

The background of the slide features a photograph of large, red industrial pipes with flanges and bolts, set against a backdrop of green trees and a clear sky. Overlaid on this image are several large, semi-transparent geometric shapes in orange, green, and blue. A dark horizontal band spans the width of the slide, containing the title text.

RECYCLED WATER OPPORTUNITIES



WATER RESILIENCE PORTFOLIO OBJECTIVES

- ✓ "RECYCLED WATER IS A SUSTAINABLE, NEARLY DROUGHT-PROOF SUPPLY when used efficiently, and the total volume of water California recycles today could triple in the next decade." [p. 17]
- ✓ "SUPPORT LOCAL AND REGIONAL AGENCIES to recycle or reuse at least 2.5 million acre-feet a year in the next decade" [p. 19]
- ✓ "INCREASE FINANCIAL CAPACITY TO SUPPORT RECYCLING, REUSE, AND WASTEWATER PROJECTS through the Clean Water State Revolving Fund and other state and local funding mechanisms" [p. 19]
- ✓ "UPDATE 20-YEAR-OLD 'PURPLE PIPE' REGULATIONS to eliminate outdated and overly prescriptive requirements in order to expand use of non-potable recycled water while protecting food safety and the environment." [p. 19]

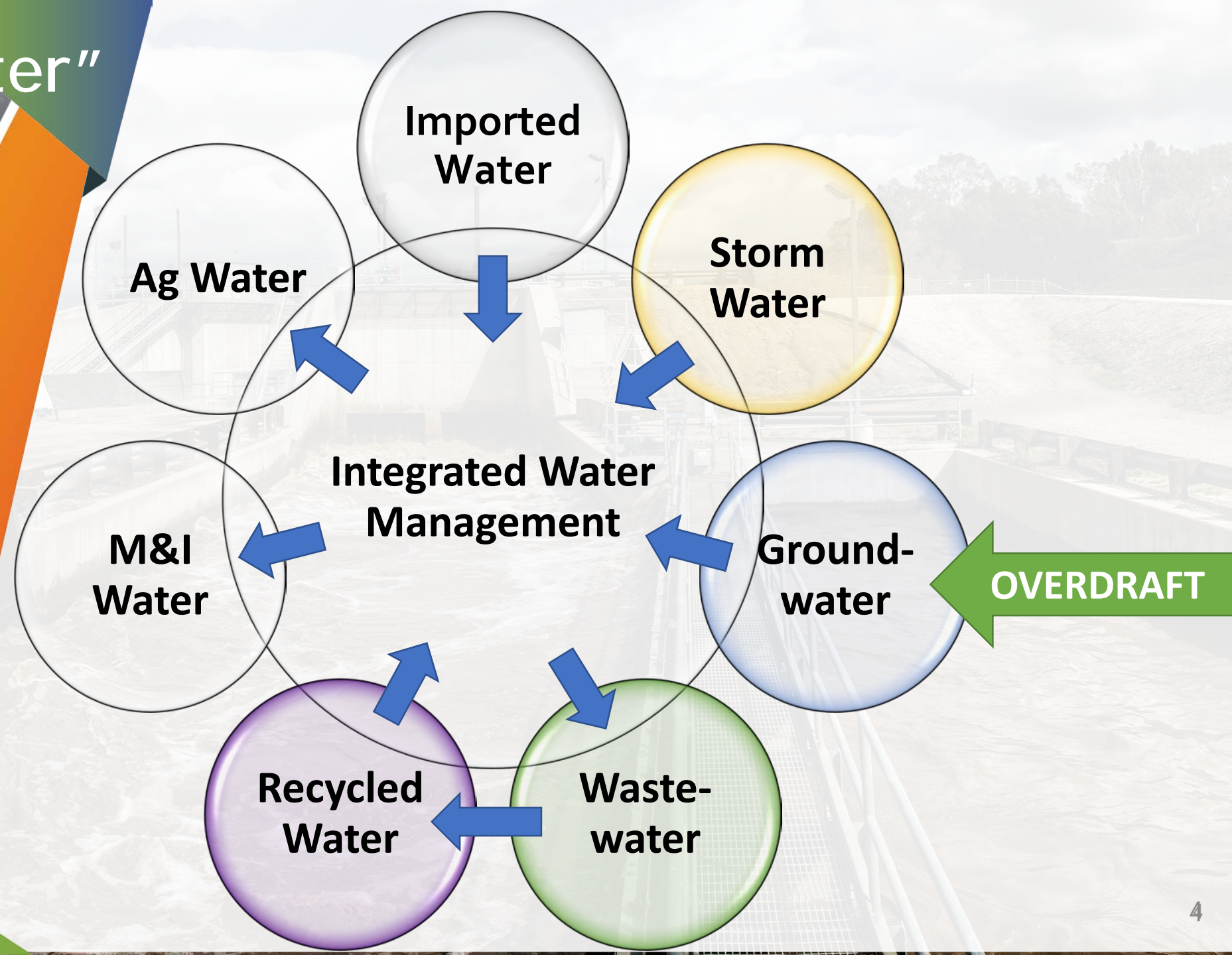


BACKGROUND/ SUCSESSES

Secured Conditional Approval for Recycled Water Distribution and Use in the Pumping Trough Pipeline System

Completed Preliminary Hydrogeological Assessment for Groundwater Replenishment Reuse Project at Saticoy Groundwater Recharge Basins

The "One Water" Concept



Types of Recycled Water



Secondary Treatment

- Removes
 - BOD
 - TSS
- May Remove
 - Nitrogen and Phosphorus



Tertiary Treatment

- Secondary Treatment+
- Removes
 - Residual Suspended Solids



Advanced Treatment

- Tertiary Treatment+
- Removes
 - Dissolved Solids



Types of Facilities Surrounding Oxnard Plain



Secondary Treatment

- **Oxnard WWTP**
(up to 31.7 mgd)



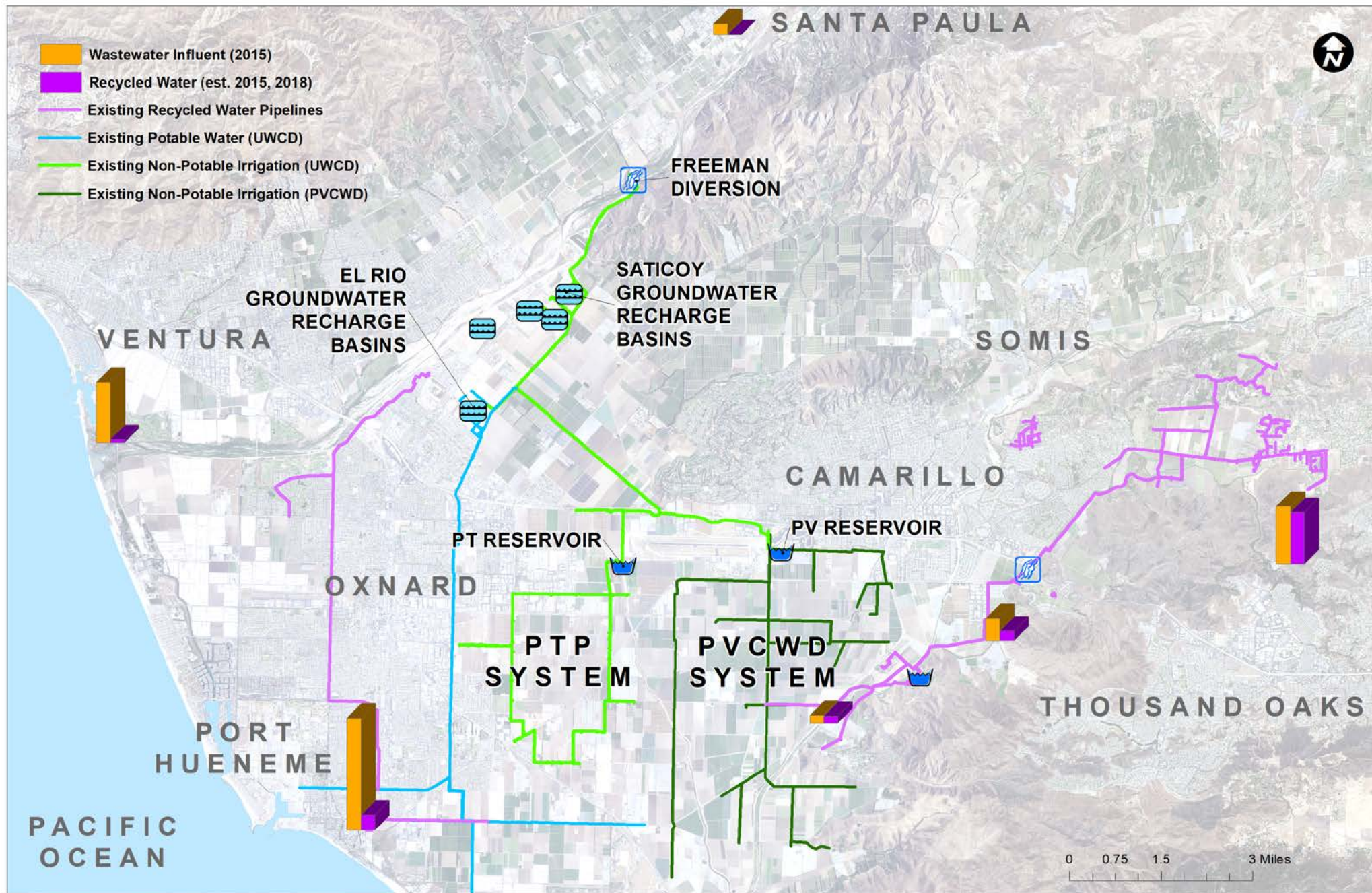
Tertiary Treatment

- **CamSan WRF**
(up to 7.25 mgd)
- **Camrosa WRF**
(up to 1.5 mgd)
- **Santa Paula WRF**
(up to 4.2 mgd)
- **Ventura WRF**
(up to 14 mgd)
- **Thousand Oaks HCTP**
(up to 14 mgd)



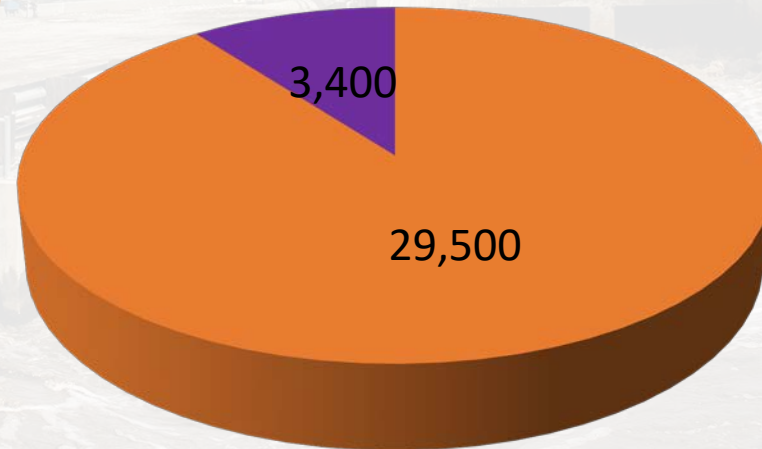
Advanced Treatment

- **Oxnard AWPf**
(up to 6.25 mgd)

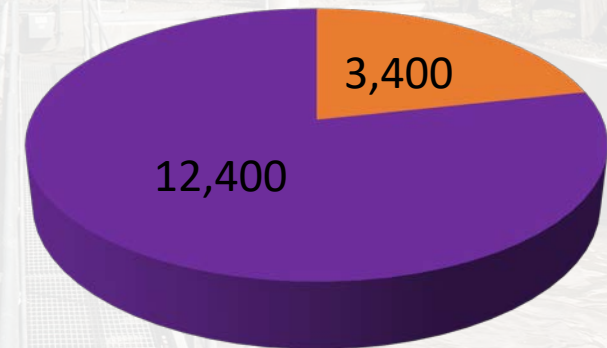


Estimated Recycled Water Opportunities Surrounding Oxnard Plain

North & West



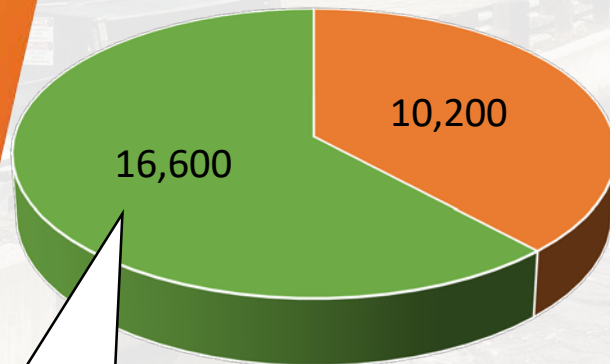
South & East



- WWTP Influent, Not Used (AF)
- Recycled Water Use (AF)

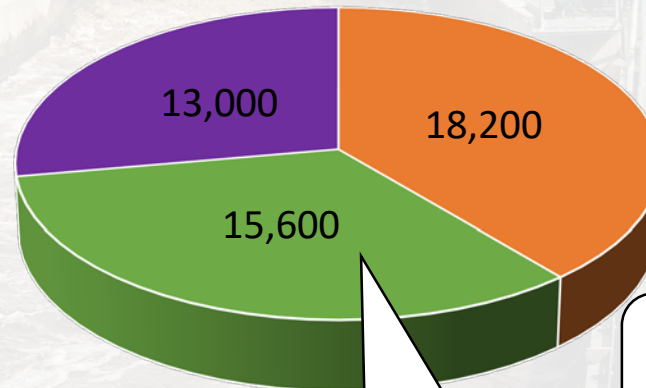
Existing Treatment Capacity Surrounding Oxnard Plain

Secondary Treatment



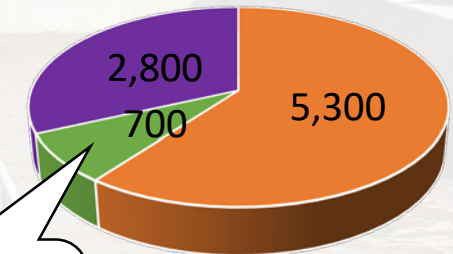
Few recycled water use applications, needs additional treatment

Tertiary Treatment



Available for many recycled water use applications

Advanced Treatment



Brine, not easily recovered

- Add'l. Permitted Capacity (AFY)
- Est. Influent, Not Used (AFY)
- Est. Recycled Water Use (AFY)

Recycled Water Distribution and Use in PTP System



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

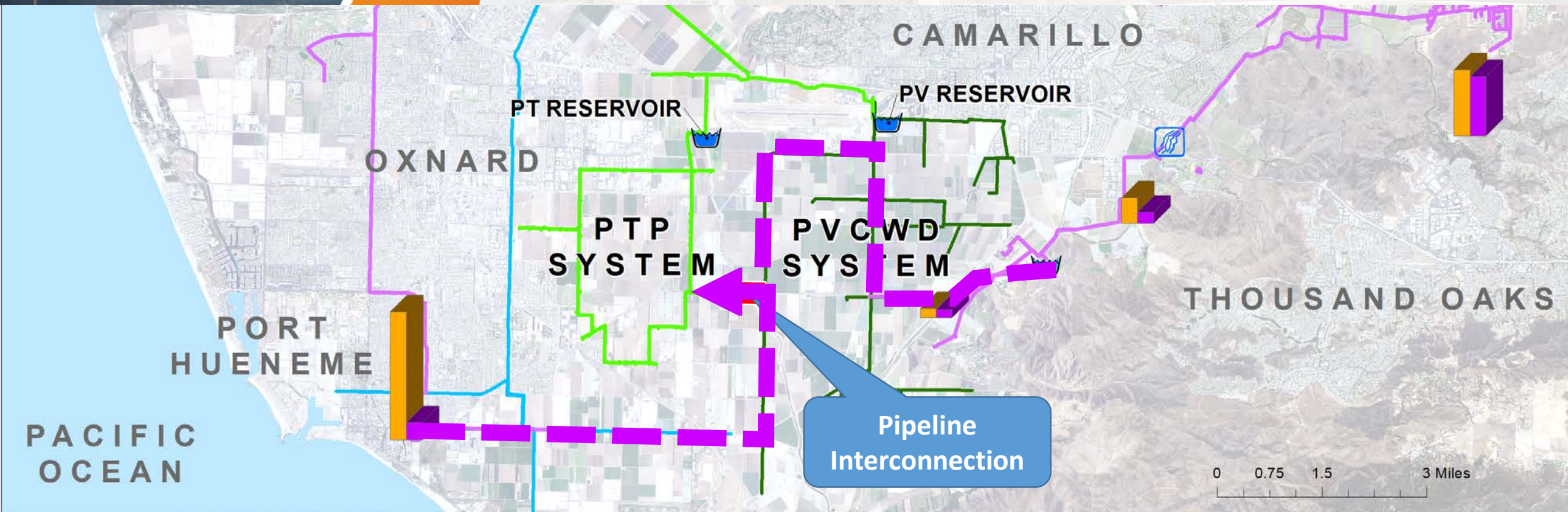
October 6, 2017

Mr. Greg Nyhoff
City Manager
City of Oxnard
300 West Third Street
Oxnard, CA 93030

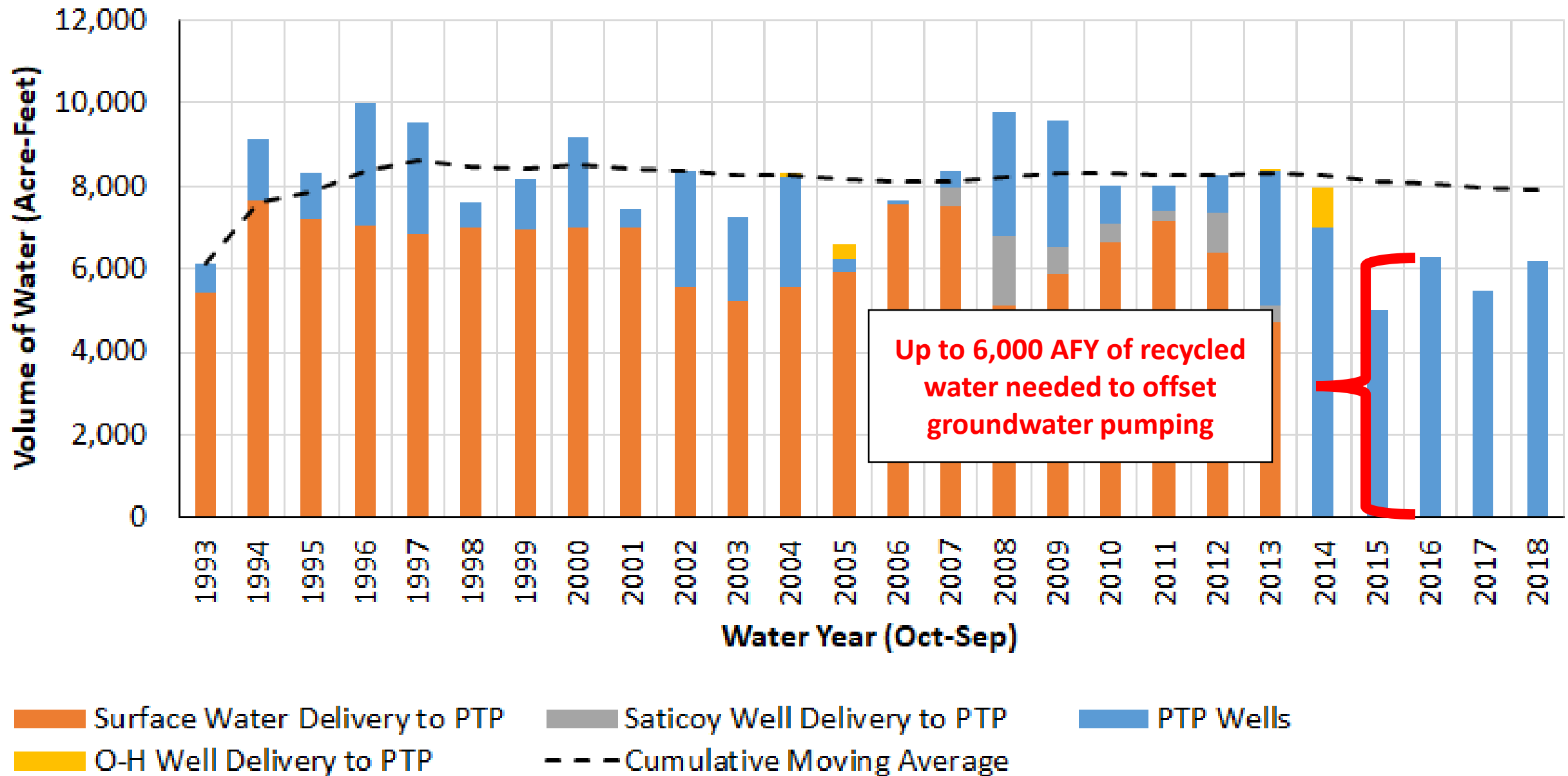
Mr. Anthony Emmert
Deputy General Manager
United Water Conservation District
106 North Eighth Street
Santa Paula, CA 93060

**CONDITIONAL APPROVAL OF THE ENGINEERING REPORT FOR RECYCLED WATER
DISTRIBUTION AND USE IN THE PUMPING TROUGH PIPELINE (PTP) SYSTEM**

Consider This Simple Project...

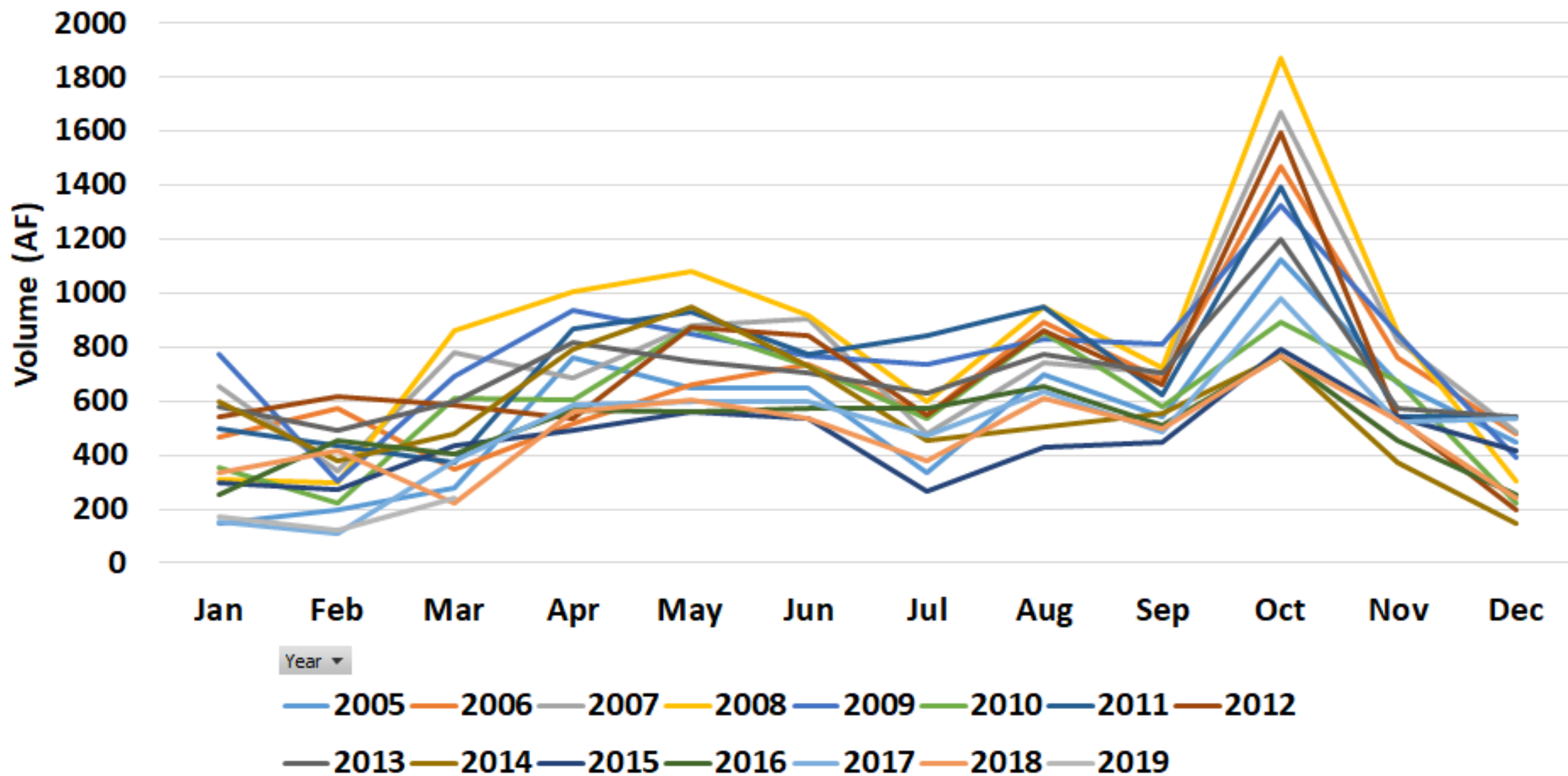


Pumping Trough Pipeline System Water Supply Sources (1993 to 2018)



Sum of Σ Supply

Monthly Demand in PTP System by Year



Month

STAKEHOLDERS



AGRICULTURAL
WATER USERS



**Municipal and
Industrial Users**



BENEFITS

OFFSETS GROUNDWATER PUMPING

PROVIDES A SUSTAINABLE AND
RELIABLE SUPPLY OF WATER

CAN PROVIDE IMPROVED WATER
QUALITY TAILORED TO FIT
USERS NEEDS



YIELD

UP TO 6,000 AF PER YEAR





CHALLENGES

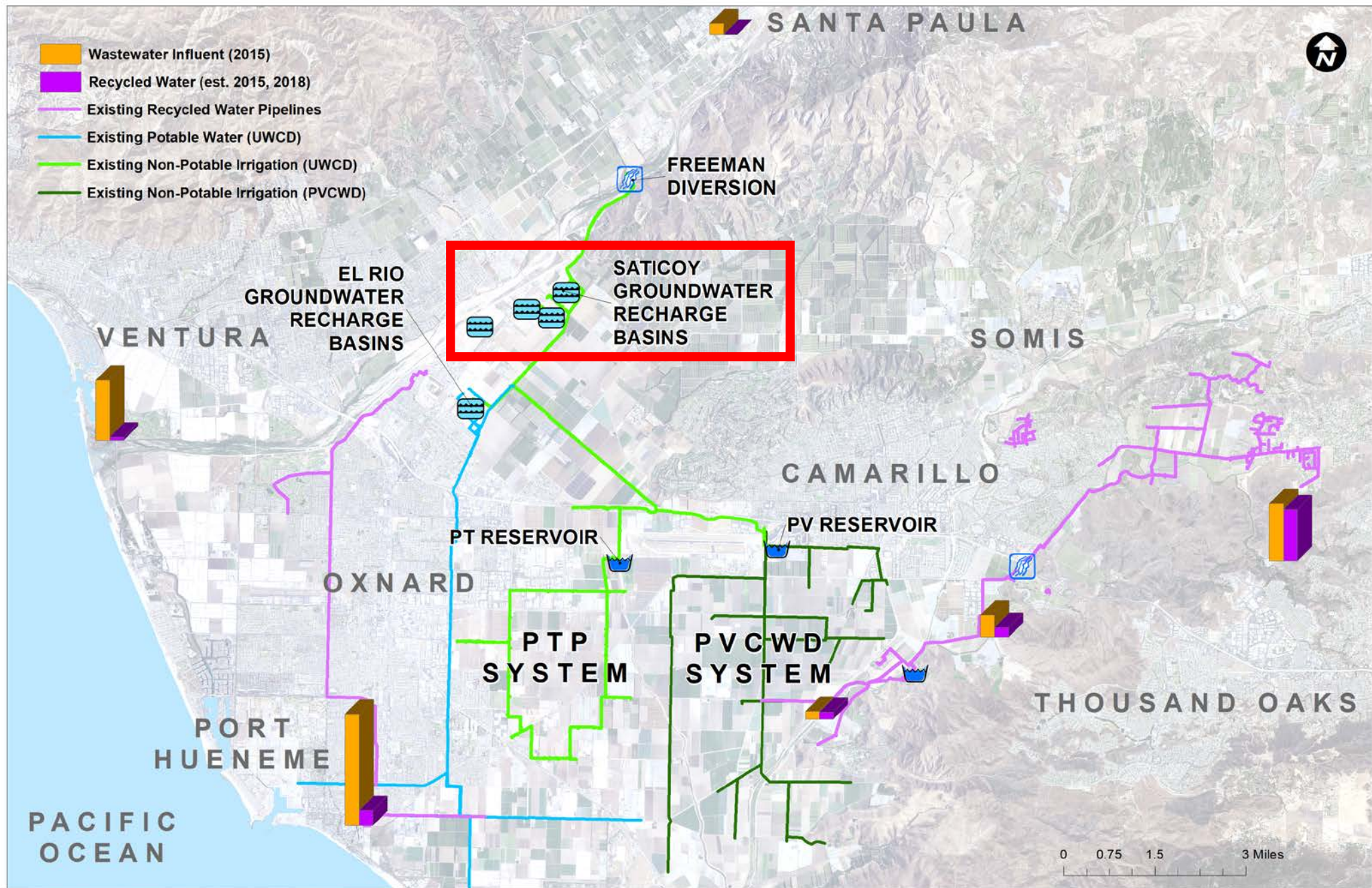
PRODUCT WATER WILL BE EXPENSIVE

COST SHARING REQUIRED

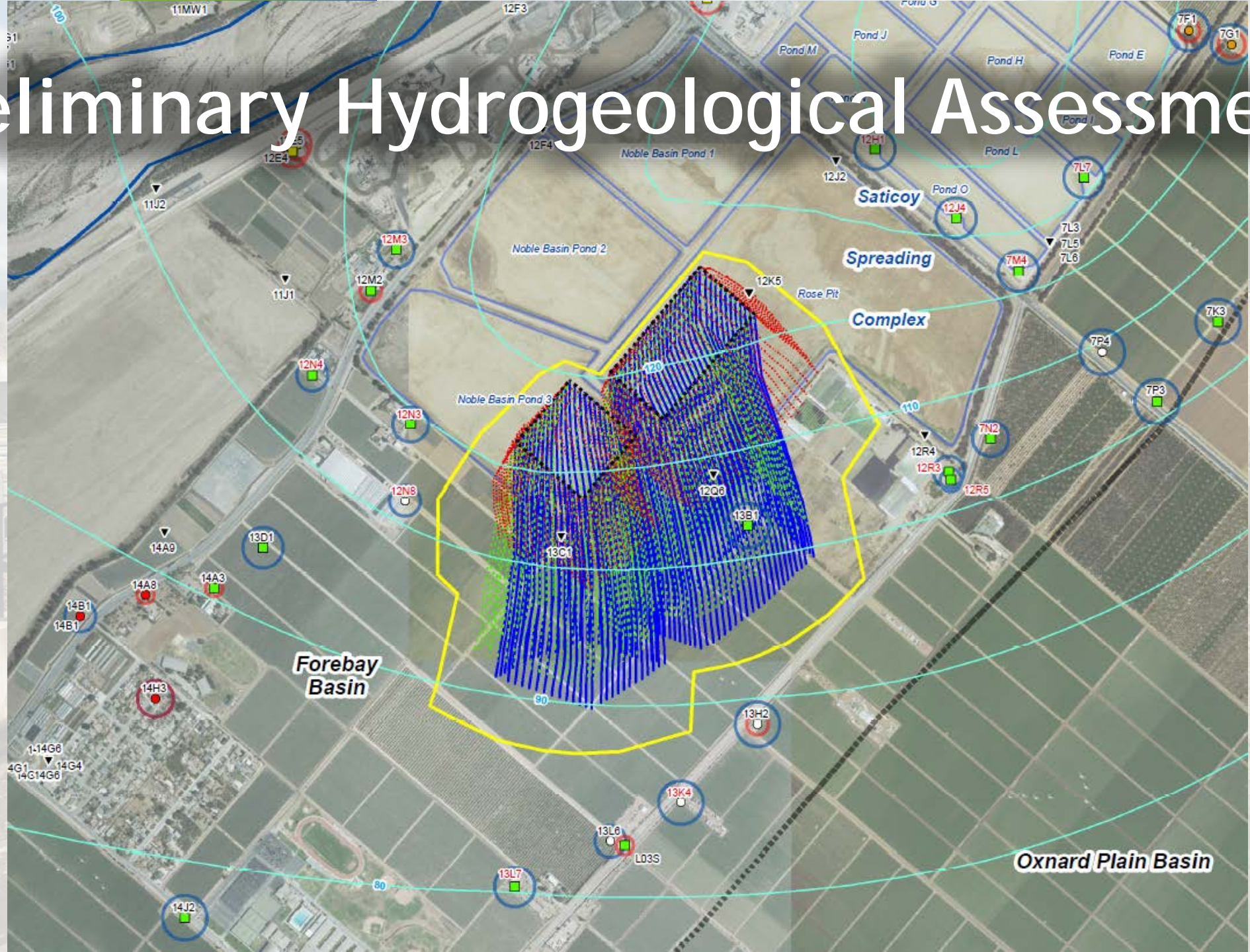
PERMITTING

WATER QUALITY AND BLENDED WATER
SOURCES

SEASONAL DEMAND VARIATIONS AND NEED
FOR STORAGE



Preliminary Hydrogeological Assessment





COLLABORATIVE OPPORTUNITIES

AGRICULTURAL USERS

- *Distribution and use of recycled in irrigation systems*

MUNICIPAL AND INDUSTRIAL USERS

- *Groundwater Replenishment Reuse in groundwater basins*

FOX CANYON GMA

- *Facilitate water transfers and exchanges*

WASTEWATER AND RECYCLED WATER AGENCIES

- *Develop partnerships and agreements*
- *Facilitate expansion of treatment and distribution systems*

Next Steps...

Need
Assessment



Recycled Water
Source
Identification

Collaborate,
Develop
Partnerships,
Work with
Regulators

Planning

Implementation