing was stopped in that area. In addition, a large hole was observed in the northeastern corner of the site (Appendix B, Photo 13). The DB reported the hole to CGS personnel for repair, as it can be a hazard for CGS personnel or grazing cattle in the area.
3/24/2022	DB Rick Crowe	DB was on site to monitor the completion of vegetation clearing surrounding CGS. No wildlife was observed at the site.
4/4/2022	DB Scott Lindemann	DB was on site to survey for rattlesnakes and bat carcasses at CGS. Rattlesnake #11, a dead adult was found by the GCC bridge outside the fence line. The survey under the ACC detected three myotis bat carcasses. The ACC has remained inactive since the planned outage (March 1-March 29).
4/7/2022	DB Scott Lindemann	DB was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes, bat carcasses, or nests were detected during the site visit. The ACC was active on April 5th for the first time in several months.
4/11/2022	DB Scott Lindemann	DB was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were observed during the site visit. A total of three old bat carcasses were observed under the ACC and identified as myotis species. A dead European starling (Appendix B, Photo 14) under the ACC and a rock dove carcass (*Columba livia*, Appendix B, Photo 15) were found inside the site. No bird nests were observed during the survey.
4/20/2022	DB Scott Lindemann	DB was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes, bat carcasses, and or bird nests were observed during the site visit.
5/4/2022	DB Scott Lindemann	DB was on site to conduct a rattlesnake and bat carcass survey at CGS. PG&E staff on May 2 captured Rattlesnakes #12 and #13 inside the facility, a juvenile inside the switchyard, and an adult west of the ACC. The two contained rattlesnakes were released off the site by the DB. No additional rattlesnakes were detected during the site visit. During the outside survey, a giant garter snake was observed near the rip rap at GCC bridge. The DB observed two Brewer's blackbird (*Euphagus cyanocephalus*) nests (Appendix B, Photo 16) in the man lift previously mentioned by CGS CM. A nest was observed being incubated with eggs. A 50-foot no-disturbance buffer surrounding the nests was maintained. Under the ACC, four bat carcasses were observed and identified as myotis species.

Date	Biologist	Description
5/11/2022	DB Scott Lindemann	DB was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes or bat carcasses were observed during the site visit. The Brewer's blackbird nests discovered last week were monitored for two hours with no blackbirds observed in the area. The nest with eggs was previously observed being incubated but appears to be inactive or had failed. Closer inspection of the second nest showed no nest structure, only a bundle of sticks and cloth collected from a nesting bird. PG&E staff were notified that the nest observed in the man lift was inactive. During the outside survey, a giant garter snake was observed near the rip rap at GCC bridge.
5/18/2022	DB Scott Lindemann	DB was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were observed during the inside survey. Rattlesnake #14, a juvenile was observed crawling along the outside fence line north of the ACC. The rattlesnake was contained and released off the site. No bat carcasses or nests were observed inside CGS or under the ACC.
5/25/2022	DB Scott Lindemann and BM Sean O'Neil	DB and BM were on site to conduct a rattlesnake and bat carcass survey at CGS. The inside survey was negative, two rattlesnakes were observed outside the fence line. Rattlesnake #15, an adult, was found coiled up in a culvert along the northern fence of the switchyard. Rattlesnake #16, a juvenile was observed in the pitfall trap along the western gate next to the ACC. Both rattlesnakes were contained and released off the site. The DB and BM identified three older myotis species bat carcasses under the ACC.
6/1/2022	DB Rick Crowe, DB Scott Lindemann, and BM Sean O'Neil	DBs and BM were on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were observed during both surveys. A deceased rock dove was observed in the wet surface air cooler (WSAC) structure and subsequently disposed of in a garbage bin. A live meadow vole was removed from the southern pitfall trap at the front entrance of the site. The DB replaced the SD card in the bioacoustics monitoring station by the barn owl box. The SD card was later sent to Amelia Tauber at CDFW. A small 1.5-inch gap in the western fence was discovered and reported to the CGS CM as a potential entry point for rattlesnakes (Appendix B, Photo 17). The BM and DBs conducted a walking survey under the ACC for bat carcasses. A total of four old bat carcasses were observed and identified as myotis bats.
6/7/2022	DB Scott Lindemann and BM Sean O'Neil	DB and BM were on site to survey inside and the outside the CGS for rattlesnakes. A rattlesnake was detected during the outside survey of CGS. Rattlesnake #17, a large adult, was observed in a hole just west of the detention pond and released away from the site. While performing the outside survey at GCC bridge crossing, a large giant garter snake was detected in the rip rap on the southwest corner of the bridge. The garter snake was not disturbed and was left where it was last observed (Appendix B, Photo 18). The bat carcass survey under the ACC yielded three decimated myotis species bat carcasses.
6/15/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were observed inside the site. Rattlesnake #18, an adult was found coiled up in the inlet of a culvert outside of the western fence of the detention pond. Rattlesnake #19, an adult rattlesnake was spotted in the outfall of the same culvert as the previous rattlesnake. Both rattlesnakes were contained and released off the site. No bat carcasses or bird nests were observed were observed during the site survey.
6/22/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. PG&E staff contained Rattlesnake #20, a juvenile inside the site near the west gate on June 20th. The rattlesnake was released off the site by the BM. No rattlesnakes, bat carcasses, or bird nests were observed during the site survey.

Date	Biologist	Description
6/29/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were observed; however, a California kingsnake (Appendix B, Photo 19) was observed by the outfall of the culvert north of the pond and west of the station. The kingsnake was captured and released off the site. The bat carcass survey under the ACC yielded three bat carcasses and one inside the warehouse (Appendix B, Photo 20). The four carcasses were identified as myotis species from the small size and dark fur color. No nests were observed inside the CGS. The BM switched the SD card in the bioacoustics monitoring station south of the facility. The SD card was sent to Amelia Tauber at CDFW.
7/6/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were observed during the survey and 1 bat carcass was found on the paved roadway just inside CGS by the main entrance (Appendix B, Photo 21). An additional bat carcass was found during the ACC survey. The two bat carcasses were identified as myotis species from their small size and fur color.
7/13/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were detected at CGS. A single bat carcass was found under the ACC and another behind a standalone single-room office structure by the main entrance during the interior rattlesnake survey. The two bat carcasses were old and identified as myotis species from the size and fur color. No bird nests were observed during the inside survey of the CGS.
7/20/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes or bird nests were observed during the survey of the CGS. The bat carcass survey under the ACC yielded four bat carcasses.. A big brown bat carcass was identified based on its brown fur color, large size, and wingspan. A partial hoary bat carcass was identified based on the silver undertones present in the fur. The last two bat carcasses were identified as myotis species from the small size and dark brown fur color.
7/27/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes or bird nests were observed during the survey of the CGS. A total of 14 bat carcasses were found during the inside survey of the CGS and were identified as myotis species based on their small size and fur color. The first bat was found between the warehouse and the perimeter fence (Appendix B, Photo 22). The second bat carcass was found clinging to the perimeter snake fence just north of the main entrance (Appendix B, Photo 23). The third bat carcass was found on the pavement by the main entrance (Appendix B, Photo 24). The fourth carcass was found in the gravel about 150 feet east of the ACC unit and the fifth carcass was detected in the gravel south of Fin Fan Cooler B by the eastern fence line. Nine additional bat carcasses were found under the ACC unit during the survey.
8/3/2022	DB Rock Crowe, DB Scott Lindemann and BM Sean O'Neil	DBs and BM were onsite to conduct a rattlesnake and bat carcass survey at CGS, and as a training event as Rick Crowe neared retirement. No rattlesnakes or bird nests were observed during the survey. A live myotis species bat was found by the warehouse in the parking lot (Appendix B, Photo 25). The live bat was contained and safely released off the site. A total of 19 bat carcasses were found inside the CGS, all identified as myotis species. The first bat carcass was found by the western perimeter fence just north of the gate. The second bat carcass was found by the eastern fence north of the main gate. The 17 remaining bat carcasses were found under the ACC (Appendix B, Photos 26 and 27).
8/10/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes or bird nests were observed during the survey. Eleven bat carcasses were found under the ACC. Nine bat carcasses were identified as myotis species based on their small size and fur color. One bat carcass was identified as a

Date	Biologist	Description
		Western red bat, a CDFW species of special concern (Appendix B, Photo 28). A single bat carcass was identified as a Mexican free-tailed bat by its ear shape and long tail (Appendix B, Photo 29).
8/17/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. Rattlesnake #21, an adult, was captured outside along the eastern fence line and released off the site. The bat carcass survey under the ACC yielded 10 bats, seven were identified as myotis bats, and three as Mexican free-tailed bats (Appendix B, Photo 30). No bird nests were observed during the inside survey. The SD card in the bioacoustics monitoring station was changed and sent to Amelia Tauber at CDFW.
8/24/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were observed inside CGS. Rattlesnakes #22 and #23 both juveniles were observed dead on the east bank of the detention pond outside the fence line. The bat carcass survey under the ACC yielded two carcasses: one myotis species and one Mexican freetail bat. No bird nests were observed inside the facility.
8/31/2022	BM Sean O'Neil	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes or bird nests were detected during the survey. A total of 10 bat carcasses were found inside CGS, all identified as myotis species based on the size and fur color (Appendix B, Photo 31). A lone bat carcass was found in the warehouse during the interior rattlesnake survey.
9/14/2022	DB Rick Crowe and BM Danny Rivas	DB and BM were on site to conduct a rattlesnake and bat carcass survey at CGS. Rattlesnake #24 was found outside the west end fence by PG&E staff and contained (Appendix B, Photo 32). Rattlesnake #25 was discovered north of the ACC under a board outside the fence. Both were released outside of the site. A total of 13 bat carcasses were detected under the ACC (Appendix B, Photos 33 and 34). The two bat carcasses were identified as Mexican free-tail bats by the tail, ear shape, and size. The other 11 bat carcasses were identified as myotis species from the size and fur color.
9/15/2022	BM Danny Rivas	BM was called on to CGS to release Rattlesnake #26, a juvenile contained north of the ACC outside the fence line by PG&E staff. The rattlesnake remained contained inside the facility until the BM arrived at CGS to release it off the site. An inside survey was performed to check for rattlesnakes and bat carcasses. No bat carcasses or rattlesnakes were observed during the survey.
9/20/2022	DB Rick Crowe and BM Danny Rivas	DB and BM were on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were detected inside or outside the facility. The DB and BM surveyed the ACC interior to identify bat carcasses. Pooling from recent rain was present inside and made identifying potential carcasses more difficult. Approximately 183 bat carcasses were identified inside the ACC, with a majority of the carcasses being found on Streets 3-6 (Appendix B, Photo 35). No additional bat carcasses were found under the ACC. A group of four deer mice found inside the back gate pit-fall traps west of CGS were removed from the traps.

Date	Biologist	Description
9/28/2022	DB Scott Lindemann, BM Danny Rivas, and Jacobs Project Manager (PM) Jerry Salamy	DB, BM, and Jacobs project manager (PM) were on site to survey for rattlesnakes and bat carcasses at CGS. Rattlesnake #27 was found inside the fence at the CT1 performance gas heater by PG&E staff on September 27 and released offsite by the BM. No additional rattlesnakes were observed during the site survey. A live myotis species bat was found south of the warehouse on the fence (Appendix B, Photo 36). The live bat was rehydrated and safely released away from the site (Appendix B, Photo 37). Under the ACC, four myotis species bat carcasses were identified based on size and fur color (Appendix B, Photo 38). An additional myotis bat carcass and one unidentified bat carcass were found inside the warehouse. A male house finch (*Haemorhous mexicanus*) carcass was found under the ACC (Appendix B, Photo 39).
10/5/2022	BM Danny Rivas	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were detected inside or outside the site during the survey. During the rattlesnake survey, five myotis species bat carcasses were found outside of the ACC. One partial bat carcass was found at the front entrance, one near the back gate east of the facility, two near the entrance of the water treatment building, and one inside the warehouse. Under the ACC, three myotis species bat carcasses were found, with eight bat carcasses in total (Appendix B, Photo 40).
10/12/2022	BM Danny Rivas	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were detected inside or outside the site during the survey. A total of four myotis species bat carcasses were found and identified based on size and fur color (Appendix B, Photo 41). Two bat carcasses were found under the ACC. Two bat carcasses were discovered inside the warehouse during the rattlesnake survey.
10/19/2022	BM Danny Rivas	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. Rattlesnake #28 was discovered outside the fence under a board northeast of the Delevan switchyard and released off the site. A burrowing owl was spotted near a culvert northwest of the site on the way to release rattlesnake #28. No new bird nests were observed during the survey. A total of two myotis species bat carcasses were found inside the site. One fresh bat carcass was found inside the warehouse (Appendix B, Photo 41) and one dry bat carcass was found under the ACC.
10/24/2022	DB Rick Crowe and BM Danny Rivas	DB and BM were on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes were observed at the site. An inactive house finch nest was discovered north of CT1 under a walkway with old eggs. A fresh male ruby-crowned kinglet carcass was found southeast of the ACC and a rock dove carcass was found under the steam turbine (Appendix B, Photo 43-45). Both of the bird carcasses were disposed of in a trash bin. A single myotis species bat carcass was found inside the warehouse and no bat carcasses were detected under the AC.
10/31/2022	BM Danny Rivas	BM was on site to conduct a rattlesnake and bat carcass survey at CGS. No rattlesnakes or bat carcasses were observed during the survey. All the board planks along the fence line were removed and stored in the warehouse. The pitfall traps were also covered for the upcoming winter season. The BM found 2 rock dove carcasses near CT#1. One was fresh while the other showed signs of predation (Appendix B, Photo 46). Weekly surveys at CGS would remain on hold until 2023, with the yearly cleaning of the ACC interior to occur in January 2023.
2/4/2023	DB Scott Lindemann and BM Danny Rivas	DB and BM were on site to collect bat carcasses within and under the ACC and survey under the ACC for 2022 total count (Appendix B, Photo 47-51). The DB detected 102 bat carcasses, of which 95 could be collected. The species breakdown is 72 myotis, eight Mexican freetail bats, and 15 unidentified bats. These carcasses were also placed in the warehouse freezer for further potential identification by CDFW. Before

Date	Biologist	Description
		leaving the site, the BM exchanged the SD card in the CDFW bioacoustics monitoring station and sent it to Amelia Tauber at CDFW. Three additional house finch carcasses were also identified from the ACC and the warehouse.

Appendix B
Site Photos

Photo 1. Three myotis species bats and one red bat carcasses found under the ACC on February 17th, 2022.

Photo 2. Rattlesnake #2, a large female captured at the GCC bridge on March 1st, 2022.

Photo 3. Rattlesnake #5, a deceased rattlesnake, and Botta's pocket gopher found inside the front gate pit trap on March 14th, 2022.

Photo 4. Rattlesnake #6, a large female observed in a rock pile north of the Delevan substation was released offsite on March 14th, 2022.

Photo 5. Nesting bird survey triangle area southwest of site on March 17th, 2022.

Photo 6. Snake board installed on guard shack on March 17th, 2022.

Photo 7. Holes in guard shack porta-potty taped off to exclude wildlife on March 17th, 2022.

Photo 8. Detention Pond mowing and disking on March 21st, 2022.

Photo 9. Dead gopher snake observed near the detention pond on March 22nd, 2022.

Photo 10. Weedeating at the Tehama Colusa canal on March 22nd, 2022.

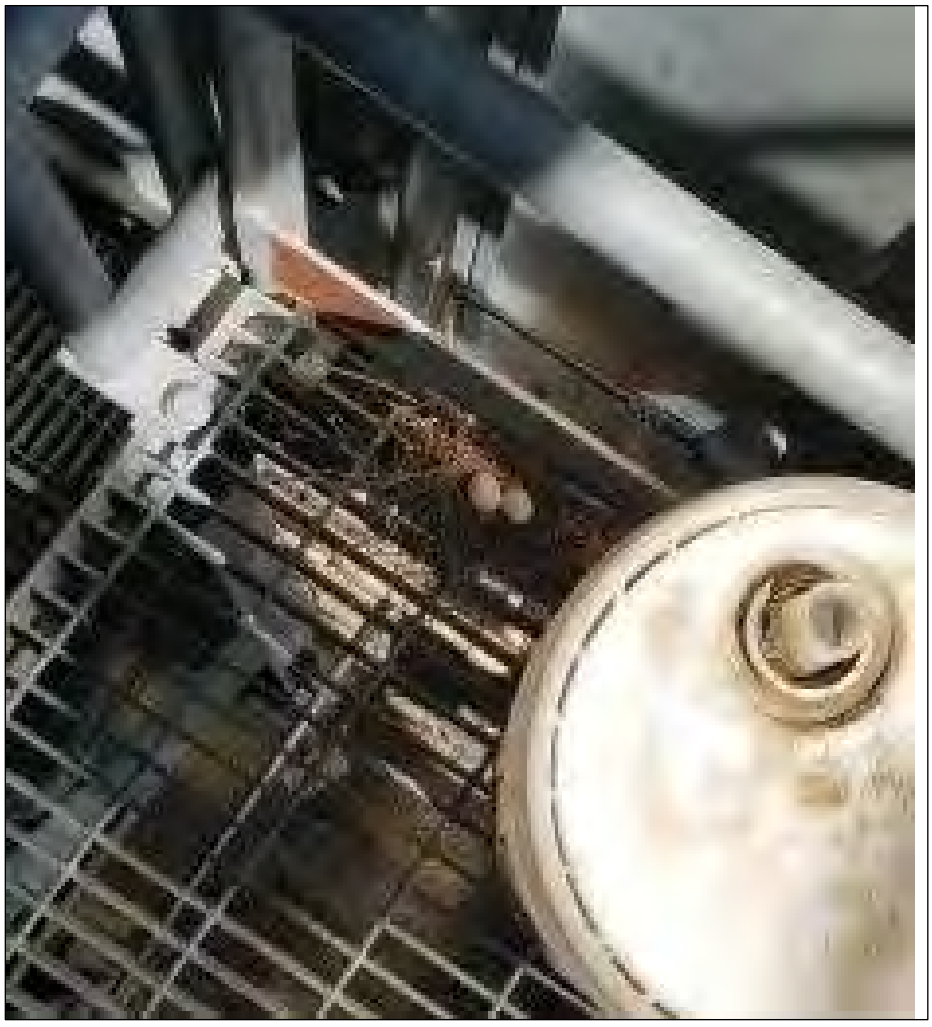


Photo 11 Eurasian collared dove nest in wet sac walkway on March 23rd, 2022.

Photo 12. Eurasian collared dove nest in grassland area west of the switchyard March 23rd, 2022.

Photo 13. Hole near perimeter fence in the northeast corner of the site on March 23rd, 2022.

Photo 14. A European starling carcass found under the ACC on April 11th, 2022.

Photo 15. A headless rock dove carcass found inside the site on April 11th, 2022.

Photo 16. Brewer's blackbird nest #1 with eggs present on a man lift on May 4th, 2022.

Photo 17. One and a half inches of clearance between the bottom of the gate and the road, a potential entry point for rattlesnakes found on June 1st, 2022.

Photo 18. Giant garter snake observation at GCC bridge on June 7th, 2022.

Photo 19. Captured California kingsnake found by the outfall of the culvert north of the detention pond and west of CGS on June 29th, 2022.

Photo 20. A fresh myotis bat carcass found inside the warehouse on June 29th, 2022.

Photo 21. A myotis bat carcass found on the paved roadway near the main entrance on July 6th, 2022.

Photo 22. A myotis bat carcass found between the warehouse and the fence line south of the site on July 27th, 2022.

Photo 23. A myotis bat carcass found clinging onto the perimeter fence north of the of the main entrance on July 27th, 2022.

Photo 24. A myotis bat carcass found on the pavement by the main entrance of the site on July 27th, 2022.

Photo 26: A live myotis bat found clinging to the concrete base under the ACC and was released off the site on August 3rd, 2022.

Photo 25. A fresh myotis bat carcass found under the ACC on August 3rd, 2022.

Photo 26. A myotis species bat carcass found under the ACC on August 3rd, 2022.

Photo 27. A western red bat carcass found under the ACC on August 10th, 2022.

Photo 28. A Mexican free-tailed bat carcass found under the ACC on August 10th, 2022.

Photo 29. A Mexican free-tailed bat carcass found under the ACC on August 17th, 2022.

Photo 30. A myotis species bat carcass found under the ACC on August 31st, 2022.

Photo 31. Rattlesnake #24, an adult found outside the west end fence by PG&E staff on September 14th, 2022

Photo 32. Eleven myotis species bat carcasses found under the ACC on September 14th, 2022.

Photo 33. Two Mexican free-tailed bat carcasses found under the ACC on September 14th, 2022.

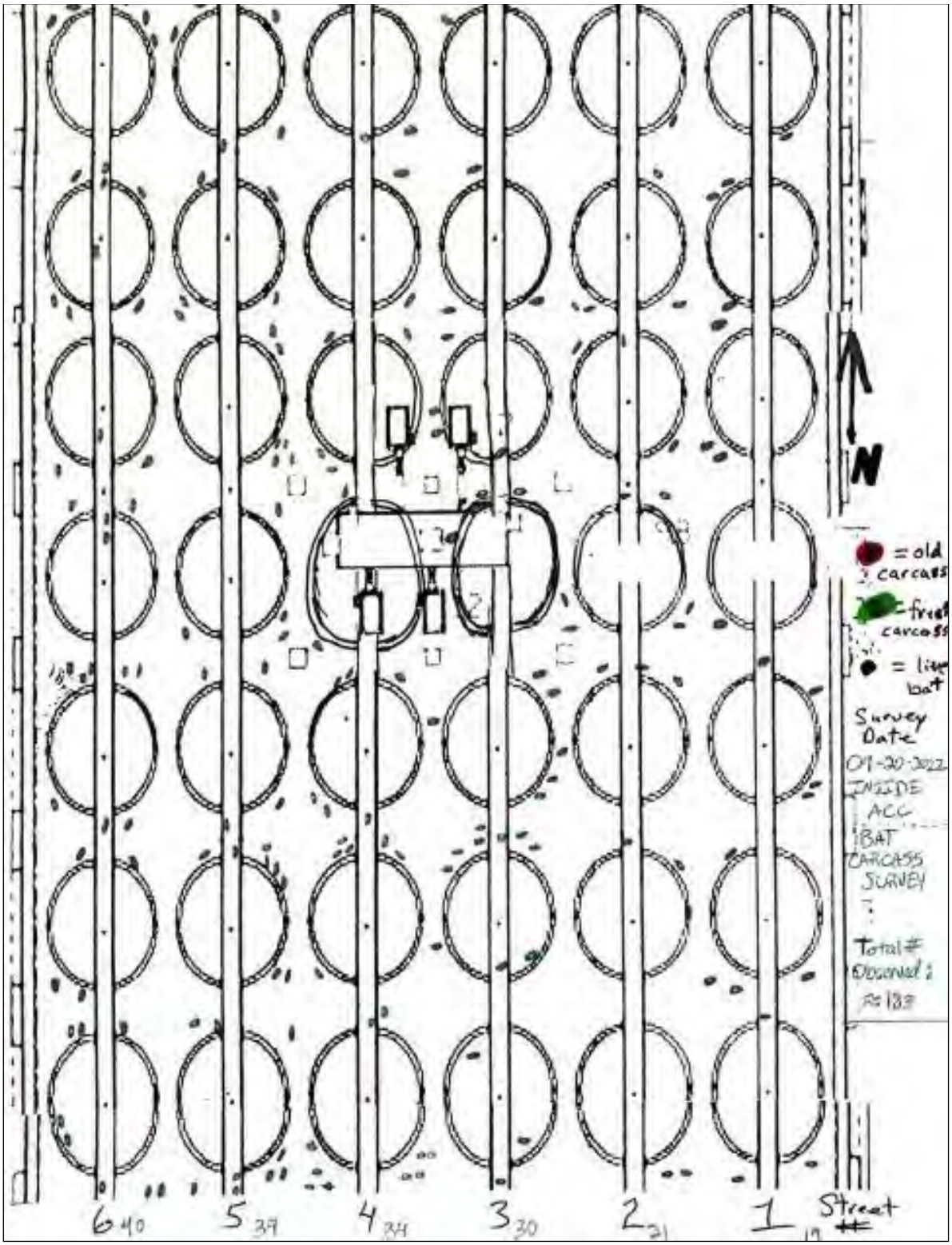


Photo 34. Marked locations (green dots) of bat carcasses detected inside the ACC on September 20th, 2022.

Photo 35. A live myotis bat found inside the site south of the warehouse between the wire mesh and fence link on September 28th, 2022

Photo 36. Live myotis bat contained and released off the site on September 28th, 2022.

Photo 37. Five myotis bat carcasses and one unidentified bat carcass. Four myotis species bat carcasses found under the ACC and one inside the warehouse on September 28th, 2022.

Photo 38. A male house finch carcass found under the ACC on September 28th, 2022.

Photo 39. Eight myotis bat carcasses, of which five were found inside the warehouse and three were found under the ACC on October 5th, 2022.

Photo 40. Four myotis bat carcasses, of which two were found inside the warehouse and two were found under the ACC on October 12th, 2022.

Photo 41. A myotis bat carcass found inside the warehouse on October 19th, 2022.

Photo 42. Abandoned house finch nest found under a walkway north of CT1 with old unviable eggs on October 24th, 2022.

Photo 43. View of the four old house finch eggs inside the removed nest on October 24th, 2022.

Photo 44. A fresh ruby-crowned kinglet carcass found under the ACC on October 24th, 2022.

Photo 45. A rock dove carcass with signs of predation found near CT#1 on October 31st, 2022.

Photo 46. Area below ACC on February 2, 2023.

Photo 47. Interior of ACC on February 2, 2023.

Photo 48. View of all 95 carcasses collected from within or below ACC on February 2, 2023. Myotis species are grouped on the right and left bottom, Mexican free-tailed bats on the top right, and unidentified bats on the top left.

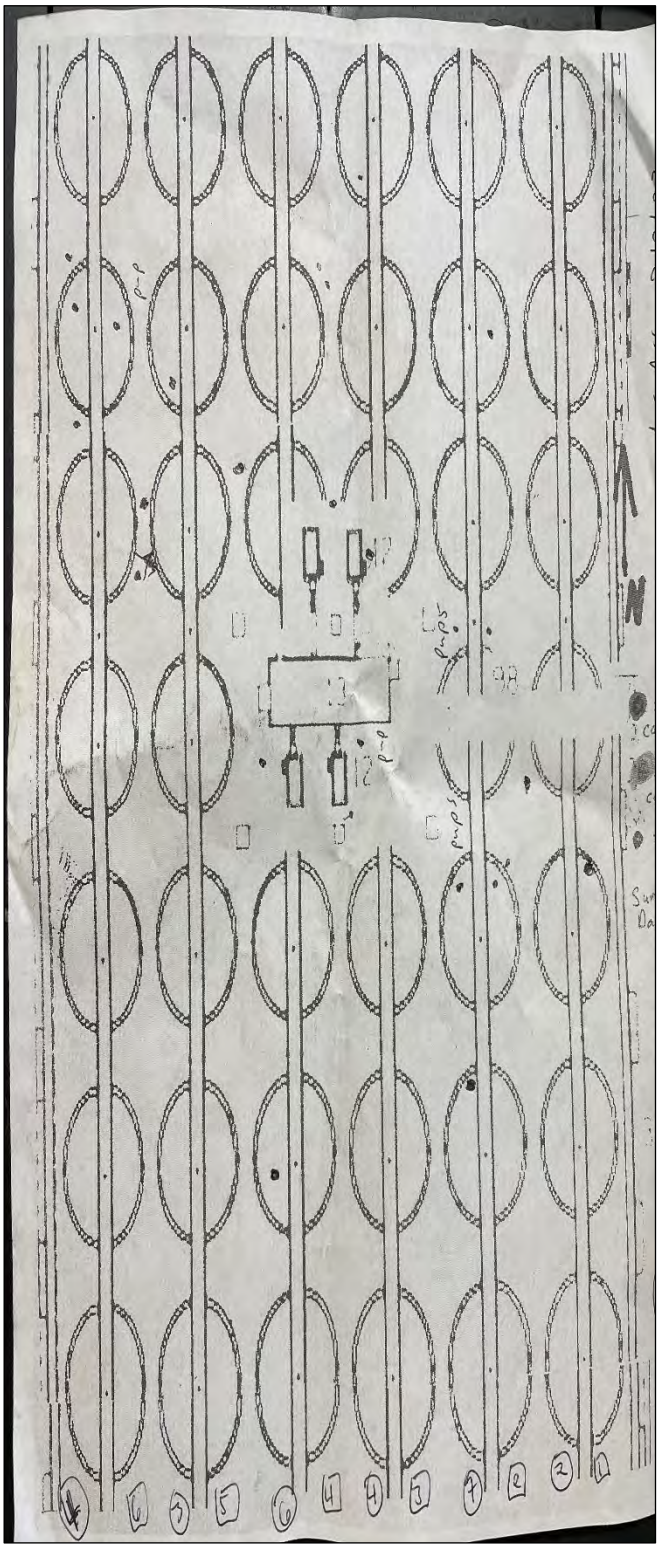


Photo 49. Marked locations (black dots) of bat carcasses detected below the ACC on February 2, 2023.

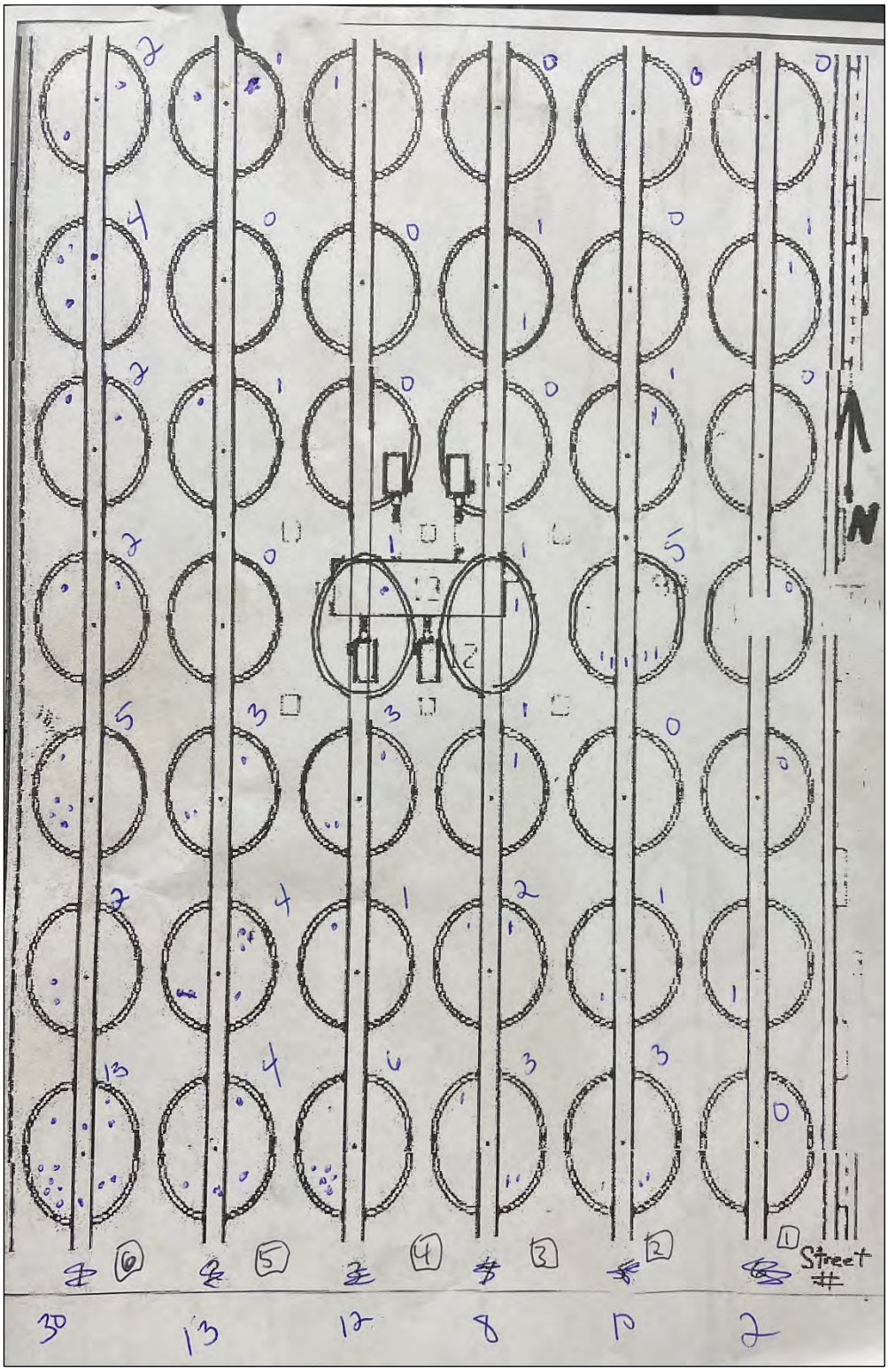


Photo 50. Marked locations (blue dots) of bat carcasses detected inside the ACC on February 2, 2023.

Appendix C
Rattlesnake Table

Table C-1. Rattlesnakes Detected in 2022

Date	Total Daily Quantity	Inside Plant	Outside Plant	Notes
1/25/2022	1	1	0	Rattlesnake #1, a juvenile, was observed dead under distillate tank in ZLD area.
2/17/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
3/1/2022	1	0	1	Rattlesnake #2, an adult female, captured at the Glenn Colusa Canal (GCC) bridge.
3/9/2022	2	0	2	Rattlesnake #3, a juvenile, and Rattlesnake #4, a large adult female, were captured at the GCC bridge.
3/14/2022	2	0	2	Rattlesnake #5, a juvenile, was observed dead in the pit trap at the front gate, Rattlesnake #6 a large female was captured in a pile of rocks just north of the switchyard haul road.
3/17/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
3/21/2022	1	0	1	Rattlesnake #7, an adult female, was captured at the GCC bridge.
3/22/2022	1	0	1	Monitored mowing, disking and weed-eating, Rattlesnake #8, an adult male, was captured at the GCC bridge.
3/23/2022	2	0	2	Monitored mowing, disking and weed-eating, Rattlesnake #9, a juvenile, was captured on the west side of the new switchyard expansion. Rattlesnake #10, also a juvenile, was captured at the GCC bridge.
3/24/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
4/4/2022	1	0	1	Rattlesnake #11, an adult male, was found dead by the GCC bridge.
4/7/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
4/11/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
4/20/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
5/2/2022	2	2	0	PG&E staff collected Rattlesnake #s 12 and 13 during operations on Monday. Rattlesnake #12, a juvenile, was captured inside the switchyard. Rattlesnake #13, an adult, was also located inside the fence, west of the ACC.
5/4/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed. Released rattlesnakes from 5/2/2022.
5/11/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
5/18/2022	1	0	1	Rattlesnake #14, a juvenile, was found outside the facility, crawling along the facility fence line north of the ACC.
5/25/2022	2	0	2	Rattlesnake #15, a medium-sized adult, was found in a culvert on the northern fence of the switchyard and was collected by BM and DB. Rattlesnake #16, a juvenile, was collected BM and DB in the northern pitfall trap along the western fence next to the ACC unit.
6/1/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.

Date	Total Daily Quantity	Inside Plant	Outside Plant	Notes
6/7/2022	1	0	1	Rattlesnake #17, a large adult, was captured in a hole just west of the CGS detention pond
6/15/2022	2	0	2	Rattlesnake #18, a medium-sized adult, was found coiled up in the inlet of a culvert outside of the western fence northwest of the pond. Rattlesnake #19, a medium-large adult, was found in the outfall of the same culvert as Rattlesnake #18.
6/22/2022	1	1	0	Rattlesnake #20, a juvenile, was captured by PG&E staff on Monday 6/20 inside the fence by the western gate and released offsite on Wednesday 6/22 by the DB.
6/29/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
7/6/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
7/13/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
7/20/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
7/27/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
8/3/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
8/10/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
8/17/2022	1	0	1	Rattlesnake #21, a medium-sized adult, was captured by BM Sean O'Neil.
8/24/2022	2	0	2	Rattlesnake #22 and #23, both juveniles, were observed dead on the east bank of the detention pond.
9/14/2022	2	0	2	Rattlesnake #24, medium size adult, was found outside of the West Gate and captured by PG&E staff on Wednesday 9/14. It was released offsite by BM. Rattlesnake #25, a juvenile, was found under a coverboard north of the ACC and relocated by the BM.
9/15/2022	1	0	1	Rattlesnake #26, a juvenile, was contained by PG&E staff on Thursday 9/15 outside the fence north of the ACC and released off the site in the afternoon by BM.
9/20/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
9/28/2022	1	1	0	Rattlesnake #27, a hatchling, was contained by PG&E staff on Tuesday 9/27 inside the fence at CT1 performance gas heater and released off the site on Wednesday 9/28 by BM.
10/5/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
10/12/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
10/19/2022	1	0	1	Rattlesnake #28, a juvenile, was discovered northeast of the Delevan switchyard outside the fence under a board. The rattlesnake was released off the site by BM.
10/24/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
10/31/2022	0	0	0	Survey inside and outside of plant, no rattlesnakes observed.
Totals	***28***	***5***	***23***	--

Appendix D
Bat Table

Table D-1. Bat Species by Date and Condition

Date	Number of Bat Carcasses Observed	Live Bats Captured and Released	Myotis (little brown bat or Yuma myotis)	Mexican free-tailed bat	Western red bat	Big brown bat	Hoary bat	Pallid bat	Unidentified	Daily Total (dead and living)	Notes
2/17/2022	5	0	3	1	1	0	0	0	0	5	Three myotis and one red bat carcass observed under ACC. One Mexican free-tailed carcass observed in warehouse.
3/1/2022	0	0	0	0	0	0	0	0	0	0	
3/9/2022	0	0	0	0	0	0	0	0	0	0	
3/14/2022	0	0	0	0	0	0	0	0	0	0	
3/17/2022	0	0	0	0	0	0	0	0	0	0	
4/4/2022	3	0	3	0	0	0	0	0	0	3	Three older myotis carcasses observed under the ACC.
4/7/2022	0	0	0	0	0	0	0	0	0	0	
4/11/2022	3	0	3	0	0	0	0	0	0	3	Three older myotis carcasses observed under the ACC.
4/20/2022	0	0	0	0	0	0	0	0	0	0	
5/4/2022	4	0	4	0	0	0	0	0	0	4	Four older myotis bat carcasses observed under the ACC.
5/11/2022	0	0	0	0	0	0	0	0	0	0	
5/18/2022	0	0	0	0	0	0	0	0	0	0	
5/25/2022	3	0	3	0	0	0	0	0	0	3	Three older myotis bat carcasses observed under the ACC.

Date	Number of Bat Carcasses Observed	Live Bats Captured and Released	Myotis (little brown bat or Yuma myotis)	Mexican free-tailed bat	Western red bat	Big brown bat	Hoary bat	Pallid bat	Unidentified	Daily Total (dead and living)	Notes
6/1/2022	4	0	4	0	0	0	0	0	0	4	Four older myotis bat carcasses observed under the ACC.
6/7/2022	3	0	3	0	0	0	0	0	0	3	Three older myotis bat carcasses observed under the ACC.
6/15/2022	0	0	0	0	0	0	0	0	0	0	
6/22/2022	0	0	0	0	0	0	0	0	0	0	
6/29/2022	4	0	4	0	0	0	0	0	0	4	Two old and one fresh myotis carcasses observed under the ACC. One fresh myotis carcass found in warehouse.
7/6/2022	2	0	2	0	0	0	0	0	0	2	One old myotis carcass found under ACC. One fresh myotis carcass found in interior roadway by entrance.
7/13/2022	2	0	2	0	0	0	0	0	0	2	One old myotis carcass found under ACC. One old myotis carcass found behind a standalone, single room office structure by the main entrance.
7/20/2022	4	0	2	0	0	1	1	0	0	4	Two fresh myotis bat carcasses, one fresh big brown bat carcass, and one partial hoary bat carcass found under ACC unit.

Date	Number of Bat Carcasses Observed	Live Bats Captured and Released	Myotis (little brown bat or Yuma myotis)	Mexican free-tailed bat	Western red bat	Big brown bat	Hoary bat	Pallid bat	Unidentified	Daily Total (dead and living)	Notes
7/27/2022	14	0	14	0	0	0	0	0	0	14	A total of 14 dry myotis. Nine found under ACC Unit, five more found in various locations.
8/3/2022	19	1	20	0	0	0	0	0	0	20	One myotis in the parking lot by the warehouse, one myotis along the eastern fence, and one myotis along the western fence. A total of 16 myotis carcasses found under ACC unit. One live myotis rescued and relocated safely offsite.
8/10/2022	11	0	9	1	1	0	0	0	0	11	One western red bat, one Mexican free-tailed bat, and nine myotis carcasses found under the ACC.
8/17/2022	10	0	7	3	0	0	0	0	0	10	Three Mexican free-tailed bats and seven myotis found under the ACC
8/24/2022	2	0	1	1	0	0	0	0	0	2	One Mexican free-tailed bat and one myotis found under ACC
8/31/2022	10	0	10	0	0	0	0	0	0	10	Nine myotis found under ACC, and one found in the warehouse.

Date	Number of Bat Carcasses Observed	Live Bats Captured and Released	Myotis (little brown bat or Yuma myotis)	Mexican free-tailed bat	Western red bat	Big brown bat	Hoary bat	Pallid bat	Unidentified	Daily Total (dead and living)	Notes
9/14/2022	13	0	11	2	0	0	0	0	0	13	Eleven myotis and two Mexican free-tailed bat carcasses found under the ACC
9/15/2022	0	0	0	0	0	0	0	0	0	0	
9/20/2022	0	0	0	0	0	0	0	0	0	0[1]	
9/28/2022	7	1	7	0	0	0	0	0	1	8	One live myotis found south of the warehouse on the fence was rehydrated and relocated safely offsite. Four myotis carcasses found under the ACC. Two myotis and one unidentified bat carcasses found inside the warehouse.
10/5/2022	8	0	8	0	0	0	0	0	0	8	Three myotis carcasses found under the ACC, two myotis found south of the water treatment entrance, one found near the front gate entrance, one found at the back gate, and one found inside the warehouse.

[1] Approximately 183 bat carcasses were counted inside the ACC during the survey. Under the ACC no bat carcasses were discovered. Note that these bats were not counted because they were visually detected but not physically collected, to avoid double counting when considered with later carcass collection efforts, especially the one conducted on 2/2/2023. In addition, because surveyors did not leave the ACC catwalk to investigate carcasses, counts from this day may be inaccurate. Water pooling inside the ACC made it difficult to spot bat carcasses, especially in the corners.

Date	Number of Bat Carcasses Observed	Live Bats Captured and Released	Myotis (little brown bat or Yuma myotis)	Mexican free-tailed bat	Western red bat	Big brown bat	Hoary bat	Pallid bat	Unidentified	Daily Total (dead and living)	Notes
10/12/2022	4	0	4	0	0	0	0	0	0	4	Two myotis carcasses found under the ACC and two myotis carcasses were found inside the warehouse.
10/19/2022	2	0	2	0	0	0	0	0	0	2	One dry myotis carcass found under the ACC and one fresh myotis carcass found inside the warehouse.
10/31/2022	0	0	0	0	0	0	0	0	0	0	
2/2/2023	102	0	72	8	0	0	0	0	22	102	A total of 102 bat carcasses detected during ACC cleanout day. A subtotal of 76 bats observed inside the ACC, of which 69 carcasses could be collected (53 myotis, 7 Mexican free-tailed bats, and 9 unidentified bats), 7 could not be collected. A subtotal of 26 carcasses collected below the ACC (19 myotis, 1 Mexican free-tailed bat, and 6 unidentified bats).
Totals:	***239***	***2***	***198***	***16***	***2***	***1***	***1***	***0***	***23***	***241***	

Table D-2: Bat Carcasses Detected[2] Inside ACC on February 2, 2023, by Street

Street	Carcasses
Street 1	2
Street 2	10
Street 3	8
Street 4	12
Street 5	13
Street 6	30
Other[3]	1
Subtotal	***76***

Table D-3: Bat Carcasses Detected Under ACC on February 2, 2023, by Street

Street	Carcasses
Street 1	2
Street 2	7
Street 3	4
Street 4	6
Street 5	3
Street 6	4
Subtotal	***26***

Table D-4. ACC Cleanout Carcasses Collected[4] on February 2, 2023

Species	Inside ACC	Under ACC	Total Carcasses Collected
Myotis (little brown bat or Yuma myotis)	53	19	72
Mexican free-tailed bat	7	1	8
Unknown	9	6	15
Subtotal	***69***	***26***	***95***

[2] Some detected carcasses could not be collected due to their location but were still recorded as detected.

[3] One collected bat carcass on the map turned out to be two stuck together when the carcasses were later sorted.

[4] Some detected carcasses could not be collected due to their location.

Appendix E
Giant Garter Snake CNDDB Occurrence

CNDDB Online Field Survey Form Report

California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/

This data has been reported to the CNDDB, but may not have been evaluated by the CNDDB staff

Source code ONE22F0002
Quad code 3912233
Occ. no. _____
EO index no. _____
Map index no. _____

Scientific name: *Thamnophis gigas*

Common name: giant gartersnake

Date of field work (mm-dd-yyyy): 05-25-2022

Comment about field work date(s): found while driving to fieldwork site in Colusa

OBSERVER INFORMATION

Observer: Sean P. O'Neil

Affiliation: Jacobs Engineering Group

Address: 918 Pomona Ave. , Albany, CA 94706

Email: Sean.ONeil1@jacobs.com

Phone: (804) 767-0995

Other observers: Scott Lindemann

DETERMINATION

Keyed in:

Compared w/ specimen at:

Compared w/ image in: USFWS and californiaherps.com

By another person:

Other:

Identification explanation:

Identification confidence: Very confident

Species found: Yes **If not found, why not?**

Level of survey effort: Low

Total number of individuals: 1

Collection? No **Collection number:**

Museum/Herbarium:

ANIMAL INFORMATION

How was the detection made? Seen

Number detected in each age class:

adults	juveniles	larvae	egg mass	unknown
1				

Age class comment:

Site use description: water infrastructure adjacent to agricultural land

What was the observed behavior? seeking refuge in rock slope protection

Describe any evidence of reproduction:

SITE INFORMATION

Habitat description: In rock slope protection associated with bridge over Glenn-Colusa Canal on Noel Evan Road, adjacent to agricultural land

Slope:

Land owner/manager:

Aspect:

Site condition + population viability:

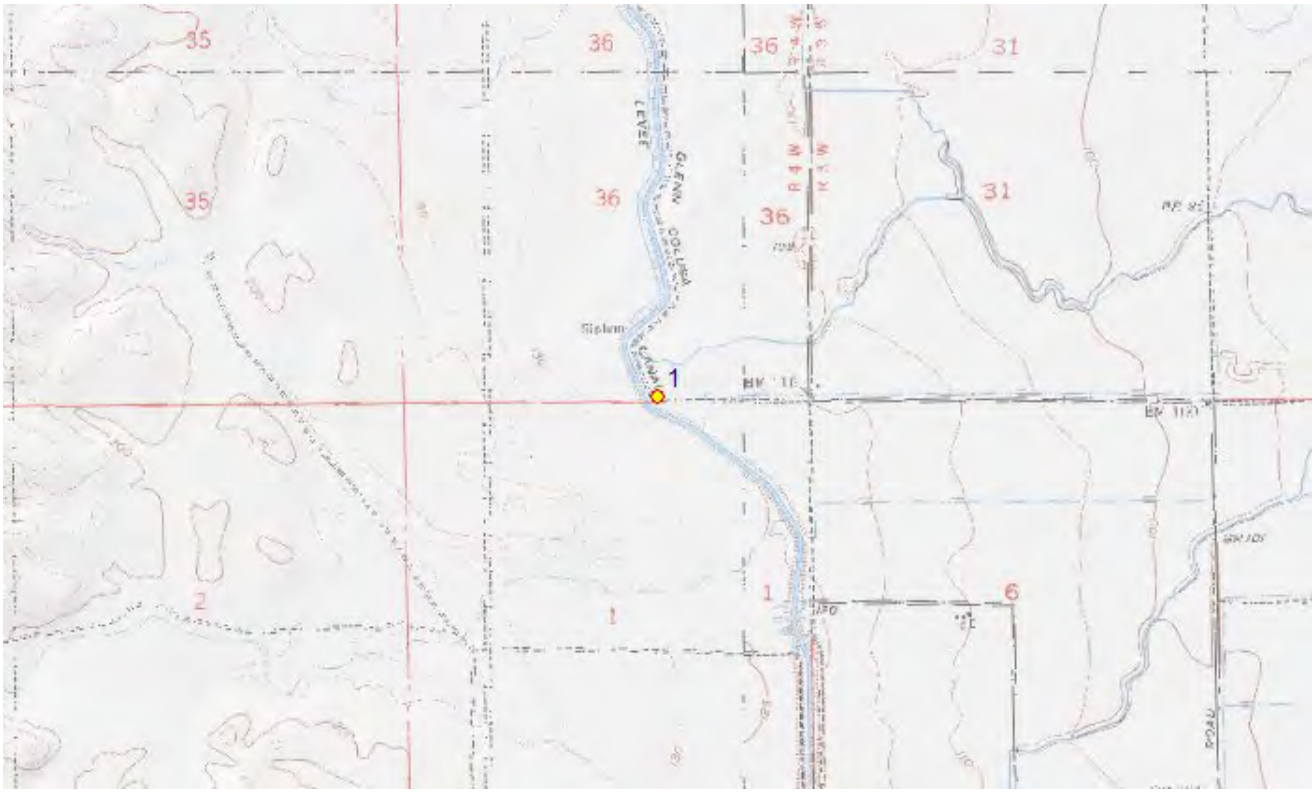
Immediate & surrounding land use: agriculture

Visible disturbances:

Threats: traffic

General comments:

MAP INFORMATION



ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Colusa	Sites	127	39.36340	-122.25507	564173	4357370	10
	Public Land Survey	**Feature Comment**						
1	M T17N R04W 1	Hiding in rock slope protection						

The mapped feature is accurate within: 5 m

Source of mapped feature: Google earth

Mapping notes:

Location/directions comments: in rock slope protection on northeast side of Noel Evan road bridge over the Glenn-Colusa Canal

Attachment(s): GGS sighting.jpg; GGS sighting 2.jpg, snake had milky, swollen left eye

Pacific Gas and Electric Company®

Appendix 2, HAZ-1

Hazardous Materials Appendix C
Colusa Generating Station Onsite Inventory of Hazardous Materials

Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Days on Site	Estimated Pounds Per Year of Chemical
Product #001A0382	Shell Omala Oil HD 220	Gear box/ACC oil	Air Cooled Condenser - Gear Box (E13)	ACC Gear Box	12 gal	gallons	42	504 gal	504	504	365	504.0
	Carbon dioxide, Liquid	Carbon dioxide, Liquid	Carbon Dioxide Bottle Storage Rack at Combustion Turbine-A (Site Feature #59)	Tank	12,000 lb	pounds	1	12,000 lb	12,000	9,000	365	9,000 lb onsite daily
	Carbon dioxide, Liquid	Carbon dioxide, Liquid	Carbon Dioxide Bottle Storage Rack at Combustion Turbine-B (Site Feature #59)	Tank	12,000 lb	pounds	1	12,000 lb	12,000	9,000		9,000 lb onsite daily
	Carbon dioxide, Liquid	Carbon dioxide, Liquid	Carbon Dioxide Bottle Storage Rack at Steam Turbine (Site Feature #59)	Tank	12,000 lb	pounds	1	12,000 lb	12,000	9,000		9,000 lb onsite daily
Nalco TRAC107 PLUS	PSO (1.0 - 5.0%)	Closed Cooling Corrosion/Scale Inhibitor	Closed Cooling Chemical Feed Tank (Site Feature #106)	55-gal Metal or Plastic	55 gal	gallons	4	220 gal	220	165	365	1,010
MSDS #778983	Turbine Oil	lube oil	Combustion Turbine-A (E1)	CT-A Lube Oil	6,150 gal	gallons	1	6,150 gal	6,150	4,613	365	33,671 lb onsite daily
	Hydrogen	Hydrogen / Coolant	Combustion Turbine-A HRSG (G2)	Generator	10,617 cu ft	cubic feet	1	10,617 cu ft	10,617	7,963	365	
MSDS #778984	Turbine Oil	lube oil	Combustion Turbine-B (E2)	CT-B Lube Oil	6,150 gal	gallons	1	6,150 gal	6,150	4,613	365	33,671 lb onsite daily
	Hydrogen	Hydrogen / Coolant	Combustion Turbine-B HRSG (G2)	Generator	10,617 cu ft	cubic feet	1	10,617 cu ft	10,617	7,963	365	
	Oxygen Gas	Oxygen Gas	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft	cubic feet	6 (3 per CEMS shelter)	1,200 cu ft	1200	900	365	
	Nitrogen oxide / Nitrogen dioxide (Low Range)	Nitrogen oxide / Nitrogen dioxide (Low Range)	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft / 0.062 lb	cubic feet / pounds	6 (3 per CEMS shelter)	1200 cu ft / 0.374 lb	1200	900 cu ft / 0.281 lb	365	0.281 lb onsite daily
	Nitrogen oxide / Nitrogen dioxide (High Range)	Nitrogen oxide / Nitrogen dioxide (High Range)	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft / 0.062 lb	cubic feet / pounds	6 (3 per CEMS shelter)	1200 cu ft / 0.374 lb	1200	900 cu ft / 0.281 lb	365	0.281 lb onsite daily
	Carbon monoxide (Low Range)	Carbon monoxide (Low Range)	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft	cubic feet	6 (3 per CEMS shelter)	1200 cu ft	1,200	900	365	
	Carbon monoxide (High Range)	Carbon monoxide (High Range)	Continuous Emissions Monitor System Shelters (G4)	Cylinders	200 cu ft	cubic feet	6 (3 per CEMS shelter)	1200 cubic feet	1,200	900	365	

Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Days on Site	Estimated Pounds Per Year of Chemical
5711	Aqueous Ammonia with Monoethanolamine (5 - 12%)	BFW pH Adjustment and Corrosion Control (Ammonia / Amine Blend)	Cycle Chemical Feed Shelter (Boler Feedwater/Condensate) (B1)	Tote	400 gal / 3,338 lb	gallons / pounds	1	400 gal / 3,338 lb	400 gal / 3,338 lb	300 gal / 2,504 lb	365	6,320
BL-153	Ammonium Hydroxide 10-19%	BFW pH Adjustment and Corrosion Control (Ammonia / Amine Blend)	Cycle Chemical Feed Shelter (Boler Feedwater/Condensate) (B1)	Tote	400 gal / 3,338 lb	gallons / pounds	1	400 gal / 3,338 lb	400 gal / 3,338 lb	300 gal / 2,504 lb	365	3,338 lbs on site daily
BL-152	Aqueous Ammonia with Monoethanolamine (5 - 10%)	BFW pH Adjustment and Corrosion Control (Ammonia / Amine Blend)	Cycle Chemical Feed Shelter (Boler Feedwater/Condensate) (B1)	Tote	400 gal / 3,338 lb	gallons / pounds	1	400 gal / 3,338 lb	400 gal / 3,338 lb	300 gal / 2,504 lb	365	3,338 lbs on site daily
ELIMINOX	Carbohydrazide (5 - 10%)	Oxygen Scavenger	Cycle Chemical Feed Shelter (Boler Feedwater/Condensate) (B1)	Drum	55 gal	gallons	1	55 gal	55	41	365	490
BT-3400	Pre-blended Phosphate/Caustic (1.0 - 5.0%)	pH and Corrosion Control (HP & IP Phosphate Feed)	Cycle Chemical Feed Shelter (HRSG A&B) (B1)	Tote	110 gal	gallons	1	110 gal	110	83	365	979
CROSSTRANS 106 and 207	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-A Excitation Transformer (E9)	Transformer	521 gal	gallons	1	521 gal	521	391	365	3,165 lb onsite daily
CROSSTRANS 106 and 206	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-A GSU Transformer (E4)	Transformer	14,950 gal	gallons	1	14,950 gal	14,950	11,213	365	90,821 lb onsite daily
CROSSTRANS 106 and 208	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-A Isolation Transformer (E10)	Transformer	977 gal	gallons	1	977 gal	977	733	365	5,935 lb onsite daily
CROSSTRANS 106 and 207	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-B Excitation Transformer (E9)	Transformer	521 gal	gallons	1	521 gal	521	391	365	3,165 lb onsite daily
CROSSTRANS 106 and 207	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-B GSU Transformer (E5)	Transformer	14,950 gal	gallons	1	14,950 gal	14,950	11,213	365	90,821 lb onsite daily
CROSSTRANS 106 and 208	mineral oil	mineral oil	Electrical Equipment: Combustion Turbine-B Isolation Transformer (E10)	Transformer	977 gal	gallons	1	977 gal	977	733	365	5,935 lb onsite daily
CROSSTRANS 106 and 209	mineral oil	mineral oil	Electrical Equipment: Station Service Transformer (E7)	Transformer	6,510 gal	gallons	1	6,510 gal	6,510	4,883	365	39,548 lb onsite daily
CROSSTRANS 106 and 210	mineral oil	mineral oil	Electrical Equipment: Station Service Transformer (E7)	Transformer	6,510 gal	gallons	1	6,510 gal	6,510	4,883	365	39,548 lb onsite daily
CROSSTRANS 106 and 209	mineral oil	mineral oil	Electrical Equipment: Steam Turbine Excitation Transformer (E11)	Transformer	747 gal	gallons	1	747 gal	747	560	365	4,538 lb onsite daily
CROSSTRANS 106 and 208	mineral oil	mineral oil	Electrical Equipment: Steam Turbine GSU Transformer (E6)	Transformer	19,015 gal	gallons	1	19,015 gal	19,015	14,261	365	115,516 lb onsite daily

	Helium	Helium, Compressed	Gas Metering Station (G5)	Cylinders	250 cu ft	cubic feet	5	1250 cu ft	1,250	938	365	
	Methane	Methane Compressed	Gas Metering Station (G5)	Cylinders	59 cu ft	cubic feet	1	59 cu ft	59	44	365	
MSDS #778986	Turbine Oil	lube oil	Hazardous Materials Storage Area (M2)	Drum	55 gal	gallons	4	220 gal	220	165	365	1,205 lb onsite daily
Product #001A0383	Shell Omala Oil HD 221	gear box/ACC oil	Hazardous Materials Storage Area (M2)	Barrels	55 gal	gallons	2	110 gal	110	83	365	606 lb onsite daily
Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Days on Site	Estimated Pounds Per Year of Chemical
	Hydrogen	Hydrogen	Hydrogen Storage Area (G1)	Tube	44,000 cu ft	cubic feet	1	44,000 cu ft	44,000	33,000	365	53,000
AlphaCELL 195GXL- FT3	Lead Acid Battery	Lead Acid Battery	Packaged Electrical Electronic Control Center (PEECC) (M7)	Electrical Equipment : Battery	100 lb	pounds	116	11,600 lb	11,600	11,600	365	11,600
	Acetylene Gas	Acetylene Gas	Plant Maintenance Area (G3)	Cylinders	143 cu ft	cubic feet	4	572 cu ft	572	429	365	
	Argon Gas	Argon Gas	Plant Maintenance Area (G3)	Cylinders	381 cu ft	cubic feet	2	762 cu ft	762	572	365	
	Oxygen Gas	Oxygen Gas	Plant Maintenance Area (G3)	Cylinders	250 cu ft	cubic feet	6	1500 cu ft	1,500	1,125	365	
	Propane Gas	Propane Gas	Plant Maintenance Area (G3)	Cylinders	20 lb	pounds	16	319 lb	320	240	365	
	Nitrogen Gas	Nitrogen Gas	Plant Maintenance Area (G3), Compressed Cylinder Storage Area (C3)	Cylinders	250 cu ft	cubic feet	48	12,000 cu ft	12,000	12,000	365	
CDID: Stationary SPg - IB	Lead-Antimony Battery	Lead-Antimony Battery	Power Distribution Center in center of site (M6)	Electrical Equipment : Battery	110 lb	pounds	60	6,600 lb	6,600	6,600	365	6,600
CDID: Stationary SPg - IB	Lead-Antimony Battery	Lead-Antimony Battery	Power Distribution Center in Water Treatment Building (M6)	Electrical Equipment : Battery	110 lb	pounds	20	2,200 lb	2,200	2,200	365	2,200
MSDS #778985	Turbine Oil	lube oil	Steam Turbine (E3)	Steam Turbine Lube Oil System (E3)	5,250 gal	gallons	1	5,250 gal	5,250	3,938	365	28,744 lb onsite daily
	Hydrogen	Hydrogen / Coolant	Steam Turbine Generator (G2)	Generator	15,439 cu ft	cubic feet	1	15,439 cu ft	15,439	11,579	365	
	Sulfur Hexafluoride	SF6	Sulfur Hexafluoride Breakers (G4)	Electrical Equipment : Breaker	205 lb	pounds	7	1,432 lb	1,432	1,074	365	1,074 lb onsite daily
C & D Technologies 3DJ-200	Flooded Lead-Calcium Battery	Flooded Lead-Calcium Battery	Switchyard Control House (M7)	Electrical Equipment : Battery	100 lb	pounds	60	6,000 lb	6,000	6,000	365	6,000
7469	Anti-foam	Foam Control (ZLD)	Water Treatment Building (High Efficiency RO and ZLD) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	4,200
FO-321	Anti-foam	Foam Control (ZLD)	Water Treatment Building (High Efficiency RO and ZLD) (Site Feature #15)	Tank	360	gallons	1	360	360	270	365	3013 lbs on site daily

Nalco 8131	Coagulant (5 - 20%)	Coagulant (UF and Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (B4)	Abovegro und Tank	2,500 gal / 31,295 lb	gallons / pounds	1	2,500 gal / 31,295 lb	2,500 gal / 31,295 lb	1,875 gal / 23,471 lb	365	23,471 lb onsite daily
P-828L	Ferric Sulfate 30-60%	Coagulant (UF and Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (B4)	Abovegro und Tank	2,500 gal / 31,295 lb	gallons / pounds	1	2,500 gal / 31,295 lb	2,500 gal / 31,295 lb	1,875 gal / 23,471 lb	365	23,471 lb onsite daily
Cat-Floc 8018 Plus	Flocculant (5 - 20%)	Flocculant (Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	480
7744	Flocculant (5 - 20%)	Flocculant (Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	480
P-817E	Flocculant (5 - 20%)	Flocculant (Lamella Clarifier)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	480
Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Day s on Site	Estimated Pounds Per Year of Chemical
PC-7408	Sodium Bisulfite (30 - 60%)	Water Treatment Feedwater Dechlorinization (Sodium Bisulfite Feed)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	2,399
RL-124	Sodium Bisulfite (30 - 60%)	Water Treatment Feedwater Dechlorinization (Sodium Bisulfite Feed)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tank	360 gal	gallons	1	360 gal	360	270	365	3,600
	Sulfuric Acid 98% (66 degree Baume 93%)	pH Adjustment (Sulfuric Acid for pH Adjustment)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	300 gal	gallons	2	600 gal	600	450	365	9,205
8735	Sodium Hydroxide	pH Adjustment (Caustic for pH Adjustment)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	2,399
BL-1304	Sodium Hydroxide 15-40%; Potassium Hydroxide 10-30%	pH Adjustment (Caustic for pH Adjustment)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tank	360 gal	gallons	1	360 gal	360	270	365	4543 lbs on site daily
PC-191T	Antiscalant	RO Scale Inhibition (Raw Water RO Antiscalant)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tote	400 gal	gallons	1	400 gal	400	300	365	1,200
RL-9008	Antiscalant 2-Phosphono-1,2,4 - butane tricarboxylic acid 5-10%	RO Scale Inhibition (Raw Water RO Antiscalant)	Water Treatment Building (Raw Water Pre-Treatment and RO) (Site Feature #15)	Tank	360 gal	gallons	1	360 gal	360	270	365	3431 lb on site daily
	Sodium Hypochlorite (10 - 12%)	Bacteria Control for UF (Sodium Hypo-chlorite Feed)	Water Treatment Building (Raw Water Pre-Treatment and RO) (B4)	Abovegro und Tank	1000 gal	gallons	1	1,000 gal	1,000	750	365	6,259 lb onsite daily

PERMA-CARE® PC- 98	Sodium Hydroxide (5 - 15%)	High pH Cleaning (RO Cleaning Chemical)	Water Treatment Building (Reverse Osmosis and UF Cleaners) (Site Feature #15)	55-gal Metal or Plastic Drum .56	55 gal	gallons	4	220 gal	220	165	365	940
PERMA-CARE® PC- 40	Sodium Percarbonate (5 - 15%)	Surfactant for Cleaning (RO Cleaning Chemical)	Water Treatment Building (Reverse Osmosis and UF Cleaners) (Site Feature #15)	5-gal Pail	5 gal	gallons	2	9 gal / 100 lbs	10	8	365	42
8344	Citric Acid (5 - 15%)	Low pH Cleaning (UF Iron Cleaner)	Water Treatment Building (Reverse Osmosis and UF Cleaners) (Site Feature #15)	55-gal Plastic Drum .56	55 gal	gallons	4	220 gal	220	165	365	575
RL-2016	Citric Acid (10-30%)	Low pH Cleaning (UF Iron Cleaner)	Water Treatment Building (Reverse Osmosis and UF Cleaners) (Site Feature #15)	Drum	55 gal	gallons	4	220 gal	220	165	365	2006 lbs on site Daily
	Soda Ash	Ph control	Water Treatment Building (Site Feature #15)	Drum	500 lbs	lbs	2	1000 lbs	1,000	750	365	750
	Sodium Hypochlorite (10 - 12%)		Water Treatment Building (Site Feature #15)	Tote	300 gal	gallons	1	300 gal	300	225	365	600
RL-1500	Ethylene diamine tetraacetic acid, tetrasodium salt (10-30%)	High pH Cleaning (RO Cleaning Chemical)	Water Treatment Building (Site Feature #15)	Dum	55 gal	gallons	2	110 gal	110	83	365	

Trade Name	Chemical Name	Common Name / Chemical Purpose	Location	Storage Container Type	Capacity of Largest Container	Unit	Number of Items	Total Amount Stored	Maximum Daily Amount	Average Daily Amount	Days on Site	Estimated Pounds Per Year of Chemical
CL-2156	5-chloro-2methyl-4-isothiazolin-3-one 1.11%; 2-methyl-4-isothiazolin-3-one .39%; Magnesium Nitrate 1.61%; Magnesium Chloride .96%	Evaporative Cooling Water Biocide	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Tank	150 gal	gallon	1	150 gal	150	113	365	1286 lbs onsite daily
CL-497	Sodium Chlorosulfamate 7-13% Sodium bromosulfamate 7-13% Sodium Hydroxide 1-5% Sodium Sulfamate 1-6%	Evaporative Cooling Water Biocide	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Tank	360 gal	gallon	1	360 gal	360 gallon	200	365	2180 lbs onsite daily
3DTBR06	Bioreporter (1 - 10%)	Tracing Agent (Bioreporter)	Wet Surface Air Cooled Chemical Feed Shelter (B2)	5-gal Pail	5 gal	gallons	2	10 gal	10	8	365	330
Nalco 3DT161	Inhibitor (5 - 10%)	Evaporative Cooling Scale/Corrosion Inhibitor	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Tote	110 gal	gallons	1	110 gal	110	83	365	3,359
CL-1432	Potassium phosphate, tribasic 5- 10%; 1-Hydroxyethylidene-1,1- diphosphonic acid, tetrapotassium salt .5-1.0%; Tetrapotassium pyrophosphate 1-5%; Potassium	Evaporative Cooling Scale/Corrosion Inhibitor	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Tank	150 gal	gallons	1	150 gallons	150	113	365	1674 lbs onsite daily

CT-709	Tetrapotassium pyrophosphate 40 70%	Wet SAC Passivation	Wet Surface Air Cooled Chemical Feed Shelter (B2)	Drum	55 gal	gallons	1	55 gal	55	41	365	792 lbs onsite daily
CROSSTRANS 106 and 208	mineral oil	mineral oil	Electrical Equipment: Alternate Power Transformer (E12)	Transformer	550 gal	gallons	1	550 gal	550	550	365	550 lb onsite daily
MSDS #778984	Turbine Oil	lube oil	Combustion Turbine-A HRSG (G2)	boiler feedwater pump	141 gal	gallons	2	282 gal	282	212	365	2,045 lb onsite daily
MSDS #778984	Turbine Oil	lube oil	Combustion Turbine-B HRSG (G2)	boiler feedwater pump	141 gal	gallons	2	282 gal	282	212	365	2,045 lb onsite daily
	Sulfuric Acid 98% (66 degree Baume 93%)		Zero Liquid Discharge AreaSite Feature #21)	Tote	325 gal	gallons	1	325 gal	325	244	365	4,986
	Aqueous Ammonia (19%)		Aqueous Ammonia Storage Tank (M5)	Tank	20,000 gal	gallons	1	20,000 gal	20,000	15,000	365	154,971
Shell Turbo Fluid DR 46	Trixyly Phosphate (60-100%)	Steam Turbine Hydraulic Oil	Steam Turbine (E14)	Tank	500 gal	gallons	1	500 gal	500	400	365	
DOWFROST* 30 Heat Transfer Fluid	Propylene Gycol (30%)	propylene gycol in the water bath heater	Water Bath Heater (Site Feature #85)	In water bath heater	16,662 gal	gallons	1	16,662 gal	16,662	12,497	365	
Carbon Dioxide	Carbon Dioxide, Gas (99%)		Near STG	compressed gas cylinder	436 cu ft	cu ft	72	31392 cu ft	31,392	23,544	365	
Gasoline	Gasoline	Gasoline	Hazardous Materials Storage Area (M2)	Drum	55 Gal	gallons	2	110 gallons	110	55	365	3000 gallons
Diesel	Diesel	Diesel	Hazardous Materials Storage Area (M2)	Drum	55 Gal	gallons	2	110 gallons	110	55	365	2200 gallons

Pacific Gas and Electric Company®

Appendix 3, Noise

Per Noise-8, the following is required: "In the first annual compliance report after the receipt of a complaint, the project owner shall include documentation certifying that:

1) the noise-attenuating upgrades were installed on the specified residence at the project owner's expense;

2) the noise attenuating upgrades were already a feature of the residence;

3) installation was offered but refused by the owner; or 4) residential use by the complainant was ceased.

There were no Noise Complaints made by the owners or occupants of any of the existing residences located at ML1, ML2, or RC1 during operation of the CGS in 2022. There have been no noise complaints to date from anyone.

Pacific Gas and Electric Company®

Appendix 4, SOIL & WATER-2

2021-2022

ANNUAL REPORT

FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2021 through June 30, 2022

Retain a copy of the completed Annual Report for your records.

Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility operation is relocated or changes ownership.

If you have any questions, please contact your Regional Board Industrial Storm Water Permit Contact. The names, telephone numbers, and e-mail addresses of the Regional Board contacts, as well was the Regional Board office addresses, can be found at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/contact.shtml

General Information

A. Facility Information

WDID: 5S06I022929

Business Name: Colusa Generating Station

Physical Address: 4780 Dirks Rd

City: Maxwell

State: CA

Zip: 95955

Contact Person: Steve Rovall

Phone: 530-934-9061

Email: sgr8@pge.com

Standard Industrial Classification (SIC) Codes: 4911-Electric Services

B. Facility Owner Information

Business Name: Pacific Gas Electric Co

Mailing Address: PO Box 398

City: Maxwell

State: CA

Zip: 95955

Contact Person: steve royall

Phone: 530-934-9061

Email: sgr8@pge.com

C. Facility Billing Information

Business Name: Pacific Gas Electric Co

Mailing Address: PO Box 398

City: Maxwell

State: CA

Zip: 95955

Contact Person: Tim Wisdon

Phone: 530-934-9061

Email: T1WY@pge.com

Question Information

1. Has the Discharger conducted monthly visual observations (including authorized and unauthorized Non-Storm Water Discharges and Best Management Practices) in accordance with Section XI.A.1?

☒ Yes ☐ No

If No, see Attachment 1, Summary of Explanation.

2. Has the Discharger conducted sampling event visual observations at each discharge location where a sample was obtained in accordance with Section XI.A.2?

☒ Yes ☐ No

If No, see Attachment 1, Summary of Explanation.

3. Did you sample the required number of Qualifying Storm Events during the reporting year for all discharge locations, in accordance with Section XI.B?

☐ Yes ☒ No

If No, see Attachment 1, Summary of Explanation.

4. How many storm water discharge locations are at your facility?

1

5. Has the Discharger chosen to select Alternative Discharge Locations in accordance with Section XI.C.3?

☐ Yes ☒ No

6. Has the Discharger reduced the number of sampling locations within a drainage area in accordance with the Representative Sampling Reduction in Section XI.C.4?

☐ Yes ☒ No

6.1. Has the Discharger reduced the frequency of sampling at the facility area in accordance with the Sample Frequency Reduction in Section XI.C.7?

☐ Yes ☒ No

7. Permitted facilities located within an impaired watershed must assess for potential pollutants that may be present in the facility's industrial storm water discharge. Using the table below, populated based on the facility's location, indicate the presence of the potential pollutant at the facility.

The facility is not located within an impaired HUC 10 watershed. You are not required to select any Industrial Pollutants. Skip Questions 8 and 9.

8. Has the Discharger included the above pollutants in the SWPPP pollutant source assessment and assessed the need for analytical monitoring for the pollutants?

☒ Yes ☐ No

If No, what date will the parameter(s) will be added to the SWPPP and Monitoring Implementation Plan?

9. Were all samples collected in accordance with Section XI.B.5?

☒ Yes ☐ No

If No, see Attachment 1, Summary of Explanation.

10. Has any contained storm water been discharged from the facility this reporting year?

☐ Yes ☒ No

If Yes, see Attachment 1, Summary of Explanation.

11. Has the Discharger conducted one (1) annual evaluation during the reporting year as required in Section XV?

☒ Yes ☐ No

If Yes, what date was the annual evaluation conducted? 06/06/2022

If No, see Attachment 1, Summary of Explanation.

12. Has the Discharger maintained records on-site for the reporting year in accordance with XXI.J.3?

☒ Yes ☐ No

If No, see Attachment 1, Summary of Explanation.

If your facility is subject to Effluent Limitation Guidelines in Attachment F of the Industrial General Permit, include your specific requirements as an attachment to the Annual Report (attach as file type: Supporting Documentation).

ANNUAL REPORT CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel propoerly gether and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: Tim Wisdom

Title: Senior Plant Manager Date: 06/30/2022

2021-2022

Annual Report for WDID 5S06I022929

Summary of Explanations

Explanation Question	Explanation Text
Question 3	Samples were collected/analyzed from four QSEs that occurred during the first half of the 2021-2022 reporting year (7/1/2021 - 12/31/2021). However, there were no rain events between 1/1/2022 and 6/30/2022 that produced runoff from the facility, so it was not possible to collect any samples during the second half of the 2021-2022 reporting year.

Summary of Attachments

Attachment Type	Attachment Title	Description	Date Uploaded	Part Number	Attachment Hash
Supporting Documentation	Applicability of Steam Electric Power Generating ELGs		06/30/2022	null/null	66f63089f39268a3950d2dad95015555ca2c71a205efea8e8f626806882e4

EXCEEDANCE RESPONSE ACTION LEVEL 2 TECHNICAL REPORT UPDATE

July 2022

Prepared for
Pacific Gas and Electric Company – Colusa Generating Station
4780 Dirks Road
Maxwell, California 95955

Waste Discharge Identification
5S06I022929

Prepared by
Terraphase Engineering Inc.
1404 Franklin Street, Suite 600
Oakland, California

QISP
Hans Kramer, QISP # 00153

Project Number 0234.002.001

CONTENTS

CERTIFICATION

Approval and Certification of the Level 2 ERA Technical Report:

Facility Name: Pacific Gas and Electric Company

Waste Discharge Identification (WDID): 5S06I022929

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons that manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Tim Wisdom

Tim Wisdom, Duly Authorized Representative

1.0 INTRODUCTION AND OVERVIEW

1.1 Introduction and Demonstration Selection

This Exceedance Response Action (ERA) Level 2 Technical Report Update (Report) has been prepared to discuss responses to Numeric Action Level (NAL) exceedances at the Pacific Gas and Electric Company (PG&E) Colusa Generating Station (Facility) in Maxwell, California. This Plan addresses all parameters entering or continuing Level 2 ERA exceedance status at the close of the 2021-2022 reporting year at the Facility.

This Report includes an Industrial Activity BMP Demonstration addressing implementation of certain BMPs discussed in the preceding 2018 ERA Level 2 Technical Report, 2020 Level 2 Technical Report Update, and 2021 Level 2 Technical Report Update. This Report has been prepared in accordance with the 2015 California General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit) by a registered Qualified Industrial Stormwater Practitioner (QISP).

1.2 Facility Information

The Facility is located at 4780 Dirks Road, Maxwell, California and is owned and operated by PG&E. The Facility produces electricity through the use of two natural-gas-fired combustion turbines and a steam powered generator. The operating portion of the site is approximately 19 acres and is located within a 100-acre parcel leased from Holthouse Ranch. The Facility consists of 27% impervious surfaces (buildings/equipment and pavement/concrete), while the remaining area is gravel and a stormwater detention basin.

A Site Plan provided as Figure 1 shows the Facility layout, drainage areas, and storm water controls.

1.3 Summary of Response Actions

As the soils on and around the site are believed to be a significant contributor to iron concentrations detected in discharges from the facility, BMP enhancements were implemented during the reporting year to further reduce sediment load in the basin discharge. These enhancements included cleaning and replacement of several drain inlet filters and installation of additional riprap as energy dissipation at basin inlet points on the eastern basin slope to entrap sediment from runoff entering the basin and reduce mobilization of sediment that has previously settled out in the basin.

2.0 NAL EXCEEDANCES AND POLLUTANT SOURCES

2.1 NAL Exceedances

This Report addresses responses to the exceedances listed in Table 1.

Table 1: NAL Exceedances

Constituent	Reporting Year(s) and ERA Level
Iron	2016-2017: Level 1 2017-2018: Level 2 2018-2019: Level 2 2019-2020: Level 2 2020-2021: Level 2 2021-2022: Level 2

The average annual NAL for iron was exceeded during the 2015-2016, 2016-2017, 2018-2019, 2020-2021, and 2021-2022 reporting years. Following implementation of BMPs described in ERA compliance deliverables, iron results have been reduced below the NAL in some samples, but the Facility is not yet eligible to return to Baseline status.

No other constituents have exceeded annual or instantaneous NALs at the Facility at any time.

2.2 Industrial Pollutants and Sources

The industrial operations and pollutant sources listed in Table 2 have been identified as likely contributors to iron NAL exceedances.

Table 2: Industrial Pollutant Sources Potentially Contributing to NAL Exceedance

Constituent	Location	Industrial Activity	Industrial Pollutant
Iron	Combustion Turbines (Main power plant area)	Power Plant Operations	Iron Particulates
Iron	Material storage area located at the south side of the facility west of the warehouse	Material storage, specifically pipe and other steel products	Iron Particulates/oxidation
Iron	Air Cooled Condenser (west of combustion turbines)	Steam Cooling	Iron/oxidation (Large exposed metal surfaces)

Soils at the site are iron-rich, and sediment that enters the detention basin as a result of soil erosion (both inside and outside the industrial area) has also been identified as a likely significant non-industrial source that increases iron concentrations detected in Qualifying Storm Event (QSE) samples.

Outfall CGS-01 is located at the southwest corner of the Facility and is the only discharge location for runoff from the Facility. A stormwater detention basin and outflow weir are located in the southwest corner prior to Outfall CGS-01.

3.0 LEVEL 2 ERA ACTIONS – BMP IMPLEMENTATION

3.1 Previous BMP and ERA Analysis

Minimum mandatory BMPs required by the Industrial General Permit, which have consistently been implemented at the Facility, have not consistently resulted in iron levels at Outfall CGS-01 that are below the annual NAL concentrations contained in the Industrial General Permit. BMPs implemented prior to the ERA Level 1 Evaluation included drain inlet filters, storm-resistant shelters, vegetated swale, oil/water separators, gravel caps, the detention basin, regular sweeping, secondary containment, and spill kits, among others.

The ERA Level 1 Evaluation for the Facility determined additional sweeping, coating steel material racks, and removing accumulated sediments within the basin was warranted. These improvements reduced the total iron load but were not successful at reducing total iron levels below the NAL.

The 2017 Level 2 Action Plan suggested Filtrexx Siltsoxx with Metalloxx wattles be installed at the detention basin discharge, which did control and maintain iron levels below the NAL, until the 2018-2019 reporting year. The wattles are refreshed annually, at a minimum.

In early 2019, per a recommendation in the 2018 Level 2 Technical Report, geotextile filter fabric was also installed on the basin floor immediately following the filter media socks, to minimize entrainment of sediment or erosion of basin floor soils, and additional filter media socks were placed in the discharge pipe immediately upstream of the discharge sampling location.

Internal investigative sampling was also conducted in December 2019 to better determine the industrial source(s) of iron. The sample, taken downgradient of an area of concrete immediately southeast of Combustion Turbine 1 that exhibited staining, had iron concentrations significantly lower than those detected in QSE samples; therefore, implementation of additional BMPs in this portion of the facility was not prioritized.

In early 2020, low-altitude aerial photos of the shop building roof were taken and examined but evidence of deterioration (which could contribute to iron levels) was not apparent.

In late 2020, per a recommendation in the 2020 Level 2 Technical Report Update, gravel bags were implemented at the northwest corner of the site during late 2020 to minimize the sediment load from the adjacent north perimeter swale (which is located outside the industrial area). Also, additional riprap was installed at both basin inlet points to reduce side slope erosion, facilitate sediment dropout, and reduce mobilization of basin sediments.

In 2021, several drain inlet filters were replaced.

In 2022, several drain inlet filters were cleaned and replaced. Additional riprap was also placed at the detention basin inlet to reduce side slope erosion and animal burrowing, facilitate sediment dropout, and reduce mobilization of basin sediments.

3.2 ERA Level 2 BMP Implementation

3.2.1 Outfall CGS-01 BMP Installation

BMP improvements have been implemented as described in Section 3.1, above.

3.2.2 Outfall CGS-01 BMP Evaluation

Following installation of additional BMPs in 2019, iron was reduced to below the NAL in site discharges from the two QSEs that occurred during the first half of the 2019-2020 reporting year. Due to low rainfall, no QSEs occurred during 2020 (including the second half of the 2019-2020 reporting year and the first half of the 2020-2021 reporting year). Only one QSE occurred during the second half of the 2020-2021 reporting year which exceeded the Annual NAL concentration and therefore constitute an NAL exceedance since it was the only QSE during the reporting year. In the 2021-2022 reporting year, QSEs only occurred during the first half of the reporting year and four of these QSEs were sampled.

The iron results for recent reporting years are presented in the table below.

Table 3: Outfall Monitoring Results

Reporting Year	Date	Iron (mg/l)
2018-2019	11/29/2018	2.20
	1/15/2019	2.40
	2/2/2019	2.05
	2/13/2019	1.26
	2/26/2019	4.41
2019-2020	12/2/2019	0.39
	12/7/2019	0.59
2020-2021	1/28/2021	1.66
2021-2022	10/24/2021	2.54
	11/9/2021	0.43
	12/14/2021	1.06
	12/22/2021	0.89

Additional BMPs being considered for implementation in the 2022-2023 reporting year include the following:

- Engaging a contractor to conduct vacuum sweeping of accessible impervious areas.
- Install an additional ring of Filtrexx Siltsoxx with Metalloxx wattles to improve sediment control and increase iron adsorption.
- Install additional gravel bag check dams in the north perimeter swale prior to flow entering catch basin at facility's northwest corner. Potentially place rock, install blanketing, or establish vegetation on perimeter swale surface to minimize erosion.
- Modify the basin side slopes to discourage animals from burrowing and/or to minimize erosion.

- Improve the method of installation of Filtrexx wattles to provide additional filtration/adsorption at the pipe exit and better prevent dislodging of the BMP.
- Attach a lateral pipe to the discharge riser low-flow orifice, extending into the annular space between the existing Filtrexx wattles and discharge riser, with slits cut in the pipe wall and additional Filtrexx wattles and/or fabric coating the slits and pipe entrance.
- Hydro-jet clean the internal site storm drain piping.
- Paint oxidized surfaces (dumpsters, large piping/connections near Power Distribution Center, etc.).
- Install a silt curtain or baffles in the basin.

These options are being evaluated and the chosen BMP enhancement(s) will be implemented during the 2022-2023 reporting year.

November 19, 2021

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Lab ID : CH 2178850
Customer : 7-10931

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Stormwater Discharge Point	10/24/2021	10/26/2021	CH 2178850-001	STM

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived at room temperature. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	11/08/2021:217462 All analysis quality controls are within established criteria.
	11/04/2021:212845 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573), except: The following note applies to Iron: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Inorganic - Wet Chemistry QC

1664A	11/10/2021:213126 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573), except: The following note applies to Oil and Grease: 436 Blank Spike (BS) not within Acceptance Range (AR). Data was accepted based on the LCS or CCV recovery.

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November 19, 2021 Lab ID : CH 2178850
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Inorganic - Wet Chemistry QC

2540D	11/01/2021:212672 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573).

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:MKH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2021-11-19

November 19, 2021

Lab ID : CH 2178850-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : October 24, 2021-10:40
Sampled By : Bruce Roberts
Received On : October 26, 2021-12:00
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID# 5S06I022929

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID Time	Sample Analysis Method	Sample Analysis ID Time
Metals, Total										
Iron	2.54	0.05	0.0079	mg/L	1	l	200.7	212845 11/04/21 07:50	200.7	217462-IT204 11/08/21-14:23AC
Wet Chemistry										
Oil and Grease	ND	3	1.9	mg/L	1.0638	UL	1664A	213126 11/10/21 13:45	1664A	217679-WT215 11/11/21-20:47AMM
Solids, Total Suspended (TSS)	37.7	3.3	0.49	mg/L	3.3333		2540D	212672 11/01/21 12:26	2540D	217109-WT215 11/02/21-18:59jba

DQF Flags Definition:

L	The preparation QC spike and/or CCV recoveries did not meet QC acceptance criteria.
l	The MS/MSD did not meet QC criteria.
U	Constituent results were non-detect.

ND=Non-Detected. PQL=Practical Quantitation Limit.

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November 19, 2021

Pacific Gas & Electric-Colusa Generating
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Lab ID : CH 2178850-001
Customer ID : 7-10931

Sampled On : October 24, 2021-10:40
Sampled By : Bruce Roberts
Received On : October 26, 2021-12:00
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID# 5S06I022929

Sample Result - Support

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Field Test												
pH (Field)	7.6			units	1				10/24/21 10:40	4500HB		10/24/21 10:40

ND=Non-Detected. PQL=Practical Quantitation Limit.

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November 19, 2021 Lab ID : CH 2178850
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Iron	200.7	11/04/21:212845ac	Blank	mg/L		-0.0011	<0.03	
			LCS	mg/L	4.000	95.6 %	85-115	
			MS	mg/L	4.000	49.4 %	75-125	435
			MS	mg/L	4.000	52.6 %	75-125	435
		(VI 2148544-001)	MSD	mg/L	4.000	75.0 %	75-125	
			MSRPD	mg/L	4.000	16.0%	≤20	
		(CH 2178812-003)	MSD	mg/L	4.000	60.4 %	75-125	435
			MSRPD	mg/L	4.000	5.0%	≤20	
	200.7	11/08/21:217462AC	CCV	ppm	5.000	103 %	90-110	
			CCB	ppm		0.0062	0.03	
			CCV	ppm	5.000	104 %	90-110	
			CCB	ppm		0.0029	0.03	
Wet Chem								
Oil and Grease	1664A	11/10/21:213126AMM	Blank	mg/L		1.35	<3	
			LCS	mg/L	44.89	103 %	78-114	
			BS	mg/L	42.98	89.3 %	78-114	
			BSD	mg/L	42.98	76.7 %	78-114	436
			BSRPD	mg/L	42.98	14.7%	≤18	
Solids, Suspended	2540D	11/01/21:212672jba	Blank	mg/L		0.20000	<1	
			LCS	mg/L	50.04	71.9%	61-112	
			LCS	mg/L	50.04	75.9%	61-112	
		(CC 2183881-001)	Dup	mg/L		17.3%	20	
		(CC 2183881-002)	Dup	mg/L		4.65%	20	

Definition

CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
BS	: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
BSD	: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.

Explanation

435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
436	: Blank Spike (BS) not within Acceptance Range (AR). Data was accepted based on the LCS or CCV recovery.

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CHAIN OF CUSTODY
AND ANALYSIS REQUEST DOCUMENT

Client: Pacific Gas and Electric - Colusa Generating
Customer Number: 7-10931
Address: 4780 Dirks Rd
Maxwell CA 95955

Phone: 530-934-9007 Fax: 530-934-9024
Email Address: ajgu@pge.com
Contact Person: TJ Gomez
Project Name: QSE #1
Purchase Order Number:
Quote Number:

Rush Analysis: ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 24 hour
Rush pre-approval by lab (initals): _____
Electronic Data Transfer: ☐ No ☐ State ☐ Client Other: _____

Sampler(s): Bruce Roberts

Sampling Fee: _____ Pickup Fee: _____
Compositor Setup Date: _____ Time: _____

Lab Number: 2178850

TEST DESCRIPTION AND ANALYSES REQUESTED

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite (C) Grab (G)	Number of Containers	Type of Containers: (G)Glass (P)Plastic (V)VOA (MT)Metal Tube	Potable (P) Non-Potable (NP) Ag Water (AgW)	(SW) Surface Water (MW) Monitoring Well (GW) Ground Water (TB) Travel Blank (WW) Waste Water (DW) Drinking Water	(S) Soil (SLG) Sludge (SLD) Solid (O) Oil	BacT: (Sys) System (SRC) Source (W) Waste	BacT: (ROUT)Routine (RPT)Repeat (OTH)Other (RPL)Replace	(LT) Leaf Tissue (PET) Petiole Tissue (PRD) Produce	Preservative: (1) NaOH + ZnAc, (2) NaOH, (3) HCl (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other_____	Metals - Total-Fe	Wet Chemistry - Oil & Grease -1664	Wet Chemistry - TSS	Field Test pH	Field pH Date
1	Stormwater Discharge Point	10/24/2021	1040 hrs	G	3									1	1	1	7.6	1040

Remarks

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
	10/26	1200		10/26/21	1700	GLS	10/28/21	1005
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
	10/26/21	1200	GLS	10/26/21	1700			

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Attachment 1 Sampling Visual Assessment Form

General Information			
Facility Name	Colusa Generation Station		
WDID No.			
Date of Inspection	10/24/21 1040	Start/End Time	1045
Inspector's Name(s)	Bruce Roberts		
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications			
Inspector's Signature	BR		
Type of Inspection*	☐ Monthly Visual Observation	☑ Sampling Event Visual Observation	

Weather Information

Weather at time of this inspection?
☐ Clear ☐Cloudy ☑ Rain ☐ Sleet ☐ Fog ☐ Snow ☑ High Winds
☐ Other: Temperature:

If this is a sampling event visual observation, fill in storm event information:
Date Storm Began: 10/23/21 Rain Gauge Level: Rain Gauge ID:

Visual Observations

Are there any spills/leaks observed at the time of inspection? ☐Yes ☑No
If yes, describe:

Have any previously unidentified discharges of pollutants occurred since the last inspection? ☐Yes ☑No
If yes, describe:

Are there any discharges occurring at the time of inspection? ☐Yes ☑No
If yes, note the presence of any of the following:
☐ Floating Materials ☐Sheen ☐ Discoloration ☐ Turbidity ☐ Odor ☐ Trash/Debris ☐ Other:
Describe all checked above:

Outfall Observations

Outfall No.	Observations	Is NSWD Present?	Potential Source(s) of NSWD	Corrective Action	Person Contacted	Date Corrective Action Completed
		☐Yes ☐No				
		☐Yes ☐No				
		☐Yes ☐No				

*Monthly visual observations will be conducted during daylight hours of normally scheduled facility operation and on days without precipitation. Sampling event visual observations will be recorded at the same time sampling occurs at a discharge location.

Field Measurement of Hydrogen Ion Activity (pH)

Instrument

Make/Model # HQ4d - HACH

Serial # 210213042858

Pond PH 7.6 61.7°F 1037 hour

Calibration: *Ensure the instrument has been calibrated before sample analysis proceeds.*

Sample ID	Sample Date	Sample Time (hr:min)	Analysis Date	Analysis within 15 min of sample? Yes, No	Instrument Response	Temp (°C)	Sampler Initials	Comments
4 PH 5/25	10/24/21	1027	10/24/21	Yes	4.01	72.9°F	BR	Lot A1149 Exp may 2025
7 PH 7/23	10/24/21	1028	10/24/21	YES	7.01	72.6°F	BR	Lot A1203R Exp. 7/2023
10 PH 5/22	10/24/21	1029	10/24/21	Yes	10.05	72.7°F	BR	Lot A1139 Exp. may 2022

November 23, 2021

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Lab ID : CH 2179261
Customer : 7-10931

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Stormwater Discharge Point	11/09/2021	11/10/2021	CH 2179261-001	STM

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	11/15/2021:217901 All analysis quality controls are within established criteria
	11/12/2021:213205 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)

Inorganic - Wet Chemistry QC

1664A	11/22/2021:213630 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)
2540D	11/15/2021:213297 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)

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November 23, 2021 Lab ID : CH 2179261
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:MKH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2021-11-23

November 23, 2021

Lab ID : CH 2179261-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : November 9, 2021-10:22
Sampled By : Gary Trimble
Received On : November 10, 2021-11:15
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID# 5S06I022929

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Metals, Total												
Iron	0.433	0.05	0.0079	mg/L	1		200.7	213205	11/12/21 13:55	200.7	217901-IT204	11/15/21-11:55AC
Wet Chemistry												
Oil and Grease	ND	3	1.9	mg/L	1.0753	U	1664A	213630	11/22/21 14:13	1664A	218318-WT215	11/23/21-13:21AMM
Solids, Total Suspended (TSS)	8.62	1	0.21	mg/L	1.0638		2540D	213297	11/15/21 07:10	2540D	217909-WT215	11/16/21-11:28jba

DQF Flags Definition:
U Constituent results were non-detect.

ND=Non-Detected. PQL=Practical Quantitation Limit.

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Sampled On : November 9, 2021-10:22
Sampled By : Gary Trimble
Received On : November 10, 2021-11:15
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : Colusa Power Generating Station WDID# 5S06I022929

Sample Result - Support

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Field Test												
pH (Field)	8.3			units	1				11/09/21 10:22	4500HB		11/09/21 10:22

ND=Non-Detected. PQL=Practical Quantitation Limit.

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November 23, 2021 Lab ID : CH 2179261
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Iron	200.7	11/12/21:213205MCA	Blank	mg/L		0.0081	<0.03	
			LCS	mg/L	4.000	104 %	85-115	
			MS	mg/L	4.000	104 %	75-125	
		(VI 2148986-002)	MSD	mg/L	4.000	96.3 %	75-125	
			MSRPD	mg/L	0.8000	6.9%	≤20	
			MS	mg/L	4.000	105 %	75-125	
		(CH 2179261-001)	MSD	mg/L	4.000	100 %	75-125	
			MSRPD	mg/L	0.8000	3.9%	≤20	
	200.7	11/15/21:217901AC	CCV	ppm	5.000	102 %	90-110	
			CCB	ppm		0.0061	0.03	
			CCV	ppm	5.000	103 %	90-110	
			CCB	ppm		0.0035	0.03	
Wet Chem								
Oil and Grease	1664A	11/22/21:213630AMM	Blank	mg/L		0.05	<3	
			LCS	mg/L	44.89	84.4 %	78-114	
			BS	mg/L	44.89	81.7 %	78-114	
			BSD	mg/L	44.89	86.5 %	78-114	
			BSRPD	mg/L	44.89	5.7%	≤18	
Solids, Suspended	2540D	11/15/21:213297jba	Blank	mg/L		0.20000	<1	
			LCS	mg/L	50.04	87.9%	61-112	
			LCS	mg/L	50.04	67.9%	61-112	
		(VI 2148879-001)	Dup	mg/L		13.8%	20	
		(VI 2148948-002)	Dup	mg/L		6.06%	20	

Definition

CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
BS	: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
BSD	: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.

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Attachment 1 Sampling Visual Assessment Form

General Information			
Facility Name	PG&E Colusa		
WDID No.			
Date of Inspection	11/09/21	Start/End Time	1012 / 1022
Inspector's Name(s)	Gary Trimble		
Inspector's Title(s)	PPT		
Inspector's Contact Information	530-788-3820		
Inspector's Qualifications	Water Treatment Tech II		
Inspector's Signature			
Type of Inspection*	☐ Monthly Visual Observation	☒ Sampling Event Visual Observation	

Weather Information

Weather at time of this inspection?
☐ Clear ☒ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snow ☒ High Winds
☐ Other: Temperature:

If this is a sampling event visual observation, fill in storm event information:
Date Storm Began: 11/08/21 Rain Gauge Level: NA Rain Gauge ID: NA

Visual Observations

Are there any spills/leaks observed at the time of inspection? ☐Yes ☒No
If yes, describe:

Have any previously unidentified discharges of pollutants occurred since the last inspection? ☐Yes ☒No
If yes, describe:

Are there any discharges occurring at the time of inspection? ☐Yes ☒No
If yes, note the presence of any of the following:
☐ Floating Materials ☐Sheen ☐ Discoloration ☐ Turbidity ☐ Odor ☐ Trash/Debris ☐ Other:
Describe all checked above:

Outfall Observations

Outfall No.	Observations	Is NSWD Present?	Potential Source(s) of NSWD	Corrective Action	Person Contacted	Date Corrective Action Completed
		☐Yes ☐No				
		☐Yes ☐No				
		☐Yes ☐No				

*Monthly visual observations will be conducted during daylight hours of normally scheduled facility operation and on days without precipitation. Sampling event visual observations will be recorded at the same time sampling occurs at a discharge location.

Pacific Gas and Electric Company

Utility Standard: ENV-2204P-01
Publication Date: 02/27/2017 Rev: 0

Field Measurement of Hydrogen Ion Activity (pH)

Instrument

Make/Model # HQ 40D - HACH

Serial # 120800077714

POND PH - 8.34 52 F
1032 hr

Calibration: *Ensure the instrument has been calibrated before sample analysis proceeds.*

Sample ID	Sample Date	Sample Time (hr:min)	Analysis Date	Analysis within 15 min of sample? Yes, No	Instrument Response	Temp (°C)	Sampler Initials	Comments
4 PH	11/09/21	1012	11/09/21	Y	4.02	53.1	GT	MAY 22 EXP
7 PH	11/09/21	1014	11/09/21	Y	7.01	53.2	GT	July 23 EXP
10 PH	11/09/21	1015	11/09/21	Y	10.04	53.4	GT	MAY 25 EXP

ENVIRONMENTAL AGRICULTURAL
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CHAIN OF CUSTODY
AND ANALYSIS REQUEST DOCUMENT

Client: Pacific Gas and Electric - Colusa Generating
Customer Number: 7-10931
Address: 4780 Dirks Rd
Maxwell CA 95955

Phone: 530-934-9007 Fax: 530-934-9024
Email Address: ajgu@pge.com
Contact Person: TJ Gomez
Project Name: QSE #2
Purchase Order Number:
Quote Number:

Rush Analysis: ☐ 5 Day ☐ 4 Day ☒ 3 Day ☐ 2 Day ☐ 24 hour
Rush pre-approval by lab (initals): BTZ
Electronic Data Transfer: ☐ No ☐ State ☐ Client Other:

Sampler(s): Gary Trimble

Sampling Fee: _____ Pickup Fee: _____
Compositor Setup Date: _____ Time: _____

Lab Number: 2179261

TEST DESCRIPTION AND ANALYSES REQUESTED

RUSH

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite (C) Grab (G)	Number of Containers	Type of Containers: (G)Glass (P)Plastic (V)VOA (MT)Metal Tube	Potable (P) Non-Potable (NP) Ag Water (AgW)	(SW) Surface Water (MW) Monitoring Well (GW) Ground Water (TB) Travel Blank (WW) Waste Water (DW) Drinking Water	(S) Soil (SLG) Sludge (SLD) Solid (O) Oil	BacT: (Sys) System (SRC) Source (W) Waste	BacT: (ROUT)Routine (RPT)Repeat (OTH)Other (RPL)Replace	(LT) Leaf Tissue (PET) Petiole Tissue (PRD) Produce	Preservative: (1) NaOH + Zn Ac, (2) NaOH, (3) HCl (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other	Metals - Total-Fe	Wet Chemistry - Oil & Grease -1664	Wet Chemistry - TSS	Field Test pH	Field pH Date	3 day Rush
1	Stormwater Discharge Point	11/09/2021	1022 hrs	G	3									1	1	1	8.3	11/9	X

Remarks

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
	11/10	1115hrs	BTZ	11/10/21	1700	GLS	11/11/21	0942
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
BTZ	11/10/21	1115	GLS	11/10/21	1700	CDA	↓	↓

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January 6, 2022

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Lab ID : CH 2190008
Customer : 7-10931

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Stormwater Discharge Point	12/14/2021	12/16/2021	CH 2190008-001	STM

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	12/21/2021:219749 All analysis quality controls are within established criteria
	12/20/2021:214598 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)

Inorganic - Wet Chemistry QC

1664A	12/27/2021:214801 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)
2540D	12/22/2021:214756 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)

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January 6, 2022 Lab ID : CH 2190008
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Discussion of Analytical Results: -

Amended Report - 01/06/2022 - Amended to change Iron units to mg/L and correct the date sample was collected.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2022-01-07

January 6, 2022

Lab ID : CH 2190008-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 14, 2021-08:24
Sampled By : Rick Duenas
Received On : December 16, 2021-12:15
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : QSE #3

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Metals, Total												
Iron	1.06	0.05	0.0079	mg/L	1		200.7	214598	12/20/21 09:00	200.7	219749-IT204	12/21/21-15:35AC
Wet Chemistry												
Oil and Grease	ND	3	1.9	mg/L	1.087	U	1664A	214801	12/27/21 06:43	1664A	219875-WT215	12/27/21-11:42AMM
Solids, Total Suspended (TSS)	16.6	2	0.21	mg/L	2		2540D	214756	12/22/21 19:01	2540D	219928-WT215	12/27/21-15:35jba

DQF Flags Definition:
U Constituent results were non-detect.

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 6, 2022

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Description : Stormwater Discharge Point
Project : QSE #3

Lab ID : CH 2190008-001
Customer ID : 7-10931

Sampled On : December 14, 2021-08:24
Sampled By : Rick Duenas
Received On : December 16, 2021-12:15
Matrix : Stormwater

Sample Result - Support

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Field Test												
pH (Field)	7.54			units	1				12/14/21 08:24	4500HB		12/14/21 08:24

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 6, 2022 Lab ID : CH 2190008
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Iron	200.7	12/20/21:214598MCA	Blank	mg/L		0.001	<0.03	
			LCS	mg/L	4.000	102 %	85-115	
			MS	mg/L	4.000	93.8 %	75-125	
		(CC 2184532-001)	MSD	mg/L	4.000	92.8 %	75-125	
			MSRPD	mg/L	4.000	1.1%	≤20	
			MS	mg/L	4.000	105 %	75-125	
		(CC 2184532-001)	MSD	mg/L	4.000	107 %	75-125	
			MSRPD	mg/L	4.000	13.4%	≤20	
	200.7	12/21/21:219749AC	CCV	ppm	5.000	99.7 %	90-110	
			CCB	ppm		0.0064	0.03	
			CCV	ppm	5.000	93.2 %	90-110	
			CCB	ppm		0.0072	0.03	
Wet Chem								
Oil and Grease	1664A	12/27/21:214801AMM	Blank	mg/L		1.10	<3	
			LCS	mg/L	44.89	109 %	78-114	
			BS	mg/L	44.89	102 %	78-114	
			BSD	mg/L	44.89	105 %	78-114	
			BSRPD	mg/L	44.89	3.2%	≤18	
Solids, Suspended	2540D	12/22/21:214756jba	Blank	mg/L		0.00	<1	
			LCS	mg/L	50.00	92.0 %	61-112	
			LCS	mg/L	50.00	94.0 %	61-112	
		(VI 2149721-001)	Dup	mg/L		7.9%	20	
		(VI 2149721-002)	Dup	mg/L		2.8%	20	

Definition

CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
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BS	: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
BSD	: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.

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CHAIN OF CUSTODY
AND ANALYSIS REQUEST DOCUMENT

Client: Pacific Gas and Electric - Colusa Generating
Customer Number: 7-10931
Address: 4780 Dirks Rd
Maxwell CA 95955

Phone: 530-934-9007 Fax: 530-934-9024
Email Address: ajgu@pge.com
Contact Person: TJ Gomez
Project Name: QSE #3
Purchase Order Number:
Quote Number:

Rush Analysis: ☐ 5 Day ☐ 4 Day ☑ 3 Day ☐ 2 Day ☐ 24 hour
Rush pre-approval by lab (initals): _____
Electronic Data Transfer: ☐ No ☐ State ☐ Client Other: _____

Sampler(s): Rick Duenas

Sampling Fee: _____ Pickup Fee: _____
Compositor Setup Date: _____ Time: _____

Lab Number: 2190008

TEST DESCRIPTION AND ANALYSES REQUESTED

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite (C) Grab (G)	Number of Containers	Type of Containers: (G)Glass (P)Plastic (V)VOA (MT)Metal Tube	Potable (P) Non-Potable (NP) Ag Water (AgW)	(SW) Surface Water (MW) Monitoring Well (GW) Ground Water (TB) Travel Blank (WW) Waste Water (DW) Drinking Water	(S) Soil (SLG) Sludge (SLD) Solid (O) Oil	BacT: (Sys) System (SRC) Source (W) Waste	BacT: (ROUT)Routine (RPT)Repeat (OTH)Other (RPL)Replace	(LT) Leaf Tissue (PET) Petiole Tissue (PRD) Produce	Preservative: (1) NaOH + ZnAc, (2) NaOH, (3) HCl (4) H2SO4, (5) HNO3, (6) Na2S2O3, (7) Other_____	Metals - Total-Fe	Wet Chemistry - Oil & Grease -1664	Wet Chemistry - TSS	Field Test pH	Field pH Date 12/14	3 DAY RUSH								
1	Stormwater Discharge Point	12/14/2021	0824 hrs	G	3								4,5	1	1	1	7.54		✓							

RUSH

Remarks

ROF 8.7

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
	12-16-21	1215		12-16-21	1530	QIS	12/17/21	11:15
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
	12-16-21	1215	GLS	12-16-21	1700	QNA	J	J

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Calibration of Hydrogen Ion Activity (pH)

Instrument

Make/Model HQ-40D HACH

Serial # 120800077714

Standards: Specify the types of standards used for calibration, the origin of the standards, the value and expiration of the standards, and the date the standards were opened.

	pH	Brand	Expiration Date	Type	Date Opened
Standard A	4.00	HACH	9/25	A	
Standard B	7.00	HACH	7/23	B	
Standard C	10.00	HACH	11/22	C	

Date	Time	Standard (A,B,C)	Standard Value	Instrument Response	Calibrated (Yes / No)	Temp of Standard (F)	Sampler Initials	Comments
12/14/21	0813	A	4	4.0	Yes	70.4	RD	
12/14/21	0814	B	7	7.01	Yes	69.5	RD	
12/14/21	0815	C	10	10.03	Yes	69.2	RD	

Field Measurement of Hydrogen Ion Activity (pH)

Instrument

Make/Model # HQ-40D HACH

Serial # 1208000 77714

Calibration: *Ensure the instrument has been calibrated before sample analysis proceeds.*

Sample ID	Sample Date	Sample Time (hr:min)	Analysis Date	Analysis within 15 min of sample? Yes, No	Instrument Response	Temp ~~(°C)~~ F	Sampler Initials	Comments
	12/14/21	0824	12/14/21	Yes	7.54	54.6 F	RD	

January 7, 2022

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Lab ID : CH 2190243
Customer : 7-10931

Laboratory Report

Introduction: This report package contains total of 5 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
Stormwater Discharge Point	12/22/2021	12/27/2021	CH 2190243-001	STM

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	01/05/2022:200253 All analysis quality controls are within established criteria
	12/30/2021:215002 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)

Inorganic - Wet Chemistry QC

1664A	01/03/2022:200028 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)
2540D	12/29/2021:214968 All preparation quality controls are within established criteria (performed at FGL-SP ELAP# 1573)

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January 7, 2022 Lab ID : CH 2190243
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:MKH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2022-01-07

January 7, 2022

Lab ID : CH 2190243-001
Customer ID : 7-10931

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Sampled On : December 22, 2021-08:30
Sampled By : MIke Mclellan
Received On : December 27, 2021-10:40
Matrix : Stormwater

Description : Stormwater Discharge Point
Project : QSE #4

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Metals, Total												
Iron	0.885	0.05	0.0079	mg/L	1	f	200.7	215002	12/30/21 11:50	200.7	200253-IT204	01/05/22-14:47rs
Wet Chemistry												
Oil and Grease	ND	3	1.9	mg/L	1.087	Ub	1664A	200028	01/03/22 12:30	1664A	200099-WT215	01/03/22-20:11AMM
Solids, Total Suspended (TSS)	12.1	1	0.21	mg/L	1.1111		2540D	214968	12/29/21 13:30	2540D	200080-WT215	01/03/22-14:00jba

DQF Flags Definition:

b	The Blank was detected above method MDL for constituent but less than the PQL
U	Constituent results were non-detect.
f	MS/MSD QC requirement met by BS/BSD due to limited sample volume.

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 7, 2022

Pacific Gas & Electric-Colusa Generating
P.O. Box 398
Maxwell, CA 95955

Description : Stormwater Discharge Point
Project : QSE #4

Lab ID : CH 2190243-001
Customer ID : 7-10931

Sampled On : December 22, 2021-08:30
Sampled By : MIke Mclellan
Received On : December 27, 2021-10:40
Matrix : Stormwater

Sample Result - Support

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation Method	Sample Preparation ID	Sample Preparation Time	Sample Analysis Method	Sample Analysis ID	Sample Analysis Time
Field Test												
pH (Field)	7.69			units	1				12/22/21 08:30	4500HB		12/22/21 08:30

ND=Non-Detected. PQL=Practical Quantitation Limit.

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January 7, 2022 Lab ID : CH 2190243
Pacific Gas & Electric-Colusa Generating Customer : 7-10931

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Iron	200.7	01/05/22:200253rs	CCV	ppm	5.000	95.7 %	90-110	
			CCB	ppm		-0.0315	0.03	220
			CCV	ppm	5.000	99.4 %	90-110	
			CCB	ppm		-0.0321	0.03	220
	200.7	12/30/21:215002MCA	Blank	mg/L		0.0013	<0.03	
			LCS	mg/L	4.000	102 %	85-115	
			MS	mg/L	4.000	113 %	75-125	
		(STK2158341-002)	MSD	mg/L	4.000	105 %	75-125	
			MSRPD	mg/L	4.000	5.8%	≤20	
Wet Chem								
Oil and Grease	1664A	01/03/22:200028AMM	Blank	mg/L		2.60	<3	
			LCS	mg/L	44.89	99.0 %	78-114	
			BS	mg/L	44.89	93.3 %	78-114	
			BSD	mg/L	44.89	87.0 %	78-114	
			BSRPD	mg/L	44.89	6.6%	≤18	
Solids, Suspended	2540D	12/29/21:214968jba	Blank	mg/L		-0.40000	<1	
			LCS	mg/L	50.04	104%	61-112	
			LCS	mg/L	50.04	91.9%	61-112	
		(SP 2118416-001)	Dup	mg/L		5.50%	20	
		(VI 2160058-002)	Dup	mg/L		1.84%	20	

Definition

CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
BS	: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
BSD	: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
BSRPD	: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.

Explanation

220	: The CCB was greater than the DQO. However, all results were either five times greater than the CCB concentration or ND relative to the PQL.

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Calibration of Hydrogen Ion Activity (pH)

Instrument

Make/Model HQ 40D HACH

Serial # 120 8000 77714

Standards: Specify the types of standards used for calibration, the origin of the standards, the value and expiration of the standards, and the date the standards were opened.

	pH	Brand	Expiration Date	Type	Date Opened
Standard A	4.00	HACH	9/2025	A	
Standard B	7.00	HACH	7/2023	B	
Standard C	10.00	HACH	11/2022	C	

Date	Time	Standard (A,B,C)	Standard Value	Instrument Response	Calibrated (Yes / No)	Temp of Standard (F)	Sampler Initials	Comments
12/22/21		A	4	4.10	yes	65.5	MM	
12/22/21		B	7	7.02	yes	65.5	MM	
12/22/21		C	10	10.01	yes	65.5	MM	

Field Measurement of Hydrogen Ion Activity (pH)

Instrument

Make/Model # HQ 40D HACH

Serial # 120 8000 77714

Calibration: *Ensure the instrument has been calibrated before sample analysis proceeds.*

Sample ID	Sample Date	Sample Time (hr:min)	Analysis Date	Analysis within 15 min of sample? Yes, No	Instrument Response	Temp (°C)	Sampler Initials	Comments
	12/22 2021	0830	12/22 2021	YES	7.69	9.3 C	MM	

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Appendix 5, SOIL & WATER-7

Per Soil & Water 7 the following is required:" the project owner shall submit any related monitoring required by the agreement to the CPM in the annual compliance report. The project owner shall submit any notice if violations from the Glenn Colusa Irrigation District to the CPM within 10 days of receipt and fully explain the corrective actions taken in the next annual compliance report."

There is no reporting or monitoring requirement in the water agreement with the Glenn Colusa Irrigation District.

No notice of violations issued by GCID in the 2022 year.

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Appendix 6, SOIL & WATER-8

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Appendix 6, SOIL & WATER-8

All water used during 2022 was supplied by the Glenn Colusa Irrigation District. The total amount of water used during 2022 was 26,072,096 gallons.

Date	Totalized Value	Gallons/Day	Gallons Cumulative Total
01-Jan-22 00:00:00	103695832	0	0
02-Jan-22 00:00:00	103697776	1944	1944
03-Jan-22 00:00:00	103700384	2608	4552
04-Jan-22 00:00:00	103701632	1248	5800
05-Jan-22 00:00:00	103704712	3080	8880
06-Jan-22 00:00:00	103750256	45544	54424
07-Jan-22 00:00:00	103757552	7296	61720
08-Jan-22 00:00:00	103757552	0	61720
09-Jan-22 00:00:00	103759256	1704	63424
10-Jan-22 00:00:00	103760736	1480	64904
11-Jan-22 00:00:00	103765840	5104	70008
12-Jan-22 00:00:00	103876992	111152	181160
13-Jan-22 00:00:00	103879672	2680	183840
14-Jan-22 00:00:00	103880752	1080	184920
15-Jan-22 00:00:00	103885240	4488	189408
16-Jan-22 00:00:00	103886704	1464	190872
17-Jan-22 00:00:00	103895352	8648	199520
18-Jan-22 00:00:00	103898280	2928	202448
19-Jan-22 00:00:00	103900600	2320	204768
20-Jan-22 00:00:00	103903992	3392	208160
21-Jan-22 00:00:00	103914056	10064	218224
22-Jan-22 00:00:00	103942408	28352	246576
23-Jan-22 00:00:00	103943224	816	247392
24-Jan-22 00:00:00	103981592	38368	285760
25-Jan-22 00:00:00	104012224	30632	316392
26-Jan-22 00:00:00	104019232	7008	323400
27-Jan-22 00:00:00	104049296	30064	353464
28-Jan-22 00:00:00	104070848	21552	375016
29-Jan-22 00:00:00	104080648	9800	384816
30-Jan-22 00:00:00	104090440	9792	394608
31-Jan-22 00:00:00	104096960	6520	401128
01-Feb-22 00:00:00	104105944	8984	410112
02-Feb-22 00:00:00	104114216	8272	418384
03-Feb-22 00:00:00	104154040	39824	458208
04-Feb-22 00:00:00	104180408	26368	484576
05-Feb-22 00:00:00	104188608	8200	492776
06-Feb-22 00:00:00	104244784	56176	548952
07-Feb-22 00:00:00	104248736	3952	552904
08-Feb-22 00:00:00	104249456	720	553624
09-Feb-22 00:00:00	104285160	35704	589328
10-Feb-22 00:00:00	104382808	97648	686976
11-Feb-22 00:00:00	104416784	33976	720952
12-Feb-22 00:00:00	104426056	9272	730224

13-Feb-22 00:00:00	104428912	2856	733080
14-Feb-22 00:00:00	104432080	3168	736248
15-Feb-22 00:00:00	104432080	0	736248
16-Feb-22 00:00:00	104435016	2936	739184
17-Feb-22 00:00:00	104437968	2952	742136
18-Feb-22 00:00:00	104439672	1704	743840
19-Feb-22 00:00:00	104450792	11120	754960
20-Feb-22 00:00:00	104471728	20936	775896
21-Feb-22 00:00:00	104474416	2688	778584
22-Feb-22 00:00:00	104478008	3592	782176
23-Feb-22 00:00:00	104478008	0	782176
24-Feb-22 00:00:00	104481272	3264	785440
25-Feb-22 00:00:00	104490672	9400	794840
26-Feb-22 00:00:00	104502224	11552	806392
27-Feb-22 00:00:00	104515368	13144	819536
28-Feb-22 00:00:00	104515368	0	819536
01-Mar-22 00:00:00	104517904	2536	822072
02-Mar-22 00:00:00	104521808	3904	825976
03-Mar-22 00:00:00	104521808	0	825976
04-Mar-22 00:00:00	104524376	2568	828544
05-Mar-22 00:00:00	104526216	1840	830384
06-Mar-22 00:00:00	104529056	2840	833224
07-Mar-22 00:00:00	104530672	1616	834840
08-Mar-22 00:00:00	104531840	1168	836008
09-Mar-22 00:00:00	104535304	3464	839472
10-Mar-22 00:00:00	104536320	1016	840488
11-Mar-22 00:00:00	104542504	6184	846672
12-Mar-22 00:00:00	104542504	0	846672
13-Mar-22 00:00:00	104544904	2400	849072
14-Mar-22 01:00:00	104547064	2160	851232
15-Mar-22 01:00:00	104549520	2456	853688
16-Mar-22 01:00:00	104550560	1040	854728
17-Mar-22 01:00:00	104552840	2280	857008
18-Mar-22 01:00:00	104555320	2480	859488
19-Mar-22 01:00:00	104556928	1608	861096
20-Mar-22 01:00:00	104558608	1680	862776
21-Mar-22 01:00:00	104558608	0	862776
22-Mar-22 01:00:00	104562952	4344	867120
23-Mar-22 01:00:00	104563568	616	867736
24-Mar-22 01:00:00	104565080	1512	869248
25-Mar-22 01:00:00	104568248	3168	872416
26-Mar-22 01:00:00	104571192	2944	875360
27-Mar-22 01:00:00	104571192	0	875360
28-Mar-22 01:00:00	104572952	1760	877120
29-Mar-22 01:00:00	104575056	2104	879224
30-Mar-22 01:00:00	104577680	2624	881848
31-Mar-22 00:00:00	104597104	19424	901272

01-Apr-22 00:00:00	104672248	75144	976416
01-Apr-22 00:00:00	104672248	0	976416
02-Apr-22 00:00:00	104710896	38648	1015064
03-Apr-22 00:00:00	104805328	94432	1109496
04-Apr-22 00:00:00	104807800	2472	1111968
05-Apr-22 00:00:00	104820920	13120	1125088
06-Apr-22 00:00:00	104860040	39120	1164208
07-Apr-22 00:00:00	104954024	93984	1258192
08-Apr-22 00:00:00	105064688	110664	1368856
09-Apr-22 00:00:00	105217392	152704	1521560
10-Apr-22 00:00:00	105350704	133312	1654872
11-Apr-22 00:00:00	105381032	30328	1685200
12-Apr-22 00:00:00	105478760	97728	1782928
13-Apr-22 00:00:00	105486224	7464	1790392
14-Apr-22 00:00:00	105583512	97288	1887680
15-Apr-22 00:00:00	105673176	89664	1977344
16-Apr-22 00:00:00	105735344	62168	2039512
17-Apr-22 00:00:00	105853336	117992	2157504
18-Apr-22 00:00:00	105894552	41216	2198720
19-Apr-22 00:00:00	105990816	96264	2294984
20-Apr-22 00:00:00	106041568	50752	2345736
21-Apr-22 00:00:00	106120112	78544	2424280
22-Apr-22 00:00:00	106196808	76696	2500976
23-Apr-22 00:00:00	106248328	51520	2552496
24-Apr-22 00:00:00	106325208	76880	2629376
25-Apr-22 00:00:00	106416680	91472	2720848
26-Apr-22 00:00:00	106420080	3400	2724248
27-Apr-22 00:00:00	106543784	123704	2847952
28-Apr-22 00:00:00	106627640	83856	2931808
29-Apr-22 00:00:00	106643904	16264	2948072
30-Apr-22 00:00:00	106722512	78608	3026680
01-May-22 00:00:00	106851784	129272	3155952
02-May-22 00:00:00	106887056	35272	3191224
03-May-22 00:00:00	106968456	81400	3272624
04-May-22 00:00:00	107010088	41632	3314256
05-May-22 00:00:00	107128168	118080	3432336
06-May-22 00:00:00	107151744	23576	3455912
07-May-22 00:00:00	107202224	50480	3506392
08-May-22 00:00:00	107214264	12040	3518432
09-May-22 00:00:00	107248792	34528	3552960
10-May-22 00:00:00	107261760	12968	3565928
11-May-22 00:00:00	107307184	45424	3611352
12-May-22 00:00:00	107330616	23432	3634784
13-May-22 00:00:00	107346848	16232	3651016
14-May-22 00:00:00	107356128	9280	3660296
15-May-22 00:00:00	107363288	7160	3667456
16-May-22 00:00:00	107447920	84632	3752088

17-May-22 00:00:00	107508056	60136	3812224
18-May-22 00:00:00	107512048	3992	3816216
19-May-22 00:00:00	107572688	60640	3876856
20-May-22 00:00:00	107657072	84384	3961240
21-May-22 00:00:00	107660328	3256	3964496
22-May-22 00:00:00	107663624	3296	3967792
23-May-22 00:00:00	107707176	43552	4011344
24-May-22 00:00:00	107791592	84416	4095760
25-May-22 00:00:00	107890824	99232	4194992
26-May-22 00:00:00	108147672	256848	4451840
27-May-22 00:00:00	108250088	102416	4554256
28-May-22 00:00:00	108311224	61136	4615392
29-May-22 00:00:00	108343440	32216	4647608
30-May-22 00:00:00	108369960	26520	4674128
31-May-22 00:00:00	108442288	72328	4746456
01-Jun-22 00:00:00	108491464	49176	4795632
02-Jun-22 00:00:00	108565760	74296	4869928
03-Jun-22 00:00:00	108703720	137960	5007888
04-Jun-22 00:00:00	108708008	4288	5012176
05-Jun-22 00:00:00	108711368	3360	5015536
06-Jun-22 00:00:00	108715008	3640	5019176
07-Jun-22 00:00:00	108765112	50104	5069280
08-Jun-22 00:00:00	108818024	52912	5122192
09-Jun-22 00:00:00	108897880	79856	5202048
10-Jun-22 00:00:00	109069656	171776	5373824
11-Jun-22 00:00:00	109263792	194136	5567960
12-Jun-22 00:00:00	109494728	230936	5798896
13-Jun-22 00:00:00	109640208	145480	5944376
14-Jun-22 00:00:00	109764000	123792	6068168
15-Jun-22 00:00:00	109788512	24512	6092680
16-Jun-22 00:00:00	109811032	22520	6115200
17-Jun-22 00:00:00	109934736	123704	6238904
18-Jun-22 00:00:00	110056680	121944	6360848
19-Jun-22 00:00:00	110061344	4664	6365512
20-Jun-22 00:00:00	110123440	62096	6427608
21-Jun-22 00:00:00	110233856	110416	6538024
22-Jun-22 00:00:00	110351736	117880	6655904
23-Jun-22 00:00:00	110543176	191440	6847344
24-Jun-22 00:00:00	110814016	270840	7118184
25-Jun-22 00:00:00	111067176	253160	7371344
26-Jun-22 00:00:00	111238248	171072	7542416
27-Jun-22 00:00:00	111383152	144904	7687320
28-Jun-22 00:00:00	111557032	173880	7861200
29-Jun-22 00:00:00	111719728	162696	8023896
30-Jun-22 00:00:00	111815000	95272	8119168
01-Jul-22 00:00:00	111900080	85080	8204248
02-Jul-22 00:00:00	111908888	8808	8213056

03-Jul-22 00:00:00	111913424	4536	8217592
04-Jul-22 00:00:00	111916008	2584	8220176
05-Jul-22 00:00:00	111920944	4936	8225112
06-Jul-22 00:00:00	111928576	7632	8232744
07-Jul-22 00:00:00	111952624	24048	8256792
08-Jul-22 00:00:00	112092656	140032	8396824
09-Jul-22 00:00:00	112128800	36144	8432968
10-Jul-22 00:00:00	112216608	87808	8520776
11-Jul-22 00:00:00	112264976	48368	8569144
12-Jul-22 00:00:00	112463224	198248	8767392
13-Jul-22 00:00:00	112498968	35744	8803136
14-Jul-22 00:00:00	112654232	155264	8958400
15-Jul-22 00:00:00	112934192	279960	9238360
16-Jul-22 00:00:00	113062408	128216	9366576
17-Jul-22 00:00:00	113223880	161472	9528048
18-Jul-22 00:00:00	113405984	182104	9710152
19-Jul-22 00:00:00	113655304	249320	9959472
20-Jul-22 00:00:00	113800936	145632	10105104
21-Jul-22 00:00:00	113938288	137352	10242456
22-Jul-22 00:00:00	114105760	167472	10409928
23-Jul-22 00:00:00	114241952	136192	10546120
24-Jul-22 00:00:00	114305328	63376	10609496
25-Jul-22 00:00:00	114444776	139448	10748944
26-Jul-22 00:00:00	114674264	229488	10978432
27-Jul-22 00:00:00	114813064	138800	11117232
28-Jul-22 00:00:00	114913456	100392	11217624
29-Jul-22 00:00:00	115044240	130784	11348408
30-Jul-22 00:00:00	115228248	184008	11532416
31-Jul-22 00:00:00	115329024	100776	11633192
01-Aug-22 00:00:00	115438320	109296	11742488
02-Aug-22 00:00:00	115582904	144584	11887072
03-Aug-22 00:00:00	115781472	198568	12085640
04-Aug-22 00:00:00	115984720	203248	12288888
05-Aug-22 00:00:00	116133912	149192	12438080
06-Aug-22 00:00:00	116383464	249552	12687632
07-Aug-22 00:00:00	116516008	132544	12820176
08-Aug-22 00:00:00	116654032	138024	12958200
09-Aug-22 00:00:00	116803384	149352	13107552
10-Aug-22 00:00:00	116863776	60392	13167944
11-Aug-22 00:00:00	117100984	237208	13405152
12-Aug-22 00:00:00	117350208	249224	13654376
13-Aug-22 00:00:00	117514312	164104	13818480
14-Aug-22 00:00:00	117644320	130008	13948488
15-Aug-22 00:00:00	117817400	173080	14121568
16-Aug-22 00:00:00	118045296	227896	14349464
17-Aug-22 00:00:00	118287224	241928	14591392
18-Aug-22 00:00:00	118502296	215072	14806464

19-Aug-22 00:00:00	118733104	230808	15037272
20-Aug-22 00:00:00	118826896	93792	15131064
21-Aug-22 00:00:00	118956072	129176	15260240
22-Aug-22 00:00:00	119058424	102352	15362592
23-Aug-22 00:00:00	119166288	107864	15470456
24-Aug-22 00:00:00	119260432	94144	15564600
25-Aug-22 00:00:00	119545184	284752	15849352
26-Aug-22 00:00:00	119743672	198488	16047840
27-Aug-22 00:00:00	119787520	43848	16091688
28-Aug-22 00:00:00	119935600	148080	16239768
29-Aug-22 00:00:00	120046536	110936	16350704
30-Aug-22 00:00:00	120228720	182184	16532888
31-Aug-22 00:00:00	120456696	227976	16760864
01-Sep-22 00:00:00	120666408	209712	16970576
02-Sep-22 00:00:00	120883992	217584	17188160
03-Sep-22 00:00:00	121113696	229704	17417864
04-Sep-22 00:00:00	121375216	261520	17679384
05-Sep-22 00:00:00	121519168	143952	17823336
06-Sep-22 00:00:00	121832968	313800	18137136
07-Sep-22 00:00:00	122130432	297464	18434600
08-Sep-22 00:00:00	122362272	231840	18666440
09-Sep-22 00:00:00	122636000	273728	18940168
10-Sep-22 00:00:00	122936424	300424	19240592
11-Sep-22 00:00:00	123132768	196344	19436936
12-Sep-22 00:00:00	123232776	100008	19536944
13-Sep-22 00:00:00	123402720	169944	19706888
14-Sep-22 00:00:00	123529984	127264	19834152
15-Sep-22 00:00:00	123673448	143464	19977616
16-Sep-22 00:00:00	123674160	712	19978328
17-Sep-22 00:00:00	123725144	50984	20029312
18-Sep-22 00:00:00	123725144	0	20029312
19-Sep-22 00:00:00	123727392	2248	20031560
20-Sep-22 00:00:00	123768008	40616	20072176
21-Sep-22 00:00:00	123768008	0	20072176
22-Sep-22 00:00:00	123769272	1264	20073440
23-Sep-22 00:00:00	123769272	0	20073440
24-Sep-22 00:00:00	123877920	108648	20182088
25-Sep-22 00:00:00	124045040	167120	20349208
26-Sep-22 00:00:00	124240904	195864	20545072
27-Sep-22 00:00:00	124432792	191888	20736960
28-Sep-22 00:00:00	124555736	122944	20859904
29-Sep-22 00:00:00	124630208	74472	20934376
30-Sep-22 00:00:00	124743600	113392	21047768
01-Oct-22 00:00:00	124952856	209256	21257024
02-Oct-22 00:00:00	125026200	73344	21330368
03-Oct-22 00:00:00	125100544	74344	21404712
04-Oct-22 00:00:00	125243864	143320	21548032

05-Oct-22 00:00:00	125466128	222264	21770296
06-Oct-22 00:00:00	125569096	102968	21873264
07-Oct-22 00:00:00	125720736	151640	22024904
08-Oct-22 00:00:00	125948264	227528	22252432
09-Oct-22 00:00:00	126116272	168008	22420440
10-Oct-22 00:00:00	126283712	167440	22587880
11-Oct-22 00:00:00	126453104	169392	22757272
12-Oct-22 00:00:00	126600320	147216	22904488
13-Oct-22 00:00:00	126744584	144264	23048752
14-Oct-22 00:00:00	126932808	188224	23236976
15-Oct-22 00:00:00	127121536	188728	23425704
16-Oct-22 00:00:00	127172352	50816	23476520
17-Oct-22 00:00:00	127189712	17360	23493880
18-Oct-22 00:00:00	127324672	134960	23628840
19-Oct-22 00:00:00	127484576	159904	23788744
20-Oct-22 00:00:00	127698776	214200	24002944
21-Oct-22 00:00:00	127856856	158080	24161024
22-Oct-22 00:00:00	128060000	203144	24364168
23-Oct-22 00:00:00	128075656	15656	24379824
24-Oct-22 00:00:00	128112720	37064	24416888
25-Oct-22 00:00:00	128256256	143536	24560424
26-Oct-22 00:00:00	128323040	66784	24627208
27-Oct-22 00:00:00	128394424	71384	24698592
28-Oct-22 00:00:00	128414072	19648	24718240
29-Oct-22 00:00:00	128469048	54976	24773216
30-Oct-22 00:00:00	128469048	0	24773216
31-Oct-22 00:00:00	128469056	8	24773224
01-Nov-22 00:00:00	128488592	19536	24792760
02-Nov-22 00:00:00	128533448	44856	24837616
03-Nov-22 00:00:00	128564072	30624	24868240
04-Nov-22 00:00:00	128565784	1712	24869952
05-Nov-22 00:00:00	128565784	0	24869952
06-Nov-22 00:00:00	128565784	0	24869952
06-Nov-22 23:00:00	128584256	18472	24888424
07-Nov-22 23:00:00	128622640	38384	24926808
08-Nov-22 23:00:00	128625824	3184	24929992
09-Nov-22 23:00:00	128625824	0	24929992
10-Nov-22 23:00:00	128664280	38456	24968448
11-Nov-22 23:00:00	128677296	13016	24981464
12-Nov-22 23:00:00	128677296	0	24981464
13-Nov-22 23:00:00	128679640	2344	24983808
14-Nov-22 23:00:00	128679640	0	24983808
15-Nov-22 23:00:00	128697056	17416	25001224
16-Nov-22 23:00:00	128734856	37800	25039024
17-Nov-22 23:00:00	128751264	16408	25055432
18-Nov-22 23:00:00	128792976	41712	25097144
19-Nov-22 23:00:00	128828584	35608	25132752

20-Nov-22 23:00:00	128828584	0	25132752
21-Nov-22 23:00:00	128835216	6632	25139384
22-Nov-22 23:00:00	128859936	24720	25164104
23-Nov-22 23:00:00	128894984	35048	25199152
24-Nov-22 23:00:00	128917528	22544	25221696
25-Nov-22 23:00:00	128939744	22216	25243912
26-Nov-22 23:00:00	128939744	0	25243912
27-Nov-22 23:00:00	128956192	16448	25260360
28-Nov-22 23:00:00	128969808	13616	25273976
29-Nov-22 23:00:00	129005168	35360	25309336
01-Dec-22 00:00:00	129022776	17608	25326944
02-Dec-22 00:00:00	129048832	26056	25353000
03-Dec-22 00:00:00	129091984	43152	25396152
04-Dec-22 00:00:00	129163648	71664	25467816
05-Dec-22 00:00:00	129189400	25752	25493568
06-Dec-22 00:00:00	129220064	30664	25524232
07-Dec-22 00:00:00	129241424	21360	25545592
08-Dec-22 00:00:00	129282280	40856	25586448
09-Dec-22 00:00:00	129329472	47192	25633640
10-Dec-22 00:00:00	129399248	69776	25703416
11-Dec-22 00:00:00	129462056	62808	25766224
12-Dec-22 00:00:00	129463696	1640	25767864
13-Dec-22 00:00:00	129464752	1056	25768920
14-Dec-22 00:00:00	129504344	39592	25808512
15-Dec-22 00:00:00	129529160	24816	25833328
16-Dec-22 00:00:00	129561024	31864	25865192
17-Dec-22 00:00:00	129601280	40256	25905448
18-Dec-22 00:00:00	129603000	1720	25907168
19-Dec-22 00:00:00	129650304	47304	25954472
20-Dec-22 00:00:00	129653480	3176	25957648
21-Dec-22 00:00:00	129656112	2632	25960280
22-Dec-22 00:00:00	129658704	2592	25962872
23-Dec-22 00:00:00	129660672	1968	25964840
24-Dec-22 00:00:00	129663904	3232	25968072
25-Dec-22 00:00:00	129665888	1984	25970056
26-Dec-22 00:00:00	129668696	2808	25972864
27-Dec-22 00:00:00	129668696	0	25972864
28-Dec-22 00:00:00	129756040	87344	26060208
29-Dec-22 00:00:00	129758536	2496	26062704
30-Dec-22 00:00:00	129765216	6680	26069384
31-Dec-22 00:00:00	129767928	2712	26072096

Pacific Gas and Electric Company®

Appendix 7, SOIL & WATER-9

Per Soil &Water 9, in regard to the Septic System, the following is required: "Any testing results or correspondence exchanged between the project owner and the California Department of Health Services or the Colusa County Environmental Health Division."

There is no testing required for the Septic System at the Colusa Generating Station and there was no formal correspondence with the Colusa County Department of Environmental Health. In 2012 we signed a maintenance contract with Hydrotec Solutions Inc., to provide quarterly maintenance of our septic system in accordance with our O&M manual. This company was recommended to us by the Colusa County Department of Environmental Health. They began their quarterly maintenance in the third quarter of 2012 and have continued thought the present.

Attached is their 2022 report.

PGE Colusa Generating Station

1ST QTR., 2022

COMPLETED: **3/31/22**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

2022 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (Doses)	Net Cycles	ADC	STEP Tank Events	Net	Avg/day
4th	12/16/21	85	3451	159	1.87	2998	424	5
1st	3/3/22	77	3591	140	1.82	3278	280	4

KEY:	
ADC	Ave. Daily Cycle
EC	Event Counter
NET	Month Total

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

PIEZOMETER MEASUREMENTS

3/3/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

SCUM & SLUDGE MEASUREMENTS

3/3/22	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	7'	5"	3"	3"

PGE Colusa Generating Station

2ND QTR., 2022

COMPLETED: **7/6/22**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

2022 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (Doses)	Net Cycles	ADC	STEP Tank Events	Net	Avg/day
4th	12/16/21	85	3451	159	1.87	2998	424	5
1st	3/3/22	77	3591	140	1.82	3278	280	4
2nd	5/24/22	82	3831	240	2.93	3732	454	6
3rd								
4th								

KEY:	
ADC	Ave. Daily Cycle
EC	Event Counter
NET	Month Total

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

PIEZOMETER MEASUREMENTS

3/3/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

5/24/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	**2.36'**	**DRY**
Piez #2	**2.53'**	**DRY**
Piez #3	**2.86'**	**2.43'**

	TOTAL DEPTH	DEPTH TO H2O
Piez #1		
Piez #2		
Piez #3		

	TOTAL DEPTH	DEPTH TO H2O
Piez #1		
Piez #2		
Piez #3		

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

SCUM & SLUDGE MEASUREMENTS

3/3/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	7'	5"	3"	3"

5/24/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	8"	7"	4"	3"

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM				
SLUDGE				

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM				
SLUDGE				

PGE Colusa Generating Station

3RD QTR., 2022

COMPLETED: **11/4/22**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

2022 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (Doses)	Net Cycles	ADC	STEP Tank Events	Net	Avg/day
4th	12/16/21	85	3451	159	1.87	2998	424	5
1st	3/3/22	77	3591	140	1.82	3278	280	4
2nd	5/24/22	82	3831	240	2.93	3732	454	6
3rd	8/16/22	84	4042	211	2.51	4118	386	5
4th								

KEY:	
ADC	Ave. Daily Cycle
EC	Event Counter
NET	Month Total

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

PIEZOMETER MEASUREMENTS

3/3/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

5/24/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	2.43'

8/16/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	**2.11'**	**DRY**
Piez #2	**2.16'**	**DRY**
Piez #3	**2.44'**	**1.86'**

	TOTAL DEPTH	DEPTH TO H2O
Piez #1		
Piez #2		
Piez #3		

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

SCUM & SLUDGE MEASUREMENTS

3/3/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	7'	5"	3"	3"

5/24/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	8"	7"	4"	3"

8/16/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	6"	1"	2"	2"

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM				
SLUDGE				

PGE Colusa Generating Station

4TH QTR., 2022

COMPLETED: **12/15/22**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

2022 PG&E Colusa Generating Station

	Date	# days	STEP Tank EC (Doses)	Net Cycles	ADC	STEP Tank Events	Net	Avg/day
4th	12/16/21	85	3451	159	1.87	2998	424	5
1st	3/3/22	77	3591	140	1.82	3278	280	4
2nd	5/24/22	82	3831	240	2.93	3732	454	6
3rd	8/16/22	84	4042	211	2.51	4118	386	5
4th	11/10/22	86	4217	175	2.03	5110	992	12

KEY:	
ADC	Ave. Daily Cycle
EC	Event Counter
NET	Month Total

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

PIEZOMETER MEASUREMENTS

3/3/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	DRY

5/24/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.36'	DRY
Piez #2	2.53'	DRY
Piez #3	2.86'	2.43'

8/16/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	2.11'	DRY
Piez #2	2.16'	DRY
Piez #3	2.44'	1.86'

11/10/22	TOTAL DEPTH	DEPTH TO H2O
Piez #1	**2.10'**	**DRY**
Piez #2	**2.20'**	**DRY**
Piez #3	**2.40'**	**1.75'**

PGE Colusa Generating Station

Hydrotec Solutions, Inc.
P.O. Box 7908
Chico, CA 95927
(530) 891-4420

SCUM & SLUDGE MEASUREMENTS

3/3/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	7'	5"	3"	3"

5/24/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	8"	7"	4"	3"

8/16/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	5"	0"	0"	0"
SLUDGE	6"	1"	2"	2"

11/10/22

	SEPTIC		DOSING	
	INLET	OUTLET	INLET	OUTLET
SCUM	**4"**	**0"**	**0"**	**0"**
SLUDGE	**6"**	**4"**	**1"**	**0"**

Pacific Gas and Electric Company®

Appendix 8, TLSN-3

Per TLSN-3, the following is required: "Any reports of line-related complaints shall be summarized along with related mitigation measures for the first five years and provided in an annual report to the CPM."

There were no line related complaints in 2022.

Pacific Gas and Electric Company®

Appendix 9, VIS-1

Per VIS-1, the following is required: "The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report. The report shall specify:
a) the condition of the surfaces of all structures and buildings at the end of the reporting year; b) major maintenance activities that occurred during the reporting year; and
c) the schedule of major maintenance activities for the next year.

Surface coating applications for the most part remain in excellent condition after their completion in March 2011, as a result no maintenance activities occurred in 2022.

Pacific Gas and Electric Company®

Appendix 10, VIS-3

Per VIS-3, the following is required: The project owner shall report landscaping maintenance activities, including of dead or dying vegetation, for the previous year of operation in each annual compliance report."

During 2022 maintenance was completed by Sierra Integrated Services Inc. All vegetation is healthy and there is no dying vegetation.
.

SIERRA
INTEGRATED SERVICES INC.

TJ Gomez
Pacific Gas & Electric Company
Colusa Generating Station
4780 Dirks Road
Colusa, CA 94509

February 22, 2022

First Quarter 2022 Landscape Tree & Shrub Maintenance Report

An inspection was performed on the landscape trees and shrubs bordering the entrance of the facility. The trees were visually inspected for signs of structural issues, moisture/irrigation issues, and pest and diseases. Based on the observations most trees and shrubs did not appear to have any of the above listed issues, however, there continues to be a couple small Eucalyptus that continue to have some dieback and crown reduction. The dieback does show some progression and the canopy appears thinned throughout. There are still some leaves that continue to have a slight discoloration and spotting. The pine located to the left of the main gate continues to show signs of overall needle discoloration and disfiguring and now browning and drop. Additionally, the trunk of the tree has a significant bend towards the top. The trunk will be monitored for bark cracking and other structural issues. The small Eucalyptus to the left of the gate still shows signs of struggling.

Recommendations

Continue to inspect and test irrigation system to ensure it is properly working and adequately supplying water to each tree. With significant enough winter rains, irrigation may be able to be turned off until conditions change. So far winter rains have not produced significant enough rainfall to be beneficial. Continue to irrigate landscaping.

Continue to maintain a weed free zone around each tree and shrub. Weeds can compete for nutrients and moisture and can create harborage and protection for rodents that can damage the tree bark. Most trees/shrubs appear to be free of weedy vegetation. Weed control is being conducted currently during Q1 2021 and a follow up will be done in Q2.

A well-balanced fertilizer may be considered as some of the discoloration in the pines could be a result of a nutrient deficiency. Soil testing could determine the best course of action.

Continued monitoring of the trees of concern. All others have continued stable status.

Anne-Marie Patterson
Pest Control Advisor/QAL
Sierra Integrated Services, Inc.
916-717-9631

SIERRA
INTEGRATED SERVICES INC.

TJ Gomez
Pacific Gas & Electric Company
Colusa Generating Station
4780 Dirks Road
Colusa, CA 94509

April 7, 2022

Second Quarter 2022 Landscape Tree & Shrub Maintenance Report

An inspection was performed on the landscape trees and shrubs bordering the entrance of the facility. The trees were visually inspected for signs of structural issues, moisture/irrigation issues, and pest and diseases. Based on the observations most trees and shrubs did not appear to have any of the above listed issues, however, there continues to be a couple small Eucalyptus in the line of trees to the right of the main gate that have some dieback towards the top. The dieback continues to progress incrementally with some additional discoloration and spotting of some of the leaves. There are also some eucalyptus leaves that show some insect damage. The pine located to the left of the main gate continues to show signs of overall needle discoloration. There is new green growth starting from some of the branches that will be monitored. Additionally, the trunk of the tree has a significant bend towards the top. The trunk will be monitored for bark cracking and other structural issues. There is also a small Eucalyptus located to the left of the gate that was starting to show signs of improvement with a little new growth.

Recommendations

Continue to inspect and test irrigation system to ensure it is properly working and adequately supplying water to each tree. Hot weather is upon us and consistent watering is important especially with the minimal natural rainfall that has occurred this rainfall season.

Continue to maintain a weed free zone around each tree and shrub. Weeds can compete for nutrients and moisture and can create harborage and protection for rodents that can damage the tree bark.

A well-balanced fertilizer may be considered as some of the discoloration in the pines and eucalyptus could be a result of a nutrient deficiency. Soil testing could determine the best course of action.

Continued monitoring of the trees of concern. All others have continued stable status.

Anne-Marie Patterson
President
Pest Control Advisor/QAL
Sierra Integrated Services, Inc.
916-717-9631

SIERRA
INTEGRATED SERVICES INC.

TJ Gomez
Pacific Gas & Electric Company
Colusa Generating Station
4780 Dirks Road
Colusa, CA 94509

September 18, 2022

Third Quarter 2022 Landscape Tree & Shrub Maintenance Report

An inspection was performed on the landscape trees and shrubs bordering the entrance of the facility. The trees were visually inspected for signs of structural issues, moisture/irrigation issues, and pest and diseases. Based on the observations most trees and shrubs did not appear to have any of the above listed issues, however, there continues to be small Eucalyptus that has increasing dieback towards the top, however, the tree is pushing new growth. Some leaves continue to have discoloration and spotting possibly indicating a nutrient deficiency. There are also some eucalyptus leaves that show some insect damage. There are now a couple of additional small Eucalyptus showing dieback and leaf discoloration in the same row. The pine located to the left of the main gate continues to show signs of overall needle discoloration and disfiguring and now browning and drop. Additionally, the trunk of the tree has a significant bend towards the top. The trunk will be monitored for bark cracking and other structural issues. The other pines adjacent to the one in decline continue to show signs of needle discoloration and drop. One pine now has a significant lean at the base of the tree. The small Eucalyptus to the left of the gate that was showing signs of improvement by pushing new growth is again showing decline and further die-back.

<u>Recommendations</u>

Continue to inspect and test irrigation system to ensure it is properly working and adequately supplying water to each tree. Warm weather continues and consistent watering is important.

Continue to maintain a weed free zone around each tree and shrub. Weeds can compete for nutrients and moisture and can create harborage and protection for rodents that can damage the tree bark. Most trees/shrubs appear to be free of weedy vegetation

A well-balanced fertilizer may be considered as some of the discoloration in the pines could be a result of a nutrient deficiency. Soil testing could determine the best course of action.

Continued monitoring of the trees of concern. All others have continued stable status.

Anne-Marie Patterson
President
Pest Control Advisor/QAL
Sierra Integrated Services, Inc.
916-717-9631

SIERRA
INTEGRATED SERVICES INC.

TJ Gomez
Pacific Gas & Electric Company
Colusa Generating Station
4780 Dirks Road
Colusa, CA 94509

December 13, 2022

Fourth Quarter 2022 Landscape Tree & Shrub Maintenance Report

An inspection was performed on the landscape trees and shrubs bordering the entrance of the facility. The trees were visually inspected for signs of structural issues, moisture/irrigation issues, and pest and diseases. Based on the observations most trees and shrubs did not appear to have any of the above listed issues, however, there continues to be small Eucalyptus that has increasing dieback towards the top. Some leaves continue to have discoloration and spotting possibly indicating a nutrient deficiency. There are now a couple of additional small Eucalyptus showing dieback and leaf discoloration in the same row. Additionally, a couple of the larger eucalyptus show signs of leaf burn especially towards the top of the trees. There was recently a very cold snap that and the low temperatures and or frost may have caused leaf burn. Will re-evaluate in the spring.

The pine located to the left of the main gate continues to show signs of overall needle discoloration and disfiguring and now browning and drop. Additionally, the trunk of the tree has a significant bend towards the top. The trunk will be monitored for bark cracking and other structural issues. The other pines are showing some signs of improvement. Needle drop and discoloration appears to be less than in previous observations, however, one pine continues to have a significant lean at the base of the tree. The small Eucalyptus to the left of the gate that was showing signs of improvement by pushing new growth is again showing decline and further die-back. The bark on the trunk and limbs is cracking and falling off. This tree will probably need to be removed and replaced.

<u>Recommendations</u>

Continue to inspect and test irrigation system to ensure it is properly working and adequately supplying water to each tree. With the recent significant rainfall the system should be turned off.

Continue to maintain a weed free zone around each tree and shrub. Weeds can compete for nutrients and moisture and can create harborage and protection for rodents that can damage the tree bark. Application of a pre-emergent herbicide can assist in this effort.

Continued monitoring of the trees of concern. All others have continued stable status.

Anne-Marie Patterson
President
Pest Control Advisor/QAL
Sierra Integrated Services, Inc.
916-717-9631

Pacific Gas and Electric Company®

Appendix 11, Waste-5

The Waste Management Plan was followed during 2022. The following pages reflect the practices that were utilized throughout the year.

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
General Wastes				
Non-recyclable non-hazardous office and lunchroom waste	Waste paper, metal, plastic, cardboard, wood	Non-hazardous solid waste, based on waste management practices and staff training.	Commercial waste bins	Not required
Recyclable office materials	Waste paper, metal, plastic, cardboard	Not a waste, based on waste management practices and staff training.	Commercial recycling bins	Not required
Janitorial products and waste from their use	Janitorial products (e.g., window cleaner, floor stripper, wax, drain cleaners, etc.) may contain chemicals that are hazardous. These chemicals are consumed during normal use.	Use according to instructions on product labels does not constitute disposal. Discarded full-strength products may exhibit characteristics of ignitability, corrosivity, reactivity, or toxicity.	Empty containers of 5 gallons or less (meeting the definition of an empty container) can be disposed of in commercial waste bins. Discarded unused products will be characterized based on review of product labels and MSDSs and disposed of appropriately.	Not required
Used consumer electronic products and components	Cell phones, personal computers, computer perhipherals (e.g., printers), pagers, personal digital assistants, process control system components	Universal hazardous waste	Universal waste destination facility to be identified	Not required
Light tubes	Includes fluorescent light tubes, high-pressure sodium lamps, and other lamps that exhibit a characteristic of a hazardous waste.	Universal hazardous waste	Universal waste destination facility to be identified	Not required
Batteries	Rechargeable nickel-cadmium batteries, lithium batteries, alkaline batteries,	Universal hazardous waste	Universal waste destination facility to be identified	Not required

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
	silver button batteries, mercury batteries, small sealed lead-acid batteries, carbon-zinc batteries, and any other batteries that exhibit a characteristic of a hazardous waste			
Lead acid batteries – automotive or large industrial	Contain lead and sulfuric acid	Recyclable hazardous waste	Destination facility to be identified	Not required
Off-specification chemicals	Unusable new products, materials that cannot be returned to the vendor, and expired materials (shelf-life exceeded)	Chemical products may be non-hazardous, listed hazardous wastes, or characteristic waste.	Non-hazardous waste will be discarded in commercial waste bins. Hazardous waste will be disposed appropriately following characterization based on product labels and MSDSs.	Not required; management to be determined based on product label and MSDS.
Spent sorbent	Varies with wastes absorbed. May contain oil, solvents, coolant, or diesel fuel. Listed solvents are not expected to be used at the facility.	Non-hazardous waste if used to absorb a non-hazardous liquid; non-RCRA hazardous waste if used to absorb oil; RCRA hazardous waste if used to absorb a listed solvent or material that causes the sorbent to become a characteristic or listed hazardous waste	Non-hazardous waste will be discarded in commercial waste bins. Oil-contaminated sorbent will be disposed as a non-RCRA hazardous waste based on generator knowledge. Other hazardous waste sorbent will be disposed based on either generator knowledge if the material absorbed in known or analysis if it is not known.	Not required except when the material being absorbed is not known.
Aerosol cans	Aerosol cleaners and lubricants may contain listed chemicals. In addition, aerosol propellants and materials may be ignitable. Materials may also be	Universal hazardous waste	Empty, expired unused, or partially used aerosol cans	Not required; management can to be determined based on product label and MSDS.

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
	corrosive or reactive.			
Used oil	Used oil includes lubricating oil, gearbox oil, compressor oil, bearing oil, transformer oil, metal working oil, and hydraulic oil that is not mixed with solvents.	Non-RCRA hazardous waste	Evergreen Oil or similar used oil recycler	Testing to confirm total halogen concentration is less than 1,000 parts per million. Testing is typically provided as a service by the oil recycler.
Painting wastes	Large-scale work is contracted out. Paint wastes include cans of unused or partially used paint, empty paint cans, and paint contaminated materials (brushes, rollers, tarps, and wipes).	It is assumed that waist paints are hazardous wastes. Paint-contaminated material is typically non-hazardous unless disposed when the paint is still wet.	Discarded unused or partially used paint will be characterized based on review of product labels and MSDSs and will be disposed of appropriately.	None required
Biohazard wastes	Biohazard waste may result from first air operations.	Biohazard	Transport to a local hospital for disposal by incineration	None required
Sanitary wastewater	Wastewater from toilets, sinks, showers, and janitorial closets.	Non-hazardous. Waste management provisions include posting signs at sinks and training employees regarding materials prohibited from draining at sinks.	Delta Diablo Sanitation District treatment plant	Monitoring per Industrial Waste Permit
Used oil filters	Used oil filters are hazardous based on oil content and may exhibit hazardous characteristics for lead and other heavy metals.	Used oil filters are classified as recyclable hazardous wastes provided that they are managed per requirements including draining of free-flowing oil	Drained oil filters may be transported to an approved destination such as Evergreen Oil under a bill of lading, provided that requirements for used oil filter management have been met.	None required

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
Reusable soiled textiles (shop towels)	Varies with material absorbed. May contain oil, solvents, or other chemicals.	May be managed as a recyclable material excluded from classification as a waste if managed in accordance with requirements for reusable soiled textiles.	Recycle at facility that is compliant with requirements for reusable soiled textiles.	None required
Empty product containers	Empty containers may contain residues that have hazardous characteristics. Care should be taken in handling empty containers previously holding ignitable materials as they may contain ignitable vapors.	Empty containers meeting the regulatory definition of empty (e.g. all contents have been poured out) may be disposed of as non-hazardous waste provided they also meet empty container management requirements.	Empty containers of 5 gallons or less may be disposed with commercial waste. Empty containers of greater than 5 gallons need to be labeled with the word “empty” and the date they were emptied and either sent for reconditioning or for scrap within one year of becoming empty.	None required
Scrap metal	Used metal parts	Recyclable materials (22 CCR 66261.6(a)(3)	Place in scrap metal bins for transportation to a scrap metal recycler.	None
Compressed gas cylinders	Cylinders containing pressurized oxygen, acetylene, argon, nitrogen, and calibration gas blends; may contain residual pressure.	Non-hazardous solid waste when empty	Return refillable cylinders to vendors. Dispose of non-refillable cylinders as non-hazardous waste.	None
Spent solvent, sludge, and filters from parts washers.	Water-based and hydrocarbon based spent solvent, sludge, and filters.	Hydrocarbon-based solvent is typically hazardous and is collected and recycled.	Contract a parts washer service to recycle parts washer spent solvent in accordance with regulation.	None required unless operations change or solvent changes.
Used blasting grit	Used blasting grit may contain metal from the parts processed as well as coating	The material will be collected for characterization prior to	Manage as a hazardous waste. The material will be disposed at an approved	The analysis to be performed will be based on the waste profiling requirements of the

TABLE 2-1
Characterization of Waste Streams at the Colusa Generating Station
Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
	residue.	disposal.	disposal facility in accordance with federal, state, and local regulations.	disposal facility.
Oil/water separator sludge	Material collecting on the bottom of the oil/water separator may include oil-contaminated metals and other solids.	The material will be managed has a hazardous waste based on waste analysis.	Manage as a hazardous waste. The material will be disposed at an approved disposal facility in accordance with federal, state, and local regulations.	The analysis to be performed will be based on the waste profiling requirements of the disposal facility.
Used engine coolant	Used engine coolants are mixtures of water and organic compounds such as ethylene glycol.	Spent coolants are typically non-RCRA hazardous wastes.	Recycle at Evergreen Oil or similar facility.	None required
Wet Surface Air Cooler (WSAC) Sludge	WSAC sludge is a mixture of ambient particulate matter and water.	Dependent on samples—likely non-hazardous. Class II/III landfill if nonhazardous; Class I if hazardous.	Store in bins. Bins are to be covered if rain is predicted. Storage is allowed until container is full. Waste will be transported off-site weekly.	Perform total analysis (i.e. TCLP, TTLP, WET, etc.) to characterize the waste. If process remains consistent through year, perform characterization 1x/year
Salt Cake	Residual concentrated brine solution	Dependent on samples—likely non-hazardous. Class II/III landfill if nonhazardous; Class I if hazardous.	Store in bins. Bins are to be covered if rain is predicted. Storage is allowed until container is full. Waste will be transported off-site weekly.	Perform total analysis (i.e. TCLP, TTLP, WET, etc.) to characterize the waste. If process remains consistent through year, perform characterization 1x/year.

MSDS = Material Safety Data Sheet.

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Table 2-1

Characterization of Waste Streams at the Colusa Generating

Station Waste Management Plan, PG&E Colusa Generating Station

Waste Stream	Characteristics	Classification	Disposal	Analysis Required
Soil & Rock	Excavated soil/rock From Oil spills	Depends on sample likely non-hazardous Class II/III if nonhazardous Class I if hazardous	Manage as a hazardous Waste. The material will disposed at an approved facility. In accordance with federal,state and local regulation	Preform total analysis (i.e., TPH,CAM17) to characterize the waste.

2022 Waste Stream Detailed

Waste Stream	Quantity	On-Site Storage	Off-Site Disposal
Non RCRA Hazardous Waste, Solid (Drained Oil Filters)	550 Pounds	Store for less than 90 days	Shipped to approved TSD facility (CHES)
Non RCRA Hazardous Waste, Solid (Oily Debris)	3400 Pounds	Store for less than 90 days	Shipped to approved TSD facility (CHES)
Non RCRA Hazardous Waste, Liquids (Mixed Oils)	2795 Pounds	Store for less than 90 days	Shipped to approved TSD facility (CHES)
Universal Waste (Electronic Devices)	575 Pounds	Store for less than 365 days	Shipped to approved TSD facility (CHES)
Hazardous Waste Liquid (Waste Water)	52400 Gallons	Stored for less than 90 days	Shipped to approved TSD facility (Seaport)
Hazardous Waste Adhesives	45 Pounds	Stored for less than 90 days	Shipped to approved TSD facility (CHES)
Non RCRA Hazardous Waste Flamable Solids. Organic NOS (Acetone, Ethyl Benzene)	10 Pounds	Stored for less than 90 days	Shipped to approved TSD facility (CHES)
Non RCRA Hazardous Waste, Liquids (Water Chemtreat)	3600 Pounds	Stored for less than 90 days	Shipped to approved TSD facility (CHES)
Non RCRA Hazardous Waste, Liquids (Oil, Water)	600 Pounds	Stored for less than 90 days	Shipped to approved TSD facility (CHES)
Universal Waste (Batteries)	65 Pounds	Stored for less than 180 days	Shipped to approved TSD facility (CHES)
Non- RCRA Hazardous Waste, Solid (Aluminum Oxide, Sodium Oxide)	3200 Pounds	Stored for less than 90 days	Shipped to approved TSD facility (CHES)
Non RCRA Hazardous Waste, Solids (Silicone Pyrophosphate, Quartz Dust)	800 Pounds	Stored for less than 90 days	Shipped to approved TSD facility (CHES)
Waste Flamable Liquids (Gasoline, Diesel)	75 Pounds	Stored for less than 90 days	Shipped to approved TSD facility (CHES)
Universal Waste (Aeresols)	65 Pounds	Stored less than 90 days	Shipped to apporved TSD facility (CHES)

Non Regulated Solid (Non PCB Ballasts)	15 Pounds	Stored less than 180 days	Shipped to approved TSD facility (CHES)
Waste Alcohols , N.O.S. (Ethanol, Methanol)	50 Pounds	Stored less than 90 days	Shipped to approved TSD facility (CHES)

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Attachment D

Post-Certification Changes

Per Com-7 Item 4 we are to provide; "A Summary of the current project operating status and an explanation of any significant changes to the facility operations during the year."

No significant changes were made at CGS in 2022.

Pacific Gas and Electric Company®

Attachment E

Summary of Missed Deadlines

Per Com-7 Item 5 we are to provide: "An explanation for any submittal deadlines that have been missed, accompanied by an estimate of when the information will be provided"

No submittal deadlines have been missed for 2022.

Pacific Gas and Electric Company®

Attachment F

Governmental Agency Submittals and Issuances

The following is a listing of filings submitted to, or permits issued by, other governmental agencies during the year:

CGS Agency Submittals; January 1, 2022 – December 31, 2022

Colusa County Air Pollution Control District

Quarterly Operating Report (Permit Condition 17) – January 26, 2022; April 26, 2022; July 31, 2022; October 25, 2022

Annual RATA/Source Test – October 2022

Title V Annual Certification of Compliance January 2022

EPA

Semi Annual CEMs Report (X.G.5) – January 2022; July 31, 2022

CUPA

Revised Hazardous Materials Business Plan via CERS – January 30, 2022

State Water Resources Control Board

Annual Stormwater Report – July 2022
Exceedance Response Action Level 2 Action Plan – July 2022

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Attachment G

Projected Compliance Activities 2023

Per Com-7 Item 7 we are to provide; "A projection of project compliance activities scheduled during the next year."

In 2023 PG&E intends to continue reporting on the standard required compliance items. These include but are not limited to:

- Quarterly CEMS Reports/Operations Reports
- Annual Compliance Reports
- Notifications of Source Testing and Associated Source Test Reports
- Annual Storm Water Report

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Attachment H

Additions to On-Site Compliance Files

Pacific Gas and Electric Company®

Per Com-7 Item 8 we are to provide; "A listing of this year's additions to the on-site compliance files."

All of the above noted items in Attachment F which were submitted to agencies other than the CEC, as well as those items submitted to the CEC have been added to the site compliance files.

Pacific Gas and Electric Company®

Attachment I

Contingency Plan Evaluation

Pacific Gas and Electric Company®

Per Com-7 Item 9 we are to provide; "An Evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions for bringing the plan up to date."

Upon Review of the Site Contingency Plan there have been no changes in operations or company business practices to warrant changing of the on-site contingency plan for unplanned facility closure.

Pacific Gas and Electric Company®

Attachment J

Complaints / NOVs / Citations

Per Com-7 Item 10 we are to provide: "A listing of complaints, notices of violation, official warnings, and citations received during the year, a description of the resolution of any resolved matters, and the status of any unresolved matters"

In 2022, CGS did not receive any complaints, warnings, or citations.

Pacific Gas and Electric Company®

Attachment K

Worker Safety-6, Maxwell Fire Department Payment

Per Worker Safety-6 The owner shall provide the CEC CPM with verification of funding to the Maxwell Fire Department for required fire protection services mitigation pursuant to the agreement with the Department or the CEC CPM approved independent consultant study.

Maxwell Fire Protection District

231 West Oak
P.O. Box 651
Maxwell, Ca. 95955
Bus. (530) 438-2320
Emergency Dial 911

May 1, 2022

Josh Harris, Plant Manager
Pacific Gas & Electric
Colusa Generating Station
4780 Dirks Road
Maxwell, CA 95955

Dear Josh,

This is a request for the annual payment as stated by the agreement between PG&E and the Maxwell Fire Protection District dated March 24, 2009. The payment is to be adjusted for inflation based on the Bureau of Labor statistics for the San Francisco Region and County taxes collected on the project. The inflation factor for 2021 was 3.38% and the taxes collected on the project for 2021 was $9,345.00. Total due the Maxwell Fire Protection District is stated below.

Annual payment	*$324,471.00*
Inflation 2019	*+10,967.00*
County Taxes	*-$9,345.00*
Total Due	*$326,093.00*

Sincerely,
Kenny Cohen Maxwell Fire Chief.

WARNING - THIS DOCUMENT CONTAINS A VOID PANTOGRAPH, COLORED BACKGROUND AND WATERMARK ON THE BACK

Pacific Gas and Electric Company®
77 Beale Street,
San Francisco, CA 94105

THE BANK OF NEW YORK MELLON 53-292 113

Date: 05/16/2022 Check No. 4970459 Pay $*******326,093.00*

*THREE HUNDRED TWENTY-SIX THOUSAND NINETY-THREE********** AND 00/100 DOLLARS

To The Order Of

MAXWELL FIRE DISTRICT
COUNTY OF COLUSA
PO Box 651
MAXWELL CA 95955

ACCOUNTS PAYABLE

Pacific Gas and Electric Company®

8617052

⑈0004970459⑈ ⑆011302920⑆ 059978⑈

PLEASE FOLD FIRST THEN DETACH ALONG PERFORATION

MAXWELL FIRE DISTRICT

Check no.	**4970459**
Date	**05/16/2022**
Your account number	**1086359**
Payment Document	**2000072036**
Our account with you	**N/A**

Invoice	Date	Discount	Net Amount	Comments
CGS 2022	05/01/22	0.00	326,093.00	JOSH HARRIS PO BOX 398 MAXWELL CA 95955 530356728
Totals:	USD	0.00	326,093.00	For Payment Inquiries, email APPaidLine@pge.com

Special Handle Code: 02

Pacific Gas and Electric Company 77 Beale Street, San Francisco, CA 94105

Not Negotiable

62-1576