

Welcome!

The meeting will begin shortly.

*Community Meeting
SacSewer Proposed Air Quality Permits
Wednesday August 14, 2024*

Community Meeting

SacSewer Proposed Air Quality Permits

Wednesday, August 14, 2024

SACRAMENTO METROPOLITAN



**AIR QUALITY
MANAGEMENT DISTRICT**

Interpretation Logistics

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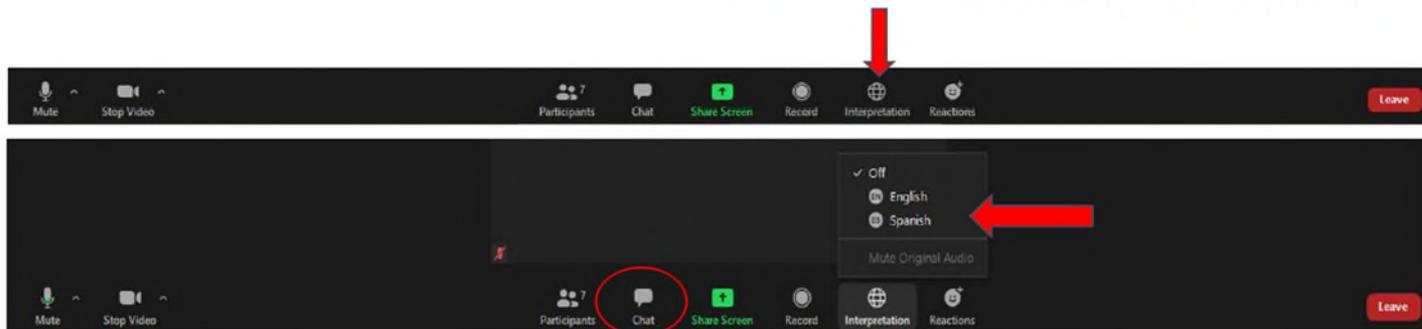
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MANAGEMENT DISTRICT

English

If you are a monolingual English speaker, please select the world-like interpretation icon at the bottom of the screen, then select English. If you are using zoom via a telephone/tablet, you will select the three dots to see more options, followed by interpretation and then English.

Español

Si solo habla/o prefiere escuchar en español, seleccione el icono de interpretación que parece a un mundo en la parte inferior de la pantalla, luego seleccione español y no olvide silenciar el audio original. Si está usando Zoom en un teléfono o tableta, seleccionará los tres puntos para ver más opciones, seguido por interpretación y después español.



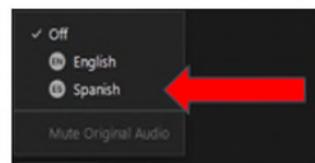
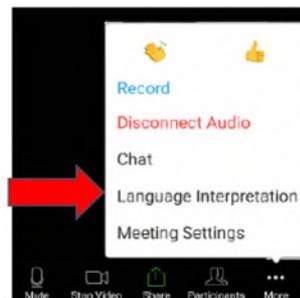
Raise Hand, & Reactions
Levantar Mano y Reacciones

ASK QUESTIONS AND COMMENT
HACER PREGUNTAS O DAR COMENTARIOS

ZOOM APP ON PHONE OR TABLET
APLICACIÓN DE ZOOM POR TELÉFONO O TABLETA



SELECT THE THREE DOTS
SELECCIONE LOS TRES PUNTITOS



SELECT YOUR LANGUAGE
SELECCIONE SU LENGUAJE

Welcome & Introductions

- a. Meeting Logistics
- b. Presentation
- c. Question and Answer

In-Person and Virtual Reminders

We may pause and make adjustments throughout to ensure equitable engagement for in-person and virtual attendees.

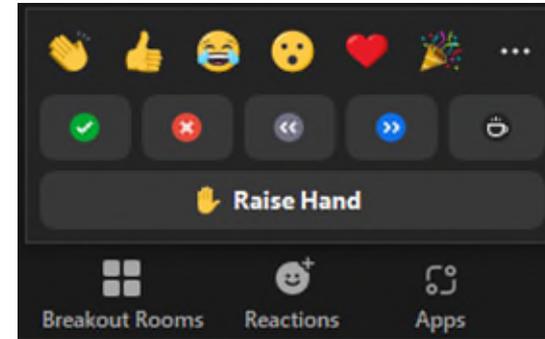
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- **Virtual attendees** – if you have a question or comment, please raise your virtual hand or type your question or comment in the chat

Order of questions and comments:

1. Public in-person
2. Public online

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 - When you are called – Please unmute yourself on the app or the phone (press *6)



Questions & Comments Guidance

After today's presentation we will have time for questions and comments at the end of the meeting. Please follow the guidance below.

In-person:

- Please raise your hand and state your name and affiliation, if any.

Virtual:

- Please raise your virtual hand:
 - On Zoom web application – Please press “Raise your virtual hand button” under the Reactions button.
 - On the phone – Dial *9 to “Raise your virtual hand button.”
 - Please state your name and affiliation.
- When you are called – Please unmute yourself on the app or the phone (press *6)

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Agenda

6:00 – 6:15 pm

Welcome and Introductions

- a. Welcome and Meeting Logistics
- b. Why are we having this Community Meeting?

6:15 – 6:30 pm

SacSewer Presentation

- a. EchoWater Facility Overview
- b. Review of New Project & Facility Changes

6:30 – 7:00 pm

Sac Metro Air District Presentation

- a. Overview of Air Quality Permitting Process
- b. Details about SacSewer Permits
- c. Public Comment Period
- d. Next Steps

7:00 – 7:30 pm

Questions & Comments

7:30 pm

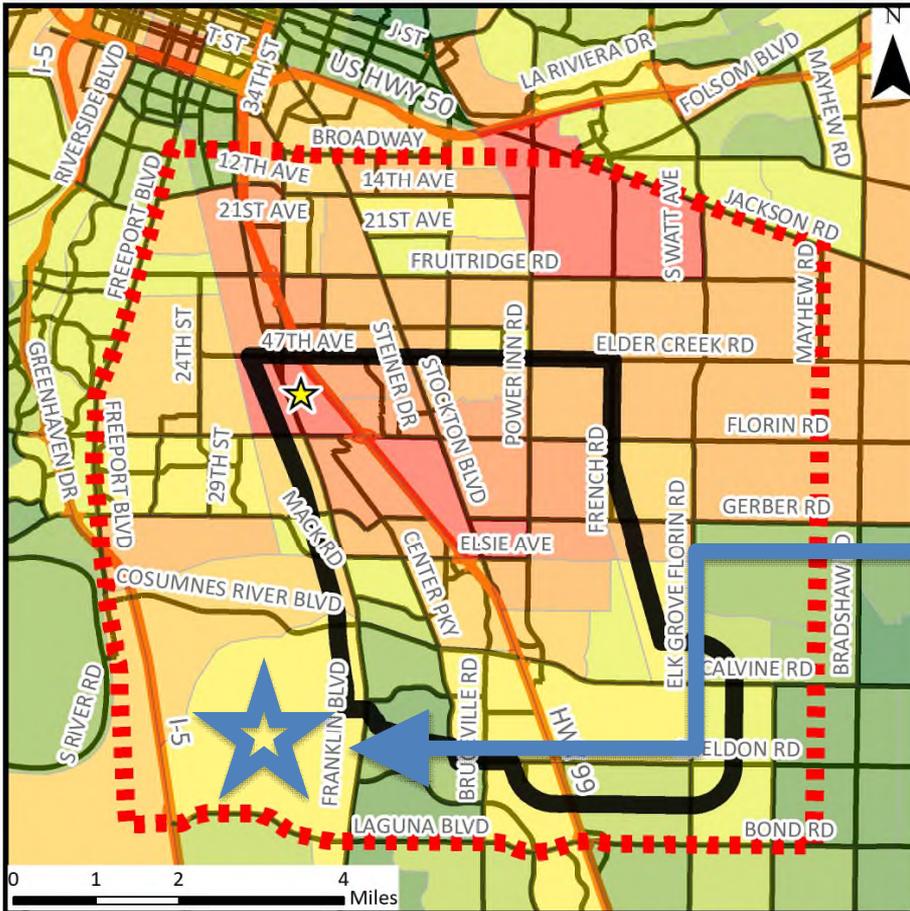
Adjourn

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Why are we having this community meeting?

- Facility of interest
- Previous questions by AB 617 steering committee
- Located within new AB 617 Community Boundary
- Important to share info on District air quality actions
- Project of Interest – Clean Energy transition



SacSewer Presentation

EchoWater Resource Recovery Facility & BioGeneration Project

Welcome to the EchoWater Resource Recovery Facility

PRESENTED BY: SacSewer

SACSEWER.COM



Presentation Agenda

- Our System—Serving you 24/7
- About the Collection System
- About the EchoWater Facility
- Understanding the Treatment Process
- BioGeneration Project
- Transition to Renewable Energy
- The Bufferlands?



A Homeowner/ Business Upper Lateral

The portion of the sewer pipe that runs from just outside the exterior of the structure or building to the property line.

C Sewer Cleanout

A sewer cleanout is a small access pipe that our crews use to inspect and maintain the underground sewer system. Cleanouts are typically located at the connection between the customer-owned sewer pipes (upper lateral) and the SacSewer-owned sewer pipes (lower lateral).

B Sewer Pipes

Sewage from customers' homes and businesses enters our collection system through **lower laterals**—small pipes connecting the property owner's plumbing to our sewer **main lines**. Sewage then flows from smaller pipes into larger pipes called **trunk lines**, which connect to even larger pipes (up to 12 feet in diameter) called **interceptors**. Interceptors then convey all the sewage to the EchoWater Resource Recovery Facility near Elk Grove.

KEY



Responsibility of the property owner to maintain



Maintained and operated by SacSewer



EchoWater Facility Property Line

D Pump Stations

Pump stations pump sewage from low-lying areas through force mains to higher points, where the sewage can again travel by gravity.

E Environmental Laboratory

Provides critical analytical data for various environmental studies and monitoring programs. Our expert chemists, biologists, and laboratory analysts conduct about 90,000 tests annually.

F EchoWater Facility

Sewage from four contributing agencies arrives at the EchoWater Facility. Here, we clean and treat the sewage before recycling a portion of it for non-potable uses. What's not recycled is safely discharged into the Sacramento River.

The EchoWater Facility features three levels of treatment to ensure sewage is properly treated and cleaned:

- 1 The first step, called primary treatment, removes large material from the water.
- 2 The second step, called secondary treatment, removes nutrients—about 99% of the ammonia and 89% of the nitrogen.
- 3 The third step, called tertiary treatment, filters and disinfects the water.

G Resource Recovery

Through our sustainable efforts in resource recovery, we are maximizing the reuse of treatment process by-products, such as energy, fertilizer, and water.



BIOGAS



BIOSOLIDS



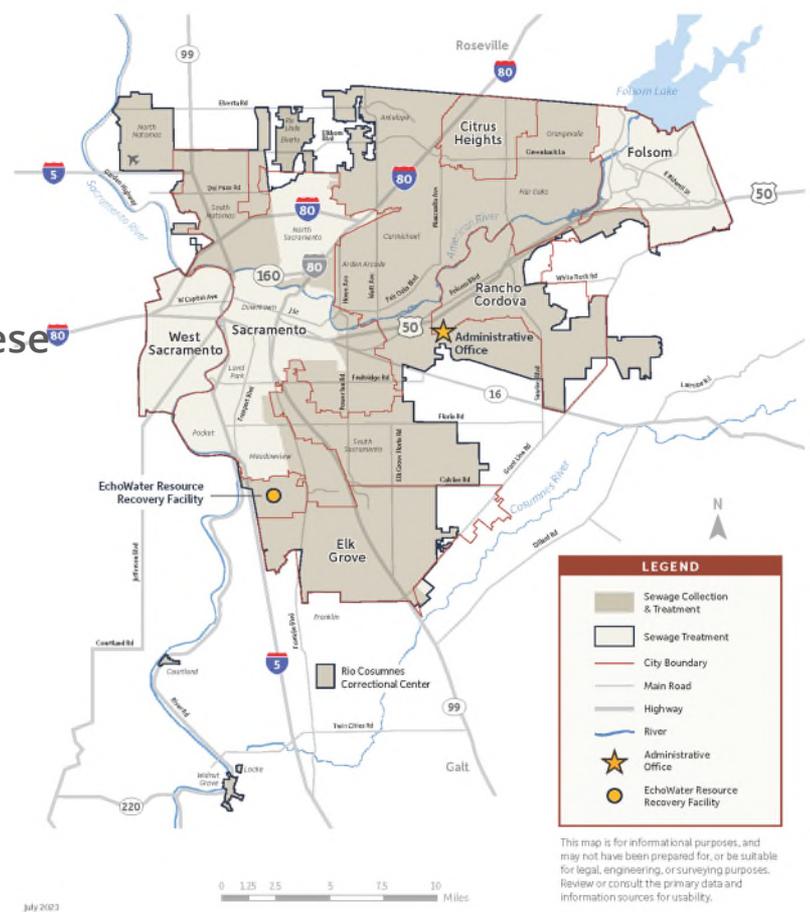
RECYCLED WATER

H Bufferlands

The Bufferlands is a massive 2,100-acre protected habitat area that surrounds the EchoWater Facility. It serves as an important buffer between our facility and the community, but it's also an actively managed, thriving ecosystem that's home to a varied mix of flora and fauna.

Serving You 24/7

- SacSewer provides residential, commercial, and industrial sewer service throughout these areas:
 - Unincorporated Sacramento County
 - Citrus Heights
 - Elk Grove
 - Folsom
 - Rancho Cordova
 - Sacramento
 - West Sacramento
 - Communities of Courtland, Locke, and Walnut Grove



About the Collection System

- Second-largest sewage collection utility in California
- 24/7 operation—Call SacSewer first
- More than 300 highly qualified staff



FAST FACTS



69,600
Manholes



6,100 Customer
Calls Per Year



117
Pumps Stations



Serving 386
Square Miles



161,000
Completed
Work Orders



5,000 Miles
of Sewer Pipe



120,000
Customers Reached Through
Community Outreach Events

About the EchoWater Facility

- EchoWater Project
- Second-largest facility of its kind in the nation
- 24/7 operation
- More than 400 highly qualified staff
- Committed to delivering on our mission



FAST FACTS



93,000
Lab Tests Completed



99%
of Ammonia Removed



1.6 Million
Population
Served



304 Million
Gallons of Water Recycled



1,050 Acres
of Process Area



2,100 Acres
of Bufferlands



181 Million / 151 Million
Gallons Per Day Gallons Per Day
Permitted Capacity Treated on Average



EchoWater Facility Limits



BioGeneration Facility Project

13.4 megawatts of total installed capacity to produce renewable energy and heat for the EchoWater Facility

- Four 2.65 MW (total 10.6 MW) internal combustion engine generators
- One 2.8 MW fuel cell
- Future hydrogen capability through fuel cell tri-generation



BioGeneration Facility Project Timeline

Date	Description
March 2023	Release Request for Proposal
March 2023	Initiate the California Environmental Quality Act (CEQA) Review
July 2023	Receive Proposals
September 2023	Close CEQA, Approve project, Adopt Notice of Determination
February 2024	Award Contract to Ameresco
October 2024	Begin Construction
July 2026	Substantial Completion/Begin Operations

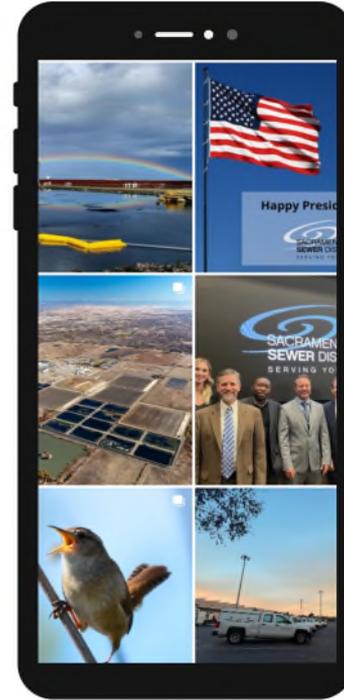


Thank you!

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Sac Metro Air District Presentation

Overview of Air Quality Permitting Process

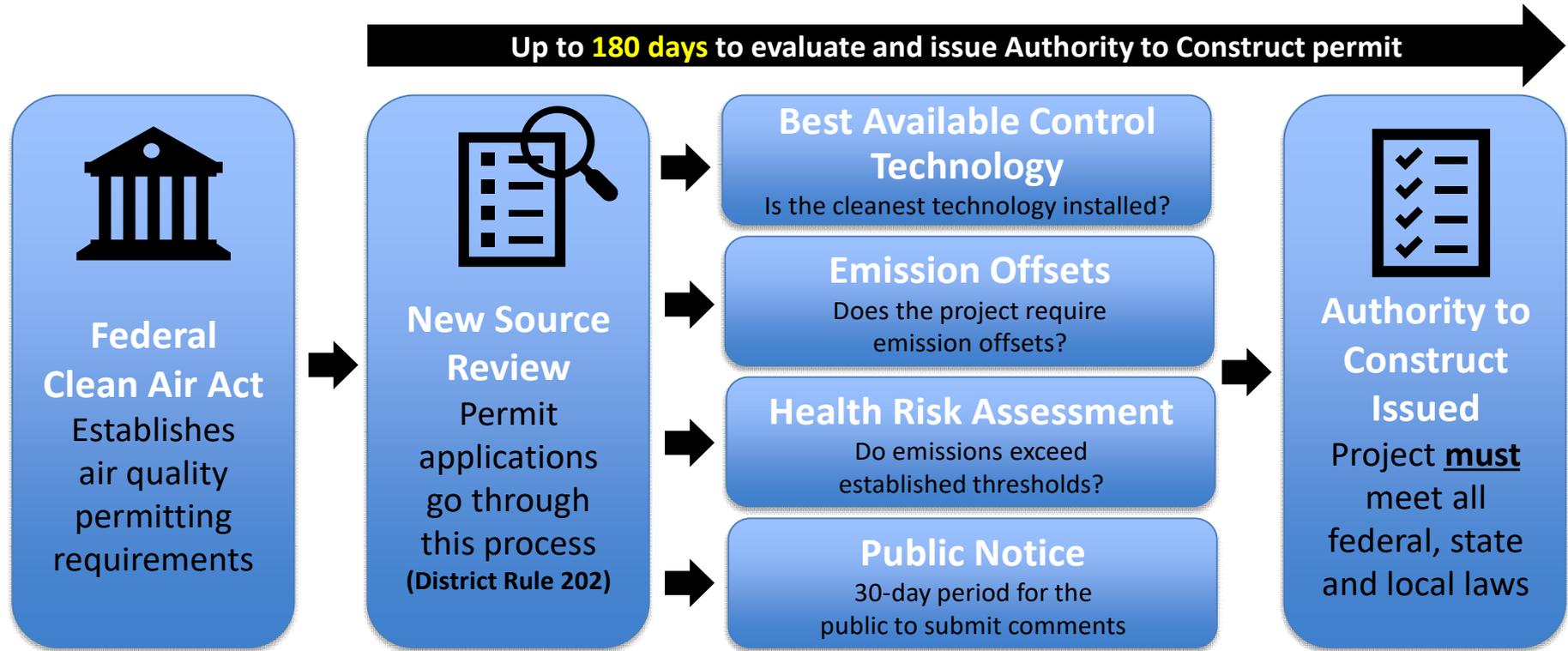
How does air quality permitting help reduce emissions and protect public health?

Ensures facilities are not emitting air pollution above health protective levels

Requires cleanest technology to be installed

Allows for public comment on the process

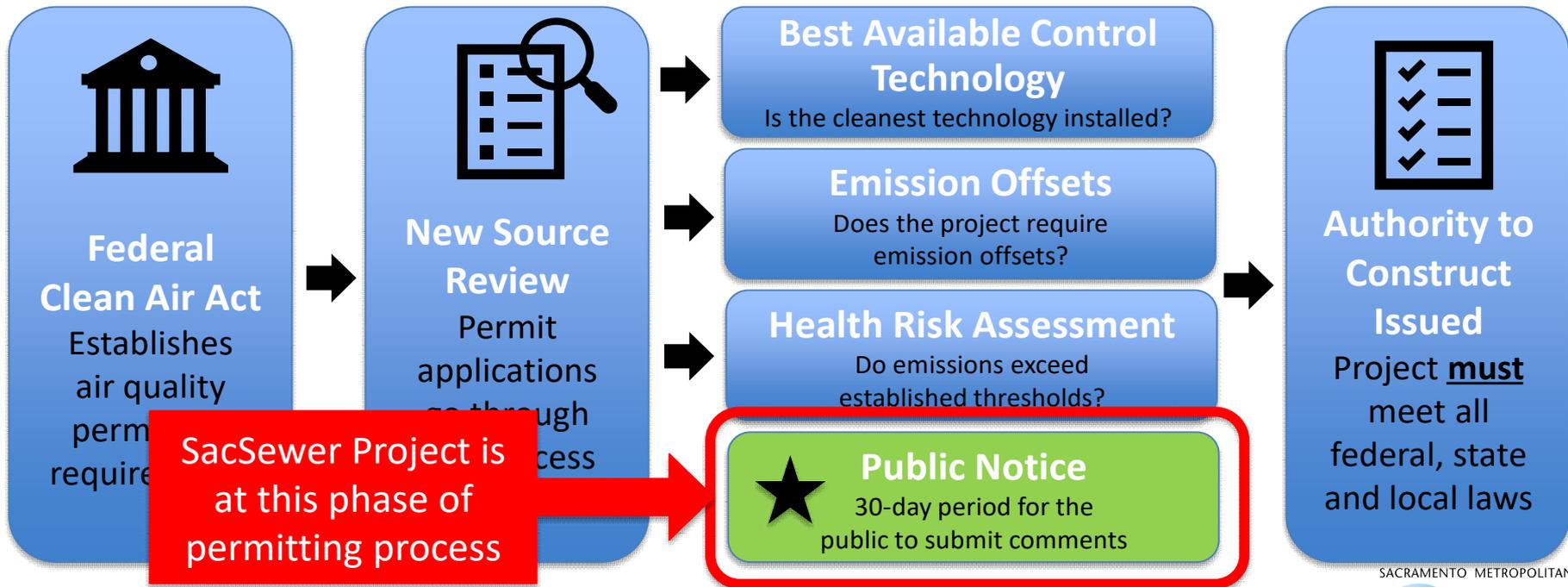
Air Quality Permitting Process



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Air Quality Permitting Process

Up to **180 days** to evaluate and issue Authority to Construct permit



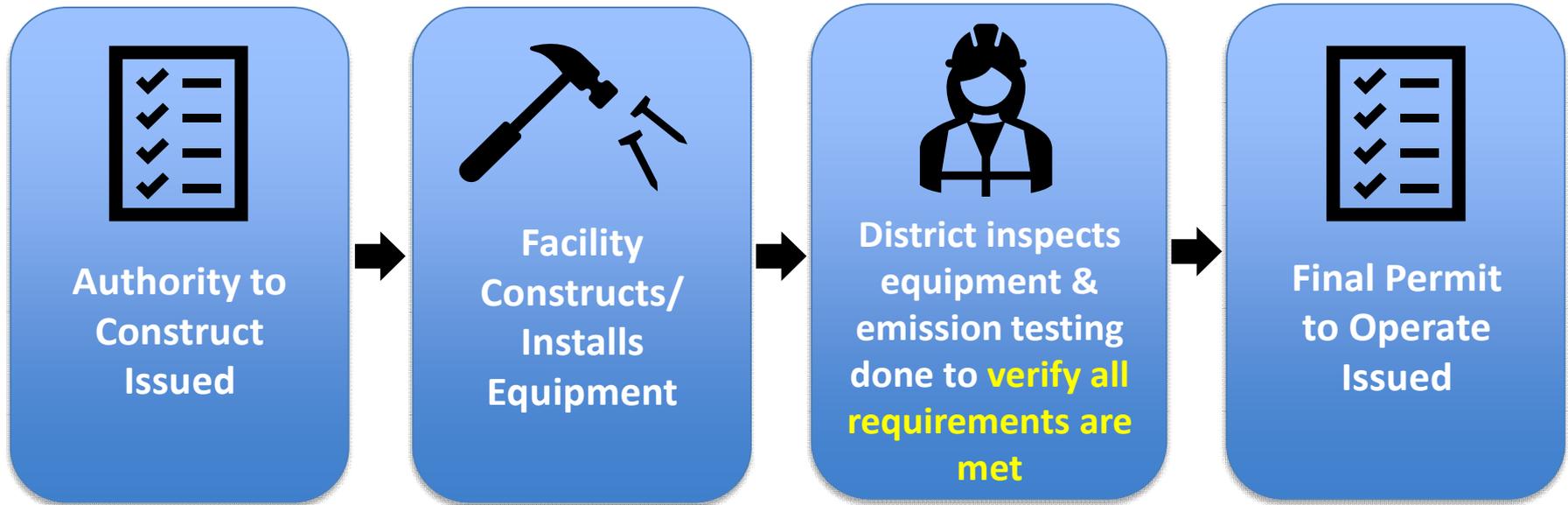
SacSewer Project is at this phase of permitting process

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Air Quality Permitting Process

Up to **two years** to construct equipment and issue final permit



SacSewer Air Quality Permit Details

Sacramento Area Sewer District (SacSewer) Project Details



- Project at public service agency
- Fuel cell promotes clean energy transition
- Uses waste gas as a renewable fuel
- **CURRENT:** power & heat from SMUD
- **FUTURE:** SacSewer makes own power & heat

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Permit Applications – District Evaluation

- District received applications November 2023
- District engineers did full evaluation of applications
 - Best Available Control Technology Determinations
 - Health Risk Assessments
- Proposed project equipment meets all regulations and equipment standards
- Project is required to provide emission offsets



Sacramento Area Sewer District (SacSewer)

Project Details continued ...

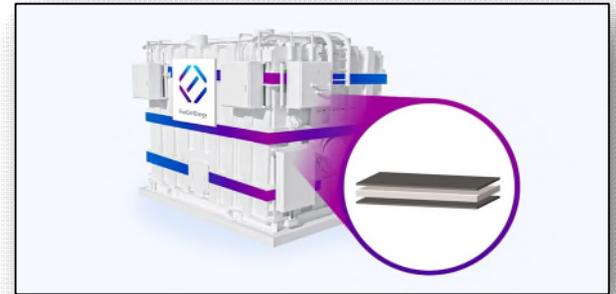
- Emissions offsets required based on maximum potential of operating equipment – a conservative approach
- To receive an emission reduction credit loan from the District, the project must:
 - Consider the extent cleaner innovative technologies have been used
 - Will not impede the attainment of air quality standards

Sacramento Area Sewer District (SacSewer)

Project Details continued ...

- New equipment being installed
 - **Fuel Cell** (2.8 MW): provides electricity to facility
 - **4 Engines** (2.7 MW each): drive generators that provide electricity and hot water to facility
 - **Back-up Boiler** (19.9 MMBtu/hr): provides heat to digesters
- Equipment being replaced
 - **3 Boilers** (38 MMBtu/hr each)

Equipment will use waste digester gas and natural gas (as needed)



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How will equipment be used in the future?

- SacSewer intends to use cleanest equipment first
- Flares are expected to be used less in the future

Ground flares



Waste gas burners



Fuel Cell

Engines

Boiler

Flares

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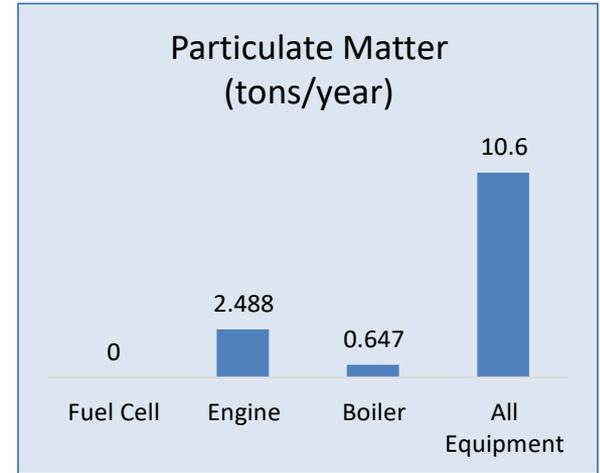
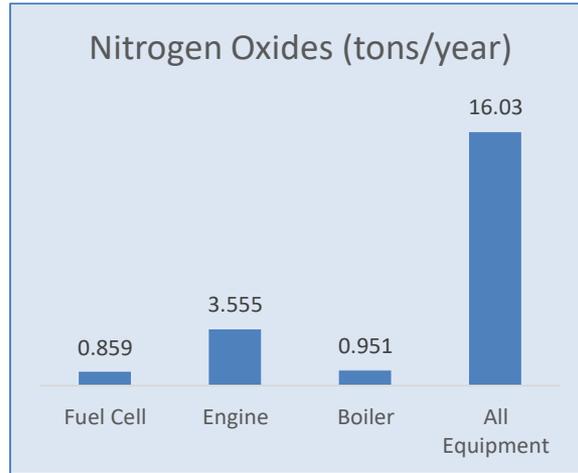
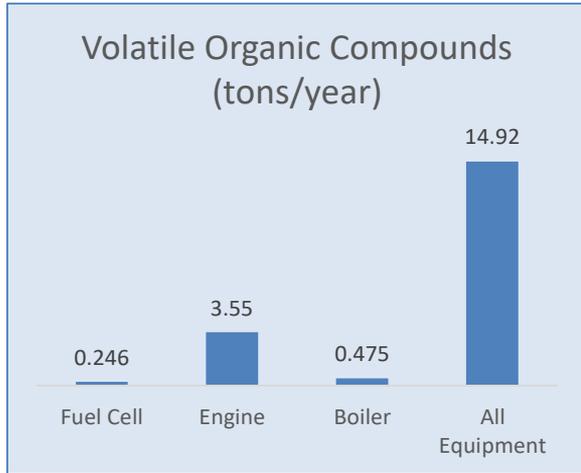
Permit Applications – District Evaluation

Project Proposed Emissions

Permit No.	Emissions Unit	Project Proposed Emissions (ton/year)						
		VOC	NOx	SOx	PM10	PM2.5	CO	HAP
A/C 27780	Fuel Cell (2.8 MW)	0.246	0.859	0.002	0	0	1.227	0
A/C 27781	Boiler (19.95 MMBtu/hr)	0.475	0.951	0.475	0.647	0.647	25.819	0.610
A/C 27782	IC Engine, Prime (3,681 hp)	3.55	3.555	0.889	2.488	2.488	23.104	2.780
A/C 27783	IC Engine, Prime (3,681 hp)	3.55	3.555	0.889	2.488	2.488	23.104	2.780
A/C 27784	IC Engine, Prime (3,681 hp)	3.55	3.555	0.889	2.488	2.488	23.104	2.780
A/C 27785	IC Engine, Prime (3,681 hp)	3.55	3.555	0.889	2.488	2.488	23.104	2.780
Project Totals		14.92	16.03	4.03	10.60	10.60	119.46	11.73

Permit Applications – District Evaluation

Project Proposed Emissions

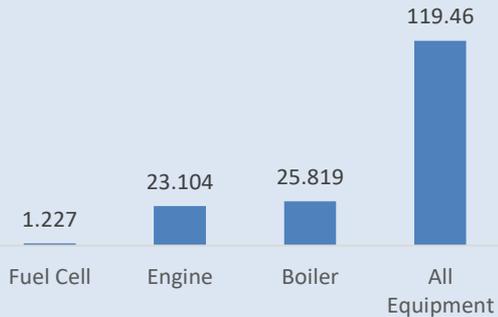


Ozone Precursor Pollutants

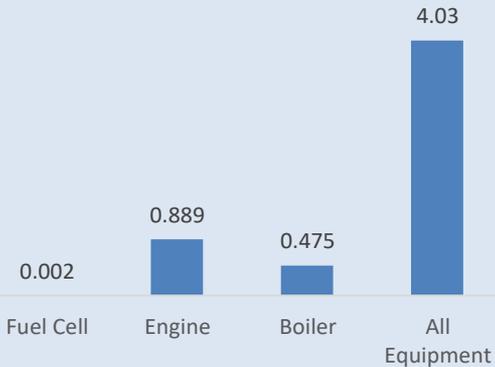
Permit Applications – District Evaluation

Project Proposed Emissions

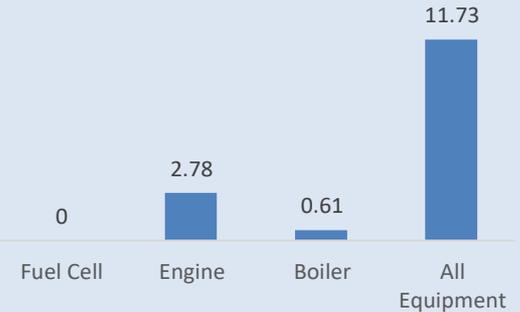
Carbon Monoxide (potential tons/year)



Sulfur Oxides (tons/year)



Hazardous Air Pollutants (tons/year)



Permit Applications – District Evaluation

Health Risk Assessment Summary

Health Risk Assessment Summary			
Type of Health Risk	Permitting Thresholds	Project HRA Results	
	Maximum	Residential	Worker
Cancer Risk (Chances per Million)	10.0	5.1	0.3
Acute Non-Cancer (Hazard Index)	1.0	0.0	0.1
Chronic Non-Cancer (Hazard Index)	1.0	0.0	0.0

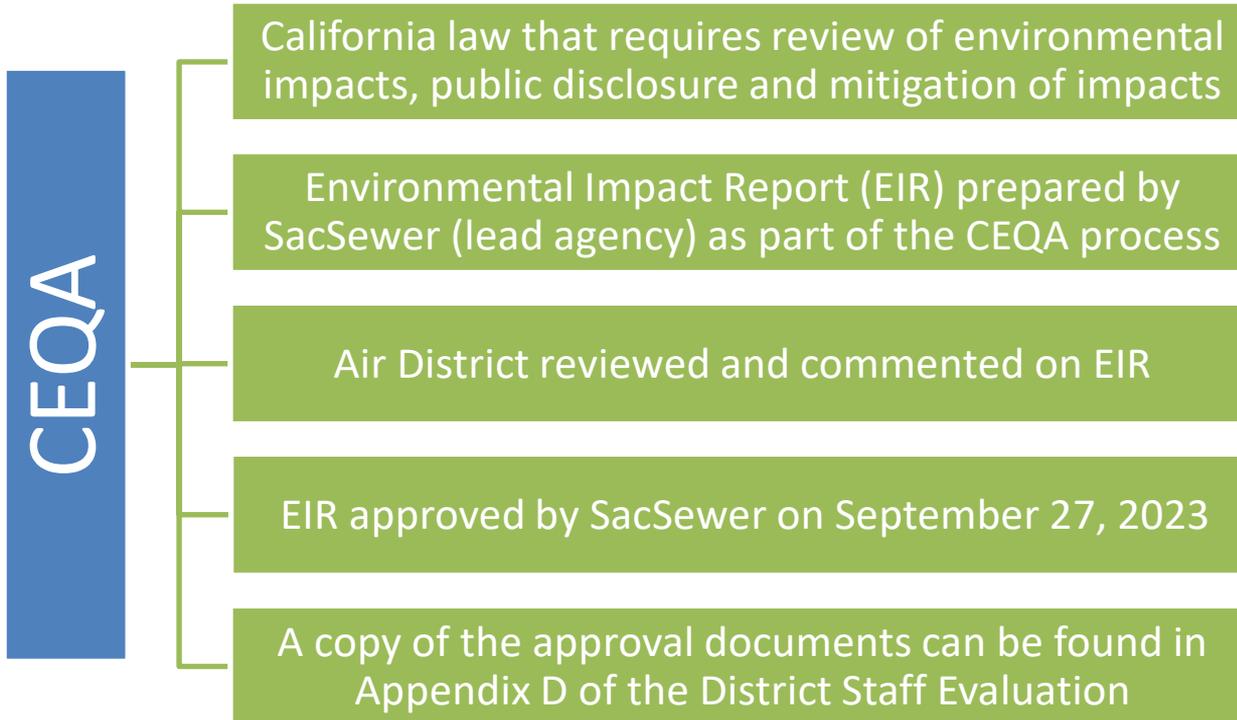


California Office of Environmental Health Hazard Assessment (OEHHA) determines chemicals that are included in the Health Risk Assessment (HRA)

Project HRA shows the project is **below** established thresholds

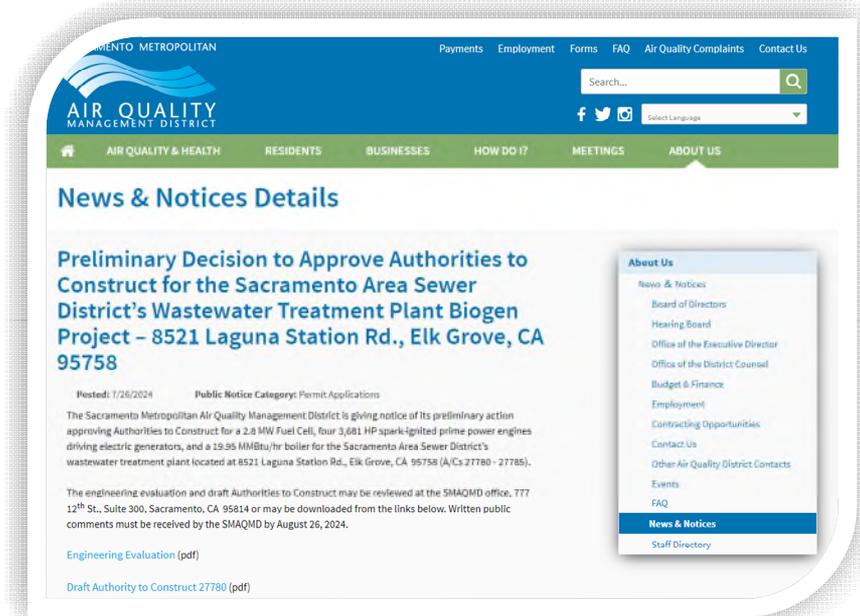
Permit Applications – District Evaluation

California Environmental Quality Act (CEQA)



Public Notice

- Public Notice started July 26
- **Submit written comments by August 26**
- Go to www.airquality.org → News & Notices section to see evaluation and draft permits
- Submit comments
 - By mail: 777 12th Street, Suite 300
Sacramento, CA 95814
 - By email: jweiss@airquality.org
- Response to comments will be provided



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Next Steps

- End of August: Review and address any public comments
- September: Issue Authority to Construct Permits
- September 26: Emission Offsets
 - SacSewer request for emission credits loan for the project will be heard by the Sac Metro Air District Board of Directors
 - Information on emission offset credits request will be made available to the public prior to going to the Board of Directors

Questions and Answers

In-Person and Virtual Reminders

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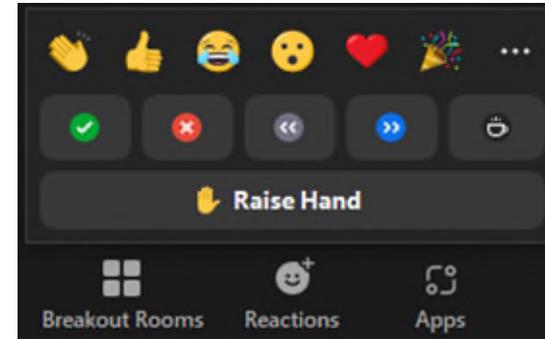
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Thank you

Contact Information:

Brian Krebs

bkrebs@airquality.org

Amy Roberts

aroberts@airquality.org