

SOUTH TAHOE PUBLIC UTILITY DISTRICT

Your Local Water and Wastewater Systems



Presentation to:

Tahoe Regional Planning Agency
Advisory Planning Commission – July 10, 2019

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Introduction

- PUBLIC Utility – This is YOUR system
 - No profit, No shareholders... the ratepayers are the owners!
- 5 Elected Board of Directors
 - Vision and Direction
 - Financial Control
 - \$40 Million Annual Budget (Water and Sewer Revenue)
 - \$150 Million 10-year Capital Improvement Program (CIP)
 - \$1.5 Billion in Assets
- 115 District Staff
 - Experience: Average 13 years
 - Challenging Mission in a Sensitive Environment
 - We must deliver 24 / 7 / 365
 - High-Performance Workforce



Introduction

- District's Commitment
 - Visible / Proactive partner in OUR community
 - Collaborate and Cooperate with Local and Regional Partners
 - Community approach
 - Safe, reliable, cost-effective Water, Wastewater, Recycled Water services
 - Create Awareness and Understanding
 - Provide Balance
 - System Needs
 - User Rates
 - Staff Capacity
 - Sustainable, Long-Term, Efficient, Reliable Systems



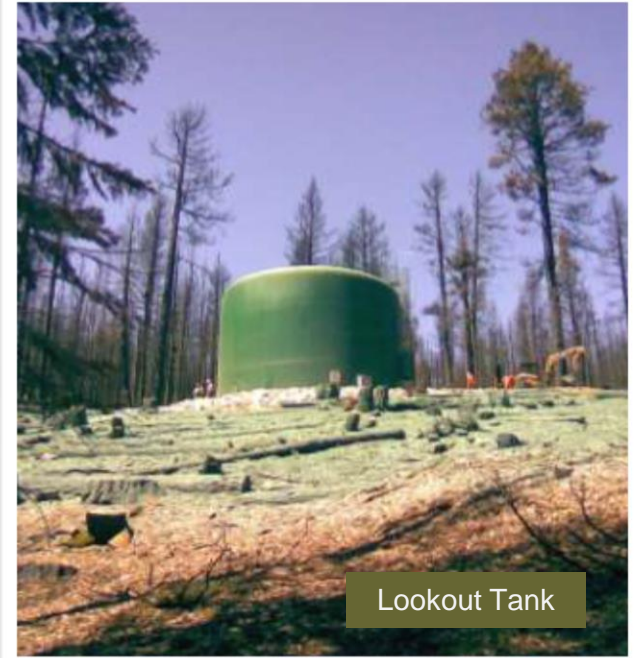
Purpose Today

Learn More and Provide Input on Your Water, Wastewater and Recycled Water Systems

- Overview – Water / Wastewater / Recycled Water
- Ongoing and Future Challenges

Water System

- 14,000 Service Connections
- 5,000 GPD Peak Day Production
- 13 Wells / 100% Groundwater
- 253 miles Waterlines
- 31 Pressure Zones
- 16 Booster Stations
- 19 Storage Tanks



Lookout Tank



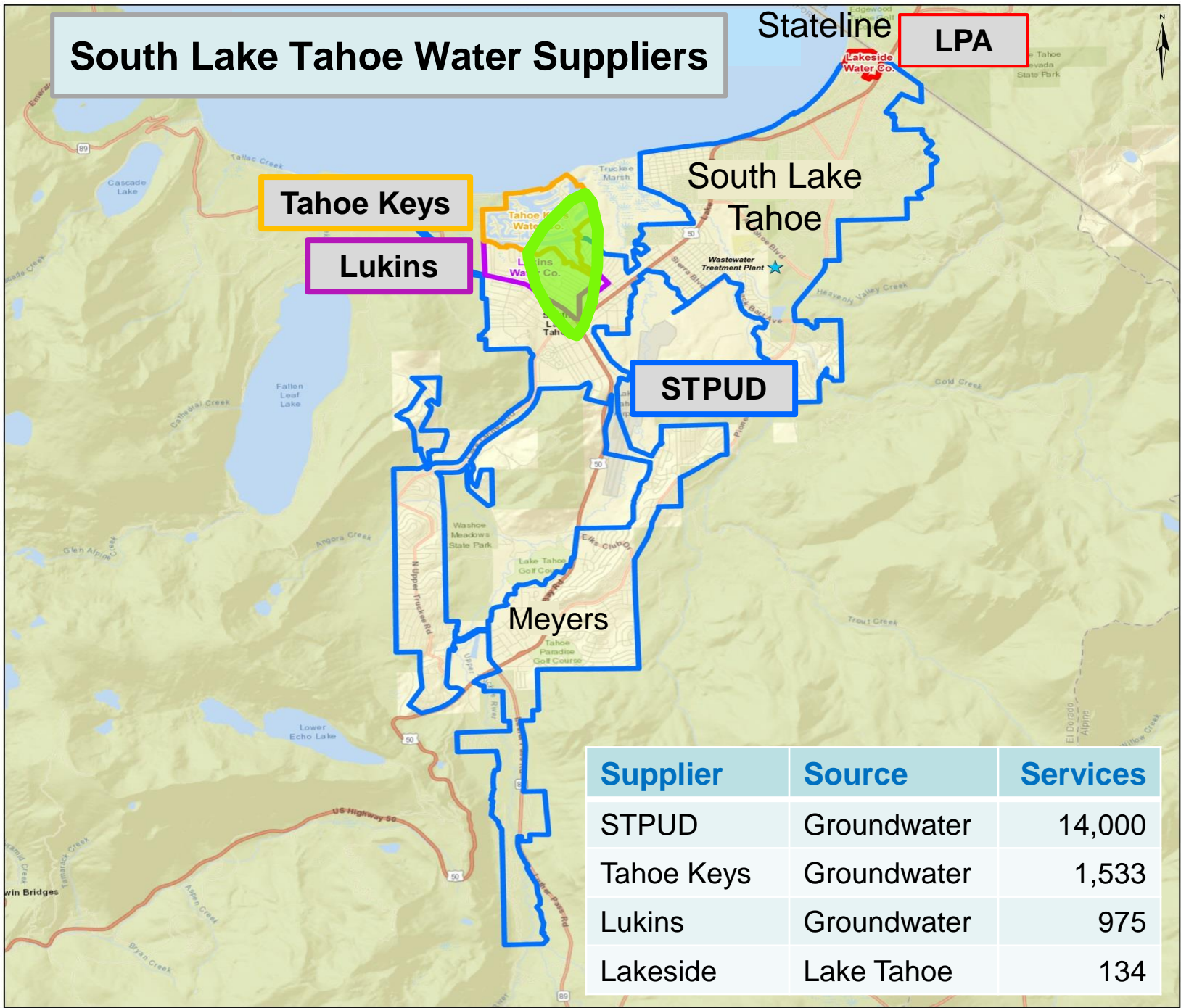
South Upper Truckee Well



Grizzly Mountain Booster Station



South Lake Tahoe Water Suppliers



Stateline **LPA**

Tahoe Keys

Lukins

STPUD

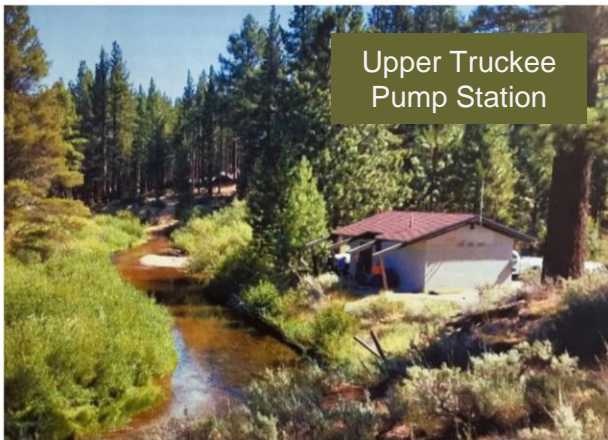
South Lake
Tahoe

Meyers

Supplier	Source	Services
STPUD	Groundwater	14,000
Tahoe Keys	Groundwater	1,533
Lukins	Groundwater	975
Lakeside	Lake Tahoe	134

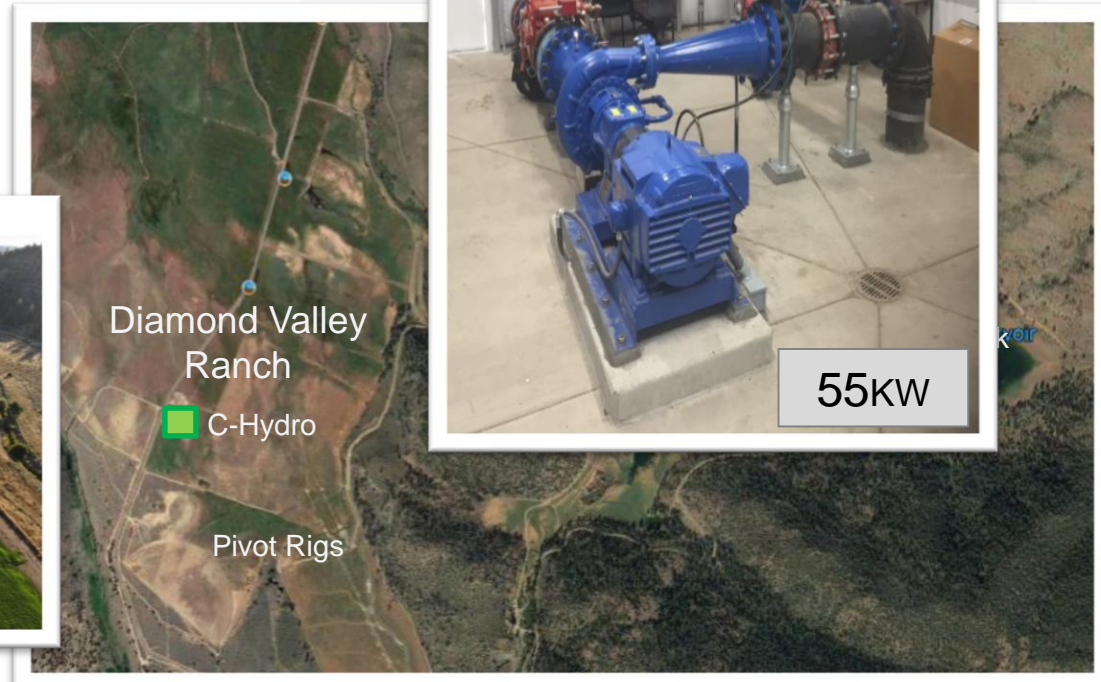
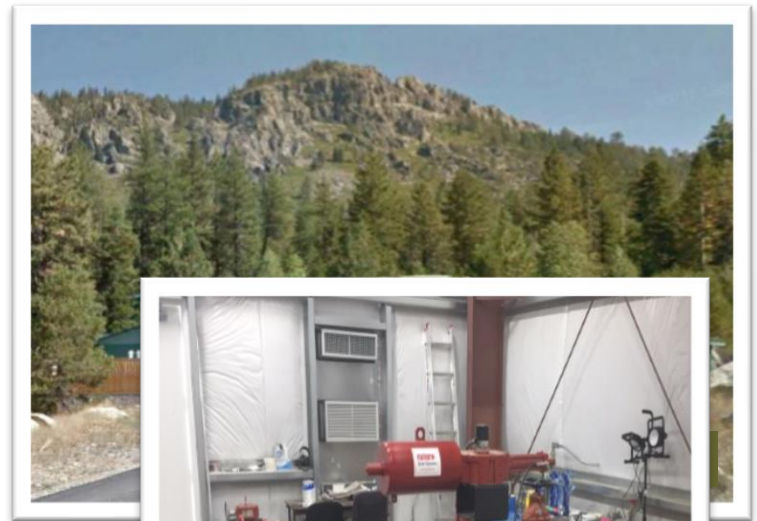
Wastewater System

- 17,800 Connections
- 312 miles Gravity Sewers
- 41 Pump Stations
- 19 miles Force Mains
- Treatment Plant
 - 3.5 MGD Average Flow
 - 18 MGD Peak Flow
- USEPA #1 Plant of the Year
 - 1994 and 2001
- Biosolids Management
 - 100% Recycled



Recycled Water System

- 26 miles Export Pipeline
- Luther Pass Pump Station
- Diamond Valley Ranch (DVR)
 - Two Dams, Two Reservoirs
 - Ditch Conveyance System
 - 3,000 acres Utilized
 - Pasture Irrigation / Grazing
 - Alfalfa Production
 - Hydroelectric Energy Recovery
 - 100% Recycled Wastewater





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Ongoing and Future Challenges

Community-Wide Fire Flow

- 10% of service area has insufficient fire flow and/or hydrant installations:
 - 100,000 LF waterlines
 - 200 hydrants
- Entire community is at risk
- Every hydrant matters
- South Shore Fire Security Task Force



Angora Fire

Ongoing and Future Challenges

Aging Assets – Water System

- System 50 to 60 years old
- Replacement or rehabilitation
 - Waterlines
 - Wells, Tanks
 - Booster Stations
- Asset Management Program
 - Identify risk of failures
 - Extend useful life
- Implement Timely Improvements
 - Balance / minimize costs
 - Reduce leaks
 - Save water and energy
 - Avoid expensive emergencies
 - Maintain levels of service



Old steel waterlines

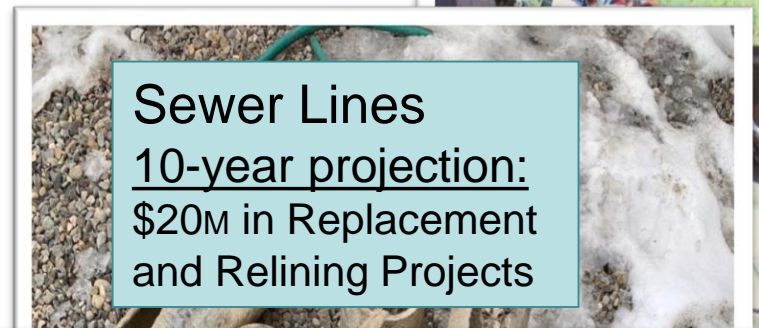


Aging infrastructure

Ongoing and Future Challenges

Aging Assets – Wastewater Collection System

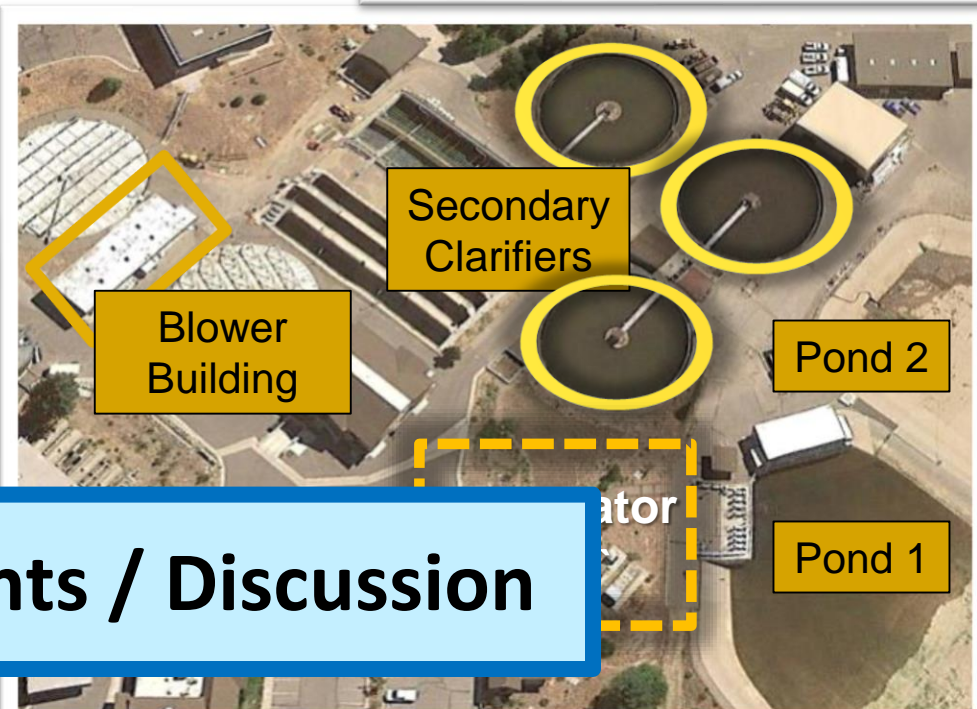
- System 50 to 60 years old
- Approaching / exceeding useful life
- Replacement or rehabilitation
 - Sewer lines
 - Manholes
 - Force mains
 - Pump stations
- Asset Management Program
 - Identify risks of failure
 - Extend useful life
- Implement Timely Improvements
 - Minimize costs over time
 - Limit water intrusion
 - Save energy, process costs
 - Avoid expensive emergencies
 - Minimize failures, sewer spills



Ongoing and Future Challenges

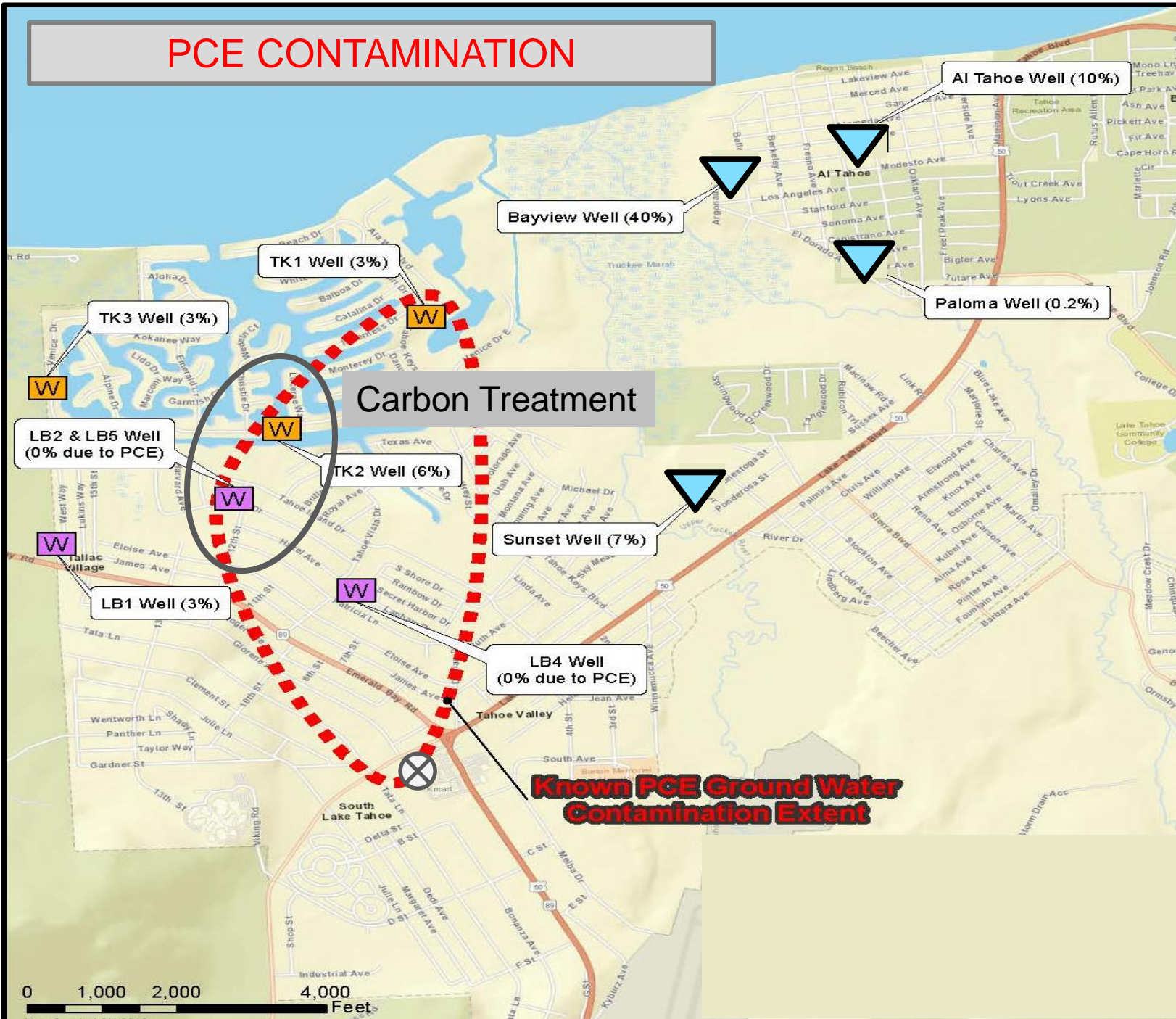
Aging Assets – Wastewater Treatment Plant

- System Components 30 to 60 years old
- Rehabilitation and improvements
 - Secondary clarifiers
 - Ballast ponds
 - Blower system
- Asset Management Program
- Energy efficiencies
- Avoid emergencies
- Protect the environment



Questions / Comments / Discussion

PCE CONTAMINATION



Carbon Treatment

Known PCE Ground Water Contamination Extent

0 1,000 2,000 4,000 Feet