

Community Meeting
PFAS Treatment Facility
May 6, 2021

Reunión comunitaria
Centro de tratamiento de PFAS
6 de mayo de 2021

**Spanish Interpretation Available/
Interpretación en español
disponible**

1) Haga clic en el círculo

2) Haga clic en el idioma español

1. In your meeting/webinar controls, click **Interpretation**.



2. Click the language that you would like to hear.



Questions & Answers/Preguntas y Respuestas

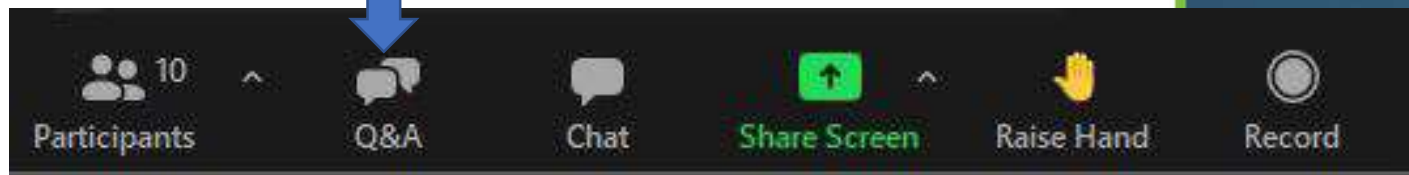
There are two ways to participate in the Q & A /
Hay dos maneras de participar en la sesión de Preguntas y Respuestas:

Ask a Question / *Hacer una pregunta*

Type it in the Q & A box/

Escribirla en el cuadro de Preguntas y Respuestas

Raise Your Hand / *Levantar la mano*



COMMUNITY MEETING

May 6, 2021

5:30 p.m. – 6:30 p.m.

AGENDA

Welcome & Introductions

Bruce Whitaker

Director, Orange County Water District (OCWD) & Mayor, City of Fullerton

Mike Markus, P.E., D.WRE, BCEE, F.ASCE

General Manager, OCWD

What are PFAS and How Are They Affecting OCWD's Service Area?

Jason S. Dadakis, P.G., C.HG

Executive Director Water Quality and Technical Resources, OCWD

Construction of the PFAS Treatment Facility

Benjamin Smith, P.E.

Project Manager and Senior Engineer, OCWD

Questions & Answers



What are PFAS and How Are They Affecting OCWD's Service Area?

Orange County Water District (OCWD)

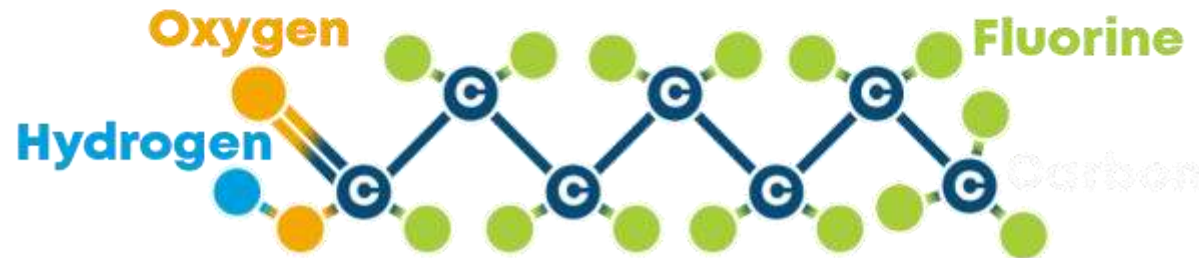


- Formed in 1933 by California legislature
 - Manage OC Groundwater Basin
 - Protect OC's rights to Santa Ana River
- Provides groundwater to
 - 19 large municipal and special water districts
 - 2.5 million customers in north and central Orange County



What Are PFAS, PFOA & PFOS?

PFAS



- PFAS = Per- and Polyfluoroalkyl Substances (family of 1000s of chemicals)
- PFOA = Perfluorooctanoic Acid ($C_8HF_{15}O_2$)
- PFOS = Perfluorooctane Sulfonate ($C_8HF_{17}O_3S$)
- PFBS = Perfluorobutane Sulfonate ($C_4HF_9O_3S$)

Wide Range of Historical PFAS Uses



Commercial and Consumer Products Containing PFAS:

- paper and packaging
- clothing and carpets
- outdoor textiles and sporting equipment
- ski and snowboard waxes
- non-stick cookware
- cleaning agents and fabric softeners
- polishes and waxes, and latex paints
- pesticides and herbicides
- hydraulic fluids
- windshield wipers
- paints, varnishes, dyes, and inks
- adhesives
- medical products
- personal care products (for example, shampoo, hair conditioners, sunscreen, cosmetics, toothpaste, dental floss)



California: PFAS Drinking Water Advisories

- Response Level = threshold at which state recommends water not served to the public w/o treatment or blending.
- Current Response Levels for PFAS
 - PFOA = 10 parts per trillion (ppt)
 - PFOS = 40 ppt
 - PFBS = 5000 ppt
- State and Federal EPA have separately begun process to establish enforceable Maximum Contaminant Levels (MCLs)



PFAS Impact in OCWD Service Area

- Eleven water suppliers in the OCWD service area are currently impacted by Response Levels
- Up to ~ 1/3 of normal groundwater basin production unable to be served by following state recommendations
- Temporary increase in the use of treated imported surface water



OCWD's Swift Response

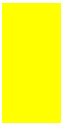
- OCWD supporting design/construction of PFAS treatment systems for impacted water retailers, including City of Fullerton
- OCWD launched nation's largest PFAS pilot program
- Dec. 2020: OCWD + 10 impacted retail agencies filed suit against 3M, DuPont, and others
- OCWD began early monitoring to provide more data and information to Producers and Regulators

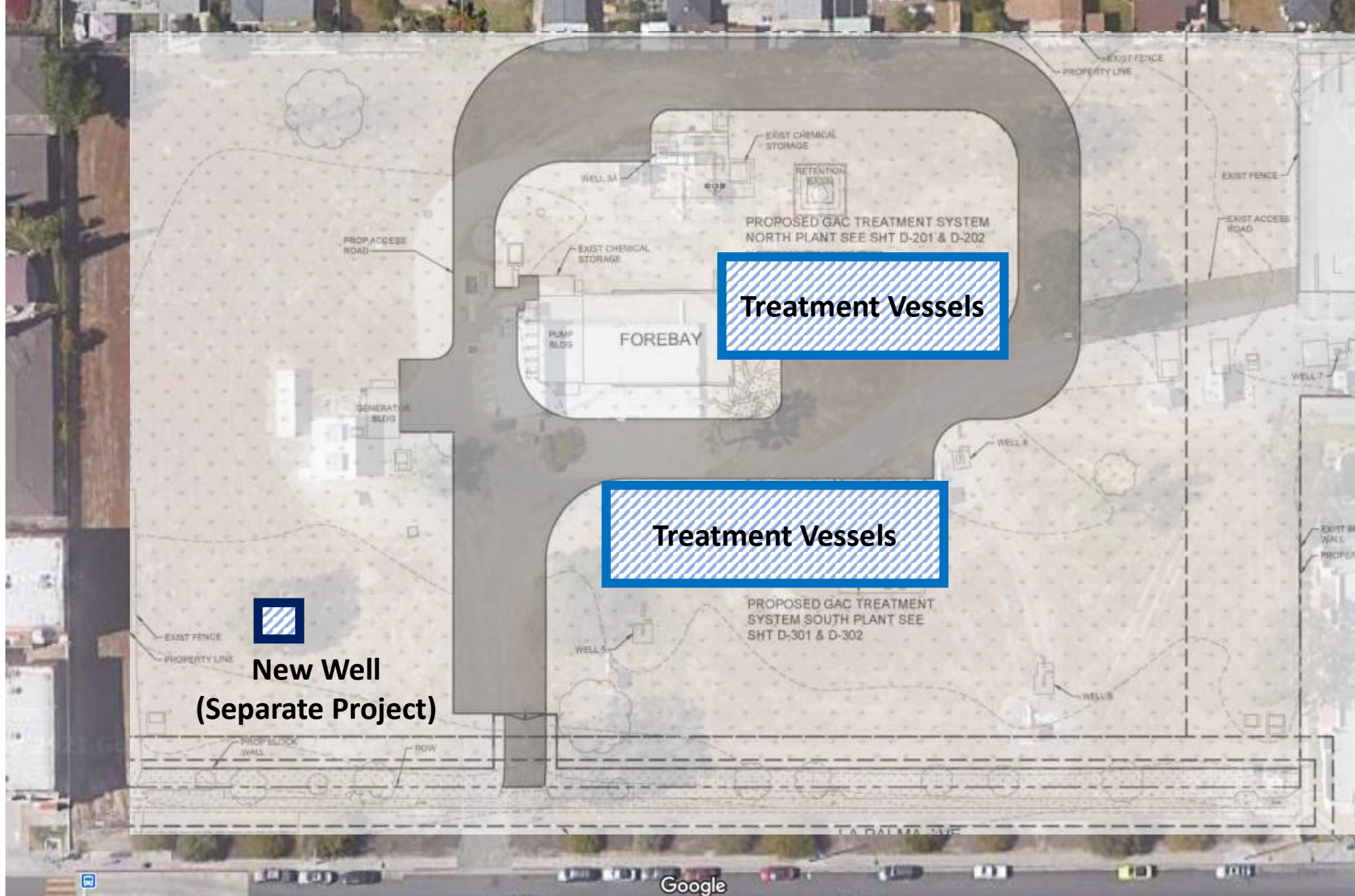


Impacts to City of Fullerton

- Two wells shut down
- Water supply switched to treated surface water
- Working with OCWD to plan/design/construct PFAS Treatment Systems featuring Ion Exchange (IX) and Granular Activated Carbon (GAC) for its wells
- IX and GAC are well-established water treatment technologies and pilot testing by OCWD established its effectiveness for PFAS removal

Construction of the PFAS Treatment Facility





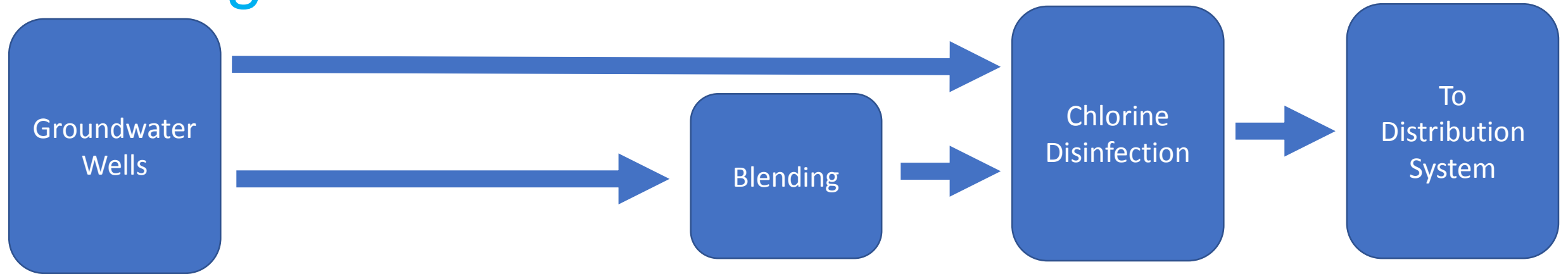
Treatment Vessels

Treatment Vessels

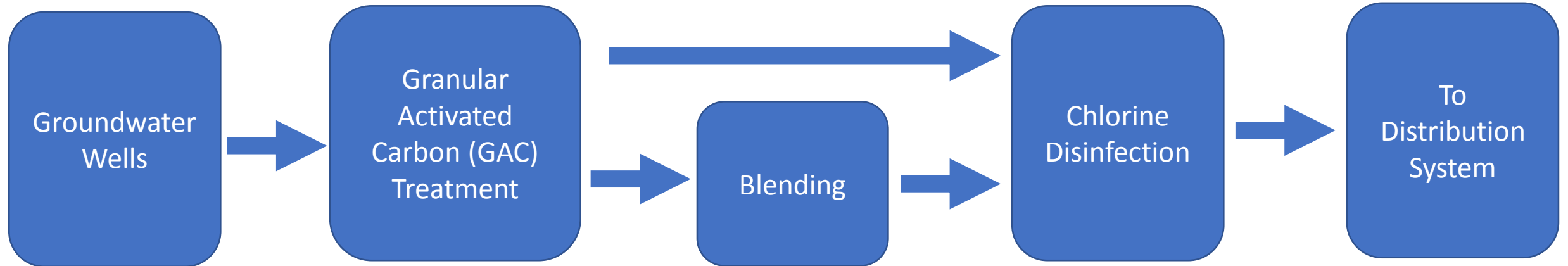


**New Well
(Separate Project)**

Existing Treatment Process



New Treatment Process





View from La Palma Ave



View from Northeast Neighbor



View from North Neighbor

Project Benefits

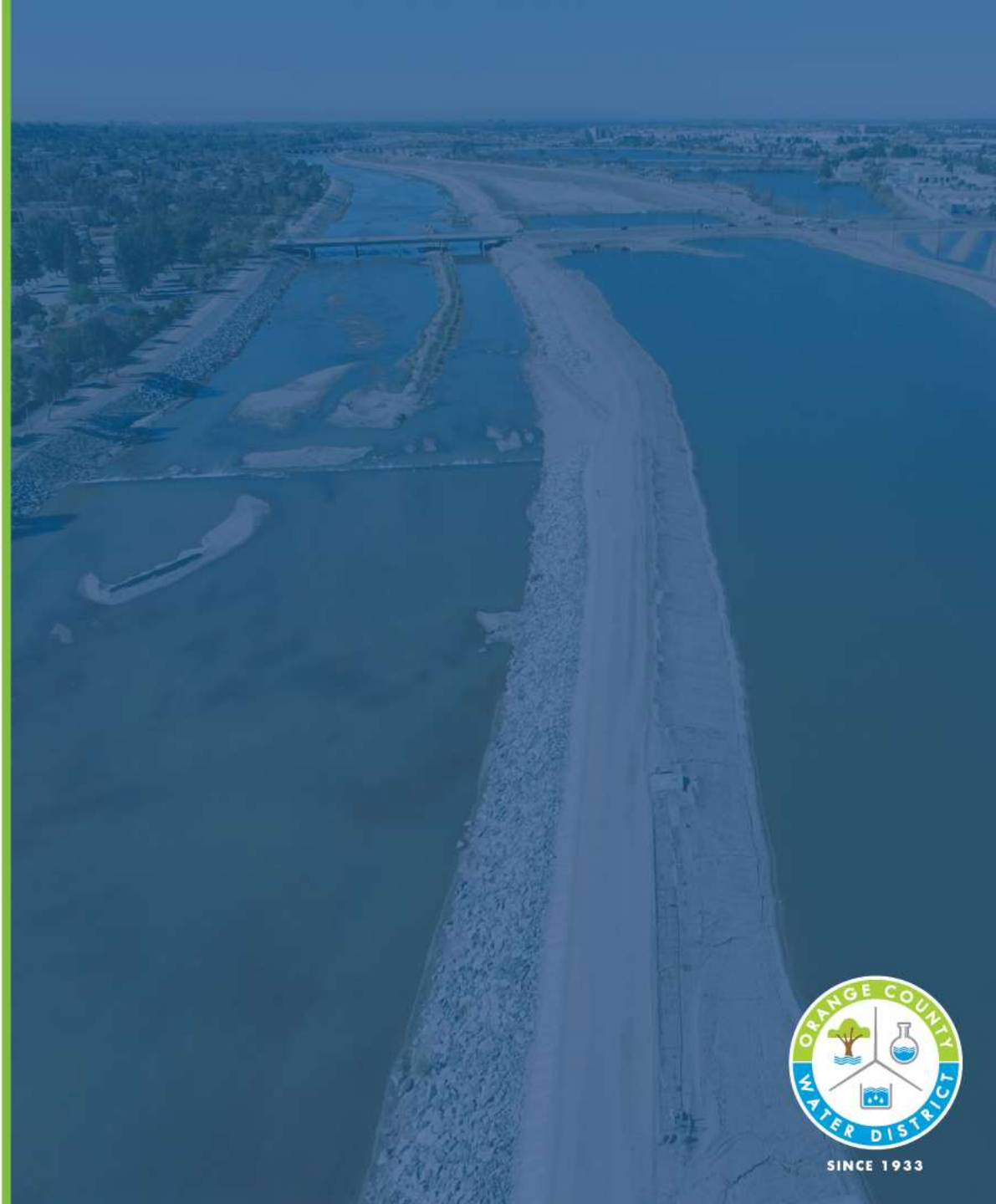


- Ability to fully utilize the groundwater basin
- Paving of existing dirt roads
- Block wall
- Landscaping



Project Schedule

- Construction Mobilization: Fall 2021
- Expected Operation: Summer 2022
- Construction Completion: Fall 2022



Questions & Answers/Preguntas y Respuestas

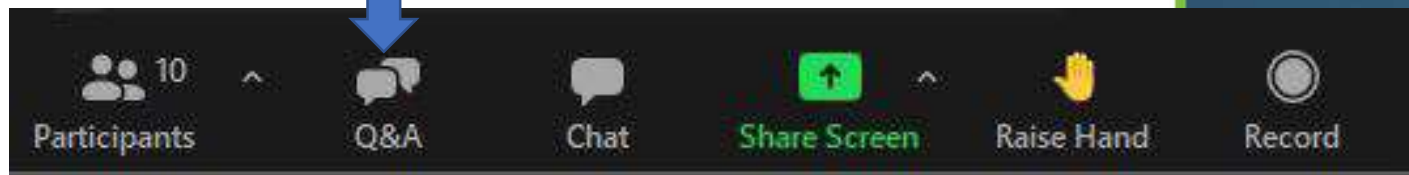
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OCWD Construction Hotline



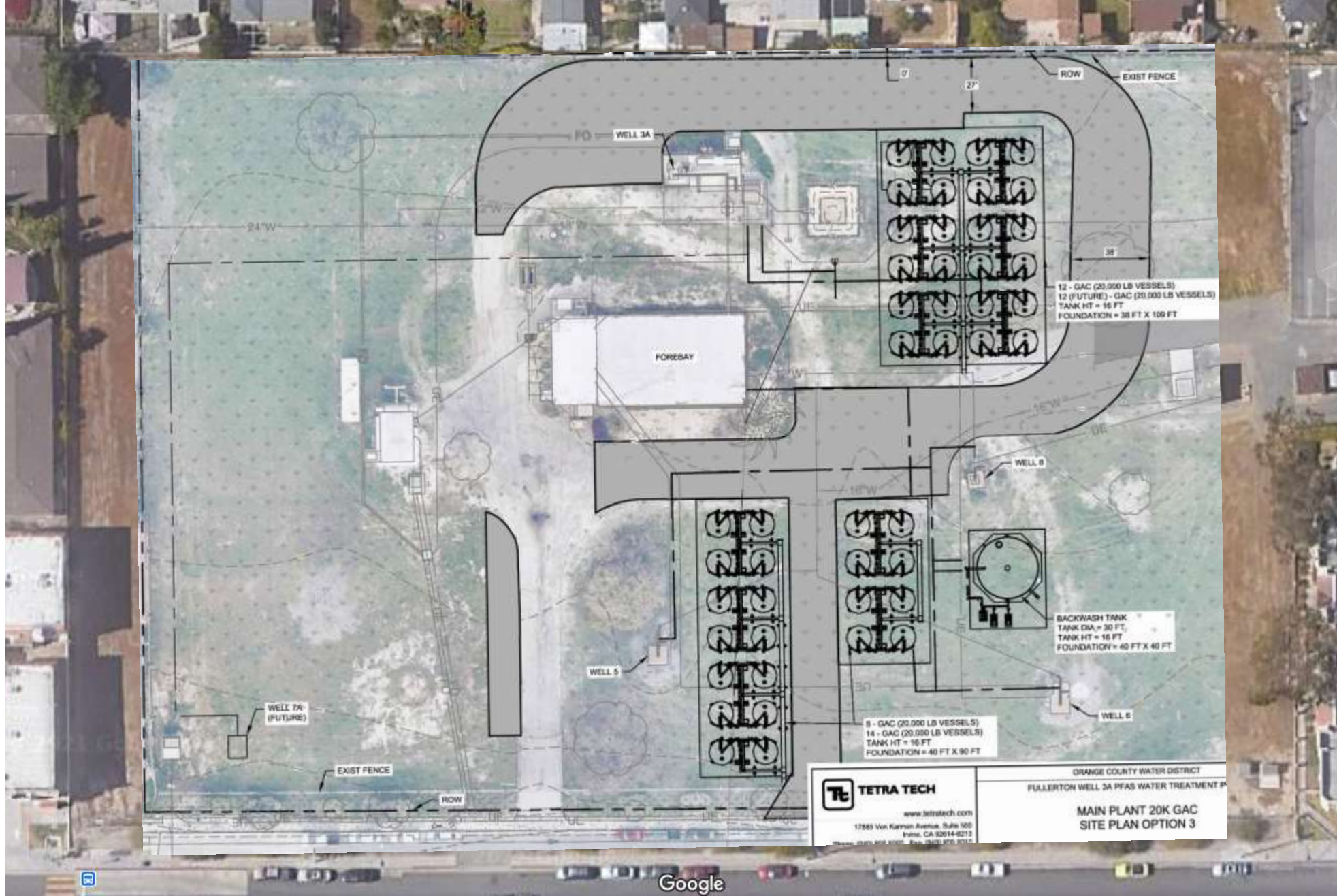
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ORANGE COUNTY WATER DISTRICT
FULLERTON WELL 3A PFAS WATER TREATMENT PLANT
**MAIN PLANT 20K GAC
SITE PLAN OPTION 3**



16- FOOT (20k) FULL BUILDOUT

