

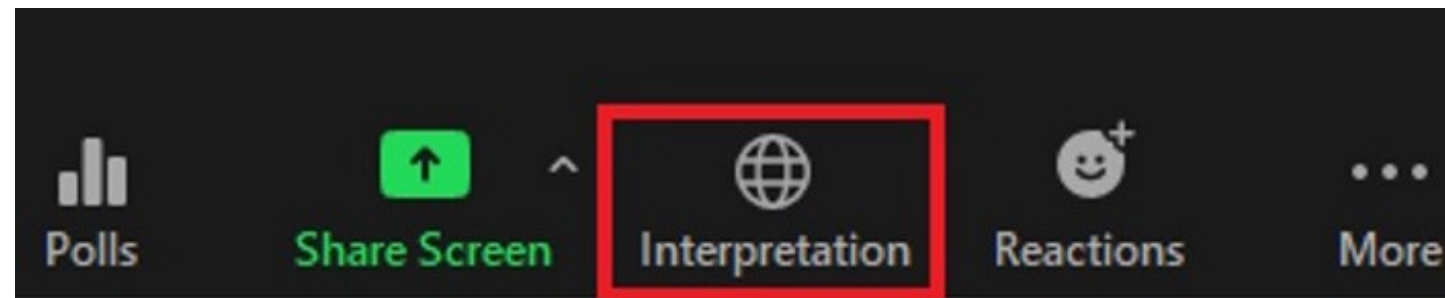
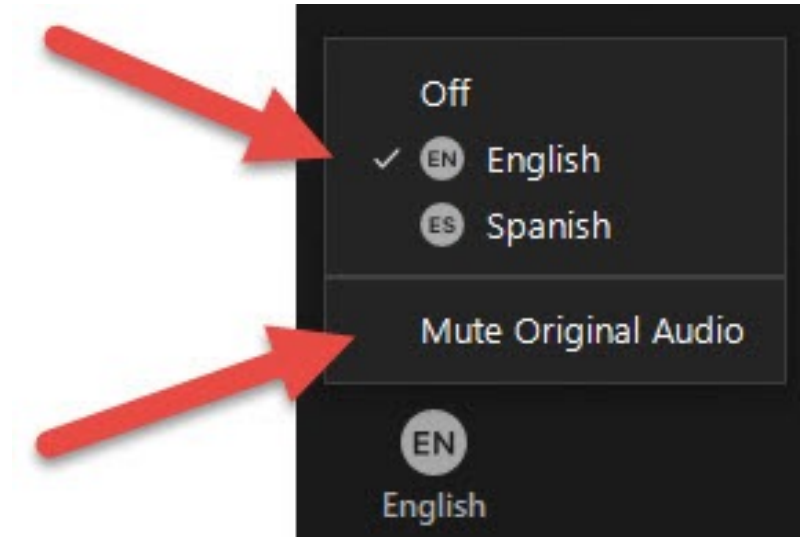
WATER WAYS – REGIONAL WATER EQUITY



A regional assessment of drought impacts and water use best practices with equitable considerations for our future.

October 18, 2023

Zoom Instructions



Agenda



Welcome

Project Context & Status

Key Learnings & Discussion

Stormwater

Greywater

Water in Agriculture

Next Steps & Closing

Welcome!



Eden Brukman
Chief Sustainability Officer

Office of Sustainability &
Environmental Justice (OSEJ)

Project Context



Board Direction
received September 2022

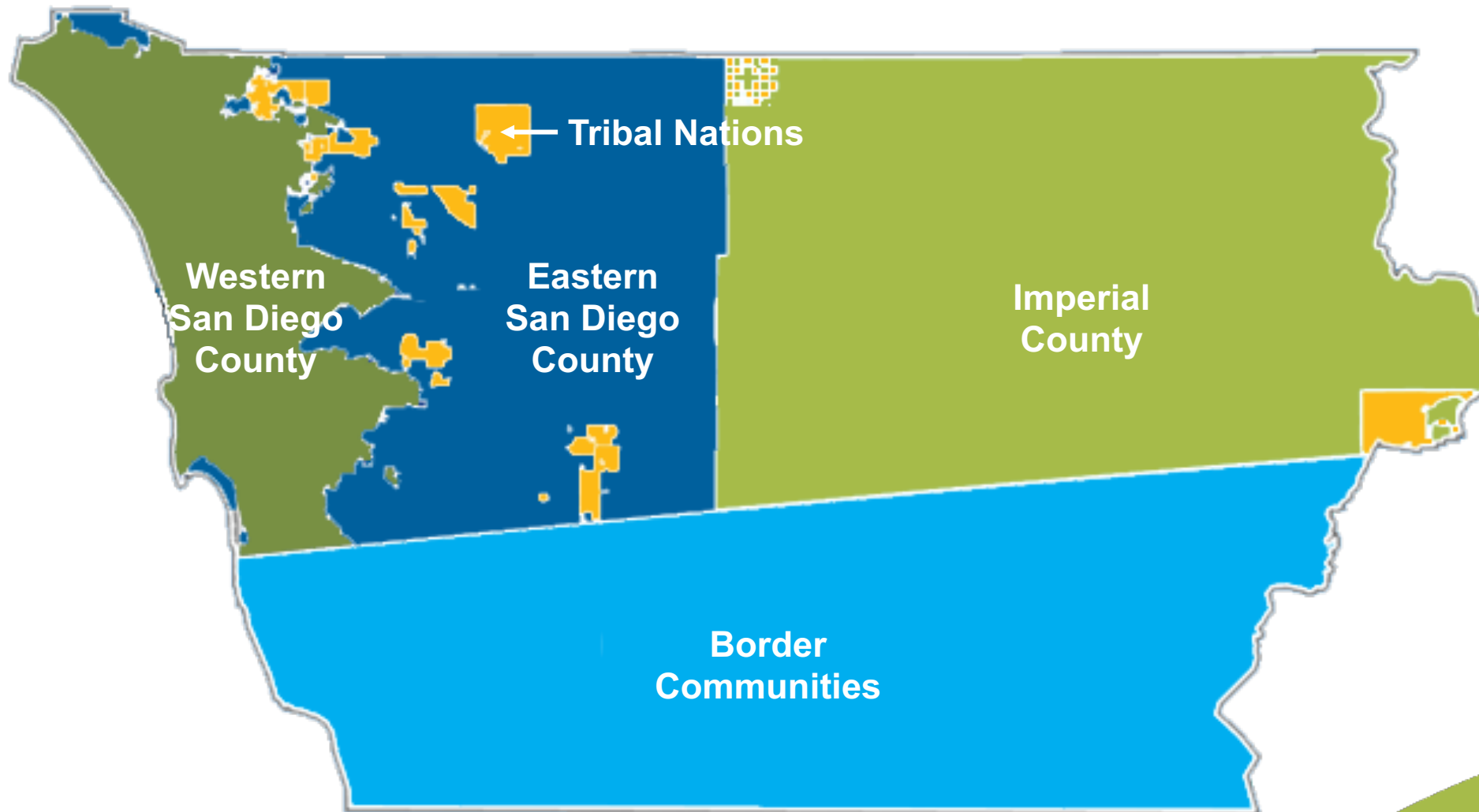


Response to State Drought
regional assessment with equity lens



Collaboration: OSEJ & DPW
with technical partners Geosyntec & LeSar

Project Focus Areas



Board Letter Objectives



Stormwater

on County roads, highways, parks & facilities



Greywater

from buildings, particularly affordable housing



Water in Agriculture

sector needs and opportunities

Stormwater, defined



Runoff during rain events that can be collected.

Benefits include:

- Pollution reduction
- Groundwater recharge
- Stormwater collection & use

Greywater, defined



Repurpose and Reuse:

- Water from bathtubs, showers, clothes washing machines, and laundry tubs
- Excludes wastewater from kitchen sinks, dishwashers, and toilets

Water in Agriculture, defined

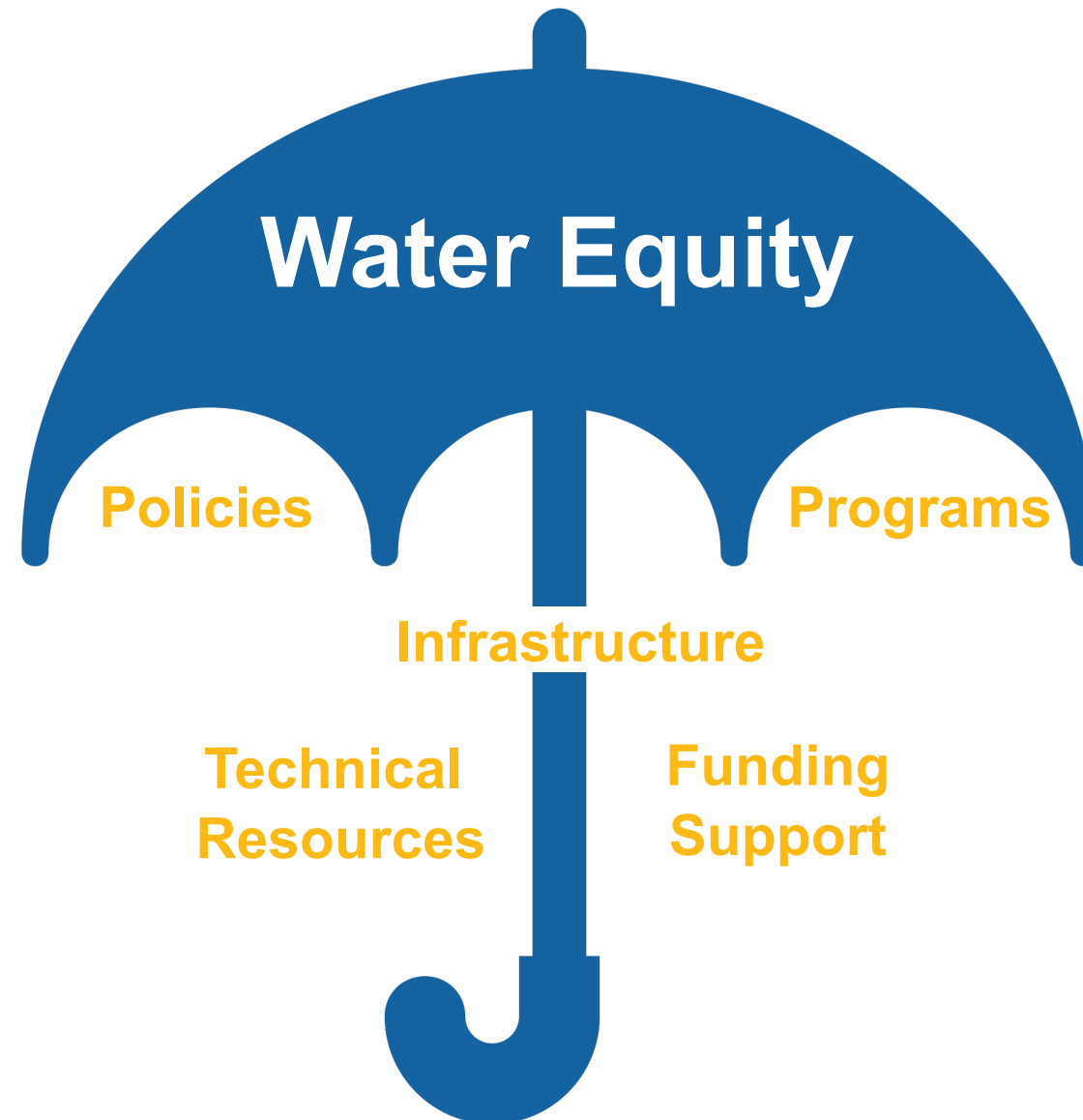


Water used to grow food & other agriculture products.

Sources include:

- Imported Water
- Recycled Water
- Local Groundwater
- Rainwater

Water Equity – Report & Community Outreach



“

“



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Our Goal



Agenda



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What to Expect



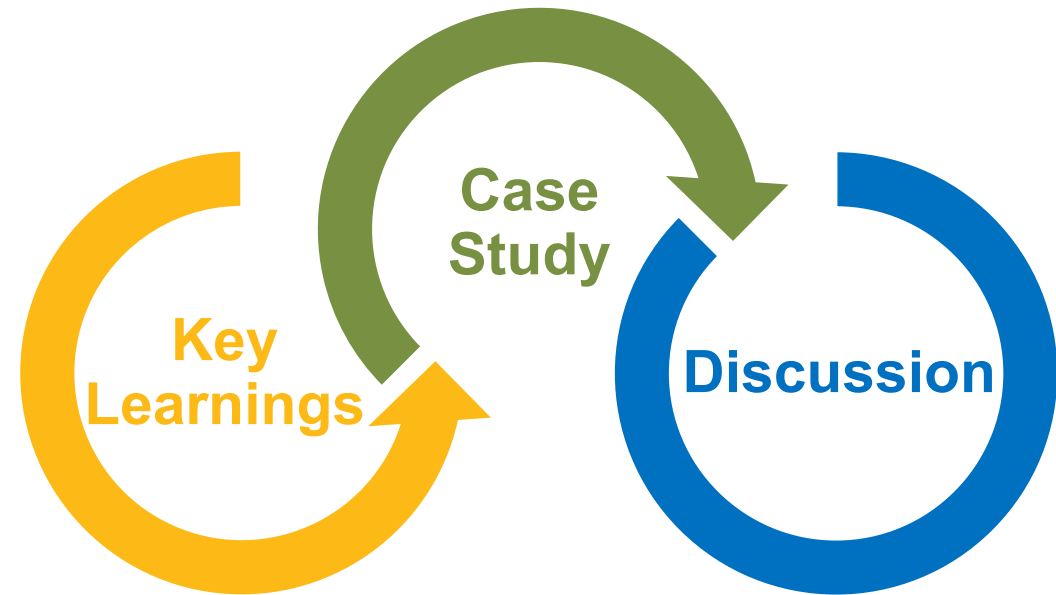
Stormwater



Greywater



Water in Agriculture



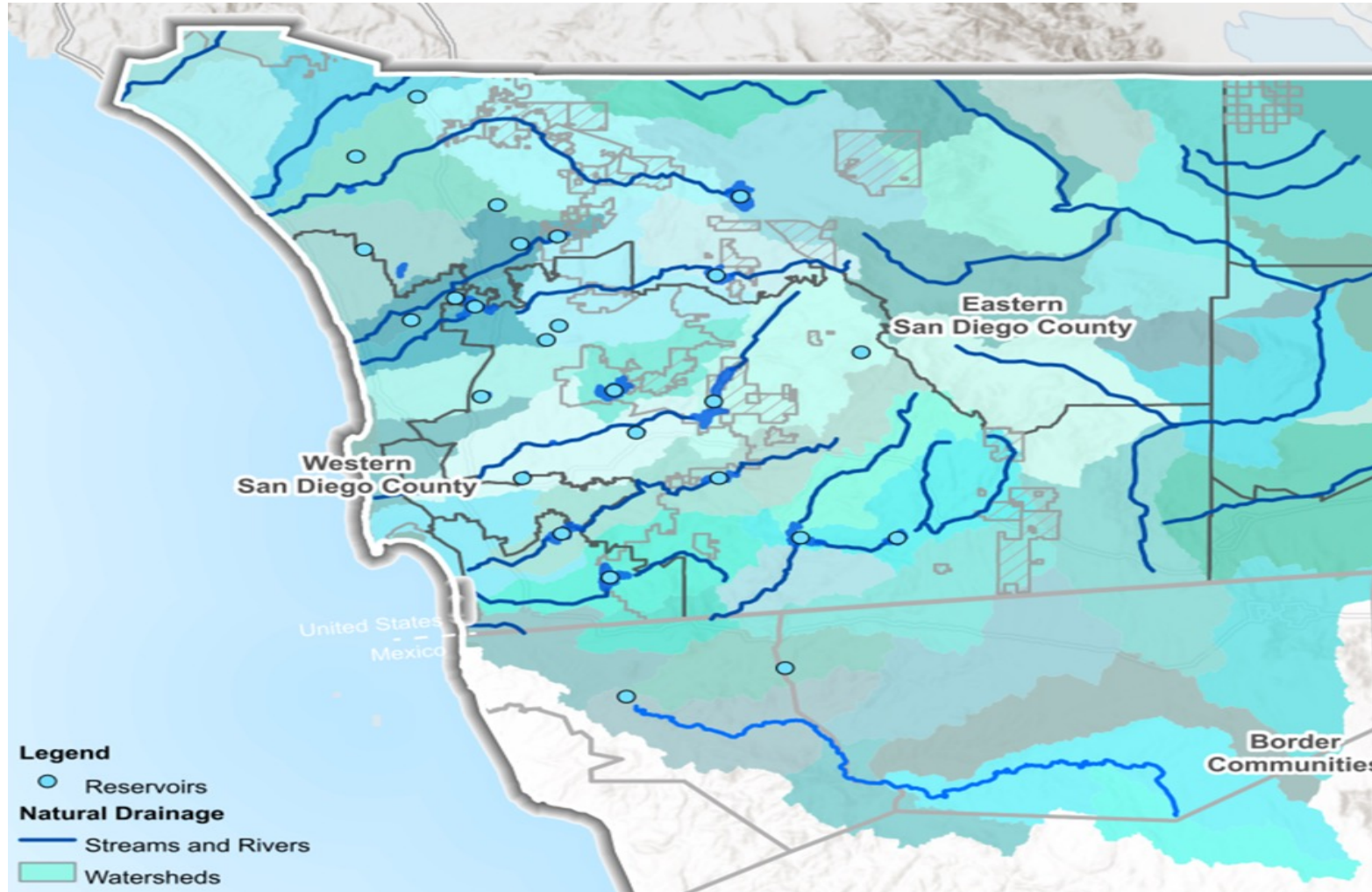


Key Learnings: Stormwater

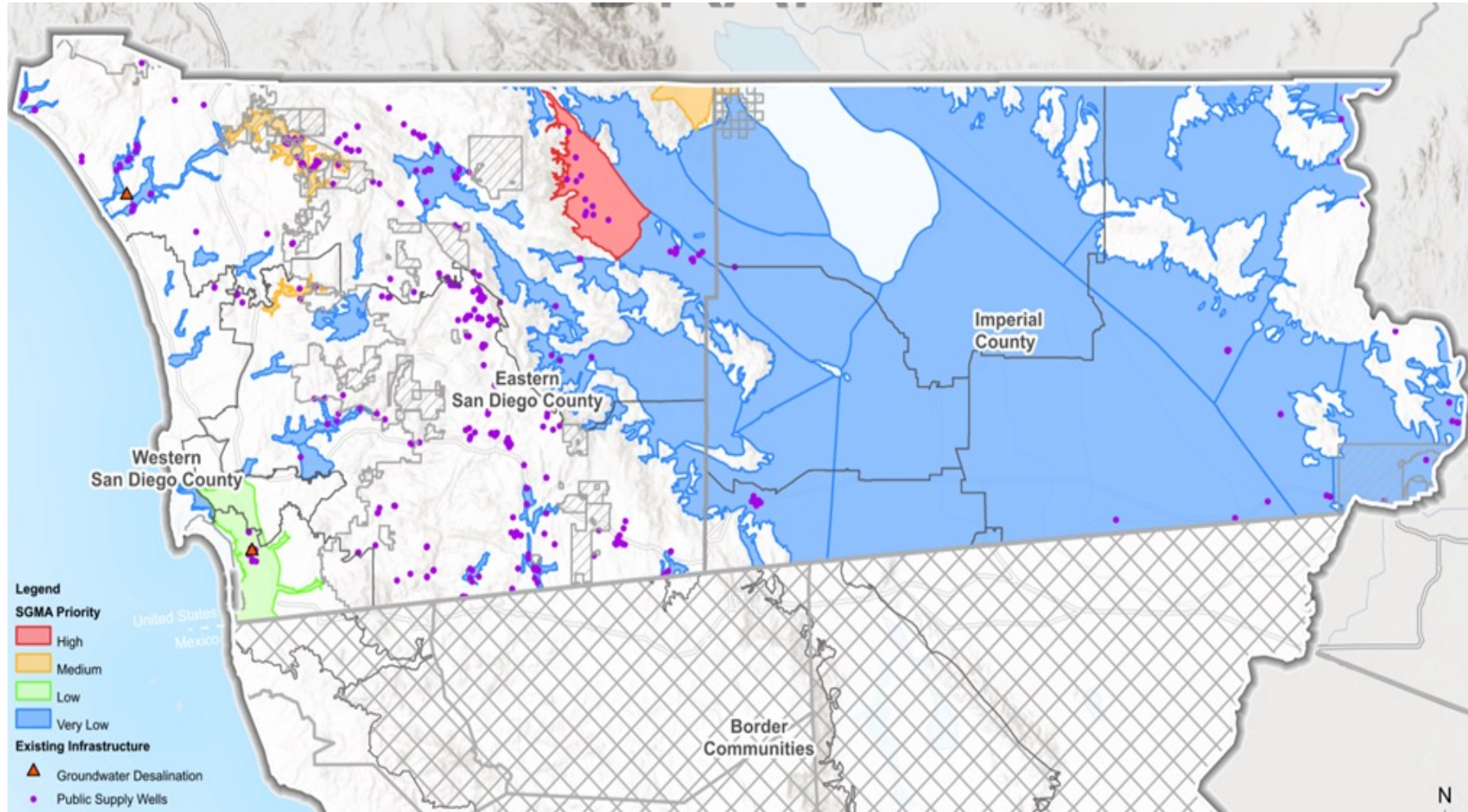
Key Learnings Shared by Geosyntec:

- One Water Reuse Nexus
- Stormwater Opportunities
- Stormwater & Private Development

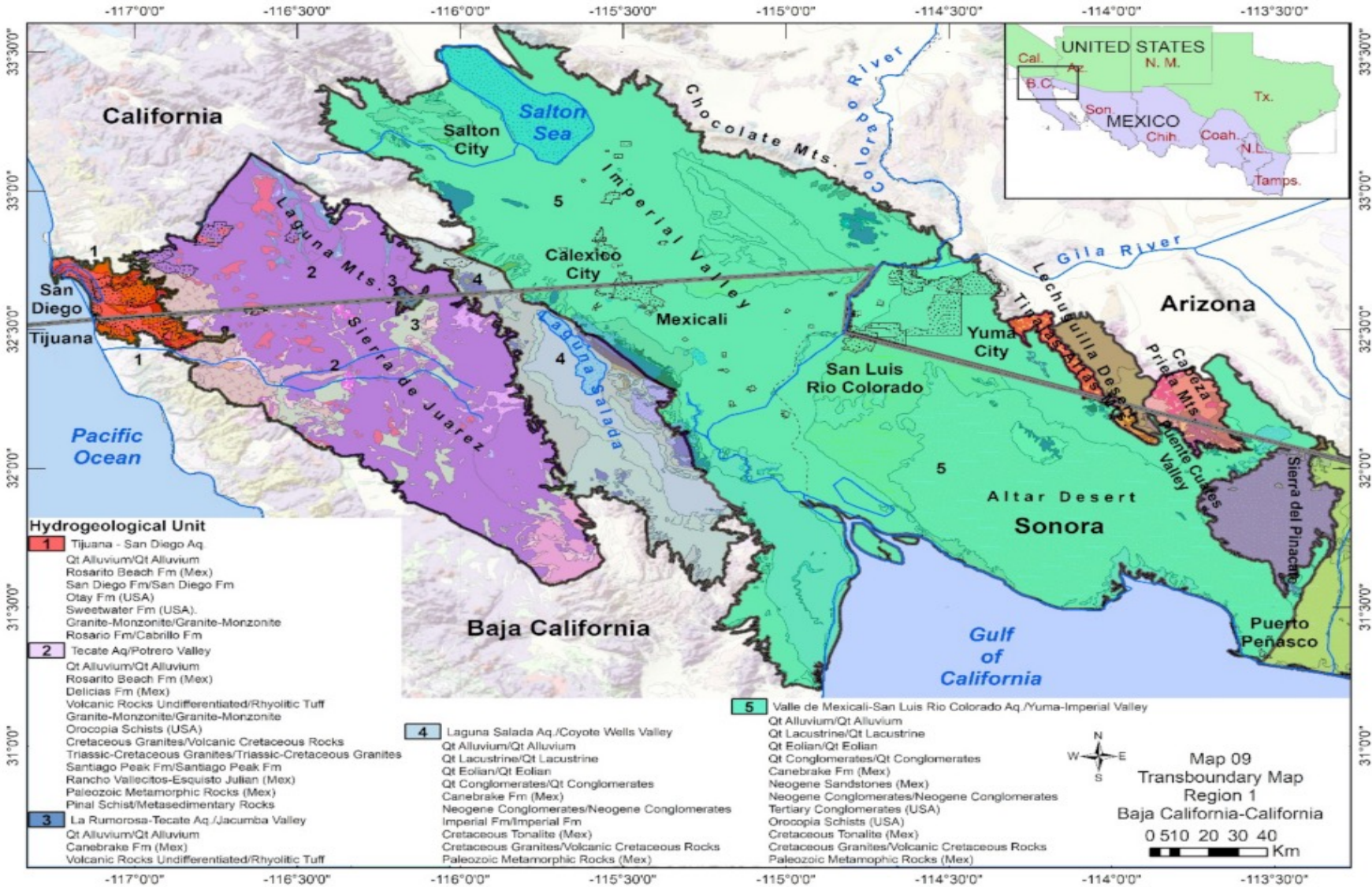
Key Learnings: One Water Reuse Nexus



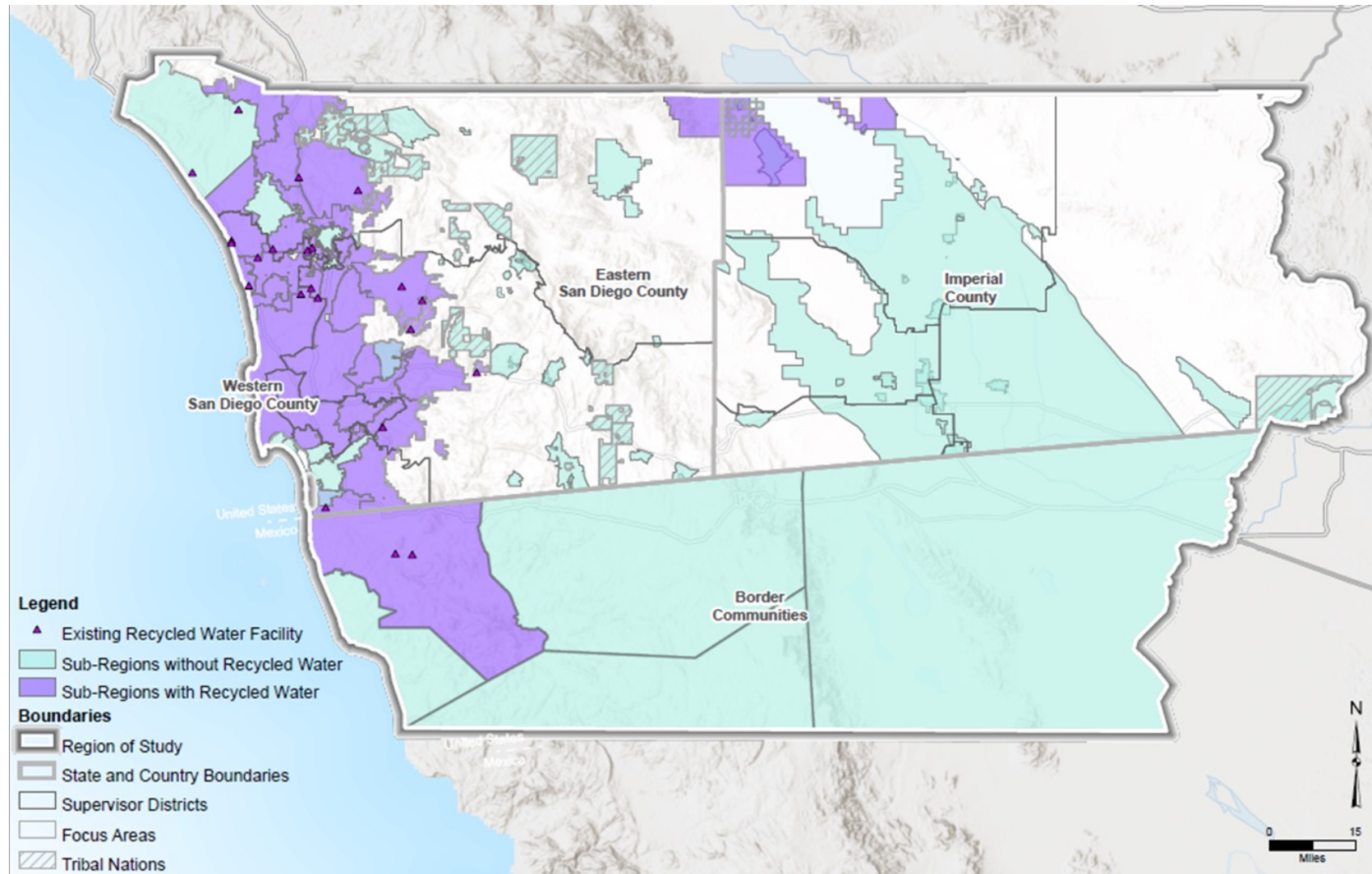
Key Learnings: One Water Reuse Nexus



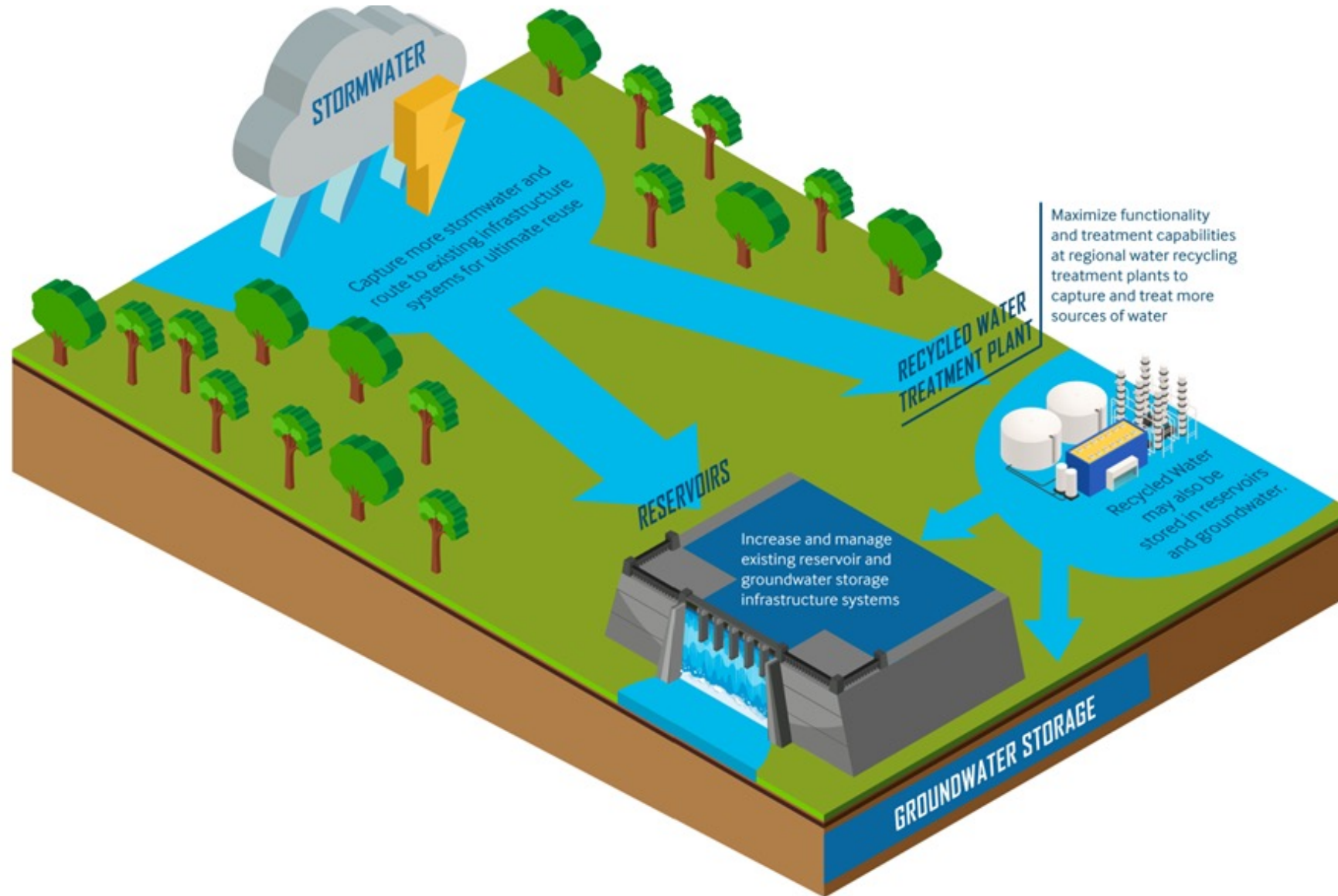
Key Learnings: One Water Reuse Nexus



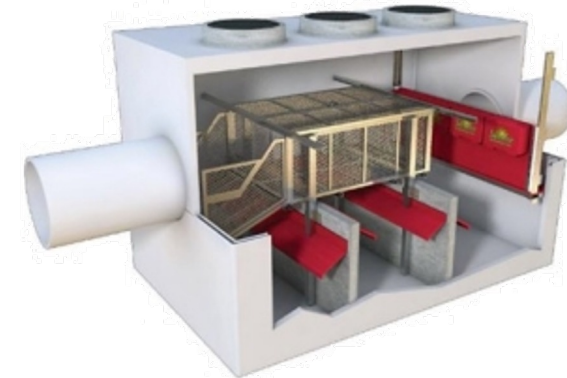
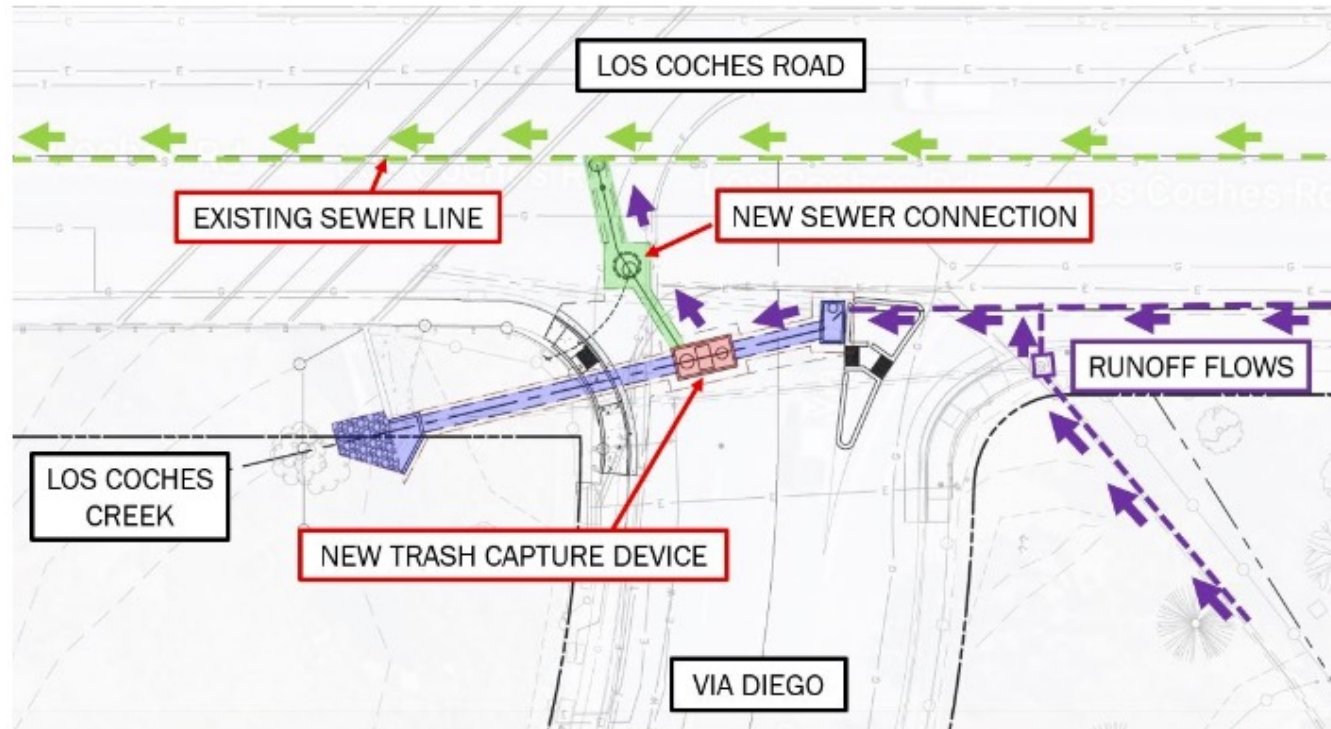
Key Learnings: One Water Reuse Nexus



Key Learnings: One Water Reuse Nexus



Key Learnings: Stormwater Opportunities



Key Learnings: Stormwater & Private Development



Example private development projects

Case Study: Stormwater Use at San Diego Airport Authority



“DID YOU
KNOW?”

Case Study: AC Condensate Reuse at San Diego Airport Authority



“DID YOU
KNOW?”

Break-out Groups: Stormwater (15 Minutes)



Conversation-starting questions:

1. How could stormwater collection and use benefit your property or community?
2. What kind of educational information or resources for stormwater collection and use would be helpful to you or your community?

Key Learnings: Greywater



Key Learnings Shared by Geosyntec:

- Lessons Learned & Opportunities
- Multi-Benefit Collection Systems
- Retrofit Opportunities



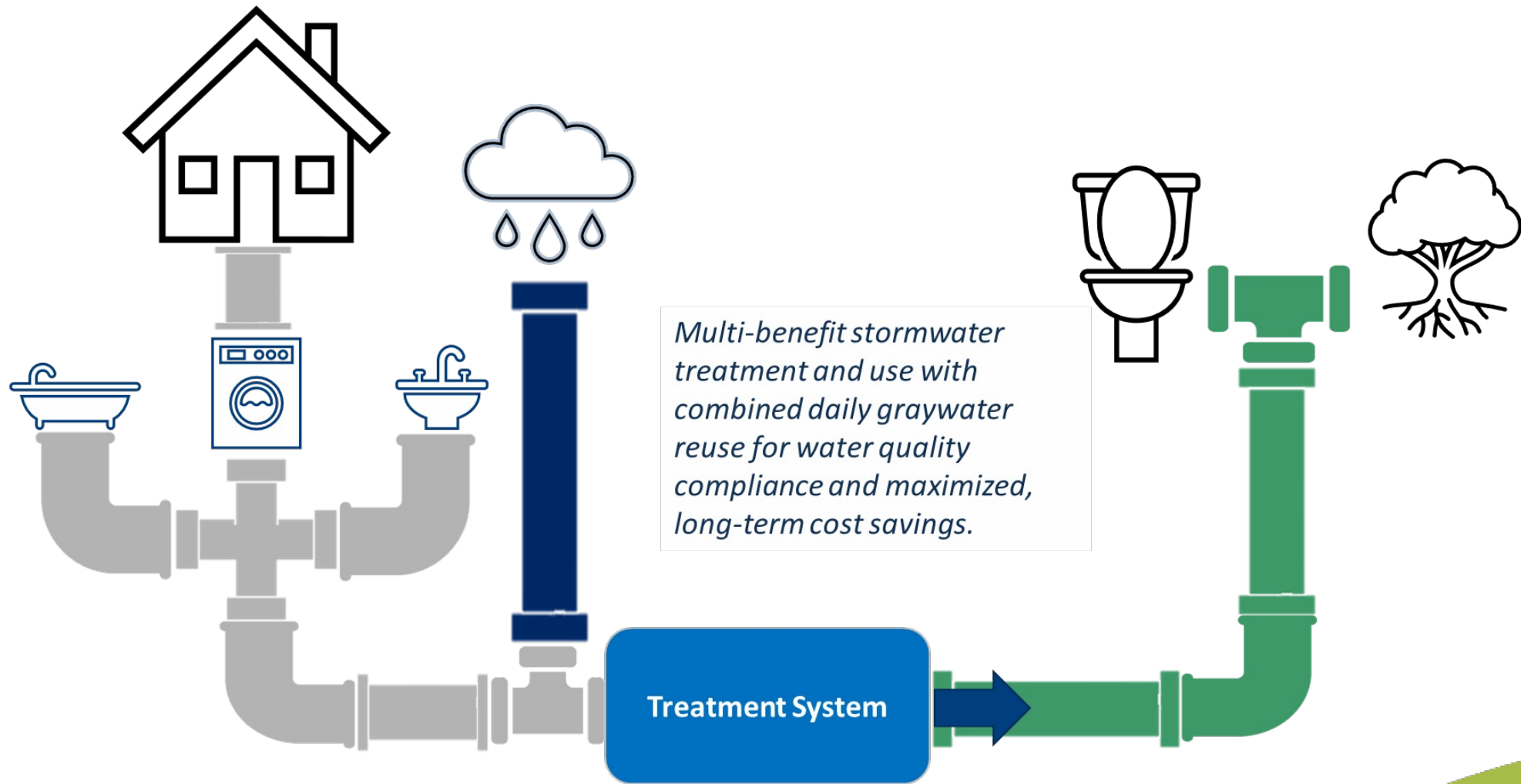
Report Findings, Lessons Learned & Opportunities



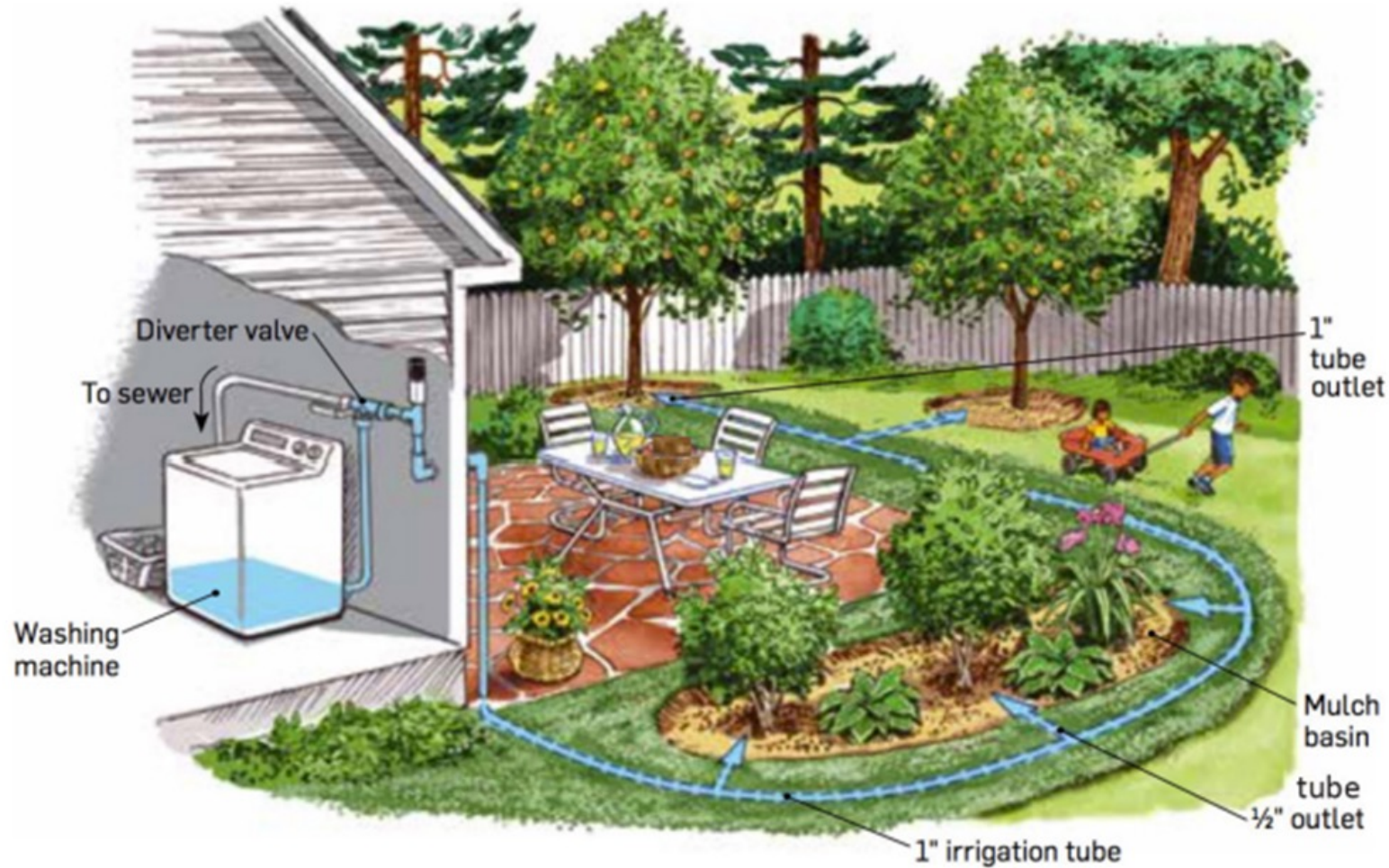
University of Colorado, Housing and Dining Services, Greywater Harvesting



Report Findings, Multi-Benefit Collection Systems



Report Findings, Retrofit Opportunities



© Steve Sanford in Greywater, Greenlandscape by Laura Allen

Case Study: Greywater



Brook Sarson

Residential Greywater Installation



Case Study: Greywater



Before



After – 4 Years Later

Estimated greywater
being produced at
this home in
Escondido:

630 gal/week
(32,000 gal/year)

Case Study: Greywater



Before



After – 2 Years Later

Estimated greywater flowing into this basin where a lawn used to be at a home in South Park, San Diego:

280 gal/week
(14,560 gal/year)

Case Study: Greywater



Before



After – 2 Years Later

Estimated potable water saved to irrigate this yard in University City:

348 gal/week
(20,000 gal/year)

Case Study: Greywater



Brook Sarson

catchingh2o.com

(619) 964 - 4838



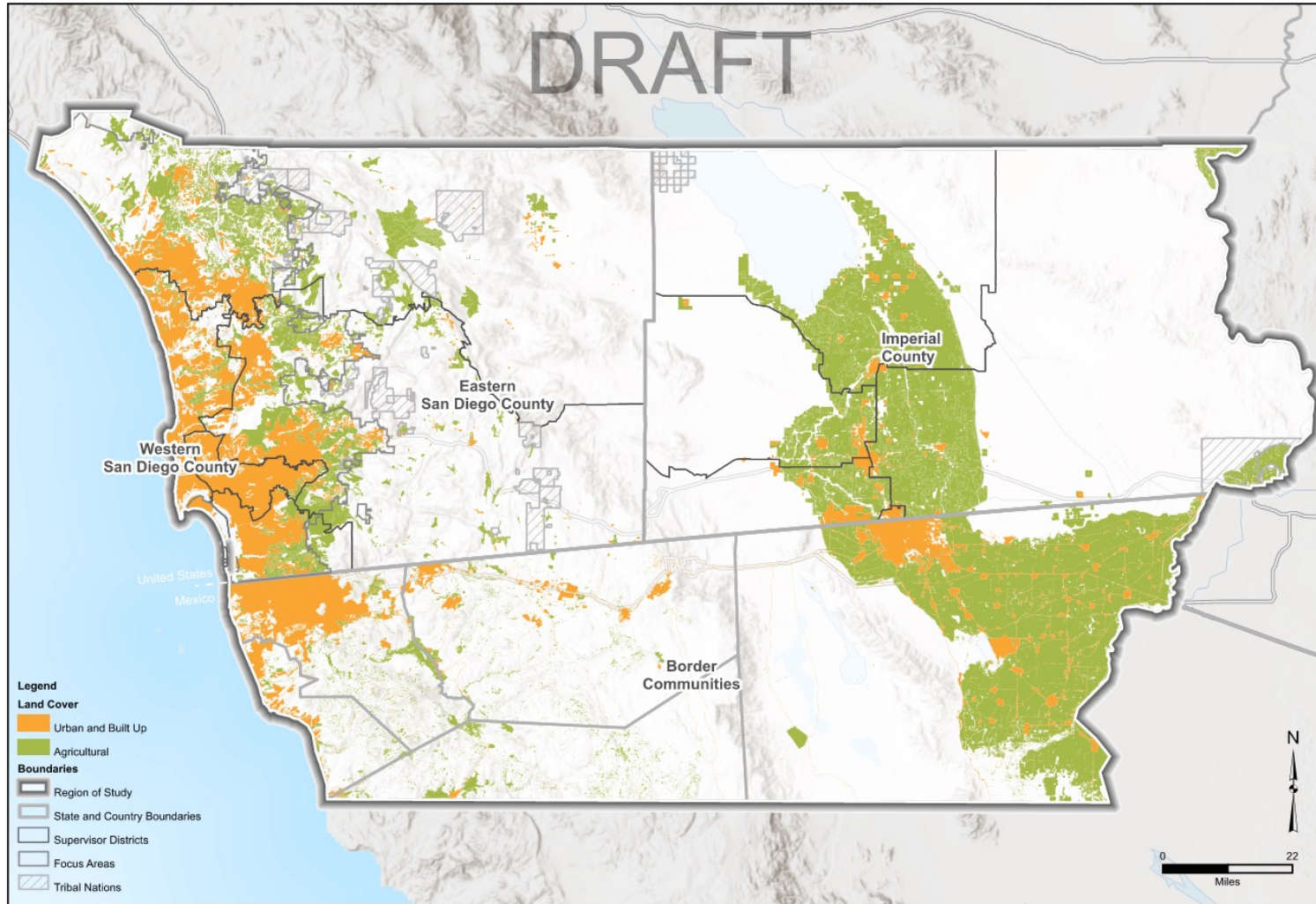
Break-out Groups: Greywater (15 Minutes)



Conversation-starting questions:

1. Where might the use of greywater benefit your home, business, or community?
2. How do you envision greywater contributing to increasing local water supply reliability?

Key Learnings: Water in Agriculture – Regionwide



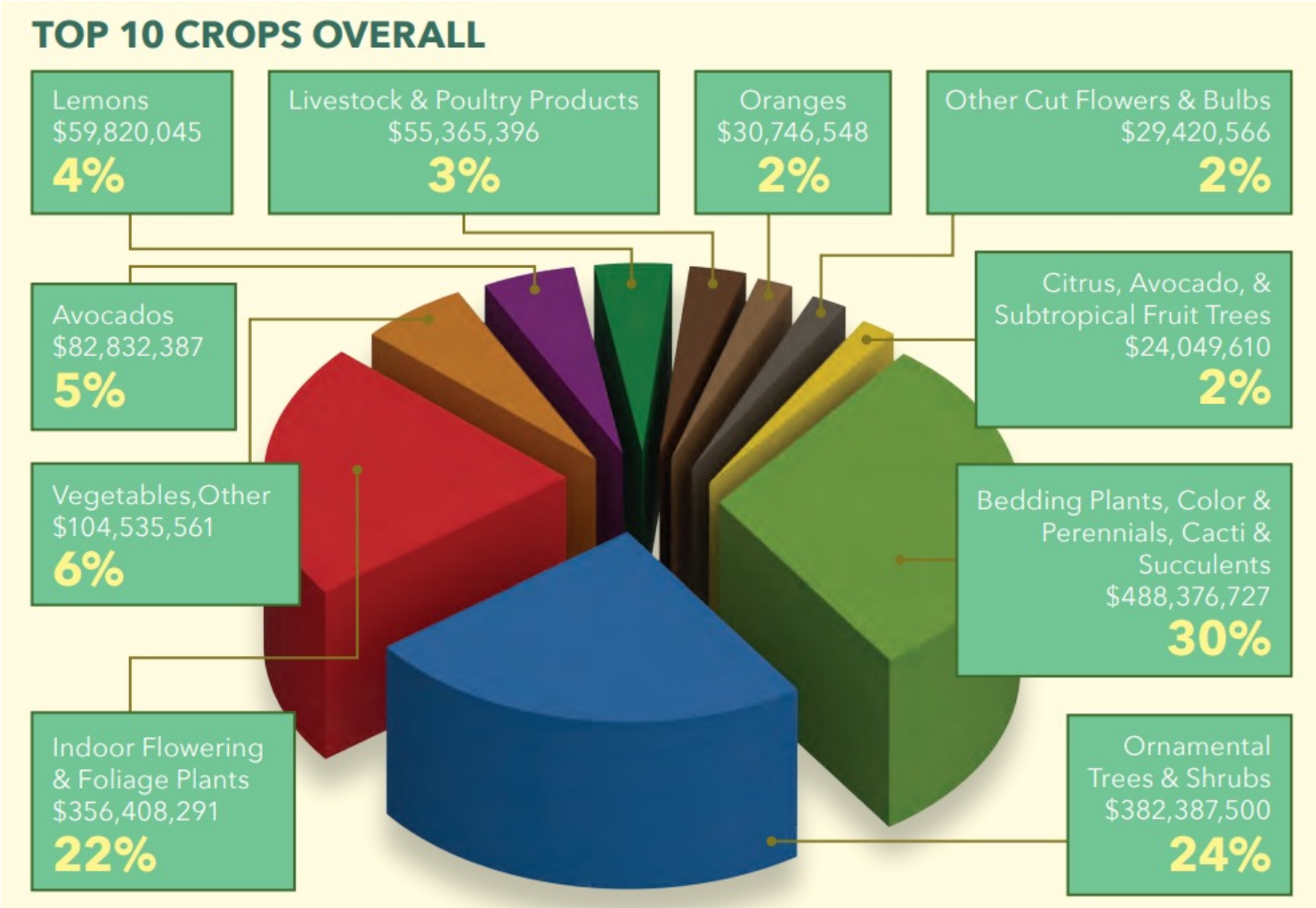
- Agricultural Diversity (crops, farm size, microclimate)
- Water (reliability, cost)
- Opportunities (water & crop diversification, conservation)
- Value of Agriculture (farmer livelihood, local food systems, natural climate solutions, regional sustainability)

Agricultural and Urban Land Cover (Draft Report Figure 3)





Key Learnings: San Diego County



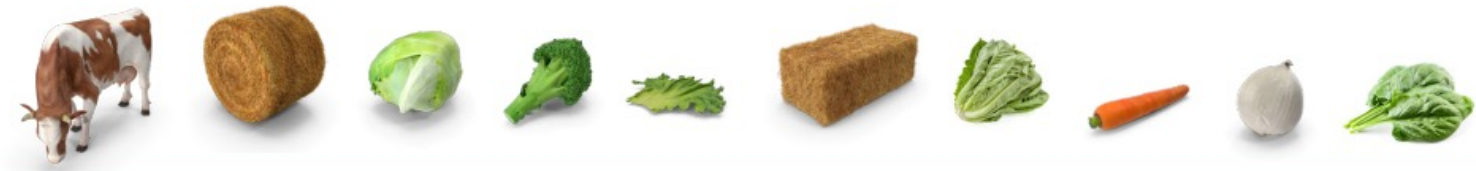
County of San Diego, 2021

- 220,000 acres of agricultural production area
- \$1.75B annually

Key Learnings: Imperial County

TOP 10 COMMODITIES

2021 Rank		2020 Rank		2021 Rank		2020 Rank	
1	Cattle	\$464,397,000	1	6	Bermuda	\$99,329,000	5
2	Alfalfa	\$251,683,000	2	7	Romaine Lettuce	\$64,068,000	6
3	Head Lettuce	\$225,394,000	9	8	Carrots	\$63,391,000	7
4	Broccoli	\$132,228,000	10	9	Onions	\$62,802,000	11
5	Leaf Lettuce	\$124,120,000	3	10	Spinach	\$62,362,000	15



- 500,000 acres of agricultural production area
- \$2.3B annually

Imperial County, 2021

Key Learnings: Tribal Nations



Source: Pauma Tribe website



- 20 federally recognized sovereign tribal nations and one non-federally recognized tribal government
- 186,000 acres

Key Learnings: Border Communities



- Production area is primarily in Mexicali
- Over \$200M annually

Agricultural Perspectives Shared with Us

Agricultural value includes food sovereignty and cultural uses to sustain indigenous societies (e.g., seed banks, acorns, basket-making, etc.).

Practical solutions are needed, tailored to the type, scale, and location of each individual farm.

Food equity is water equity.

Despite water use reductions and recent improvements in irrigation systems and techniques, prices still go up.

It can be challenging to rely on the agricultural water program in times of drought.

It is challenging to grow crops that are not viable for the climate, a sensible transition is needed.

Farming needs to be profitable, in terms of the cost of water, but also labor, fertilizer, etc. If farming is not profitable, the land can be sold and lost to agriculture forever.

Regenerative agriculture may be promising, as it can conserve water and improve the soil to reduce fertilizer demands.

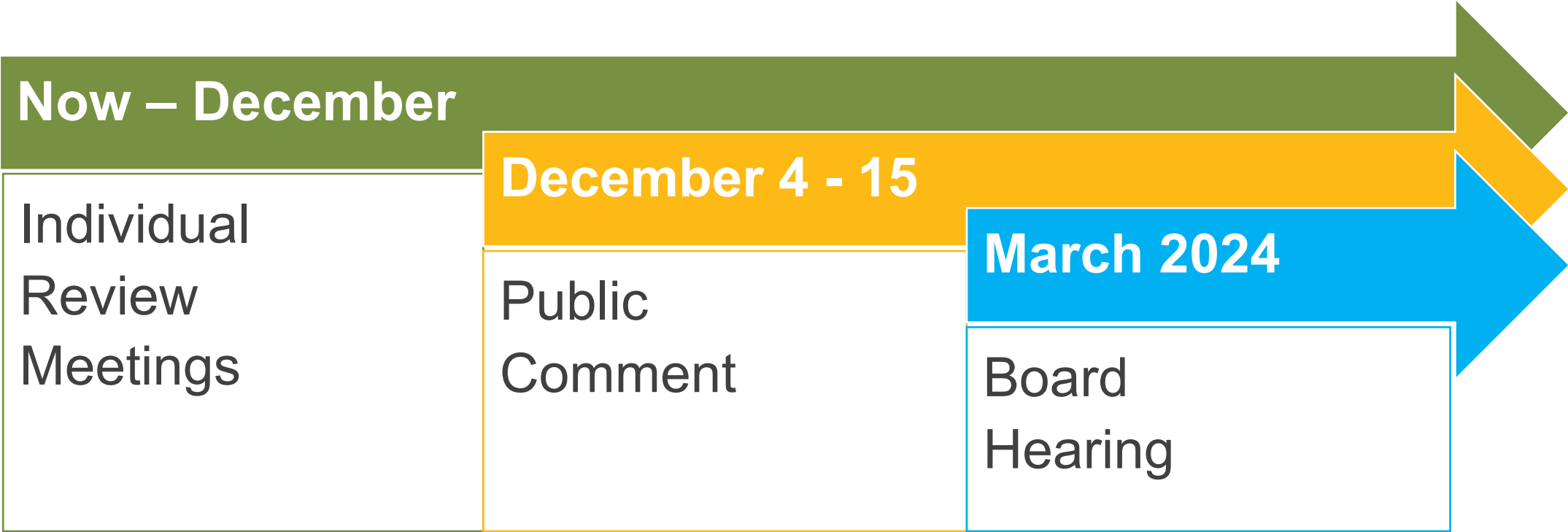
Break-out Groups: Water in Agriculture (15 Minutes)



Conversation-starting questions:

1. Given the significant value of agriculture for our region and using a water lens: What are some economic, social, and environmental opportunities for sustaining agriculture?
2. What do you envision for water use in agriculture in the Region, in 20 and 50 years from now?

Next Steps



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
hwww.sandiegocounty.gov/osej