

Opportunity for Joint Water Purification Study with Los Angeles County Sanitation Districts

Desalination and Recycling Committee

Item 3a

August 25, 2009

Overview

- Opportunity for Joint Program
- Indirect Potable Reuse
- Los Angeles County Sanitation Districts (LACSD)
- Potential Joint Study
- Next Steps

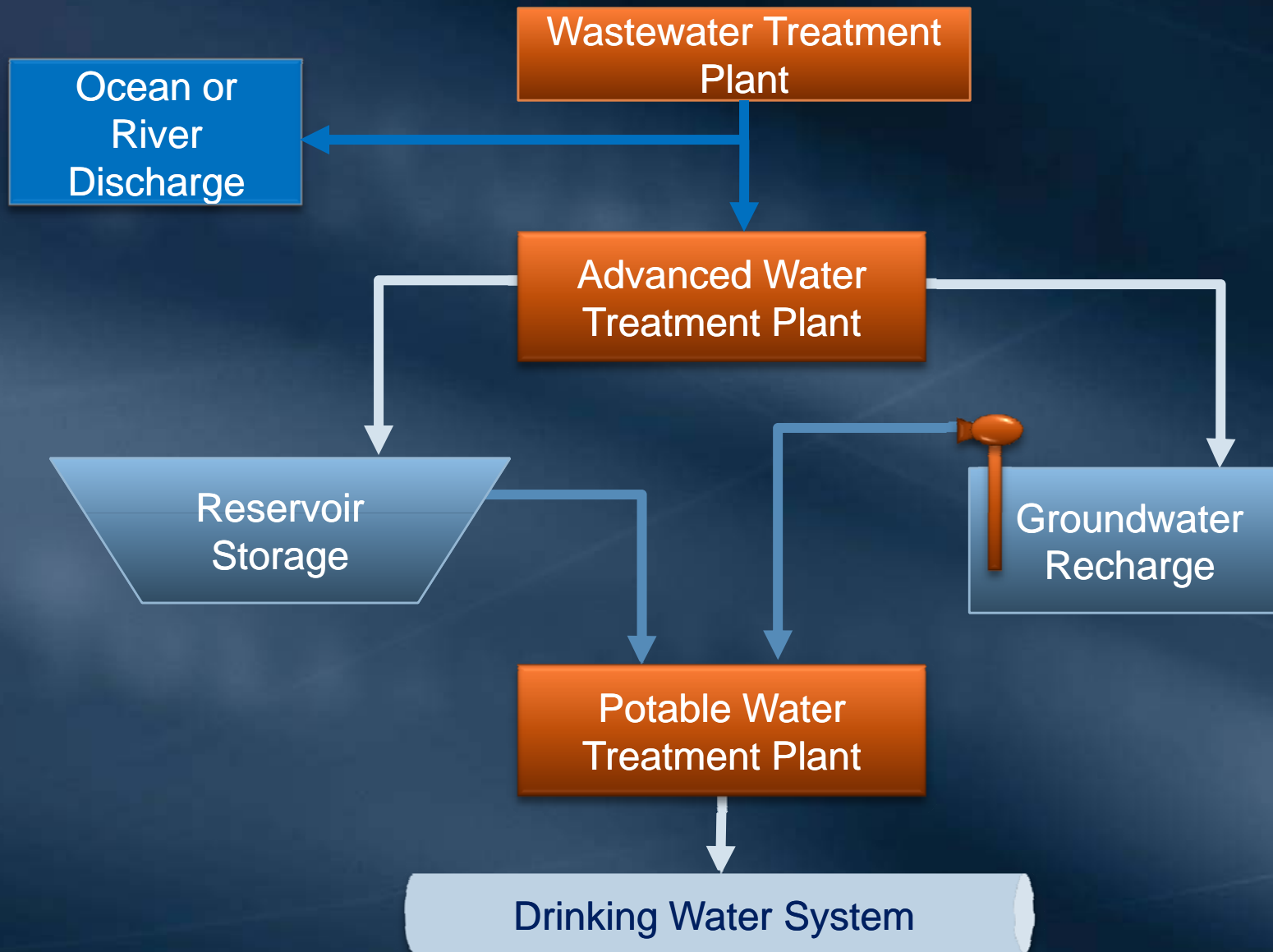
Opportunity

- Partner to Develop New Water Source
 - Regional indirect potable reuse program to recharge groundwater basins with highly purified water
 - Near-distilled water quality
 - Reliable, drought-resistant



Groundwater Recharge
at Rio Hondo Spreading Grounds

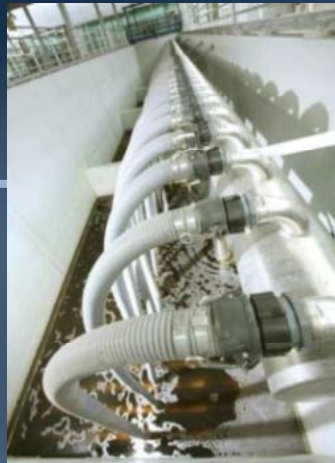
Indirect Potable Reuse



Advanced Water Treatment

Micro-Filtration
(MF)

Treated
Wastewater



Reverse Osmosis
(RO)



Ultraviolet Light (UV)
with Hydrogen Peroxide



Indirect Potable Reuse Programs

- International

- Singapore (2002)
- Belgium (2002)
- Australia (2008)



Edward C. Little Water Recycling Facility

- United States

- Upper Occoquan Project - Virginia (1978)
- Proposed Program - New Jersey



OCWD GWR System

- California

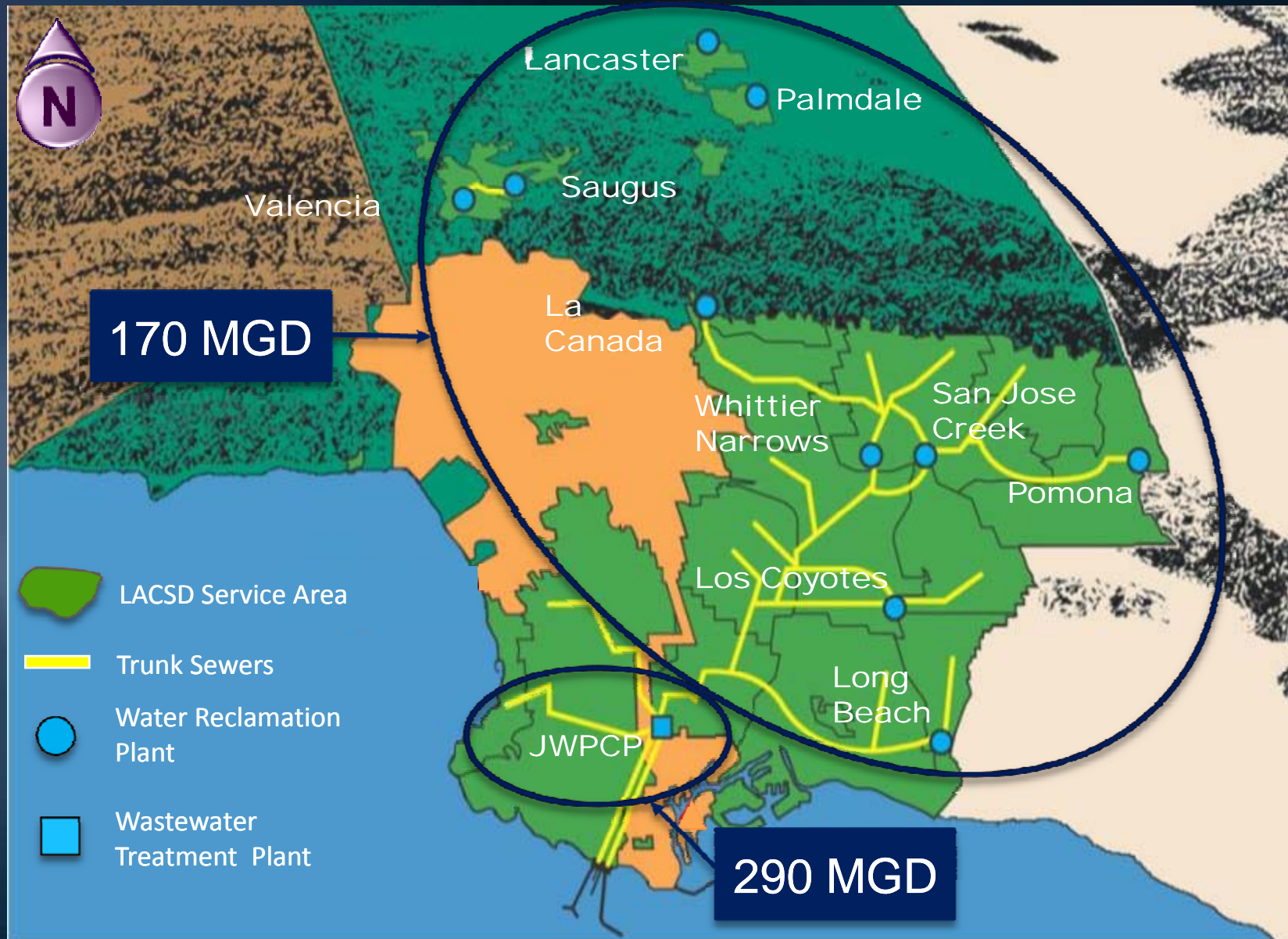
- Edward C. Little Recycling Facility (1995)
- OCWD Groundwater Replenishment System (2008)
- Proposed Program (San Diego, Santa Clara)

Los Angeles County Sanitation Districts

- Wastewater & Solid Waste Management
 - 5.3 million people
 - 800 sq. mile service area
 - 460 mgd current average flow
- “A Plan for Water Reuse” (1963)



LACSD Wastewater Management System



Regional Approach to Reuse



Joint Purification Study

- Objective
 - Regional program to maximize water reuse
- Scope
 - Evaluate potential demands for groundwater replenishment
 - Assess feasibility of storing & extracting purified water
 - Identify institutional constraints & permitting reqts.
- Regional Benefits
 - New source of high quality, drought-resistant water
 - Increased diversity in water supply
 - Reduced ocean discharge
- Next Steps
 - Memorandum of Understanding