

Water Purification | Demonstration Project

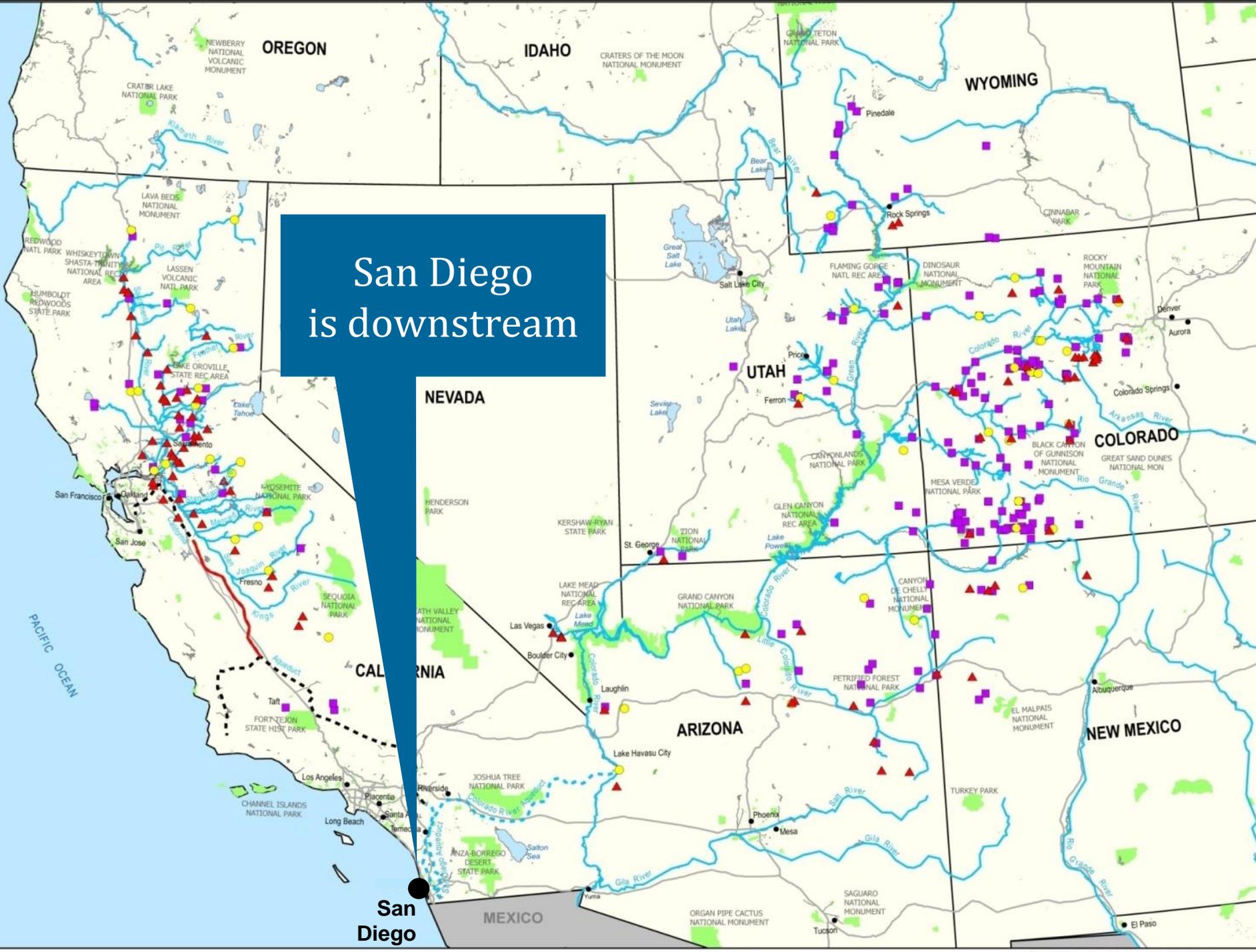


Exploring Water Reuse Options in San Diego

Jennifer Casamassima
Recycled Water Program Manager
May 10, 2012



San Diego
is downstream



Water Supply Challenges

- Limited local supplies
- Increasing cost of imported water
- Pumping restrictions
- Recurring drought conditions
- Internal population growth
- Natural disasters



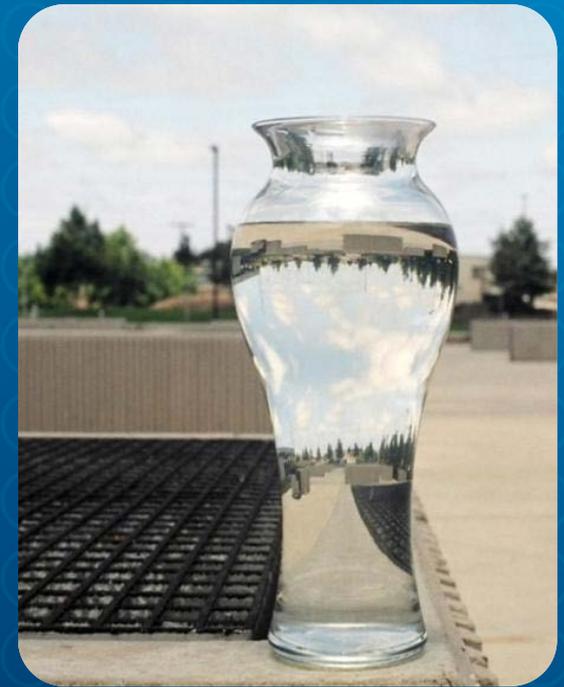
Water Purification Demonstration Project

Components:

- Operate 1 MGD facility
- San Vicente Reservoir study
- Define regulatory requirements
- Conduct energy and economic analysis
- Public education and outreach

Outcomes:

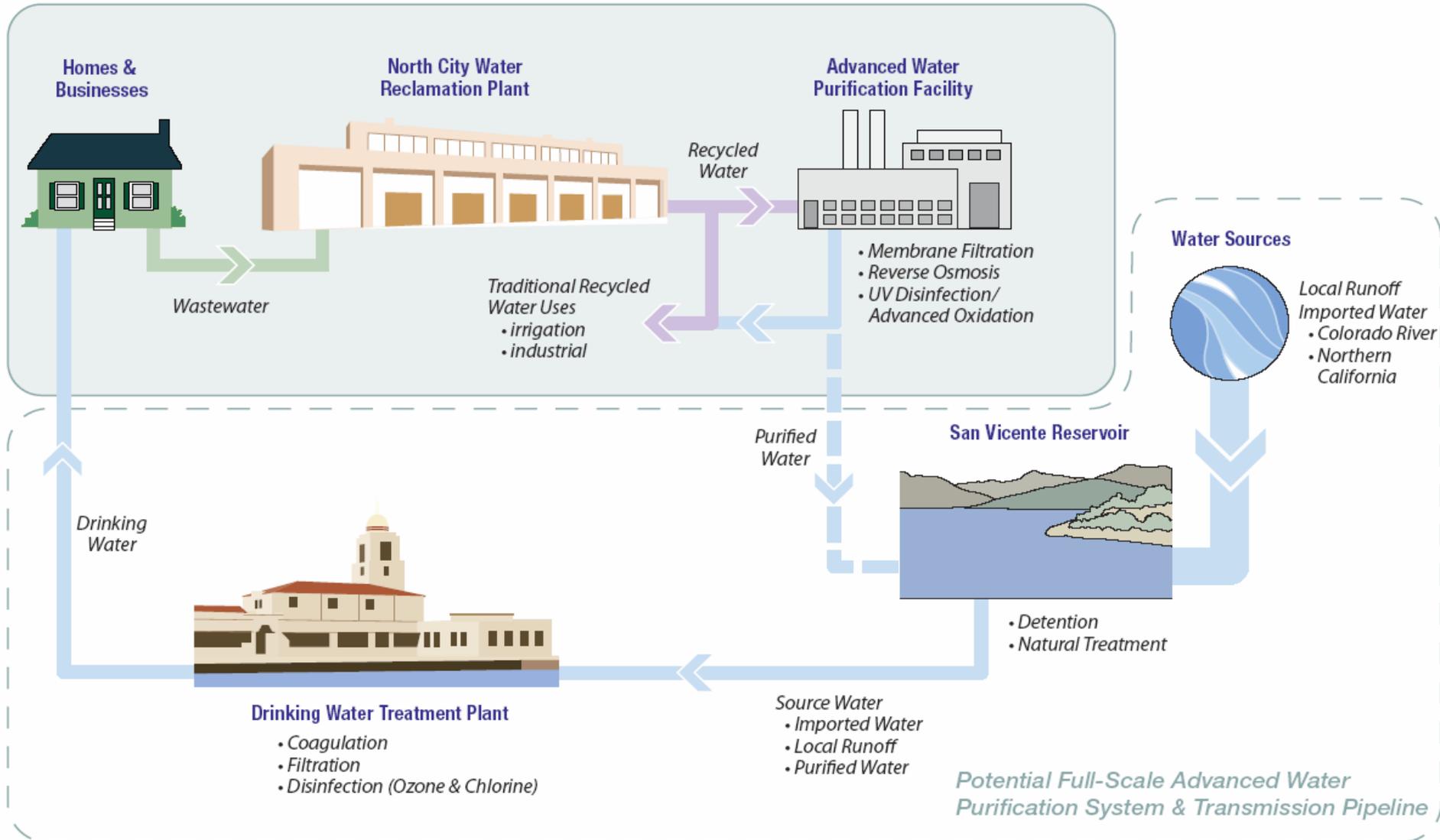
- Validate treatment process
- Gain regulatory approval
- Evaluate cost
- Public acceptance



City of San Diego's Water Purification Demonstration Project

Purification Process

Demonstration-Scale Project



A look inside...

This video explains the treatment processes



Recycled Water Study

During 2010 Point Loma Permit Renewal Process

- San Diego Coastkeeper and San Diego Chapter of Surfrider Foundation agreed to not oppose the Waiver
- City agreed to conduct Recycled Water Study
- Cooperative Agreement was executed in early 2009

Objectives

- Identify regional opportunities to increase recycling of wastewater for Indirect Potable Reuse and Non-Potable Reuse
- Determine the extent recycling can reduce wastewater flows to the Point Loma Wastewater Treatment Plant
- Determine implementation costs

Planning Horizon: Year 2035

Final Draft Study Report

- Summarizes two-year effort and findings
- To be presented to City Council in June 2012

Stakeholders

- City of San Diego
- San Diego Coastkeeper
- Surfrider Foundation
- Metro Wastewater Participating Agencies
- Independent Rates Oversight Committee
- San Diego County Water Authority

Key Tasks

- Wastewater system evaluation
 - Determined total system flow for Year 2050
 - Determined strategic locations to divert flow to new or existing reuse facilities
- Conducted market assessment of potential non-potable reuse (NPR) customers (both City retail and wholesale) and facilities required to serve new areas
- Evaluated indirect potable reuse (IPR) opportunities and related facilities
- Developed reuse alternatives that integrate both increased NPR and new IPR
- Estimated capital and operational costs associated with new reuse facilities

Recycled Water Study Next Steps

Financial and Policy Considerations

- Determine wastewater/water cost allocation & rate impacts
- Further evaluation of potential joint-agency projects

Technical Considerations

- Perform detailed site studies
- Integrate with other water and wastewater master planning efforts

Regulatory Considerations

- Coordinate with 2015 NPDES permit renewal process
- Coordinate with regulatory framework developed in the City's Water Purification Demonstration Project

Water Purification | Demonstration Project



Jennifer Casamassima
City of San Diego
Public Utilities Department
(619) 533-7402
jcasamassima@sandiego.gov



Water Purification
Demonstration Project



@PureWaterSD



Purewatersd

