SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT
NOTICE OF PREPARATION OF
AN ENVIRONMENTAL IMPACT REPORT
FOR THE BIOGENERATION FACILITY PROJECT

Date: August 16, 2021

To: Responsible Agencies, Trustee Agencies, and Interested Persons

RE: Notice of Preparation of a Draft Environmental Impact Report for the Regional San BioGeneration Facility Project

The Sacramento Regional County Sanitation District (Regional San) is proposing to construct and operate a biogas cogeneration facility (proposed project) within the existing Sacramento Regional Wastewater Treatment Plant (SRWTP) site. The proposed project would beneficially use biogas produced by the SRWTP's anaerobic digesters to generate heat and power. An Initial Study/Mitigated Negative Declaration for the Regional San BioGeneration Facility Project was released for public review in June 2021 (State Clearinghouse No. 2021050080). Regional San has subsequently decided to prepare a focused EIR in accordance with the provisions of the California Environmental Quality Act (CEQA).

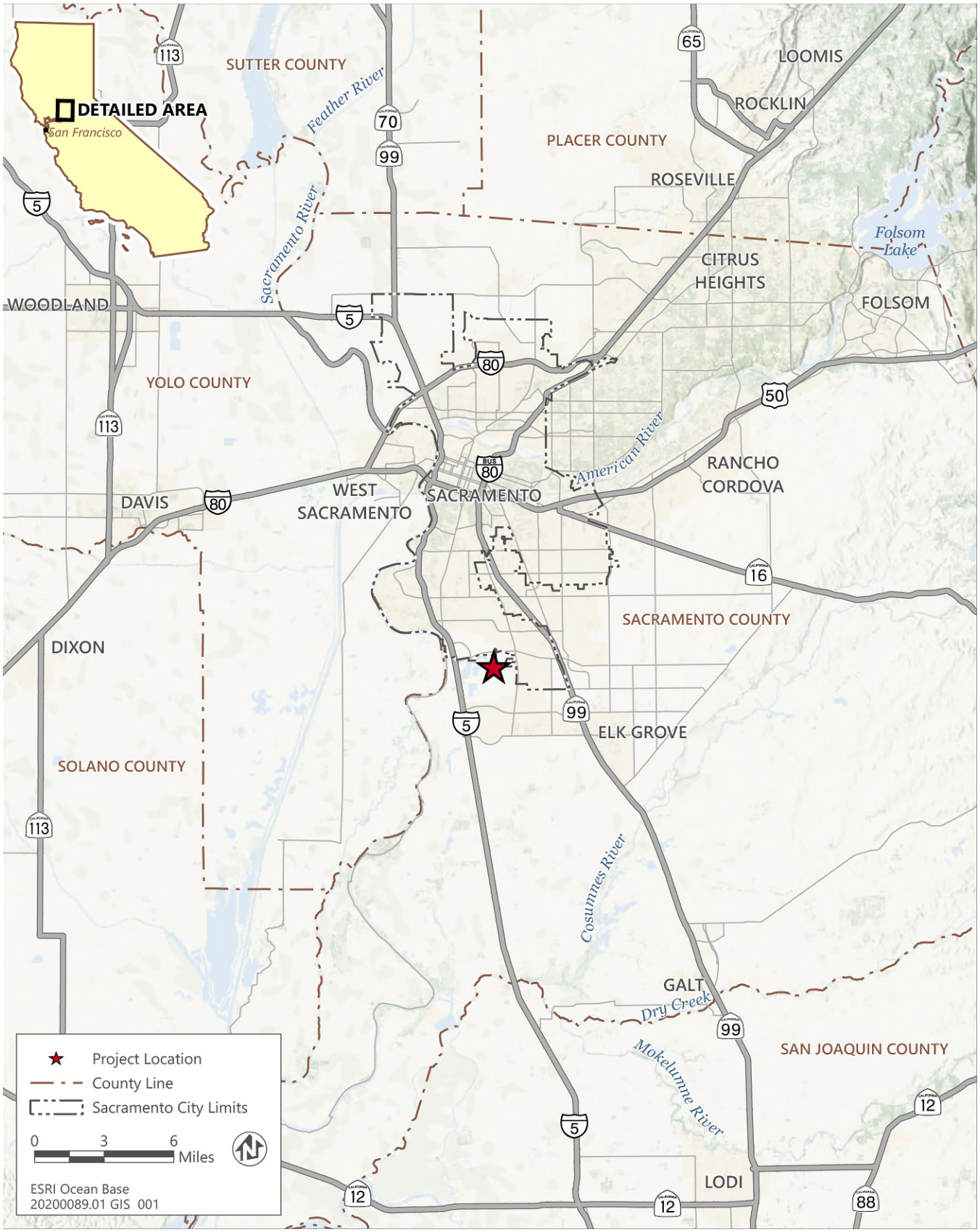
PURPOSE OF THIS NOTICE OF PREPARATION

This Notice of Preparation (NOP) has been prepared pursuant to Sections 15082 and 15083 of the CEQA Guidelines. The purpose of this NOP is to provide an opportunity for the public, interested parties, and public agencies to comment on the scope and proposed content of the EIR. This NOP starts a public scoping period that will assist Regional San in the preparation of the Draft EIR. The public scoping period is 30 days and will run from August 16, 2021, to September 14, 2021. The purpose of the NOP is to provide sufficient information about the project and its potential environmental impacts to allow agencies and the interested parties the opportunity to provide a meaningful response related to the scope and content of the EIR, including possible environmental impacts, mitigation measures, and alternatives. The NOP and Initial Study are also available online at: https://www.regionalsan.com/biogas-recycling.

The project location, description, and potential environmental effects are summarized below. A more detailed project description is included in the attached Initial Study.

PROJECT LOCATION

The SRWTP is located at 8521 Laguna Station Road in Elk Grove and is surrounded by approximately 2,150 acres of open space owned by Regional San and known as the Bufferlands (Figure 1). The entire SRWTP site and Bufferlands are located north of Laguna Boulevard and lie predominantly within the unincorporated area of Sacramento County, between Franklin Boulevard and I-5 (Figure 2). The project site would be located within the SRWTP site in a previously disturbed area north of the existing digesters. The site is bordered by Digesters Way/Oregon Trail to the south and Septage Way to the north. The staging area would be immediately east of the project site (Figure 3).



Source: adapted by Ascent Environmental in 2020

Figure 1 Reginal Location

Source: adapted by Ascent Environmental in 2021

Figure 2 Project Location

Source: adapted by Ascent Environmental in 2021

Figure 3 Project Site

PROJECT BACKGROUND

Regional San owns and operates the SRWTP and a regional wastewater conveyance system (sewer lines and interceptors), and provides wastewater conveyance and treatment services to residential, industrial, and commercial customers throughout unincorporated Sacramento County; the cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento, and West Sacramento; and the communities of Courtland and Walnut Grove. The wastewater treatment process generates a variety of solids including primary sludge, grit, screenings (i.e., large debris), return activated sludge, and waste activated sludge. Regional San feeds blended primary sludge and thickened waste activated sludge to six primary anaerobic digesters and two blending digesters. Anaerobic digestion produces biogas, which is a methane-rich, renewable byproduct of the solids digestion process that can be used as a renewable fuel.

Regional San has been in partnership with Sacramento Municipal Utility District (SMUD) through the Central Valley Financing Authority for nearly 30 years. Under this partnership, Regional San delivers renewable biogas generated by the SRWTP wastewater treatment process to SMUD in exchange for reliable utility and backup power, steam for digester heating, and revenue according to the terms of the existing Commodity Agreement. The original driver for the agreement was the co-location of SMUD's Carson Cogeneration (Cogen) Plant on the SRWTP site, where biogas helped fuel the Carson Cogen plant, and steam from the Carson Cogen plant could be returned for digester heating. With the Commodity Agreement expiring in 2025, Regional San is pursuing the proposed project described below as an alternative use for its biogas.

PROJECT DESCRIPTION

The proposed project would include construction and operation of a new cogeneration engine system to use biogas onsite to produce electricity and heat for the SRWTP. The biogas cogeneration system would have several major interfaces with existing SRWTP systems including the following:

- gas management system,
- digester heating system,
- electrical power distribution system,
- plant computer control system, and
- site utilities.

The proposed project would include the following components:

- up to six internal combustion engine generators,
- engine exhaust treatment (oxidation catalyst and selective catalytic reduction),
- a biogas conditioning system (as part of the gas management system),
- hot water boiler (standby), and
- a new building.

Implementation of the project would also result in the curtailment of multiple stationary sources operated by Regional San under existing conditions, including digester gas flaring by SRWTP's enclosed flares (ground flares) and waste gas burners, as well as three boilers used to generate steam. The project would eliminate surplus flaring related to maintenance and unforeseeable overpressure events because this project would allow Regional San to operate its own digester gas conditioning system and schedule and stagger maintenance of the Combined Heat and Power (CHP) engines such that downtime would be minimized. Also, once the project is operational, the three boilers currently operated by Regional San, would no longer be required and would be decommissioned, thereby no longer generating emissions.

Combustion Engine Generators

The proposed combustion engine generators would produce between 10 and 15 MW of power, which would offset utility power purchases. In addition, one engine would serve as a standby. The project would include between four and six engine generators depending on the engine size selected. However, regardless of the number of engines selected, the combined power generation would not exceed 15 MW. Options for number of engines and engine sizes are shown in Table 1.

Table 1 Combustion Engine Generator Options

Engine Size	Number of Units (including 1 Standby)	Firm Capacity	Total Capacity
2 MW	5 + 1	10 MW	12 MW
3 MW	4 + 1	12 MW	15 MW
3.5 MW	3 + 1	10.5 MW	14 MW

The new engines would be required to meet the best-available control technology for all criteria pollutants, as required by the Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 201, Section 301.

Annual electricity generated by the engines is estimated to be between 74,460 megawatt hours (MWh) and 105,000 MWh per year.

The engine system would cogenerate power and heat. Heat recovered from engine exhaust and jacket water (water that flows through the engine to keep it from overheating) would be used for process and space heating at the SRWTP. The cogeneration system would have sufficient capacity to meet the SRWTP's average heat demand of 20 million British Thermal Units per hour (MMBtu/hr).

Engine Exhaust Treatment

Exhaust from the engines would be treated by oxidation catalyst and selective catalytic reduction to reduce carbon monoxide and NO_x, respectively. The selective catalytic reduction would use urea injection.

Biogas Conditioning System

The biogas conditioning system would be part of the larger gas management system and would remove hydrogen sulfide, siloxanes, and water from the biogas using a media that would be disposed of at an approved landfill. This system would consist of the following individual components:

- hydrogen sulfide removal vessels (granular iron oxide),
- cooling heat exchangers,
- blowers,
- glycol chillers and pumps,
- siloxane removal vessels, and
- particle filters.

Hot Water Boiler

One hot water boiler would be installed as part of the project to produce hot water needed to operate the digesters at optimal temperature. The boiler would be located within the new building or adjacent to the building under a canopy and would produce 19.9 MMBtu/hr of heat. The boiler would serve as a back-up heat source to the cogeneration engines.

Engine and Boiler Building

The project would include one new building constructed within the project site immediately north of the existing digesters. The building would house the engines, electrical equipment, a control room, and a restroom. The building would be a maximum of 36 feet tall and is expected to be approximately 15,000 square feet.

Construction Schedule

Construction of the project would last between 18 and 24 months and is anticipated to begin in 2022. Typical construction activities would include earthwork such as grading, excavation, trenching, backfilling, hauling, and compaction. Additionally, underground piping and utilities would be constructed. Paving, lighting, drainage, and reinforced structures including the new building would be constructed. Delivery of construction materials and supplies to the site would be required. In total, up to 5.6 acres would be disturbed by project construction and staging. A small amount of fill may need to be removed from the project site and would be disposed of within the SWRTP site at a location already used for operations and not containing any biological resources habitat. Construction equipment would include excavators, dozers, compactors, graders, and backhoes.

Typical work hours would be Monday through Friday from 7:00 a.m. to 7:00 p.m. (construction noise is exempt from noise ordinances between 6:00 a.m. and 8:00 p.m. on weekdays within Sacramento County). No nighttime work is anticipated. Equipment, material, and vehicle staging would be accommodated at the SRWTP immediately east of the project site (Figure 1).

Ingress and egress for construction traffic would be via Laguna Boulevard to Dwight Road. Then to Central Street, which connects to Septage Way.

POTENTIAL ENVIRONMENTAL EFFECTS

As required by CEQA, the EIR will describe existing conditions and evaluate the potential environmental effects of the proposed project and a reasonable range of alternatives, including the no-project alternative. It will address direct, indirect, and cumulative effects. The EIR will also discuss potential growth-inducing impacts and summarize significant and unavoidable environmental effects. The EIR will identify feasible mitigation measures, if available, to reduce potentially significant impacts. Based on the results of the Initial Study prepared for the proposed project (and attached to this NOP or available on Regional San's website), Regional San has determined that the project has the potential to result in significant environmental impacts in the following topic areas, which will be further evaluated in the EIR:

Air Quality. During construction of the proposed project, criteria air pollutant emissions would be temporarily and intermittently generated. Operation of the proposed project would result in criteria air pollutants and precursors emitted by the new biogeneration facility that would use biogas from the digesters and natural gas to generate electricity, and by the additional worker commute trips to and from the project site. The project would also result in the reduction in emissions from multiple existing stationary sources. Construction- and operations-related emissions have the potential to exceed thresholds adopted by SMAQMD. These issues will be evaluated in the EIR.

Biological Resources. Special-status wildlife species could potentially occur on the project site. Additionally, the surrounding Bufferlands provide habitat for special-status wildlife species and these species could be indirectly affected by project implementation (e.g., disturbance of nesting birds during construction). Implementation of the proposed project could result in disturbance of special-status species or their habitat. These issues will be evaluated in the EIR.

Cultural Resources. Although the North Central Information Center records search did not reveal any previously identified archaeological resources, project-related ground-disturbing activities could result in discovery or damage of yet undiscovered archaeological resources. This issue will be evaluated in the EIR.

Greenhouse Gas Emissions. Greenhouse gas (GHG) emissions generated by the proposed project during construction would predominantly be in the form of carbon dioxide (CO_2). Emissions would be associated with mobile-source exhaust from construction worker commute trips, truck haul trips, and equipment used for construction. The project's operational GHG emissions would include GHGs emitted by the new cogeneration system that would use natural gas to generate electricity (the biogas portion is renewable and does not contribute to GHG), and by the additional worker commute trips to and from the project site. These issues will be evaluated in the EIR.

Tribal Cultural Resources. Any tribal cultural resources that have the potential to occur on the project site will be assessed, and the potential impacts that may occur to known and unanticipated resources because of project implementation will be evaluated. The EIR will document the results of tribal consultation in accordance with Public Resources Code Section 21080.3.1 (Assembly Bill 52) and any mitigation measures for tribal cultural resources.

POTENTIAL PERMITS AND APPROVALS

The project would require an Authority to Construct Permit (for devices that emit air pollutants) and Permit to Operate from SMAQMD.

PROVIDING COMMENTS ON THIS NOTICE OF PREPARATION

Written and/or email comments on the NOP should be provided at the earliest possible date but must be received by 5:00 p.m. on **September 14, 2021**. Please send all comments on the NOP to:

Sacramento Regional County Sanitation District
10060 Goethe Road
Sacramento, CA 95827

Attn: Steve Nebozuk, Senior Civil Engineer
Phone: (916) 876-6118
E-mail: nebozuks@sacsewer.com

If you are from an agency that will need to consider the EIR when deciding whether to issue permits or other approvals for the project, please provide the name of a contact person. Comments provided by email should include the name and mailing address of the commenter in the body of the email.