

Challenges of Water Recycling

State of the Estuary

September 18, 2015

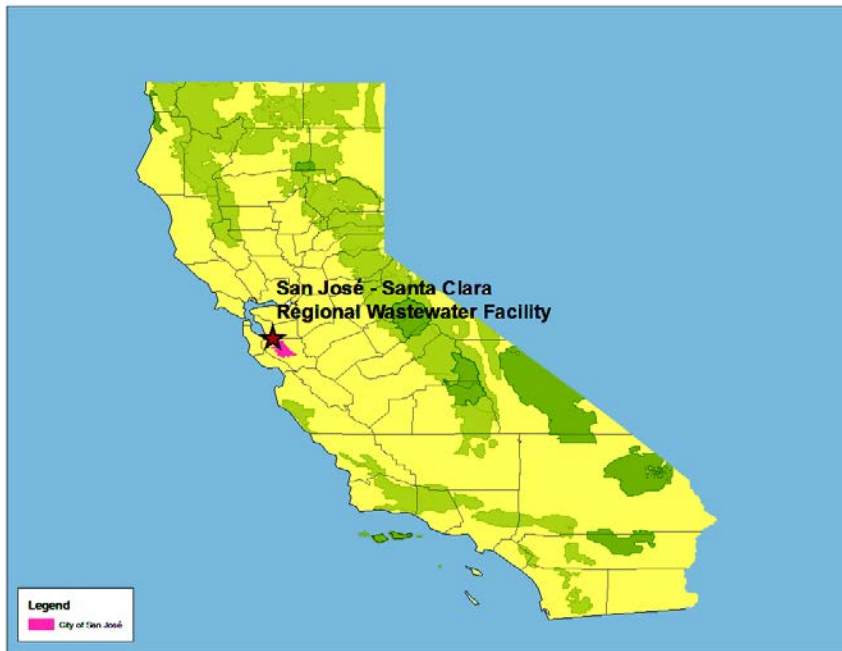
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Environmental Services

*Delivering world class utility services and programs
to improve our health, environment and economy*

San José-Santa Clara Regional Wastewater Facility



Treatment Eras

1957-1964: primary treatment

1964-1979: secondary treatment

1979-1997: tertiary/advanced treatment

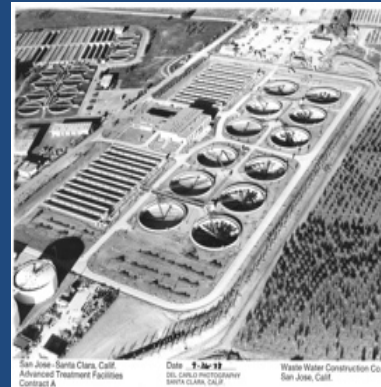
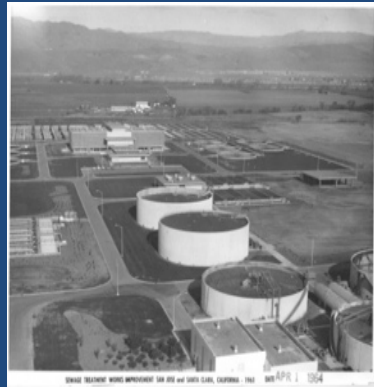
1997-2013: Biological Nutrient Removal (BNR)

1956

1964

1979

1997



State Board Order WQ 90-5

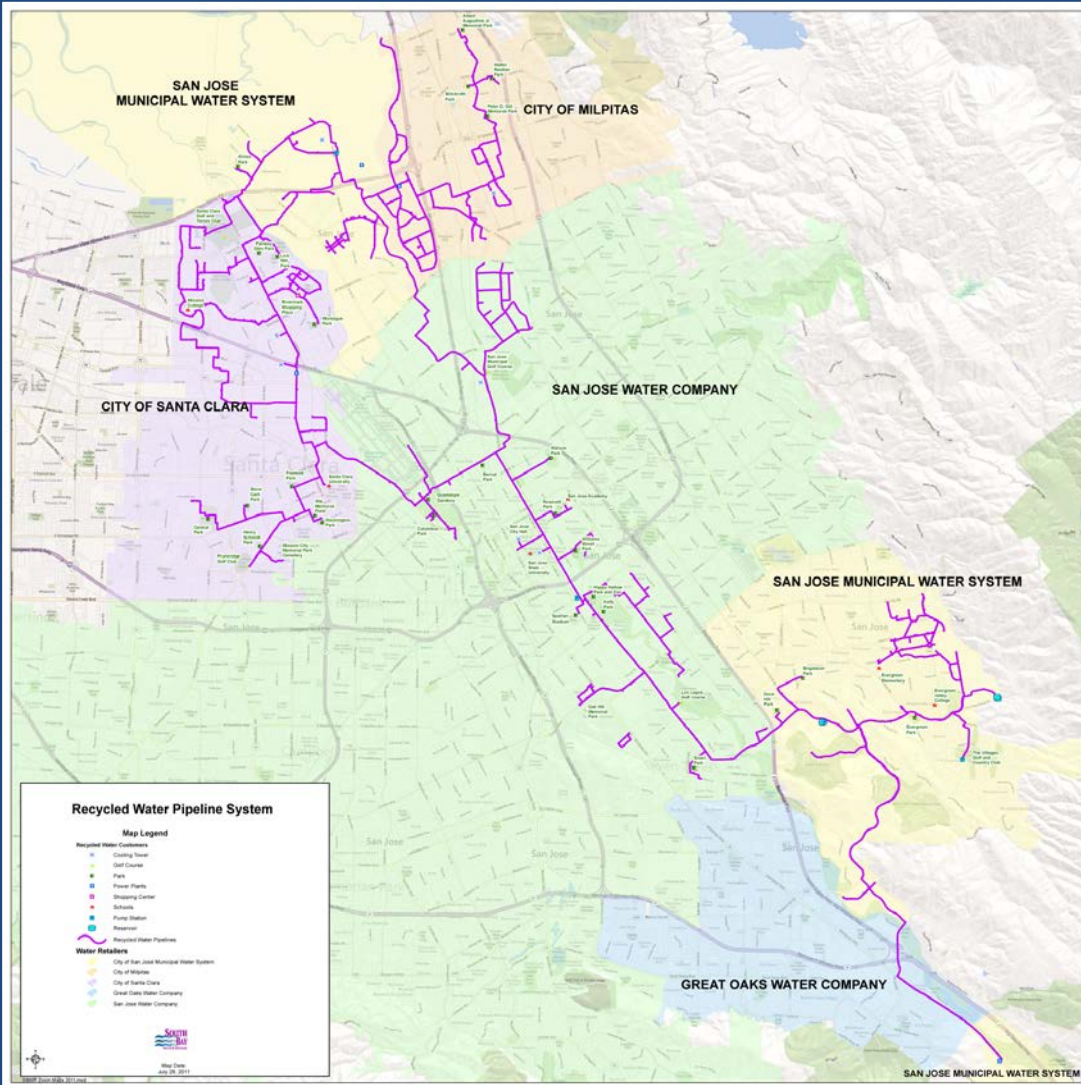
Three major concerns in 1990:

- ❑ Nutrients (nitrogen and phosphorus)
- ❑ Metals, particularly copper and nickel
- ❑ Conversion of salt marsh to fresh.



Quick Facts

- Established in 1997
- 785 Customers
 - Irrigation 63%
 - Industrial 37%
- Average 11,000 AFY
 - Annual distribution
- 3 Reservoirs
 - 9.5 MG storage
- 5 Pump Stations
- 142 Miles Pipeline
 - max 54 MGD



South Bay Water Recycling Program



Strategic Plan Guiding Principles

Near Term (2015-2020)

- Recognize no wastewater driven need to expand SBWR
- Achieve cost recovery as soon as practical
- Maintain reliable supply to support existing customers

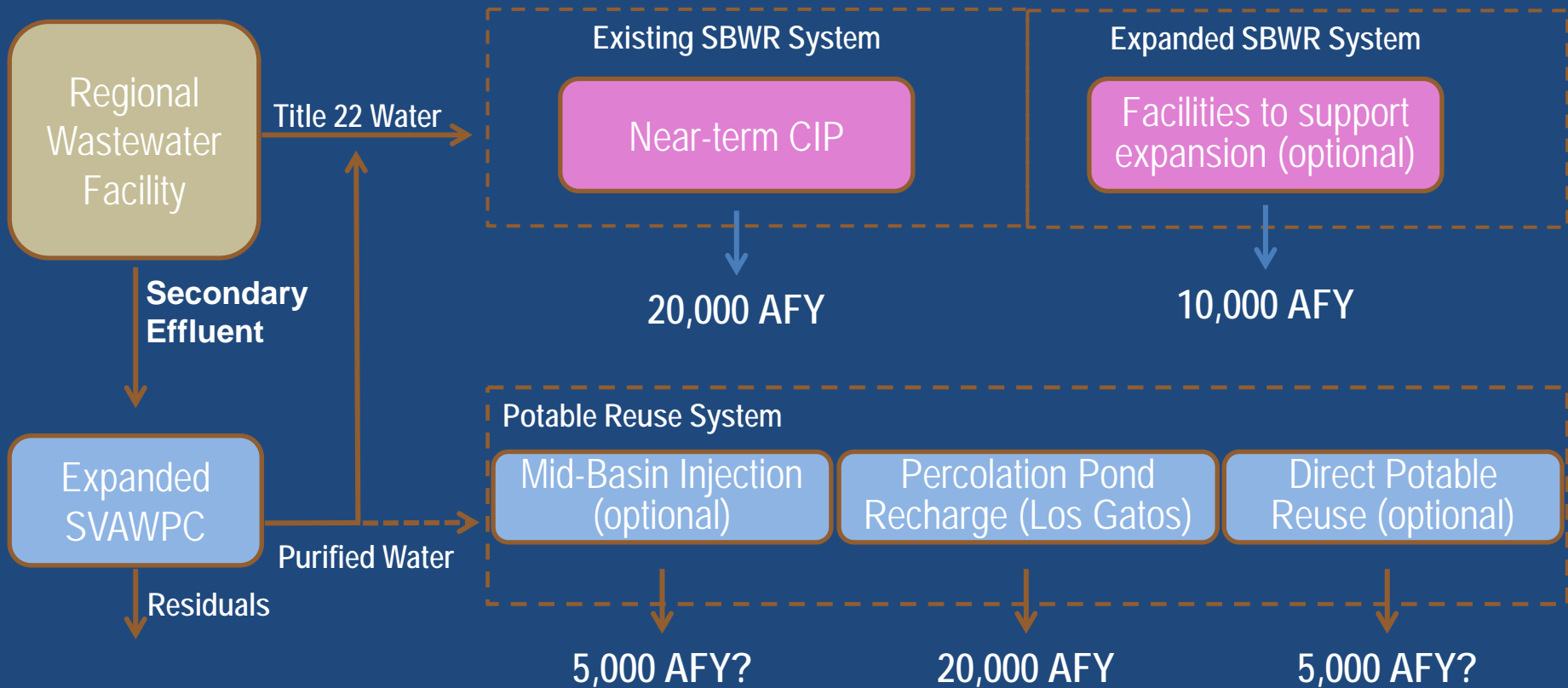
Long-Term (2020-2035)

- Balance needs of wastewater management and water supply
- Costs to be borne proportionally by all who benefit
- Provide basis for identifying alternative governance framework and funding strategies for non-potable and potable reuse

Strategic Planning Framework



Water Supply Focus for Future of Recycled Water



Current Challenges

- Limited use of recycled water product
- Complex public health regulations
- Infrastructure investment; cost recovery is challenging



Current Challenges (contd.)

- Original driver no longer valid due to lower wastewater flows
- Limited effluent and high demand
- Public perception about recycled water during current drought



Future Considerations

Future of SBWR?

Zero Discharge?

RWF Operations

Cost Recovery

Limited Effluent !



Future Opportunities

- Sustainable local water supply
- Thriving South Bay eco system
- Water conservation to maximize effluent use
- Self sustaining financial model



Discussion and Questions



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#keepSJclean

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