

DOCKETED

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Annual Compliance Report

*As required by California Energy Commission:
City of Roseville, Roseville Electric Utility-Roseville Energy Park*

07/31/2021

Julie Manfredi
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City of Roseville – Roseville Energy Park
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I. Compliance Matrix

a) Annual Compliance Reporting

Technical Area	Condition Number	Verification Action	Date Required
Air Quality	AQ-42	Nox and VOC Emissions	Jun-August
Air Quality	AQ-68	Cooling Tower Lab Analysis	Jun-August
Air Quality	AQ-SC12	Off-Road Equipment	Jun-August
Biological Resources	BIO-2	Designated Biologist	Jun-August
Biological Resources	BIO-4	WEAP Training	Jun-August
General Compliance Condition	COM-5	Compliance Matrix	Jun-August
General Compliance Condition	COM-7	Annual Compliance Report Submittal	Jun-August
General Compliance Condition	COM-13	On-Site Contingency Plan Review	Jun-August
Hazardous Materials Management	HAZ-1	Hazardous Materials at the Facility	Jun-August
Soil and Water Resources	Soil & Water-7	Water Use Summary	Jun-August
Soil and Water Resources	Soil & Water-8	Status Report on ZLD	Jun-August
Traffic and Transportation	TRANS-4	Permitting for Hazardous Material Transportation	Jun-August
Visual Resources	VIS-2	Cooling Tower Operation	Jun-August
Visual Resources	VIS-4	Surface Treatment Maintenance	Jun-August
Visual Resources	VIS-5	Landscape Screening	Jun-August
Waste Management	WASTE-5	Waste Management Plan	Jun-August

b) As Required Compliance Reporting

Technical Area	Condition Number	Verification Action	Date Required
Air Quality	AQ-22	Nox Emissions Records	As Requested
Air Quality	AQ-30	Annual Source Test Protocol for Nox	30 days Prior
Air Quality	AQ-30	Annual Source Test Results for Nox	Within 60 Days of Test
Air Quality	AQ - 31	Gas Turbine Operating Log	As Requested
Air Quality	AQ - 35	All Permit Records Maintained for 5 years	As Requested
Air Quality	AQ - 44	Annual Performance Test Protocol	30 Days Prior
Air Quality	AQ - 44	Annual Performance Test Results	Within 60 dDays of Test
Air Quality	AQ - 45	Cold Start Nox and CO Emissions Performance Test Protocol	Every 7 Years after Commissioning - Results within 60 Days of Test
Air Quality	AQ - 45	Cold Start Nox and CO Emissions Performance Test Results	Every 7 Years after Commissioning - Protocol 30 Days Prior
Air Quality	AQ - 46	Annual Performance Test Methods Protocol	30 Days Prior
Air Quality	AQ - 46	Annual Performance Test Methods Results	Within 60 Days of Test
Air Quality	AQ - 49	Annual Particulate Matter Performance Test Protocol	30 Days Prior
Air Quality	AQ - 49	Annual Particulate Matter Performance Test Results	Within 60 Days of Test
Air Quality	AQ - 50	Annual Sox Performance Test Protocol	30 Days Prior
Air Quality	AQ - 50	Annual Sox Performance Test Results	Within 60 Days of Test
Air Quality	AQ - 51	NH3 Slip Exceedance	Within 10 Days of Exceedance
Air Quality	AQ - 51	Plan for Replacement or Reconditioning of Catalyst	30 Days prior to Scheduled Date
Air Quality	AQ - 53	Nox Excursions	Within 5 Working Days of Occurrence
Air Quality	AQ - 66	No Hexavalent Chromium Compounds Added to Cooling Tower	Records Available as Requested
Air Quality	AQ - 110	Portable Equipment	Site Available for Inspection

c) Quarterly Compliance Reporting

Technical Area	Condition Number	Verification Action	Date Required
Air Quality	AQ-15	Operational status of SCR and oxidation catalyst	April 30, July 30, October 30, January 30
Air Quality	AQ-20	Sulfur content of natural gas	April 30, July 30, October 30, January 30
Air Quality	AQ-21	Start-ups and Shut-down	April 30, July 30, October 30, January 30
Air Quality	AQ - 32	Hourly, daily, and quarterly Nox and CO emissions	April 30, July 30, October 30, January 30
Air Quality	AQ - 33	Hourly, daily, and quarterly SOx emissions	April 30, July 30, October 30, January 30
Air Quality	AQ - 34	Invalid data and CEMS downtime	April 30, July 30, October 30, January 30
Air Quality	AQ -36	Upset breakdown reports	April 30, July 30, October 30, January 30
Air Quality	AQ - 37	Notices of Non-Compliance	April 30, July 30, October 30, January 30
Air Quality	AQ - 38	Upset breakdown corrections	April 30, July 30, October 30, January 30
Air Quality	AQ - 39	CEMS Audits	April 30, July 30, October 30, January 30
Air Quality	AQ - 40	CEMS QA failures	April 30, July 30, October 30, January 30
Air Quality	AQ - 41	Excess emissions reports	April 30, July 30, October 30, January 30
Air Quality	AQ - 47	Emissions Nuisances	April 30, July 30, October 30, January 30
Air Quality	AQ - 48	Opacity Violations	April 30, July 30, October 30, January 30
Air Quality	AQ - 51	Hourly and 24 hour NH3 slip concentrations	April 30, July 30, October 30, January 30
Air Quality	AQ - 55	Nox and CO emissions during Start-ups and Shut-downs	April 30, July 30, October 30, January 30
Air Quality	AQ - 57	LB/Hr emissions except during Start-ups and Shut-downs	April 30, July 30, October 30, January 30
Air Quality	AQ - 59	Daily emission limits	April 30, July 30, October 30, January 30
Air Quality	AQ - 60	Quarterly emission limits	April 30, July 30, October 30, January 30
Air Quality	AQ - 63	Annual emission limits	April 30, July 30, October 30, January 30
Air Quality	AQ - 69	Nuisance complaints	April 30, July 30, October 30, January 30
Air Quality	AQ - 70	Cooling Tower emissions	April 30, July 30, October 30, January 30

II. Project Operating Status

The Roseville Energy Park operated throughout the 2020 calendar year per the design basis with no significant changes to facility operations.

III. Required Conditions

The required conditions are included in the Compliance Matrix within this Annual Report.

IV. Post-Certificate Changes

The Roseville Energy Park submitted two Project Change Questionnaire's to the California Energy Commission requesting two modifications to the Roseville Energy Park (REP) on March 31, 2020.

The two modification requests were for the following:

1. Roseville Energy Park Steam Turbine Generator Enclosure
2. Zero liquid discharge screw press upgrade

The California Energy Commission (CEC) Compliance Manager responded on August 20, 2020 stating the CEC STEP Division management determined that these two proposed changes are considered amendments of the Commission Decision and require a Petition to Amend for consideration by the Energy Commission staff. The Roseville Energy Park put the Petition to Amend documentation on hold due to the State of California's stay at home COVID-19 order and will revisit again in late 2021 or early 2022.

V. Submittal Deadline Resolutions

Pursuant to COM-7 the Roseville Energy Park will submit its annual report no later than July 30th. This date is 30+ days later than in past years but mutually agreed upon due to the State of California COVID-19 stay at home orders.

VI. New Filings

The Roseville Energy Park had no post certification filings in 2020.

VII. Projected Compliance Activities

Roseville Energy Park has planned and budgeted for the required compliance activities including:

- Maintaining compliant operations of the facility through the purchase and use of required consumables, and
- Planning of prudent preventative maintenance tasks, and
- Compliance training of site personnel, and
- Performing required testing i.e. RATA and Source Testing, and
- Evaluating critical spares in stock and updating lists based on industry best management practices
- Planning and budgeting for timely compliance report submittals

VIII. Compliance File Additions

Visual Condition of Certification (VIS-5) has been added to this Annual Report as the Blue Oaks / Phillip Road extensions near completion.

IX. Contingency Plan Evaluation

After reviewing the On-Site Contingency Plan it has been determined that the measures outlined in the plan are sufficient for an unplanned facility closure. The state of the facility at this time has not changed since the CEC's initial review of the plan.

X. Complaint, NOV, Official Warnings, and Citations List with Resolutions

On September 24, 2020 a City of Roseville Resident contacted a City of Roseville Councilmember regarding loud noises coming from the Roseville Energy Park. As required by NOISE-2 Condition of Certification, the resident was contacted by our Electric Utility Director and again by Roseville Energy Park Compliance on September 26th and September 28th. On September 29, 2020 and as required by NOISE-2 Condition of Certification in the Final Determination of Compliance, Roseville Energy Park Compliance initiated and sent the Noise Complaint Resolution Form to the California Energy Commission. Roseville Electric Utility initiated and hired a third party to perform a noise assessment and is currently working with the consultant to receive the final results. The results will be communicated to the CEC Compliance Manager on or before the end of the summer 2021.

XI. Appendix: Specific Conditions Operating Data

a) AQ - 42 – Combustion Turbine #1



Tons 12 Month Rolling Summary CT1

From: 01/01/2020 00:00 **To:** 12/31/2020 23:59 **Facility Name:** ROSEVILLE ENERGY
Generated: 07/13/2021 14:29 **Location:** Roseville, CA

* = Excess Emission

Date	Unit CT1		Unit CT1		Unit CT1		Unit CT1		Unit CT1		Unit CT1		Unit CT1	
	CO, Ton	1 Day(s)	NOx, Ton	1 Day(s)	PM10, Ton	1 Day(s)	SO2, Ton	1 Day(s)	VOC, Ton	1 Day(s)	Sum	Rolling Sum	Sum	Rolling Sum
Jan 2020	0.0771	1.1584	0.1615	3.3523	0.0298	0.6272	0.0150	0.3241	0.0497	1.0458				
Feb 2020	0.0718	1.0213	0.0788	2.5622	0.0134	0.4780	0.0067	0.2437	0.0224	0.7939				
Mar 2020	0.0000	0.9522	0.0000	2.3253	0.0000	0.4314	0.0000	0.2197	0.0000	0.7197				
Apr 2020	0.0000	0.9522	0.0000	2.3253	0.0000	0.4314	0.0000	0.2197	0.0000	0.7197				
May 2020	0.0472	0.9512	0.0468	2.2886	0.0077	0.4244	0.0039	0.2158	0.0129	0.7082				
Jun 2020	0.0809	1.0264	0.2186	2.4860	0.0414	0.4603	0.0214	0.2347	0.0692	0.7692				
Jul 2020	0.1134	1.0800	0.4424	2.6090	0.0830	0.4823	0.0433	0.2462	0.1383	0.8050				
Aug 2020	0.2102	1.1534	0.9080	3.0470	0.1728	0.5670	0.0887	0.2889	0.2877	0.9458				
Sep 2020	0.1827	1.2045	0.8169	3.6611	0.1550	0.6875	0.0799	0.3513	0.2583	1.1465				
Oct 2020	0.1796	1.2994	0.6168	4.0281	0.1172	0.7582	0.0598	0.3882	0.1953	1.2640				
Nov 2020	0.0000	1.0028	0.0000	3.4108	0.0000	0.6436	0.0000	0.3306	0.0000	1.0726				
Dec 2020	0.0256	0.9883	0.0095	3.2963	0.0006	0.6209	0.0003	0.3190	0.0010	1.0348				
Sum/Avg	0.9885		3.2963		0.6209		0.3190		1.0348					
Limit Value														

CT1_Tons_12MonthRollingSummary

b) AQ – 42 – Combustion Turbine #2



Tons 12 Month Rolling Summary CT2

From: 01/01/2020 00:00 To: 12/31/2020 23:59 Facility Name: ROSEVILLE ENERGY
Generated: 07/13/2021 14:30 Location: Roseville, CA

* = Excess Emission

Date	Unit CT2		Unit CT2		Unit CT2		Unit CT2		Unit CT2		Unit CT2		Unit CT2	
	CO, Ton	1 Day(s)	NOx, Ton	1 Day(s)	PM10, Ton	1 Day(s)	SO2, Ton	1 Day(s)	VOC, Ton	1 Day(s)	Sum	Rolling Sum	Sum	Rolling Sum
Jan 2020	0.0705	1.6622	0.1593	3.3236	0.0291	0.6026	0.0150	0.3078	0.0484	1.0040				
Feb 2020	0.1094	1.4471	0.2777	2.6200	0.0504	0.4667	0.0254	0.2370	0.0840	0.7778				
Mar 2020	0.0000	1.2872	0.0000	2.2953	0.0000	0.4086	0.0000	0.2064	0.0000	0.6808				
Apr 2020	0.0000	1.2872	0.0000	2.2953	0.0000	0.4086	0.0000	0.2064	0.0000	0.6808				
May 2020	0.0402	1.2749	0.0790	2.2840	0.0138	0.4070	0.0072	0.2056	0.0229	0.6779				
Jun 2020	0.0259	1.2330	0.1182	2.3160	0.0227	0.4142	0.0121	0.2101	0.0379	0.6901				
Jul 2020	0.1142	1.2761	0.4336	2.5711	0.0808	0.4631	0.0423	0.2363	0.1342	0.7710				
Aug 2020	0.2158	1.3186	0.8755	2.9481	0.1650	0.5346	0.0852	0.2742	0.2753	0.8907				
Sep 2020	0.2349	1.3501	0.9079	3.5066	0.1739	0.6486	0.0876	0.3313	0.2900	1.0809				
Oct 2020	0.3122	1.4214	0.8612	4.2260	0.1631	0.7886	0.0818	0.4015	0.2720	1.3145				
Nov 2020	0.3204	1.4878	0.7287	4.5570	0.1395	0.8605	0.0696	0.4372	0.2324	1.4341				
Dec 2020	0.0268	1.4703	0.0113	4.4524	0.0006	0.8389	0.0003	0.4265	0.0010	1.3981				
Sum/Avg	1.4703		4.4524		0.8389		0.4265		1.3981					
Ltwt Value														

CT2_Tons_12MonthRollingSummary

c) AQ-68

ANALYTICAL REPORT

Customer: Roseville Energy Park

Location: Roseville, CA

Date: March 6, 2020

Reported to: Tony Johnson, Dave Nipper, Michael Zasso

Please find the attached lab results for your review:



Global Technology
Customer Analytical Services Laboratory

0000667863
ROSEVILLE ENERGY PARK
5120 PHILLIP ROAD
ROSEVILLE CA
US 95747

Project: W-20200203-004
Date Authorized: 05-Mar-2020
Submitter: Gregory McGiffney J
Submitter ID: A800994
RD Program/LWR: 351182 WRC20-0281

SAMPLE INFORMATION

		System ID:	COOLING
		Sample Number:	757878
		Sample Date:	13-Jan-2020
		Sample Name:	Cooling Tower
		Sample Point:	Cooling Tower
Analyte	Units		
Alkalinity, Hydroxide (as CaCO ₃)	mg/L		< 0.1
Alkalinity, P as CaCO ₃	mg/L		< 0.1
Alkalinity, Total (as CaCO ₃)	mg/L		24.9
Aluminum, Total (as Al)	mg/L		0.2
Calcium, Total (as CaCO ₃)	mg/L		83.2
Chloride (as Cl)	mg/L		303.0
Conductivity	µS/cm		1811.0
Copper, Total (as Cu)	mg/L		< 0.05
Hardness - Calcium, Soluble (as CaCO ₃)	mg/L		76.5
Hardness - Magnesium, Soluble (as CaCO ₃)	mg/L		23.8
Hardness - Total, Soluble (as CaCO ₃)	mg/L		100.3
Hardness, Total (Acidified as CaCO ₃)	mg/L		107.7
Iron, Total (as Fe)	mg/L		0.08
Magnesium, Total (as CaCO ₃)	mg/L		24.5
Manganese, Total (as Mn)	mg/L		< 0.01
Metals Poured			Yes
Organic Phosphorus, Soluble (as PO ₄)	mg/L		< 0.1
Orthophosphate, Soluble (as PO ₄)	mg/L		14.2
pH			7.2
Polyphosphate, Soluble (as PO ₄)	mg/L		< 0.1
Silicon, Soluble (as SiO ₂)	mg/L		29.1
Sodium, Soluble (as Na)	mg/L		264.4
Sulfate (as SO ₄)	mg/L		311.0
Total Inorganic Phosphorus, Sol (as PO ₄)	mg/L		14.2
Total Phosphorus, Soluble (as PO ₄)	mg/L		14.2
Total suspended solids (TSS)	ppm		891.
Zinc, Total (as Zn)	mg/L		< 0.1

Solenis LLC
2475 Pinnacle Drive • Wilmington, DE 19803

d) AQ-SC12

REP currently does not own or utilize any off road material loading or handling equipment.

e) BIO-2

Kelly Fitzgerald-Holland

Senior Wildlife Biologist & Regulatory Specialist

Kelly Fitzgerald-Holland is a Certified Wildlife Biologist, senior wildlife biologist, and environmental compliance expert. She has nearly 20 years of experience in ecological research, program management, environmental regulation and compliance, and terrestrial ecosystem monitoring in the western U.S. She has served as senior wildlife biologist or task lead manager for a large number of projects that require endangered species permitting and biological analysis for CEQA/NEPA compliance. Ms. Holland specializes in evaluating impacts on threatened and endangered wildlife species and their habitats and coordinating with resource agency staff to ensure compliance with the Federal and State Endangered Species Acts, including completing Section 7 consultation. Prior to her position at GEI, she spent 4 years conducting ESA consultations as a USFWS biologist, reviewing projects to assess impacts on listed species, providing technical assistance to minimize impacts on listed species, and preparing biological opinions for projects that impacted federally listed species and designated critical habitat. While at USFWS, Ms. Holland garnered extensive knowledge of the federally threatened giant garter snake, assisting with conservation and recovery planning for this species through research consolidation, technical oversight, and coordination with species experts. In addition to having worked for USFWS, as well as the National Park Service and U.S. Forest Service, Ms. Holland has worked extensively with state and federal agencies to assist clients with compliance with CESA/ESA, Migratory Bird Treaty Act, and CEQA/NEPA.

PROJECT EXPERIENCE

Flood Management Projects

Natomas Levee Improvement Program, Sacramento Area Flood Control Agency, Sacramento and Sutter Counties, CA. Senior wildlife biologist who prepared the biological assessments and 2081(b) permit applications for the program's Landside Improvements Project, coordinated closely with client and agency staff throughout the consultation process, assisted with the environmental analyses in NEPA and CEQA documents, assisted with the development of a comprehensive habitat mitigation and monitoring plan for the project, and oversaw the development and implementation of the project's mitigation and monitoring plan and the long-term management plan. She continues to lead environmental compliance for this program.

Reclamation District 17, Reclamation District 17 Levee Repair

Project, San Joaquin County, CA. Regulatory specialist for ESA compliance and senior wildlife biologist who prepared biological assessment that evaluated Reclamation District 17 (RD 17) plans for needed repairs to the eastside of the San Joaquin River levee. The repairs are designed to enable the levee system to withstand 100-year flood conditions and receive Federal Emergency Management Agency certification. Ms. Holland prepared the biological assessment to support ESA compliance and the development of the permitting and mitigation strategy.



EDUCATION

M.S., Environmental Science, Washington State University, Pullman
B.A., Environmental Studies, University of California, Santa Cruz

EXPERIENCE IN THE INDUSTRY

20 years

REGISTRATIONS AND LICENSES

Certified Wildlife Biologist, the Wildlife Society (2014)

PROFESSIONAL ASSOCIATIONS

The Wildlife Society
Conservation Affairs Committee Chair,
Western Section of The Wildlife Society

PRESENTATIONS

- *Wetlands and Endangered Species Act Training*: Beale Air Force, Yuba County, California. May 2014.
- *Endangered Species Act Section 7 Consultation and Incidental Take Permit Applications – Overview*. AECOM Employee Brown Bag Series, Sacramento, California. October 2014.
- *Restoring Habitats and Connective Corridors to Support Species Recovery in the Natomas Basin, Sacramento, CA*. The Western Section of the Wildlife Society, 2012 Annual Conference, Sacramento, CA, 2012.
- *Organizational Structure and Permitting Processes of the US Fish and Wildlife Service*, Association of Environmental Professionals luncheon, Sacramento, CA, February 2009.
- *The Effects of Land Management Practices on Reptile Populations: How Grazing Regimes Impact Reptile Density, Diversity, Foraging Opportunities, and Thermoregulation Behaviors*. Physiological Ecology Meeting, White Mountain Research Station, Bishop, CA, 1997.



North Sacramento Streams, Sacramento River East Levee, Lower American River, and Related Flood Improvements Project, Sacramento Area Flood Control Agency, Sacramento and Sutter Counties, CA. Senior wildlife biologist and environmental compliance expert who prepared the CEQA / NEPA environmental analyses for terrestrial biological and lead the ESA compliance effort, which required preparing a Biological Assessment and supplementary material and coordinating with USFWS, NMFS, and USACE. This project, also known as SAFCA's Levee Accreditation Project, includes improvements to ensure that levees protecting Sacramento are adequate to meet State requirements. Levee improvements are needed along the most the rivers and streams in the Sacramento region; other issues, including high-hazard/unacceptable encroachments and vegetation affecting all levee segments to varying degrees, must be addressed to allow accreditation of these levee segments.

California Department of Water Resources, Central Valley Flood Management Planning Program, Summary and Analysis of Rodent Damage and Giant Garter Snake in the Sacramento River Flood Control Project, Multiple Counties, California. Senior wildlife biologist who prepared a technical memorandum (490 pages) that summarizes the background, discussions, and findings of the Rodent Damage Repair Subcommittee (RDRS) from July 2012 through May 2014. The RDRS is a group formed by the Interagency Flood Management Collaborative Program (IFMCP) that consists of a number of stakeholders involved with resolving conflict concerning the potential impacts on federally and state-listed species, specifically the giant garter snake, associated with conducting repairs necessary to maintain the integrity of the Sacramento River Flood Control Project in northern California. The purpose of this technical memorandum is to provide information that can be used to evaluate future flood maintenance activities in a forthcoming CEQA. This document organizes and synthesizes available research and data on flood control management and potential impacts to natural resources, specifically evaluates the impacts to species that result from controlling and repairing rodent damage to levees, and defines best management practices and conservation measures for rodent control and damage repair in levees while protecting and avoiding impacts to giant garter snake.

Sacramento River Flood Control System Evaluation, Phase III, Mid-Valley Project, Yolo County, California. Senior wildlife biologist who oversees coordination with wildlife agencies on environmental compliance for the Knights Landing Drainage District's Ridge Cut Slough portion of the project. The proposed project seeks to improve integrity of the Knights Landing Drainage District's east levee by reducing the potential for erosion and levee failure due to levee instability and seepage under or through the levee. Levee improvements would include reconstruction of a portion of the levee and construction of a landside spoil berm.

Central Valley Flood Protection Plan Conservation Strategy, California Department of Water Resources (DWR), FESSRO, Central Valley, CA. Senior wildlife biologist who supported DWR in the development of a conservation framework, conservation strategy, regional permitting effort, and supporting documents for the CVFPP. Developed a conservation framework and strategy that would take a comprehensive approach to ecological and environmental planning throughout the Central Valley and integrate it with flood management planning efforts.

Central Valley Flood Protection Plan PEIR, California Department of Water Resources (DWR), Northern and Central CA. Senior wildlife biologist who provided support and technical analysis for environmental planning and technical support services to prepare the CVFPP PEIR. The Plan and EIR provided the basis for State implementation of Central Valley flood protection, including the Delta, and incorporates CEQA compliance in overall flood protection planning enabling site-specific flood management actions to proceed incrementally. Assisted with the impact evaluation for terrestrial biological resources.

Rio Vista Rock Stockpile Project IS/MND and Permitting, California Department of Water Resources (DWR), Solano County, CA. Regulatory biologist who provided permitting support to the DWR, Division of Flood Management and Division of Engineering for the Rio Vista Rock Stockpile Project, which was established to enhance response to large-scale flood events in the Sacramento-San Joaquin Delta. Providing biological surveys, a wetland delineation, and mitigation plan preparation in support of an after-the-fact permit under Section 404 of the Clean Water Act for accidental fill of wetlands during rock stockpiling activities.

Feather River Levee Repair Project EIR/EIS, Permitting, and Monitoring, Three Rivers Levee Improvement Authority, Yuba County, CA. Regulatory specialist who provided senior regulatory oversight for CWA and ESA compliance following issuance of the Section 7 biological opinion. Coordinated with the USFWS and TRLIA staff to develop a compensatory mitigation strategy, resolving complex jurisdictional issues and facilitating nationwide permit approvals for project design revisions. The project would address identified deficiencies in the levees, build a large setback levee, and make related improvements to the Yuba River levee. Key issues included flood control, endangered species, wetlands, fisheries, and conversion of agricultural land. Completed and EIR, and EIS (USACE), agency consultation, permitting, and monitoring services.

Water Projects

Monterey Amendment to the State Water Project Contracts and Associated Actions as Part of a Settlement Agreement Revised EIR (Kern Water Bank), California Department of Water Resources, Kern County, CA. Senior wildlife biologist for work assisting DWR with the preparation of a court-ordered CEQA document under an extreme schedule. DWR prepared two previous EIRs (Monterey and Monterey Plus) to evaluate numerous SWP contracting issues, including the Kern Water Bank. After several court rulings, the most recent court decision required Kern Water Bank operations and maintenance to be further evaluated. The Revised EIR focused on groundwater bank operations, biological and agricultural impacts, land use changes, energy use, greenhouse gas emissions, and cumulative impacts with other groundwater banks. Ms. Holland worked closely with the Attorney General's Office and DWR's Legal, Division of Integrated Regional Water Management, and South Central Region Office staff to prepare the requisite environmental documents to meet court-ordered requirements for the complex and controversial CEQA documentation necessary for this project.

San Joaquin River Restoration Program, US Bureau of Reclamation, Fresno, Madera, and Merced Counties, CA. Senior wildlife biologist who supported a joint program EIS/EIR, program biological assessment, and project-level biological assessment. The program EIS/EIR combined a program-level analysis of the Settlement, addressing future river channel modifications, installation of water management and fish protection facilities, replacement of affected infrastructure, and implementation of management actions to restore both riparian and aquatic habitats, along with project-specific analyses of the initial interim water releases and alternative conveyance routes. Assisted Reclamation with acquisition of a Section 404 permit authorization, including a Section 7 biological opinion.

Other Development Projects

California High Speed Rail Authority, California High Speed Train Project, Merced to Fresno Segment, Merced, Madera, and Fresno Counties, CA. Senior regulatory/wildlife biologist who led the development of a comprehensive mitigation strategy for the project. The mitigation strategy addressed the mitigation requirements described in the project's state and federal permits. Development of the mitigation strategy included major field effort, such as habitat mapping, surveys for special-status species, wetland delineations, and the California Rapid Assessment Method (CRAM) for wetlands. Ms. Holland prepared a Mitigation Strategy and Implementation Plan and a permit-specific mitigation plan that identified mitigation opportunities for wetland species, including listed vernal pool crustaceans, California tiger salamander, and vernal pool/wetland plants.

Beale Air Force Base, ESA Compliance, Yuba County. Senior wildlife biologist who prepared biological assessments for a variety of projects proposed at Beale Air Force Base. The biological assessments analyzed the impacts of projects on wetland-associated species, including listed vernal pool crustaceans and California tiger salamander. The projects included stormwater or sewer system upgrades or bridge replacements, that were either covered under the Special Area Management Plan Programmatic Biological Opinion or adhered to the environmental protection measures described in that document.

Habitat Conservation Plans

Southern California Edison, Cross Valley Corridor Project Habitat Conservation Plan, San Joaquin Valley, CA. Senior biologist who lead development of an HCP to obtain ESA incidental take coverage for 12 species, including include vernal pool invertebrates and plants, California tiger salamander, burrowing owl, and San Joaquin kit fox, over a 10-year period. The Cross Valley Corridor project entails replacement and construction of new transmission lines in the San Joaquin Valley, and the future operation and maintenance of those facilities.

Waste Connections Inc., Avenal Landfill Expansion Project Habitat Conservation Plan, Kings County, California. Senior wildlife biologist who prepared the HCP, which would provide incidental take coverage for San Joaquin kit fox during expansion activities and future operations at the landfill **over a 15-year permit term**. The proposed landfill expansion would increase the landfill footprint and directly impact potentially suitable foraging and dispersal habitat for the kit fox. The HCP outlined measures and commitments to (1) help to maintain viable populations of kit fox within the HCP Planning Area over the 15-year permit term and (2) contribute to local and/or regional conservation of kit fox and its habitat to fully compensate for unavoidable impacts resulting from implementation of the project.

PUBLICATIONS

De Dijn, B.P.E., I.E. Molgo, M.A. Norconk, L.T. Gregory, B. O'Shea, C. Marty, M. Luger, M. Ringler, S. Crothers IV, B. Noonan, K. Fitzgerald, S. Mitro, A. Vreedzaam, and D. Satyawat. 2007. Biodiversity of the Brownsberg (Chapter 13). Pages 135–155 in Alonso, L.E. and J.H. Mol (eds.). 2007. A Rapid Biological Assessment of the Lely and Nassau Plateaus, Suriname (With Additional Information on the Brownsberg Plateau). RAP Bulletin of Biological Assessment 43. Conservation International, Arlington, Virginia.

Lim, B. K., M. D. Engstrom, H. H. Genoways, F. M. Catzeflis, K. A. Holland, S. L. Peters, M. Djosetro, S. Brandon, and S. Mitro. 2005. Results of the ALCOA Foundation—Suriname Expeditions. XI V. Mammals of Brownsberg Nature Park, Suriname. *Annals of Carnegie Museum* 74(4):225–274.

Holland, K. A. 2003. Utilizing Ecological Indicators to Assist in the Management of Brownsberg Nature Park, Suriname, South America. M.S. Thesis. Pullman, WA: Washington State University.

Holland, K. A. 1997. The University of the Wilderness: A Natural History of Education. B.A. Thesis. Santa Cruz, CA: University of California, Santa Cruz.

f) BIO-4

Worker Environmental Awareness Program Training is provided to employees of the REP and contractors in the form of a video. Training is acknowledged through a signature page and these records are retained at the REP for at least 12 months following the termination of an individual's employment.

g) COM-13

After reviewing the On-Site Contingency Plan it has been determined that the measures outlined in the plan are sufficient for an unplanned facility closure. The state of the facility at this time has not changed since the CEC's initial review of the plan.

h) HAZ-1

Hazardous Materials And Wastes Inventory Matrix Report										
CERS Business/Org. Facility Name		CITY OF ROSEVILLE ROSEVILLE POWER PLANT #2 2155 NICHOLS DR, ROCKLIN 95765		Chemical Location Battery Bank, Unit 1 and 2			CERS ID 10205230 Facility ID FA0002043 Status Submitted on 7/14/2021 12:41 PM			
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities		Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)			
			Max. Daily	Largest Cont.	Avg. Daily		Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids)	Electrolyte/sulfuric Acid	Gallons	214	1	214	- Physical SelfReactive	Sulfuric Acid	40 %	✓	7664-93-9
Corrosive, Water Reactive, Class 2	CAS No. 7664-93-9 Map: 2 Grid: D5, D9	State Liquid Type Mixture	Storage Container Other		Pressure Ambient Temperature Ambient	Waste Code				
			Days on Site: 365							

Hazardous Materials And Wastes Inventory Matrix Report										
CERS Business/Org. Facility Name		CITY OF ROSEVILLE ROSEVILLE POWER PLANT #2 2155 NICHOLS DR, ROCKLIN 95765		Chemical Location 60kV Switchyard			CERS ID 10205230 Facility ID FA0002043 Status Submitted on 7/14/2021 12:41 PM			
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities		Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)			
			Max. Daily	Largest Cont.	Avg. Daily		Component Name	% Wt	EHS	CAS No.
	SF6 Gas	Pounds	24	12	24					
	CAS No. ✓ EHS	State Gas	Storage Container Other		Pressure	Waste Code				
		Type Mixture	Days on Site: 365		Temperature					

Hazardous Materials And Wastes Inventory Matrix Report									
CERS Business/Org. Facility Name		CITY OF ROSEVILLE ROSEVILLE POWER PLANT #2 2155 NICHOLS DR, ROCKLIN 95765		Chemical Location Combustion Turbines 1 & 2			CERS ID Facility ID Status		
							10205230 FA0002043 Submitted on 7/14/2021 12:41 PM		
							Hazardous Components (For mixture only)		
DOT Code/Fire Haz. Class		Common Name		Unit		Quantities		Annual Waste Amount	
						Max. Daily		Largest Cont.	
								Avg. Daily	
DOT: 2.2 - Nonflammable Gases		Carbon Dioxide		Cu. Feet		15732		437	
		CAS No.		State		Storage Container		Pressure	
		124-38-9				Cylinder		> Ambient	
				Type				Temperature	
				Pure		Days on Site: 365		Ambient	
								Federal Hazard Categories	
								Component Name	
								Hazardous Components (For mixture only)	
								% Wt	
								EHS	
								CAS No.	

Hazardous Materials And Wastes Inventory Matrix Report									
CERS Business/Org. CITY OF ROSEVILLE		Chemical Location				CERS ID 10205230			
Facility Name ROSEVILLE POWER PLANT #2		Next to gas turbines				Facility ID FA0002043			
2155 NICHOLS DR, ROCKLIN 95765						Status Submitted on 7/14/2021 12:41 PM			
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)	
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt
DOT: 2.2 - Nonflammable Gases	2% Oxygen in Nitrogen	Cu. Feet	302	302	302		- Physical Gas Under Pressure - Health Acute Toxicity		
	CAS No. 70356-02-4	State Gas Storage Container Cylinder Type Mixture Days on Site: 365			Pressure > Ambient Temperature Ambient	Waste Code			EHS CAS No.

Hazardous Materials And Wastes Inventory Matrix Report									
CERS Business/Org. CITY OF ROSEVILLE		Chemical Location				CERS ID 10205230			
Facility Name ROSEVILLE POWER PLANT #2		Reservoir of Units 1 & 2				Facility ID FA0002043			
2155 NICHOLS DR, ROCKLIN 95765						Status Submitted on 7/14/2021 12:41 PM			
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)	
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt
DOT: 3 - Flammable and Combustible Liquids	Diesel Fuel No. 2	Gallons	300	150	250	0	- Physical Flammable - Health Acute Toxicity		
Combustible Liquid, Class II	CAS No. 68476-34-6 Grid: E12	State Liquid Storage Container Aboveground Tank Type Pure Days on Site: 365			Pressure Ambient Temperature Ambient	Waste Code			EHS CAS No.

Hazardous Materials And Wastes Inventory Matrix Report									
CERS Business/Org. CITY OF ROSEVILLE		Chemical Location				CERS ID 10205230			
Facility Name ROSEVILLE POWER PLANT #2		Turbines 1 & 2 2, Oil Storage Building, CT Lube /Cooler Tanks 1 & 2				Facility ID FA0002043			
2155 NICHOLS DR, ROCKLIN 95765						Status Submitted on 7/14/2021 12:41 PM			
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)	
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt
	Chevron 032 GST Turbine Oil	Gallons	4740	1750	4740	0	- Physical Flammable	Highly Refined Mineral Oil (C15-C50)	95 %
Combustible Liquid, Class II	CAS No.	State Liquid Storage Container Aboveground Tank, Steel Drum, Type Other Days on Site: 365			Pressure Ambient Temperature Ambient	Waste Code			EHS CAS No.

Hazardous Materials And Wastes Inventory Matrix Report										
CERS Business/Org. CITY OF ROSEVILLE		Chemical Location				CERS ID 10205230				
Facility Name ROSEVILLE POWER PLANT #2		Outside near maintenance shop				Facility ID FA0002043				
2155 NICHOLS DR, ROCKLIN 95765						Status Submitted on 7/14/2021 12:41 PM				
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
Combustible Liquid, Class II	Oil Water Separator Waste	Gallons	375	375	30	375	- Physical	VARIOUS LUBRICATING BASE OILS	85 %	6474X-XX-X
	CAS No.	State	Storage Container	Pressure	Waste Code	Flammable	ADDITIVE PACKAGE, INCLUDING	15 %	MIXTURE	
		Liquid	Tote Bin	Ambient	221	- Health Acute	ZINC ALKYL DITHIOPHOSPHATE	2 %	68649-42-3	
		Type		Temperature		Toxicity				
		Waste	Days on Site: 365	Ambient						

i) SOIL & WATER-7

	RECYCLE GALLONS	POTABLE GALLONS
JANUARY	2,811,920	900
FEBRUARY	3,749,975	1100
MARCH	285,007	1200
APRIL	40,395	600
MAY	1,445,981	600
JUNE	5,804,868	3900
JULY	9,618,427	4500
AUGUST	23,563,575	6100
SEPTEMBER	24,278,711	5200
OCTOBER	19,596,666	1000
NOVEMBER	9,655,081	1300
DECEMBER	258,077	900

MONTHLY	RECYCLE	POTABLE
MINIMUM	40395	600
MAXIMUM	24,278.711	6100
AVERAGE	8,425,723.58	2,275
	GALLONS	GALLONS

	ANNUAL TOTALS	
	RECYCLE	POTABLE
GALLONS	101,108,683	27,300
ACRE-FEET	310.29	0.08378
	Divide gallon by / 325,851	

YEAR	RECYCLE GALLONS	POTABLE GALLONS	AVERAGE RECYCLE	AVERAGE POTABLE	RANGE RECYCLE	RANGE POTABLE
2007	19393396	1121252	9696698	560626	2349468	467500
2008	173325812	19278952	1606579	1606579	25880052	13541044
2009	195834628	231880	16319552	19323	21445908	107712
2010	133425248	97988	11118771	8166	25010128	32912
2011	44785004	323136	3732084	26928	15782052	68068
2012	165731368	665720	13810947	55477	24362360	199716
2013	165444136	586432	13787011	48869	25059496	198220
2014	135300484	480216	11275040	40018	25474636	106964
2015	176179432	471988	14681619	39332	21033012	109208
2016	115772448	415888	9647704	34657	24060168	120428
2017	18581816	434588	1548484	36215	5578584	107712
2018	76291512	299948	11737155	46145	14555332	80036
2019	82147859	322410	6845655	26868	15877361	88269
2020	101108683	27300	8425723	2275	24238316	5500

j) SOIL & WATER - 8

Zero Liquid Discharge Operational Status Report

- **Disruptions**

- Acid leak at pump repaired
- Crystallizer flange leak repaired
- Forced Circulation Heat Exchanger vent pipe repaired

- **Maintenance**

- All routine preventative maintenance tasks were completed as necessary
- Additional maintenance tasks included but were not limited to:
 - Performed belt press repairs and maintenance as needed
 - Performed vendor recommended routine maintenance for all pumps and motors
 - Performed annual vapor compressor maintenance
 - Replaced various HERO and UF filters as needed
 - Performed quarterly silica and hardness analyzer maintenance
 - Replaced expansion boots as needed
 - Rebuilt HERO Reject Heat Exchanger
 - Refurbished HERO Regen Waste Heat Exchanger

- **Volumes of interim waste streams stored onsite**


- The maximum waste stream volumes stored at any one time are limited to the following onsite storage capacities as listed:
 - NaZ regeneration waste – 40,000 gallons
 - WAC neutralized regeneration waste – 20,000 gallons
 - HERO reject – 40,000 gallons

- **Volumes of residual solids generated and transported to landfills**

- REP ZLD generated approximately 174 tons of solid waste in 2020
- All solid wastes were shipped for disposal to:
Western Placer Waste Management Authority

k) TRANS-4

All hazardous materials are transported from the Roseville Energy Park by Fremouw Environmental Services. Below is their hazardous materials transport license.

 <p>STATE OF CALIFORNIA DEPARTMENT OF CALIFORNIA HIGHWAY PATROL</p> <p>HAZARDOUS MATERIALS TRANSPORTATION LICENSE</p> <p>CHP 360H (REV. 1/00) OPI 062</p>	<p>CONTROL NUMBER 242590</p>	<p>LICENSE NUMBER 135386</p>	<p>ISSUE DATE 3/2/2020</p>	<p>EFFECTIVE DATE 4/1/2020</p>	<p>EXPIRATION DATE 3/31/2021</p>
	<p>CHP CARRIER NUMBER CA 274461</p>	<p>LOCATION 365</p>	<p><input type="checkbox"/> Duplicate <input type="checkbox"/> Initial</p>	<p><input type="checkbox"/> Replacement <input checked="" type="checkbox"/> Renewal</p>	<p>PROPERTY OF THE CALIFORNIA HIGHWAY PATROL (CHP) The original valid license must be kept at the licensee's place of business as indicated on the license and a legible copy must be carried in any vehicle or combination transporting hazardous materials and must be presented to any CHP officer upon request. This license is NON-TRANSFERABLE and must be surrendered to the CHP upon demand or as required by law. A majority change in ownership or control of the licensed activity shall require a new license. This license may be renewed by submitting an application and appropriate fee to the CHP. Persons whose licenses have expired or are otherwise no longer valid must immediately cease the activity requiring a license. THERE IS NO GRACE PERIOD. For licensing information contact CHP, Commercial Vehicle Section at (916) 843-3400.</p>
<p>LICENSEE NAME AND PHYSICAL STATION ADDRESS (if different than below)</p> <p>FREMOUW ENVIRONMENTAL SERVICES, INC. 6940 TREMONT ROAD DIXON CA, US 95620</p>					
<p>LICENSEE NAME AND MAILING ADDRESS</p> <p>FREMOUW ENVIRONMENTAL SERVICES, INC. 6940 TREMONT ROAD DIXON CA, US 95620</p>					
<p>This carrier is on the special routing/safe stopping place mailing lists as indicated below:</p> <p><input type="checkbox"/> (HMX) Explosives subject to Division 14, California Vehicle Code (CVC).</p> <p><input type="checkbox"/> (HMPH) Poison Inhalation Hazard materials in bulk packages subject to Division 14.3, CVC.</p> <p><input type="checkbox"/> (HMRCC) Highway Route Controlled Quantity radioactive materials subject to Division 14.5, CVC.</p> <p>Any person who dumps, spills, or causes the release of hazardous materials or hazardous waste upon any highway shall immediately notify the CHP or the agency having jurisdiction for that highway. The minimum fine for failure to make the appropriate notification is \$2,000.00. (CVC Section 23112.5)</p>					

l) VIS-2

Roseville Energy Park constructed the Cooling Tower according to the California Energy Commission approved design. As a result of a prior California Energy Commission request, sound dampening walls were installed around fan motors. No further modifications have been made since.

m) VIS-4

Roseville Energy Park constructed the facility according to the plan that was approved by the California Energy Commission and the City of Roseville Planning Department.

n) VIS-5

Roseville Energy Park is in the planning phase of developing the landscaping design now that the Blue Oaks and Phillip Road extensions are planned for completion in 2021.

o) WASTE-5

2020 WASTE MANAGEMENT ACTIVITIES

WASTE STREAMS	ACTUAL	PLANNED	COMMENTS
Rags, discarded metal & machine parts, electrical material from routine maintenance, empty containers, other solid waste including typical industrial refuse, office wastes			All metals, machine parts and large electrical wastes are recycled. Minor waste streams, ordinary refuse, are not tracked.
Oily rags, oil absorbent	2	2	Drums
Sanitary waste		N/A	Not tracked
Nitrate blowdown of ZLD	731234	Varies	Varies based on facility capacity
Plant equipment drains	0	0	All drains go to Cooling Tower
Turbine/HRSG Wash water	330	330	Washed turbines once, filled 1-330 gal tote.
Cooling Tower Sludge	2545	0	
Used oil	2	Varies	Varies based on oil analysis and filtration limitations
Used Oil filters	0		Drums
Laboratory analysis waste	0	0	
SCR & CO catalyst units	2	0	
Chemical cleaning waste	0		Drums
Condensate from natural gas pipeline	0	0	
Batteries, alkaline, lead acid, nickel cadmium, mercury			