

# Welcome!

The meeting will begin shortly.

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

# **Community Meeting**

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## **SacSewer Proposed Air Quality Permits**

**Wednesday, August 14, 2024**

SACRAMENTO METROPOLITAN



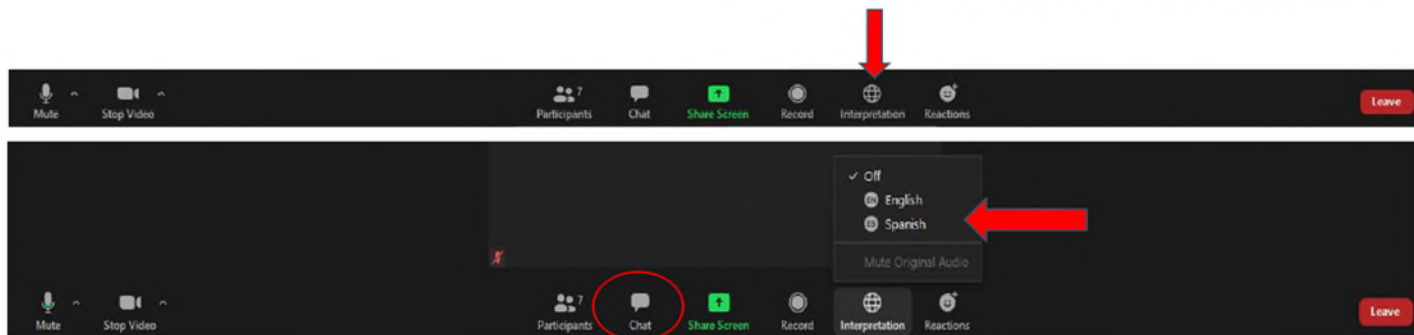
# Interpretation Logistics

## English

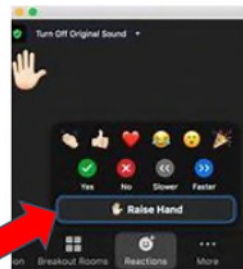
If you are a monolingual English speaker, please select the world-like interpretation icon at the bottom of the screen, then select English. If you are using zoom via a telephone/tablet, you will select the three dots to see more options, followed by interpretation and then English.

## 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.



**ASK QUESTIONS AND COMMENT**  
**HACER PREGUNTAS O DAR COMENTARIOS**

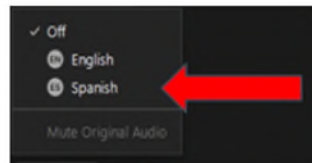
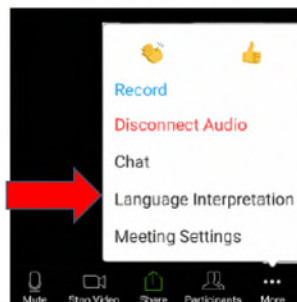


**Raise Hand, & Reactions**  
**Levantar Mano y Reacciones**

**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.

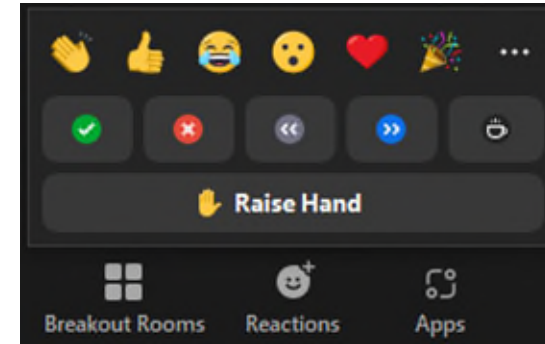
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- **Virtual attendees** – if you have a question or comment, please raise your virtual hand or type your question or comment in the chat

## Order of questions and comments:

1. Public in-person
2. Public online

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  - On Zoom web application – Click either Participants or Reactions, then press “Raise Hand”
  - On the phone – Dial \*9 to raise your virtual hand.
  - Please state your name and affiliation.
  - 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.”
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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

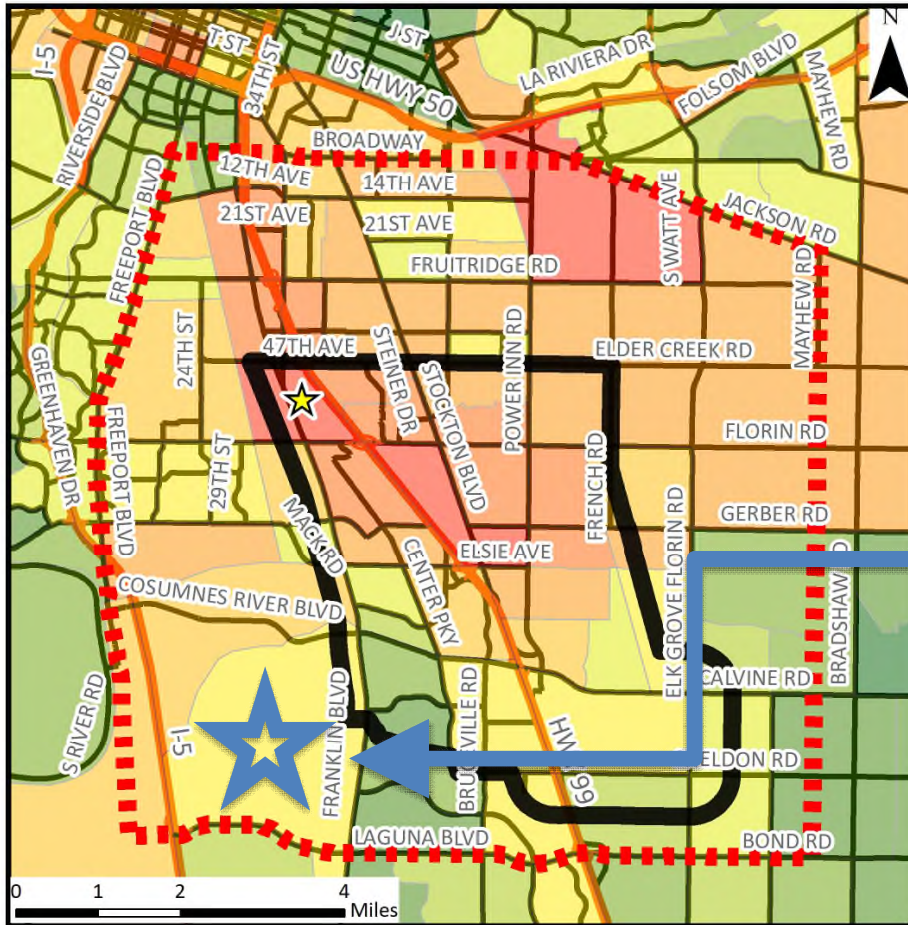
## **Questions & Comments**

7:30 pm

## **Adjourn**

# 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



SACRAMENTO METROPOLITAN

AIR QUALITY  
MANAGEMENT DISTRICT

# SacSewer Presentation

# EchoWater Resource Recovery Facility & BioGeneration Project

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Welcome to the EchoWater Resource Recovery Facility

PRESENTED BY: SacSewer

[SACSEWER.COM](http://SACSEWER.COM)



# Presentation Agenda

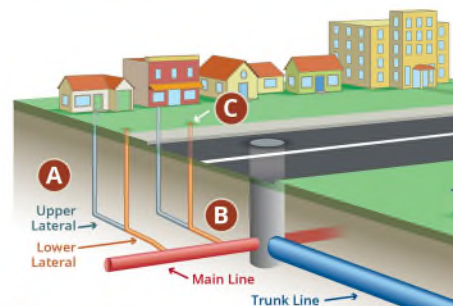
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- Our System—Serving you 24/7
- About the Collection System
- About the EchoWater Facility
- Understanding the Treatment Process
- BioGeneration Project
- Transition to Renewable Energy
- The Bufferlands?



## 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.



## 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



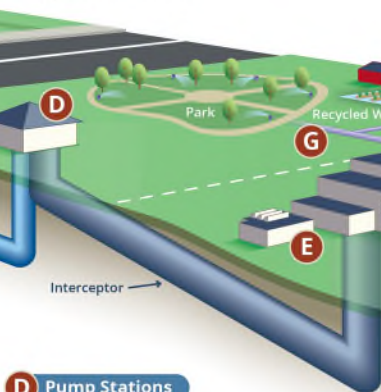
Maintained and operated by SacSewer



EchoWater Facility Property Line

## 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).



## 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



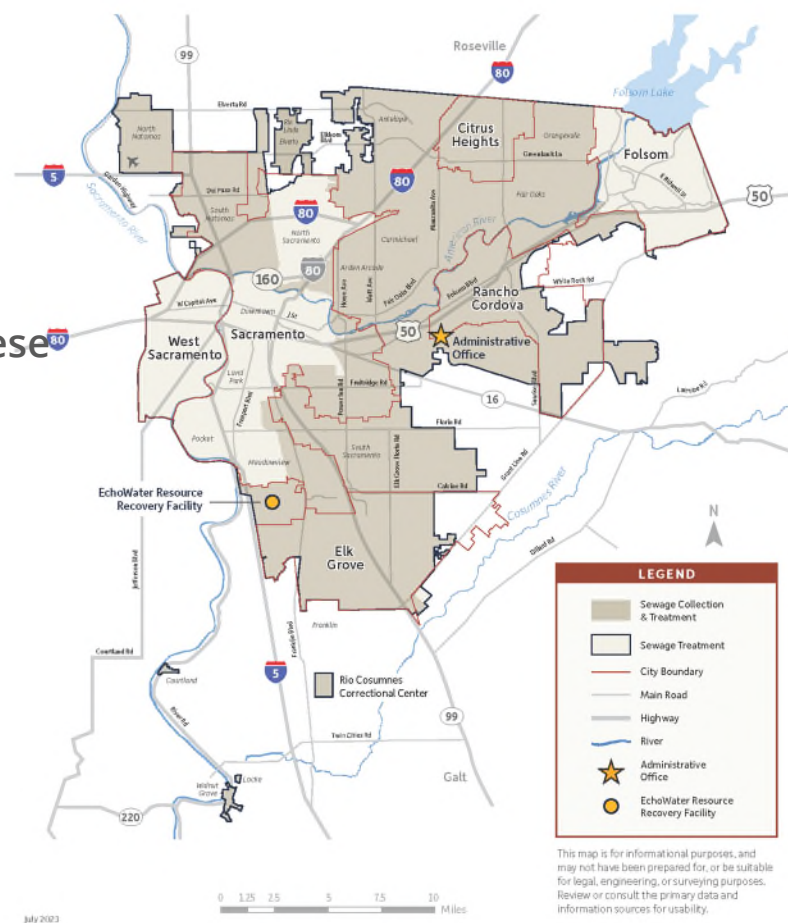
RECYCLED WATER

## 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



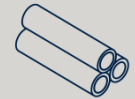
**117**  
Pumps Stations



**Serving 386**  
Square Miles



**161,000**  
Completed  
Work Orders



**5,000 Miles**  
of Sewer Pipe

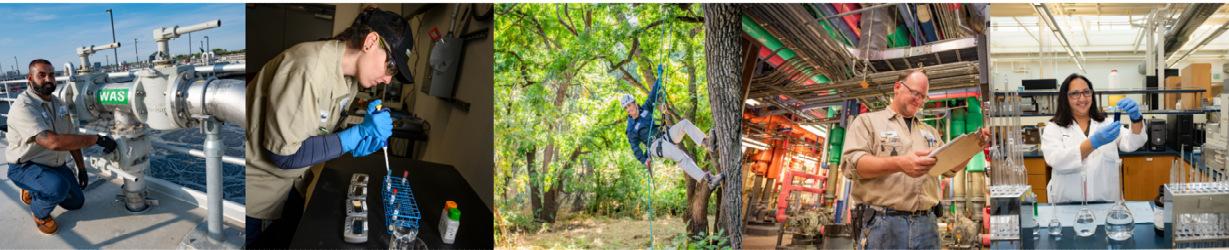


**120,000**  
Customers Reached Through  
Community Outreach Events



# 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

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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

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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



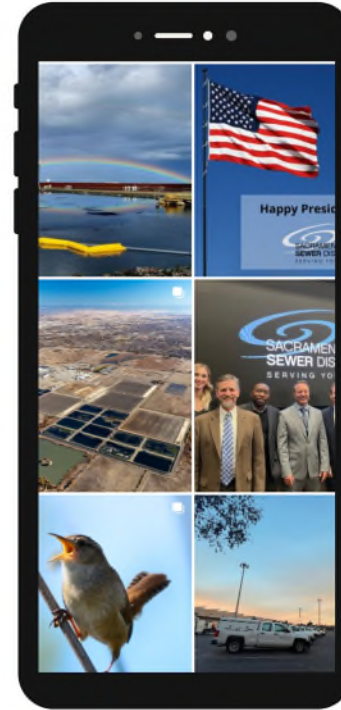
# Thank you!

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- Get connected! Scan the QR code below to find us on social



## Follow Us on Social Media!



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[facebook.com/sacsewer](https://facebook.com/sacsewer)



**Instagram**

[instagram.com/sacsewer](https://instagram.com/sacsewer)



**LinkedIn**

[linkedin.com/company/sacsewer](https://linkedin.com/company/sacsewer)



**YouTube**

[youtube.com/sacsewer](https://youtube.com/sacsewer)

# 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

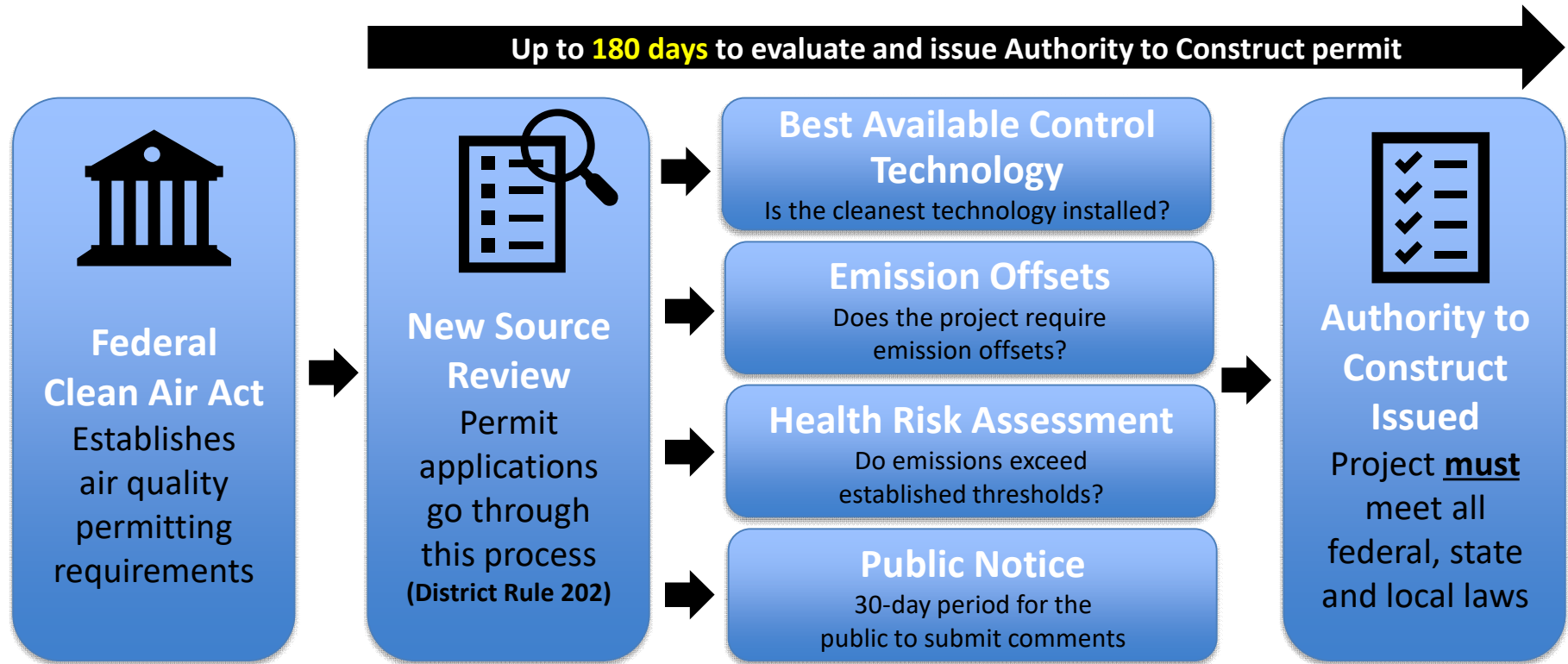
Requires cleanest technology to be installed

Allows for public comment on the process

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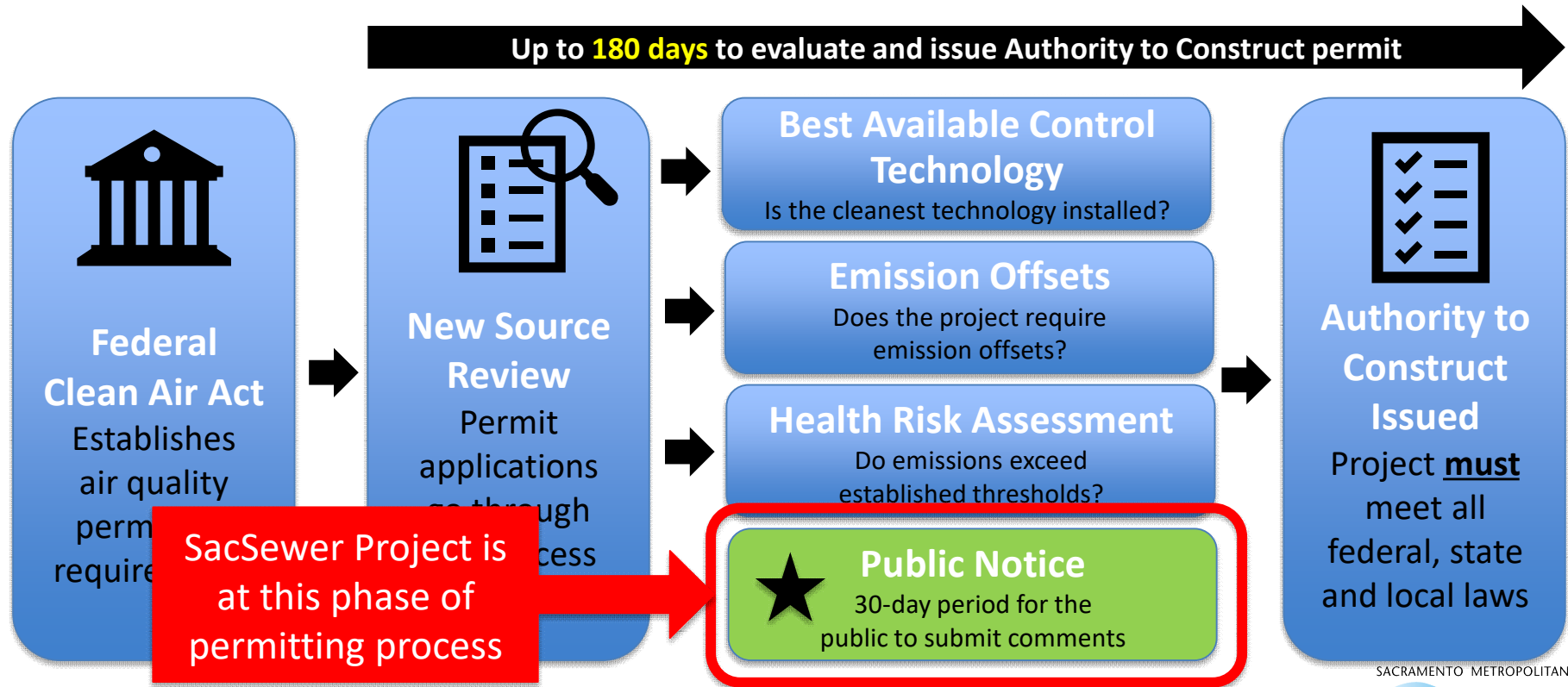


# Air Quality Permitting Process



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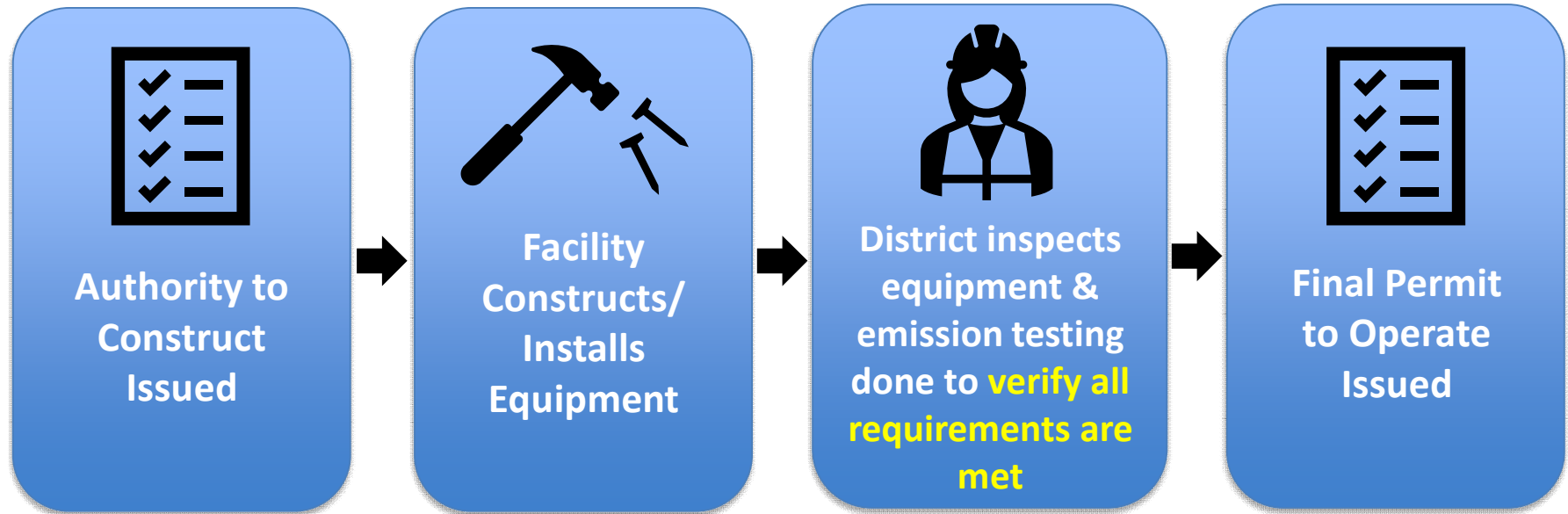
# Air Quality Permitting Process



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# Air Quality Permitting Process

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



# SacSewer Air Quality Permit Details

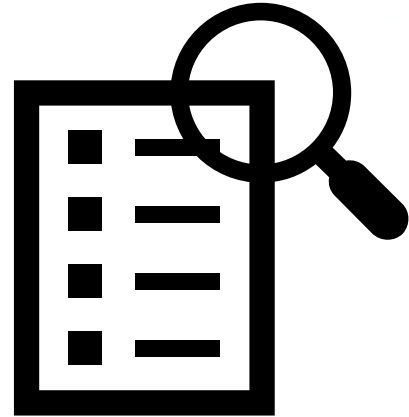
# Sacramento Area Sewer District (SacSewer) Project Details



- 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

# 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 ...

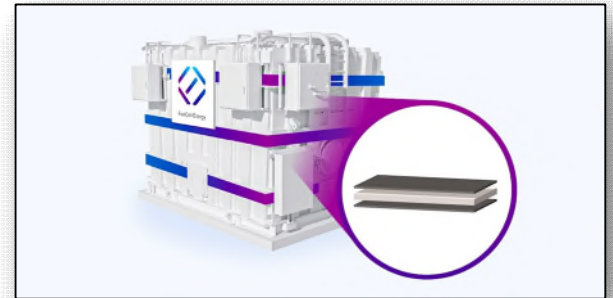
- Emissions offsets required based on maximum potential of operating equipment – a conservative approach
- To receive an emission reduction credit loan from the District, the project must:
  - Consider the extent cleaner innovative technologies have been used
  - Will not impede the attainment of air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

# 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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MANAGEMENT DISTRICT

# Permit Applications – District Evaluation

## Project Proposed Emissions

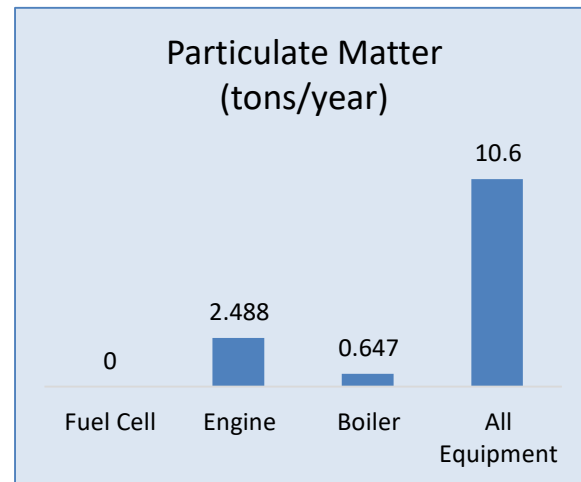
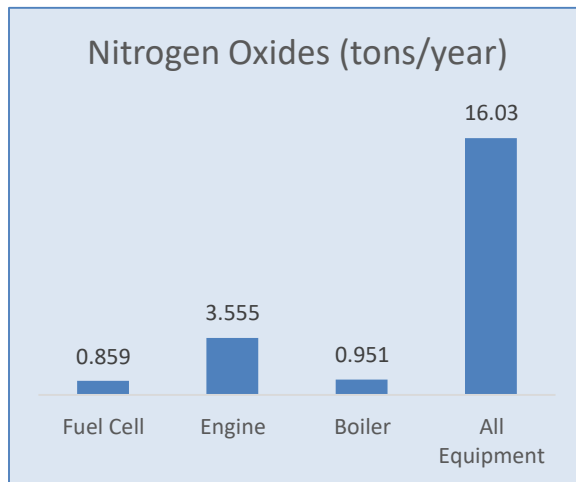
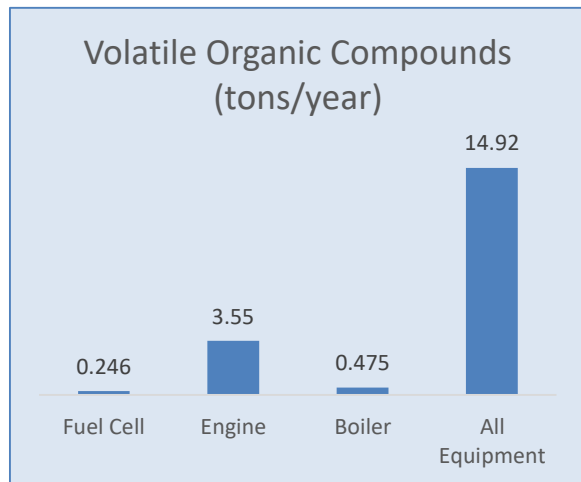
Permit No.	Emissions Unit	Project Proposed Emissions (ton/year)						
		VOC	NOx	SOx	PM10	PM2.5	CO	HAP
A/C 27780	Fuel Cell (2.8 MW)	0.246	0.859	0.002	0	0	1.227	0
A/C 27781	Boiler (19.95 MMBtu/hr)	0.475	0.951	0.475	0.647	0.647	25.819	0.610
A/C 27782	IC Engine, Prime (3,681 hp)	3.55	3.555	0.889	2.488	2.488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

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# Permit Applications – District Evaluation

## Project Proposed Emissions

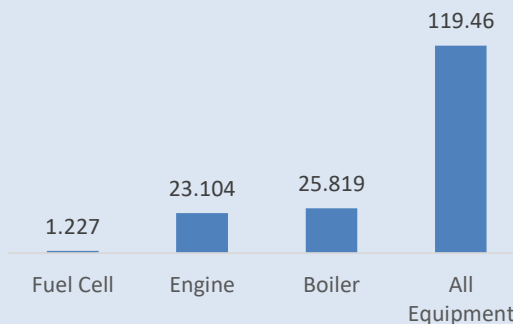


Ozone Precursor Pollutants

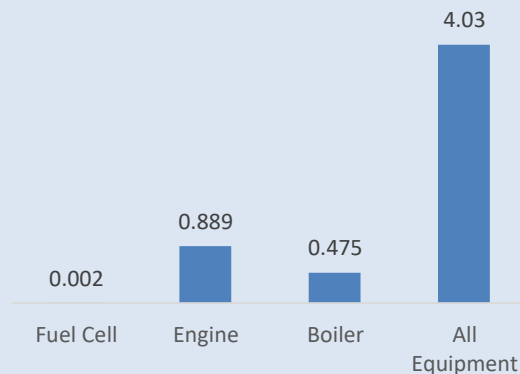
# Permit Applications – District Evaluation

## Project Proposed Emissions

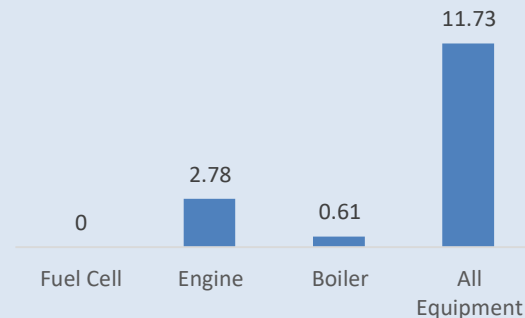
Carbon Monoxide (potential  
tons/year)



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



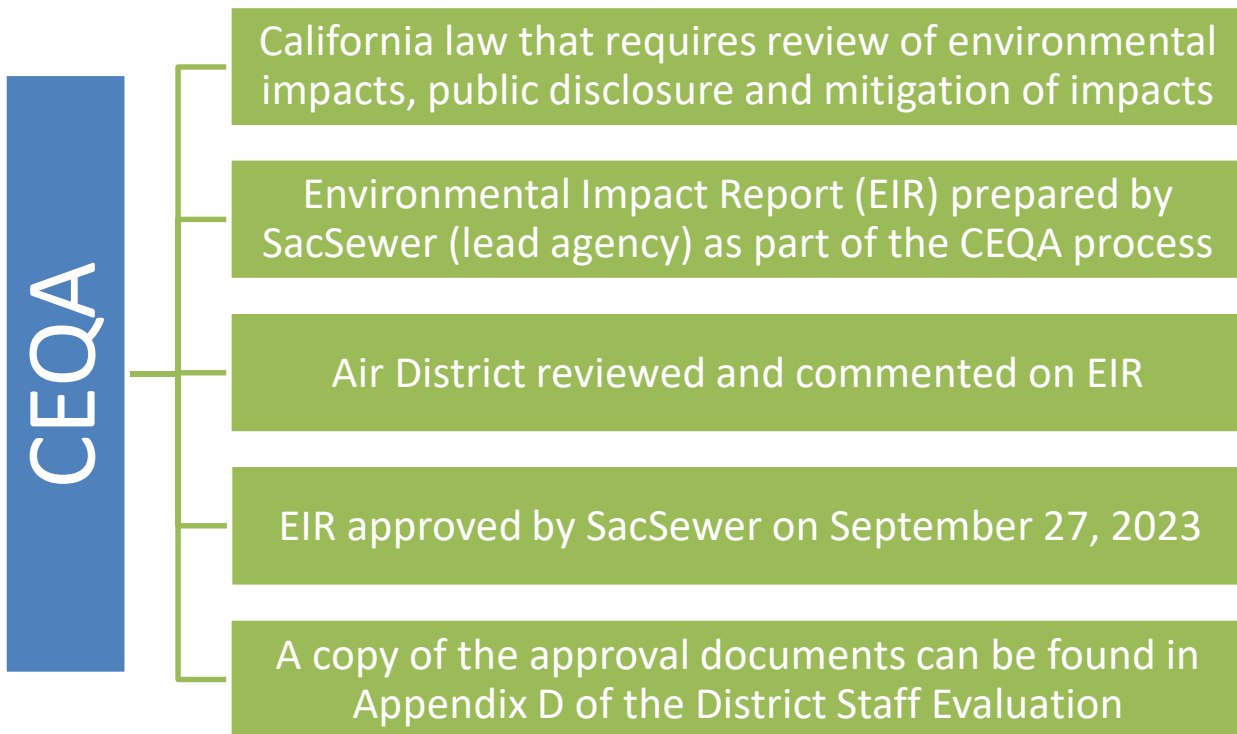
California Office of Environmental Health Hazard Assessment (OEHHA) determines chemicals that are included in the Health Risk Assessment (HRA)

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

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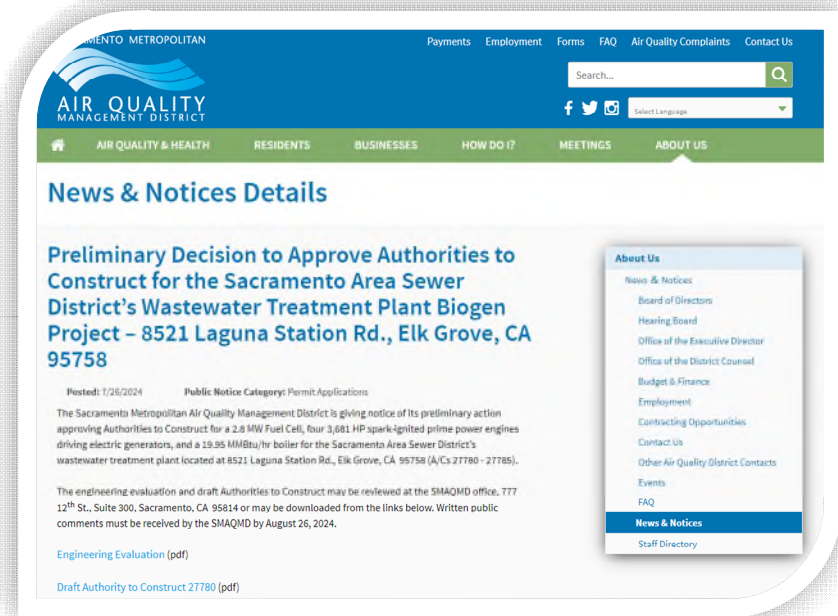
# Permit Applications – District Evaluation

## California Environmental Quality Act (CEQA)



# Public Notice

- Public Notice started July 26
- **Submit written comments by August 26**
- Go to [www.airquality.org](http://www.airquality.org) → News & Notices section to see evaluation and draft permits
- Submit comments
  - By mail: 777 12<sup>th</sup> Street, Suite 300  
Sacramento, CA 95814
  - By email: [jweiss@airquality.org](mailto: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

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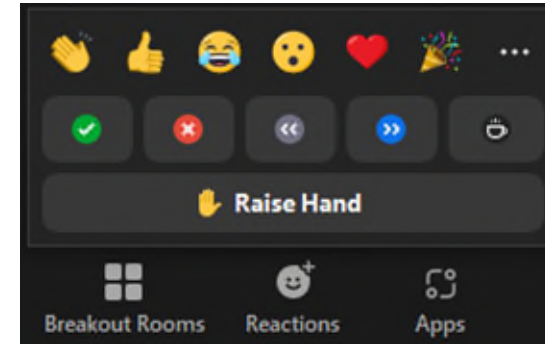
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Contact Information:

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