



County of San Diego

Regional Water Equity Deep Dives



- Graywater
- *August 9, 2023*

Today's Agenda

Introduction

- 5 Minutes

Special Topic Presentation

- 10 Minutes

Breakout Rooms

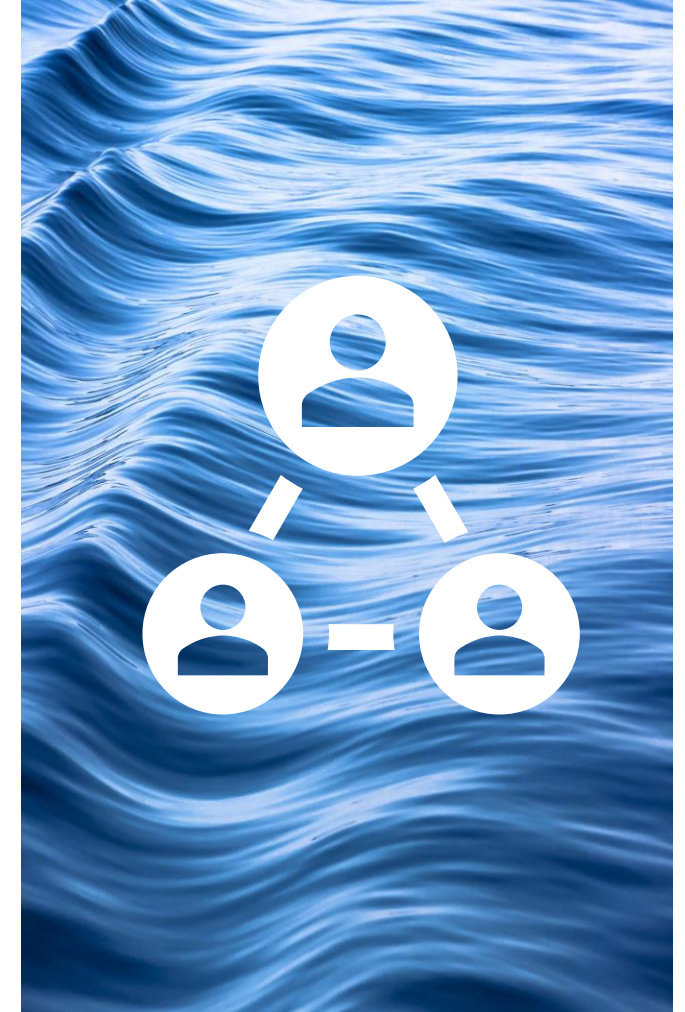
- 40 Minutes

Closing Thoughts

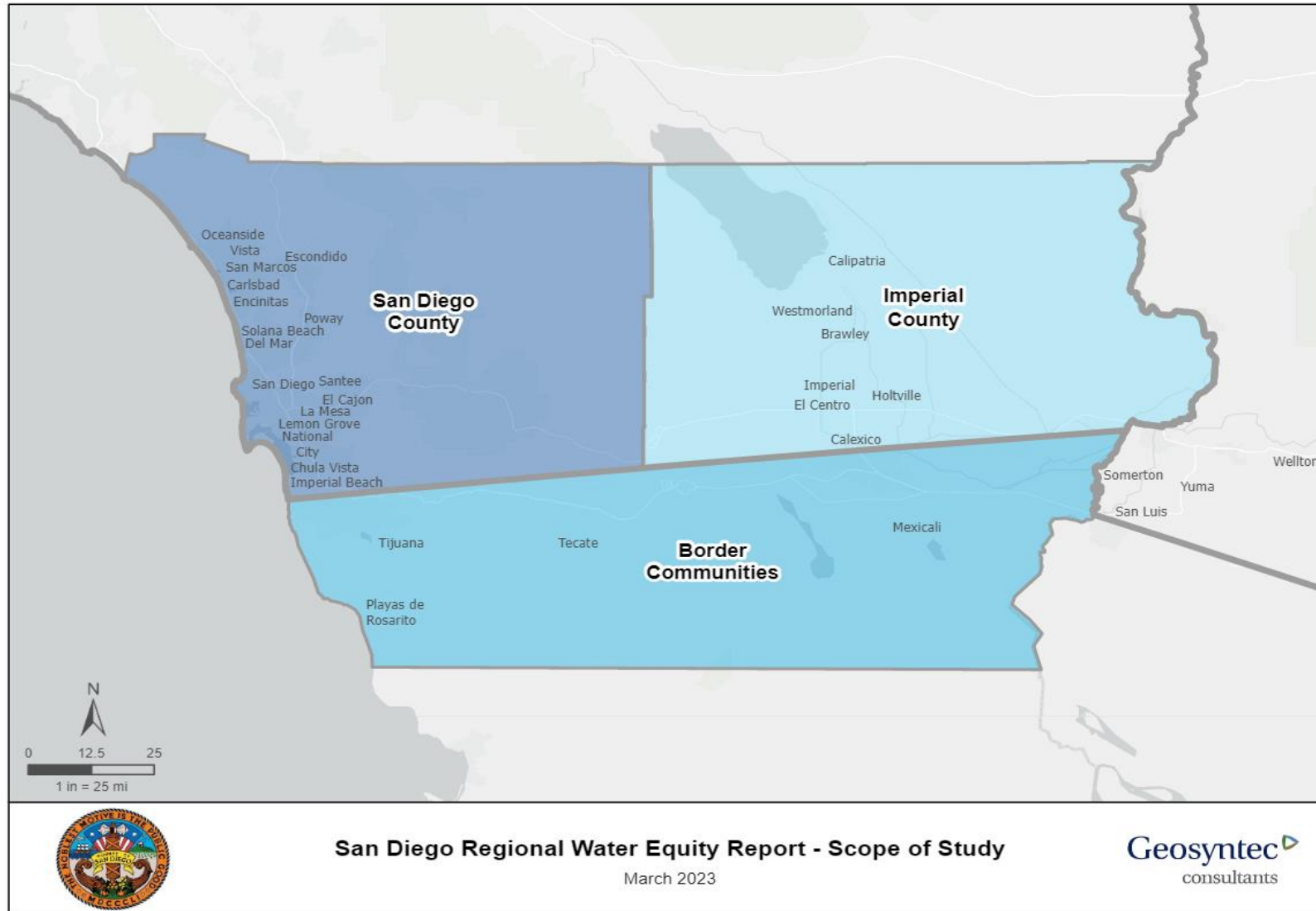
- 3 Minutes

Regional Water Equity

- Regional Collaboration
 - Tribal Communities, Binational Partners, Imperial County
- Adapt to a Hotter, Drier, Future
- Equitably Address Drought Impacts
 - Wildfires, Water Scarcity, Access to Water



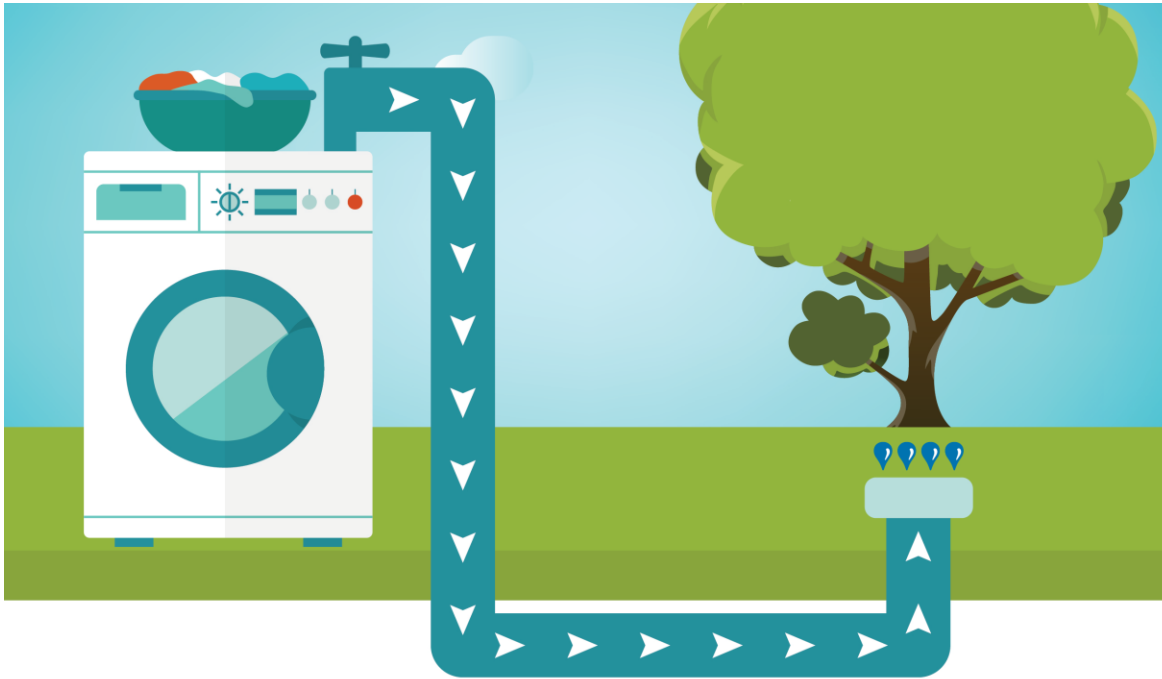
Regional Water Equity





COUNTY OF SAN DIEGO REGIONAL WATER EQUITY EFFORT

Graywater Deep Dive
Stephanie Zinn, CPMSM



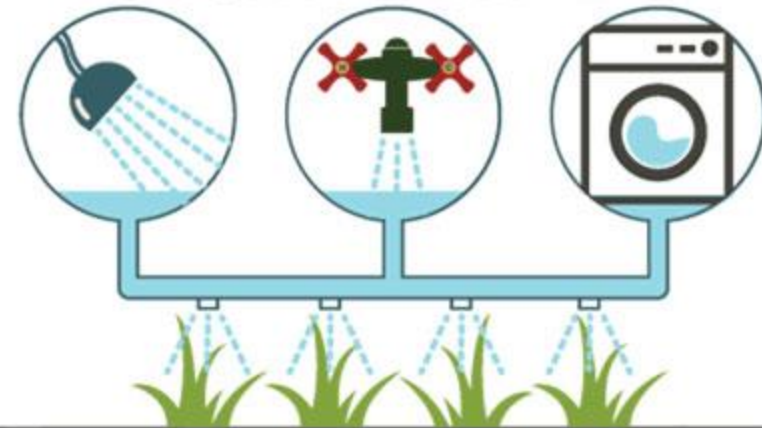
Purpose

Educate on the topic of Graywater Reuse

"Graywater" means untreated wastewater that has not been contaminated by any toilet discharge or infection, contaminated, or unhealthy bodily wastes. Examples of graywater include wastewater from bathtubs, showers, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers.

What is Graywater?

SIMPLE GRAY WATER SYSTEMS FOR YOUR HOME



Images from EPA



Graywater



Condensate

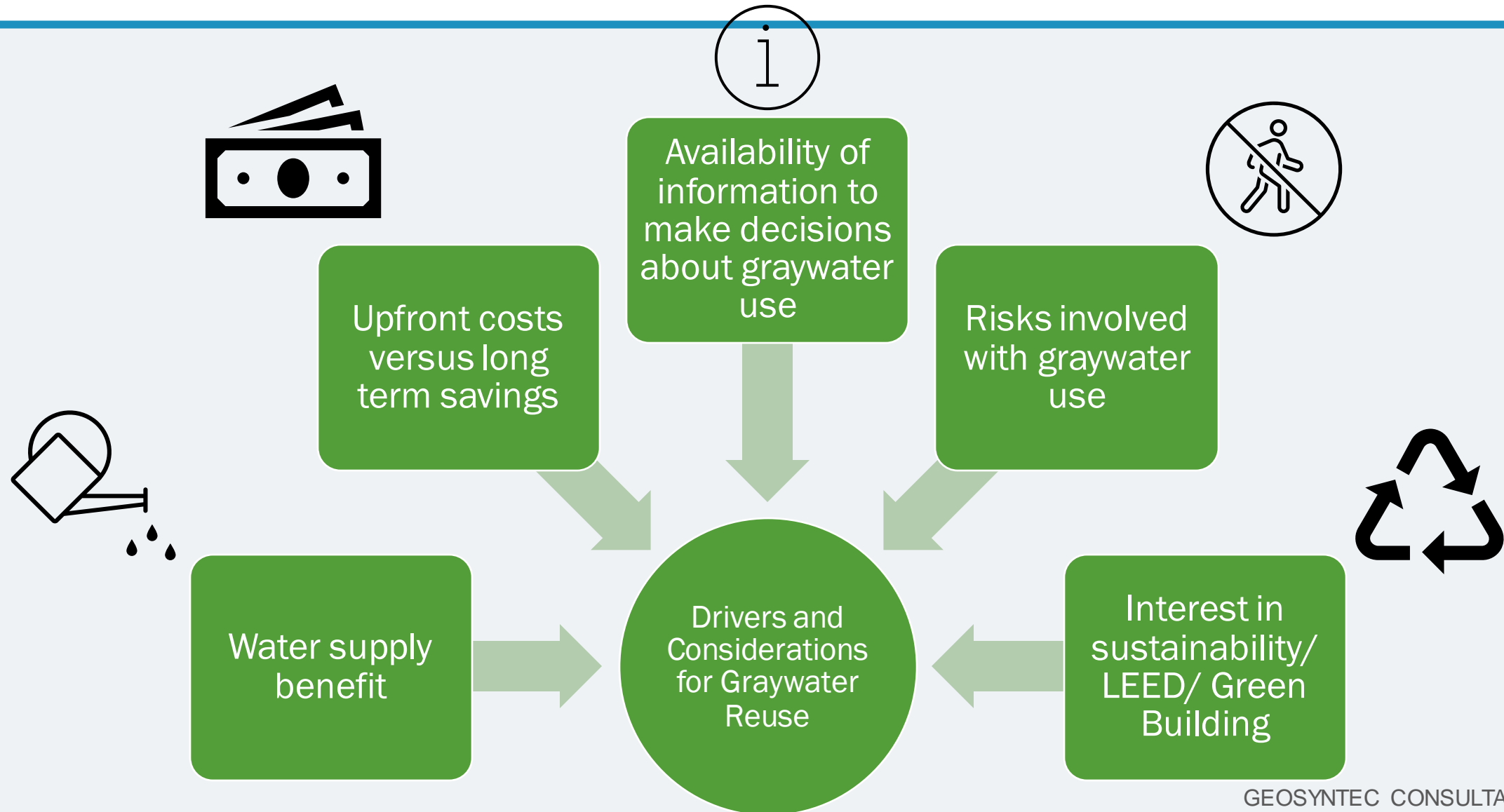


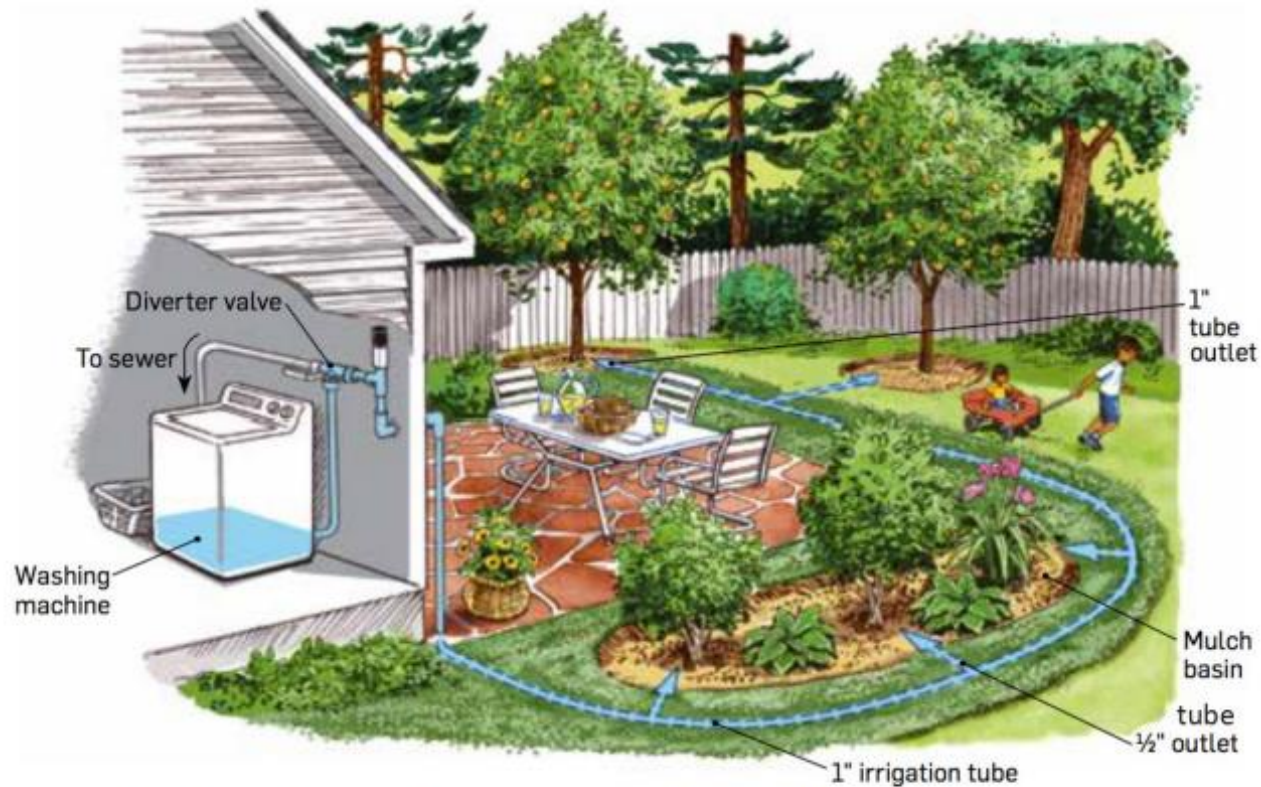
Stormwater



Black Water







© Steve Sanford in *Greywater*, *Greenlandscape* by Laura Allen

Image from Graywater Action

- Laundry to Landscape (L2L) in single family homes
- Domestic clothes washer for subsurface irrigation of landscape
- Cost varies, retrofits can cost \$1,500-\$3,000 for a contractor to install a L2L graywater system
- Allowable throughout SD County; rebates available in certain areas
- Important design considerations for safe reuse of graywater





- Reuse for indoor toilet flushing and spray irrigation
- If graywater has potential to come into contact with humans, more robust treatment and certification is required (NSF-350; IAMPO)
- More expensive systems, but may have longer term water savings over time
- Candidates for graywater reuse include hotels, dormitories, large areas that require air conditioning, etc.
- Best if planned early on in project design
- More robust review and approval from municipalities is required



Military Barracks, San Diego, Graywater Recycling Project For Toilet Flushing & Irrigation



University of Colorado, Housing and Dining Services, Graywater Harvesting





181 Fremont Mixed-use Tower

Sources: Graywater and Rainwater
End Uses: • Toilet Flushing • Irrigation
Volume: 1.3 million gallons/year
Potable Water Use Reduction: 21%
Driver(s): Sustainability Goals, LEED Points, and Mandate (San Francisco Stormwater Management Ordinance)
Owner: 181 Fremont Street LLC



San Francisco Public Utilities Commission Headquarters

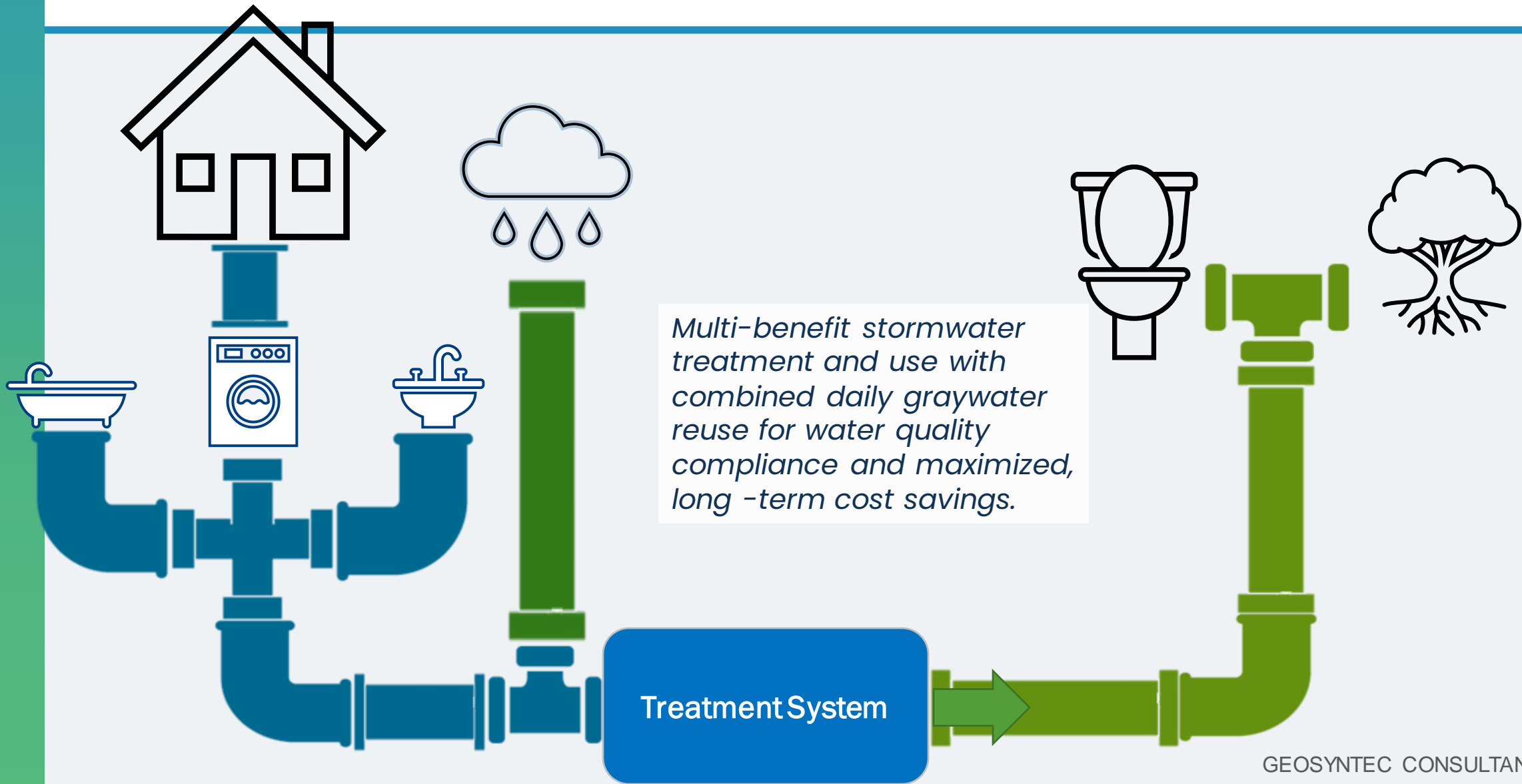
Sources: Blackwater and Rain Water
End Uses: • Toilet Flushing • Subsurface Irrigation
Volume: Up to 1.8 million gallons/year
Potable Water Use Reduction: 50%
Driver(s): LEED Points, Pilot Project, and Public Education
Owner: SFPUC



San Francisco Permit Center at 49 South Van Ness Avenue

Sources: Graywater and Rainwater
End Uses: • Toilet Flushing • Subsurface Irrigation
Volume: Up to 1.8 million gallons/year
Potable Water Use Reduction: 17%
Driver(s): Non-potable Water Ordinance Compliance
Owner: Related California







1 Bligh Street – Sydney, Australia



City of Austin Permitting and Development Center – Austin, TX



Nye Sustainable Suburb – Aarhus, Denmark





- Laundry to landscape graywater reuse systems are generally allowable now and provide parcel specific benefits
- More complex treatment systems are more difficult to permit in some areas and more expensive up-front, but may provide long term water savings for certain development projects
- Additional guidance is coming over the next year from the State to help incentivize these systems
- Combining graywater reuse and stormwater collection and use may be cost effective, multi benefit solution to consider the future





THANK YOU

Questions

Up Next

Breakout Rooms

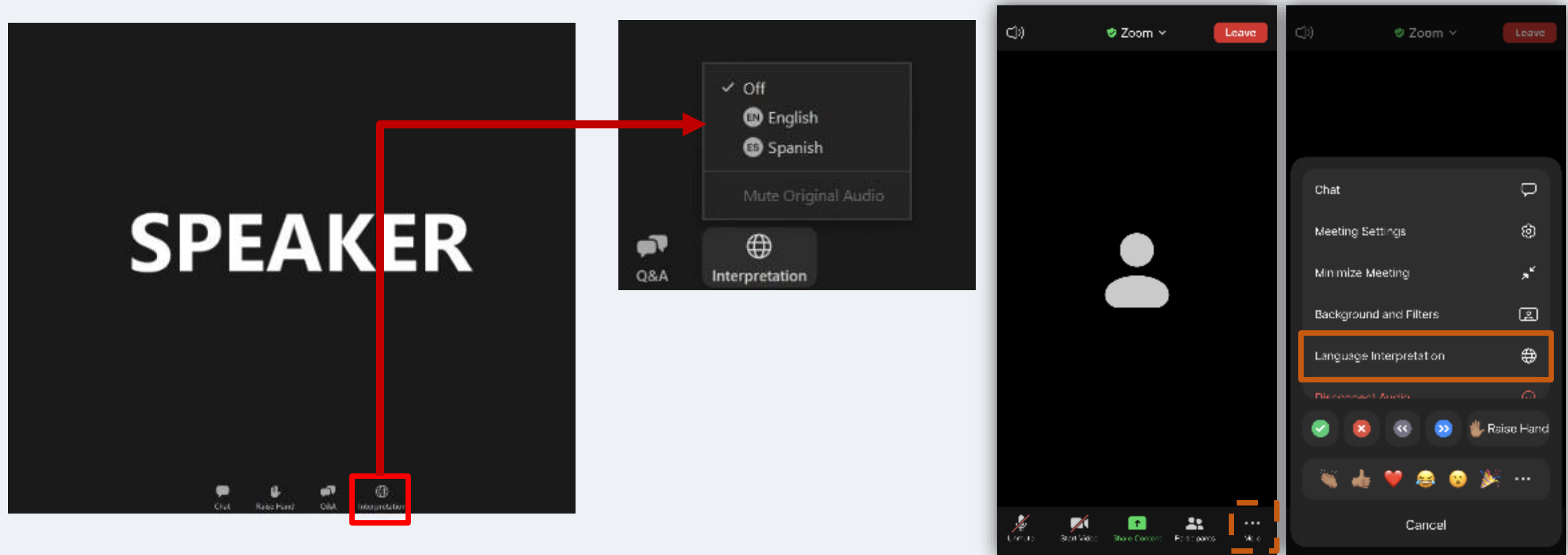
- **40 Minutes**

We Want to
Hear from
YOU

Q&A with
OSEJ Staff &
Presenter

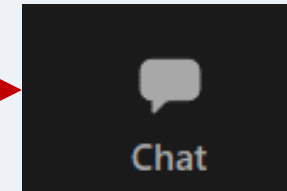
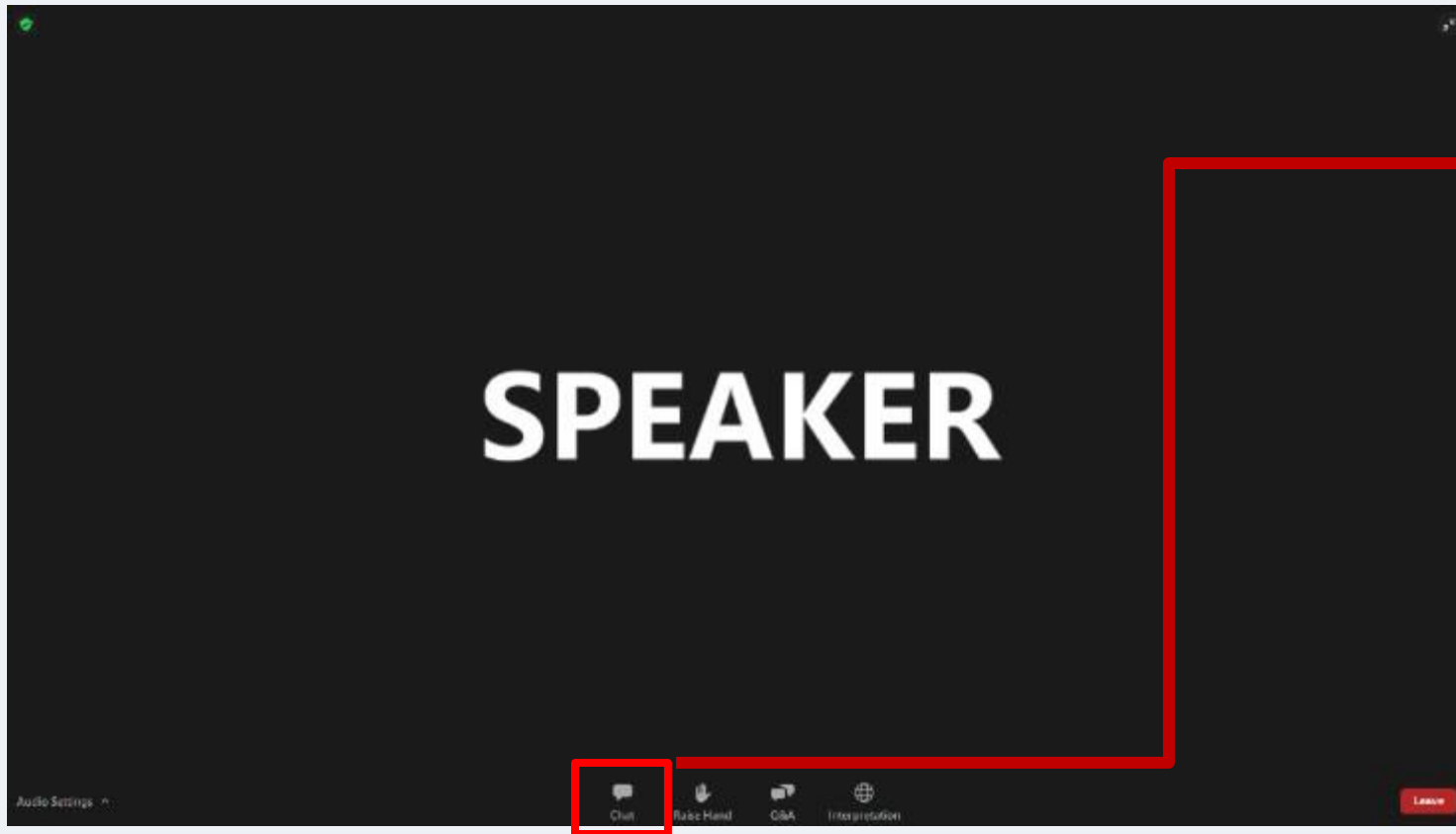
Digital Sticky
Notes &
Whiteboard

How to use Zoom // *Cómo Usar Zoom*



Please select your language of choice (you must select one option)
Debe seleccionar el idioma de su preferencia (Tiene que escoger un idioma)

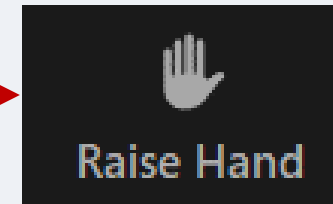
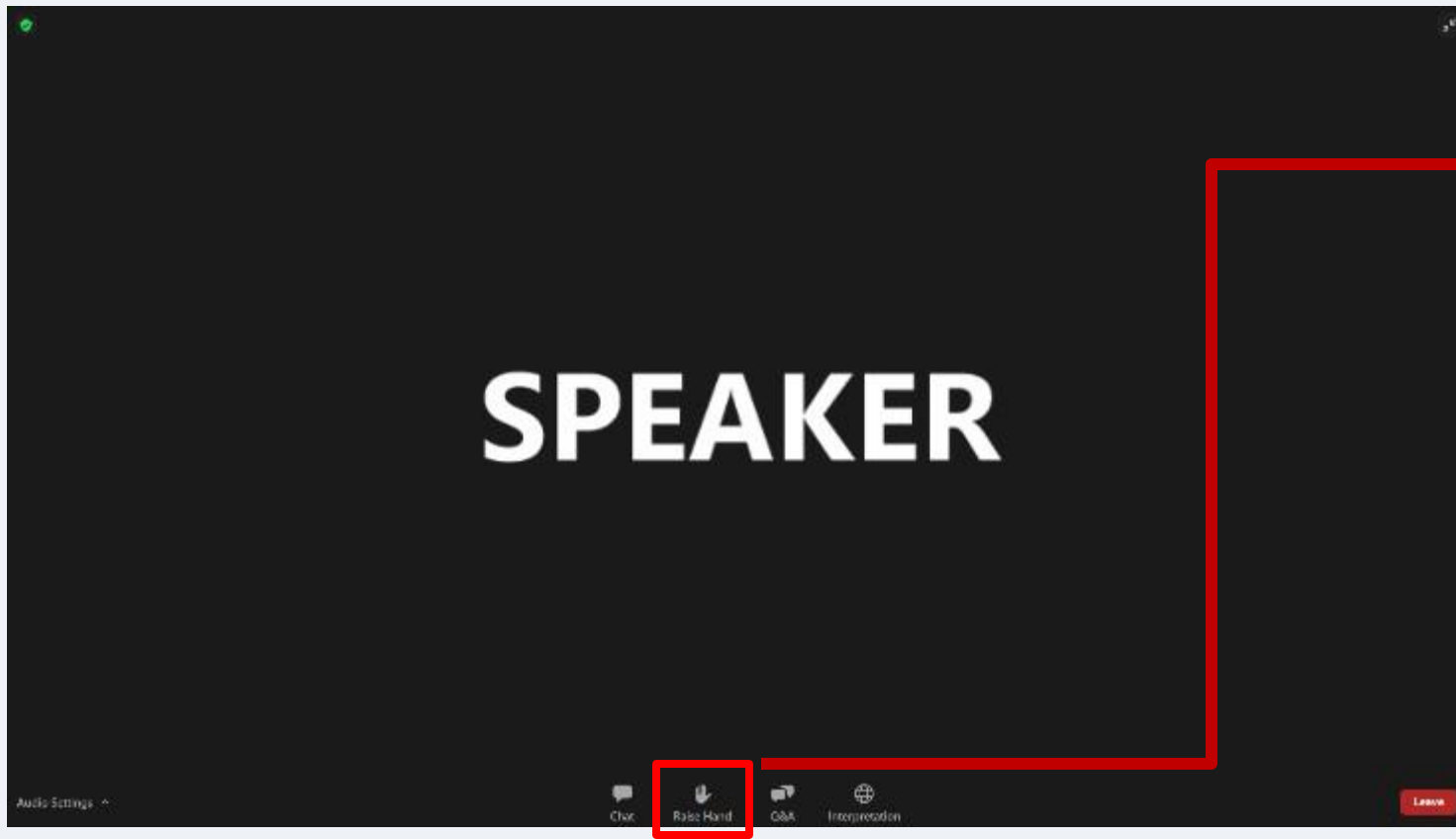
How to use Zoom // *Cómo Usar Zoom*



Comments and questions can be submitted through the chat window.

Los comentarios y las preguntas se pueden enviar a través de la ventana de chat.

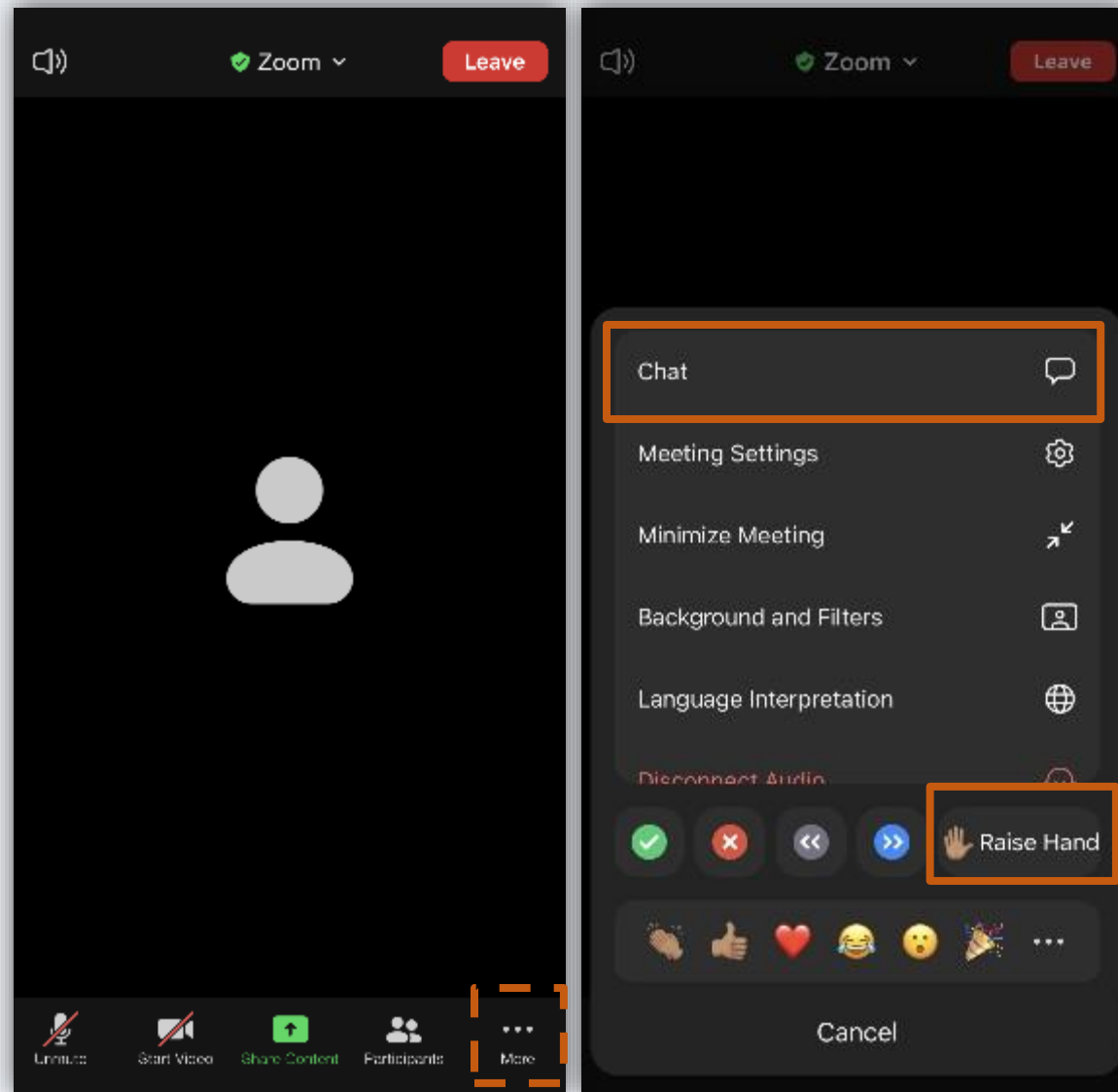
How to use Zoom // *Cómo Usar Zoom*



During the discussion, if you would like to speak over the audio, please raise your hand (otherwise questions and comments can be submitted through the Chat window)

Durante el debate, si desea participar de manera oral, por favor, levante la mano (de lo contrario, las preguntas y comentarios pueden presentarse a través de la ventana de Chat)

On your Phone // *En su teléfono móvil*



Next Steps & Call to Action

**Continued
Outreach**

**Virtual
Workshops**
**June -
September**

**Closing Water
Assembly**
September

**Upcoming
Board
Hearing**

**Public
Comment on
Draft Report**
October

Board Hearing
Winter 2024



County of San Diego

Thank you!

Please Contact - Elise Ruiz:
Elise.Ruiz@sdcounty.ca.gov

Regional Water Equity Website:
www.sandiegocounty.gov/osej/waterequity

Office of Sustainability and Environmental Justice Website:
www.sandiegocounty.gov/osej