

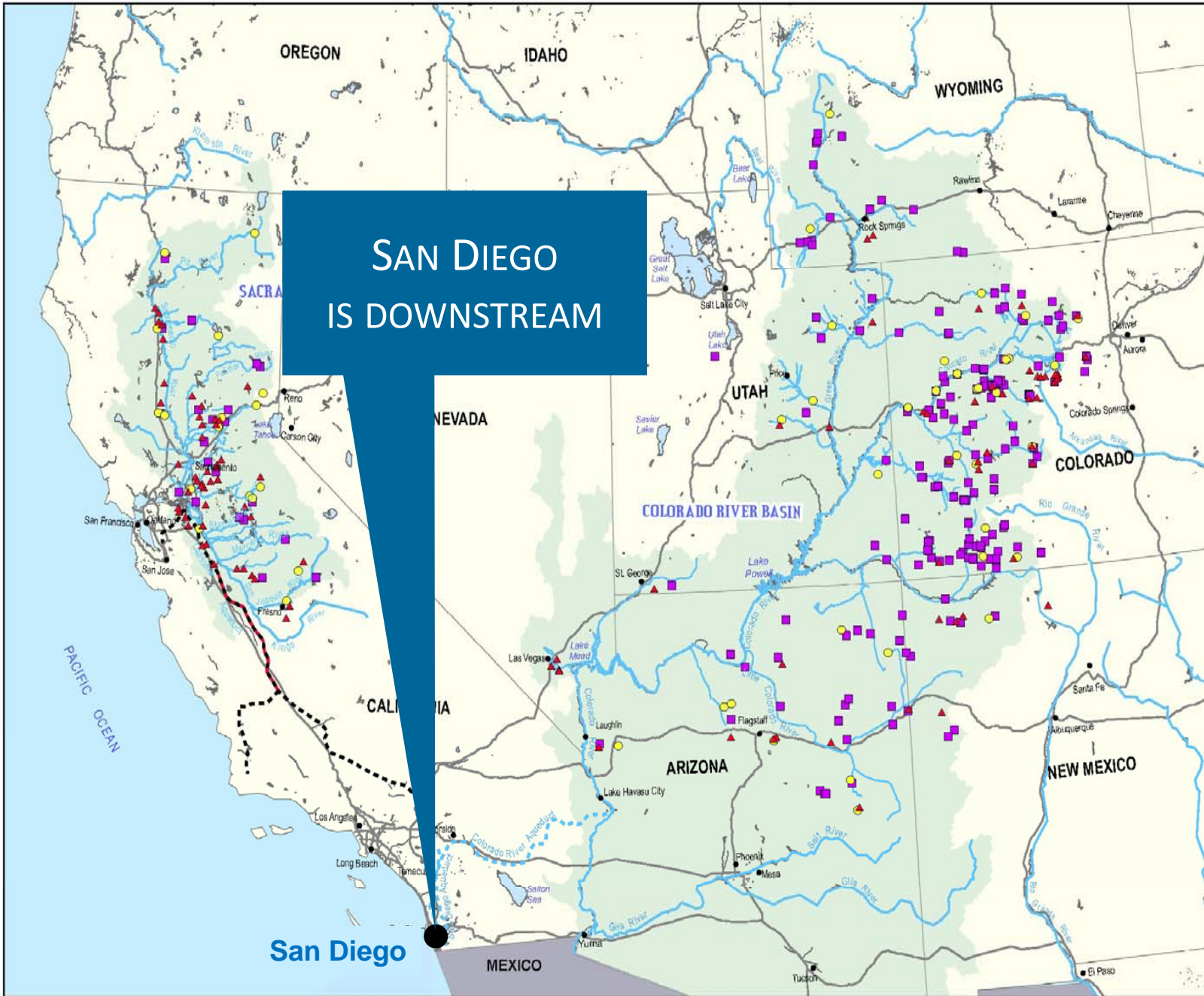
Water Purification | **Demonstration Project**



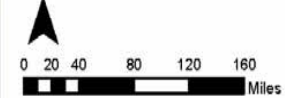
Welcome to the Advanced Water Purification Facility

Today you will learn about...

- San Diego's need for local, reliable water sources
- Use of water purification technology
- The multiple treatment steps of the water purification process



**SAN DIEGO
IS DOWNSTREAM**



LEGEND

- ▲ 1.0 > MGD
- .5 - <1.0 MGD
- <.5 MGD
- FREEWAYS
- RIVERS
- COLORADO/SAN DIEGO AQUEDUCT
- - - SWP AQUEDUCT
- STATE-FEDERAL WATER PROJECT
- BASINS



**Municipal Wastewater
NPDES Facilities**

Colorado River &
State Water Projects

N:\Resources\Planning\Water Purification Demonstration Project\Public Outreach\Outreach Material\Graphics\Discharge Map NPDES Facilities_2012.pdf coordinates_5_9_12.mxd

Water Supply Challenges:

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



What is being done...

Regional:

- Desalination



Local:

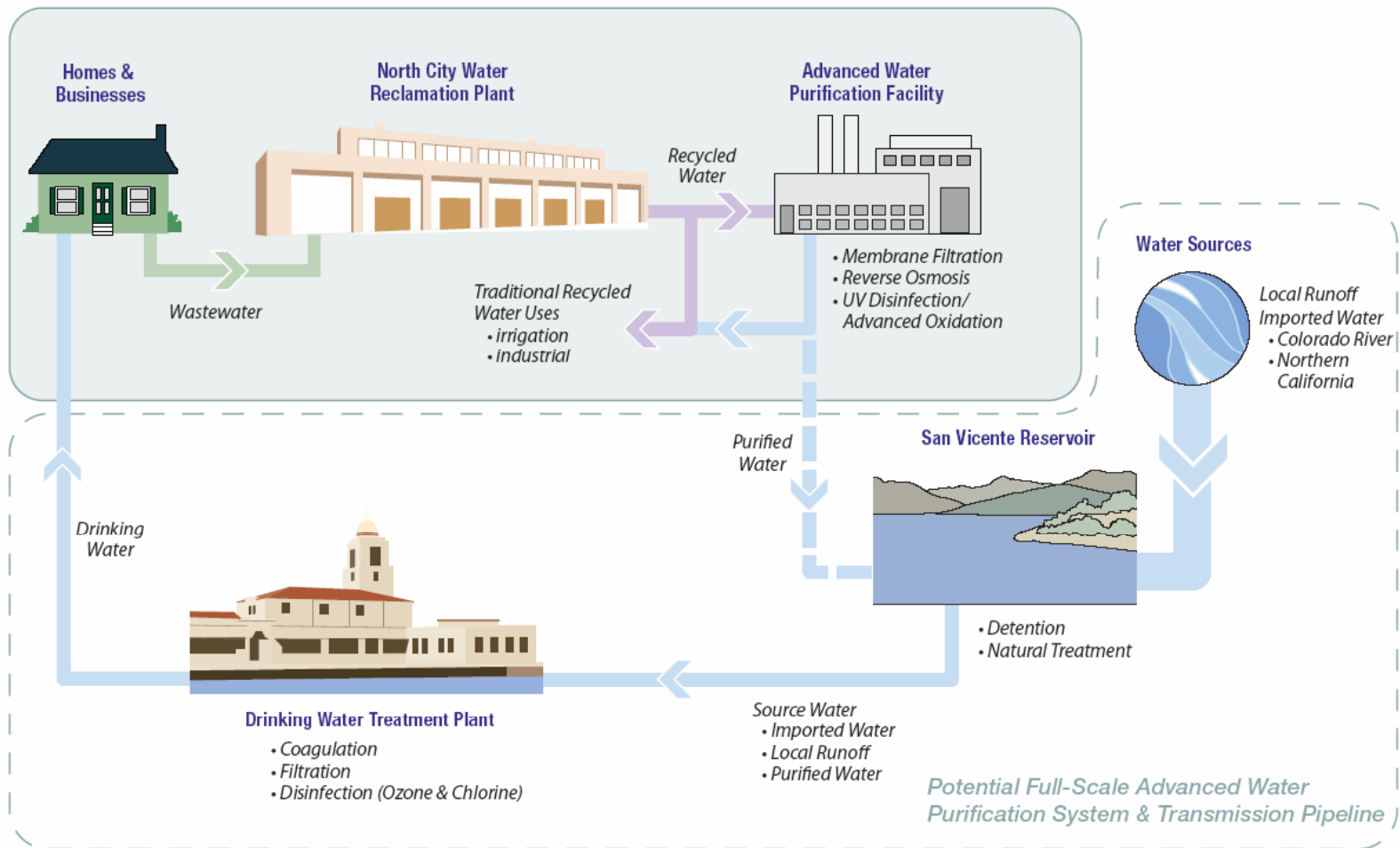
- Water Conservation
- Groundwater Development
- Recycled Water
- Water Purification

SAN DIEGANS
WASTE
NO WATER
ALL DAY. EVERY DAY.

City of San Diego's Water Purification Demonstration Project

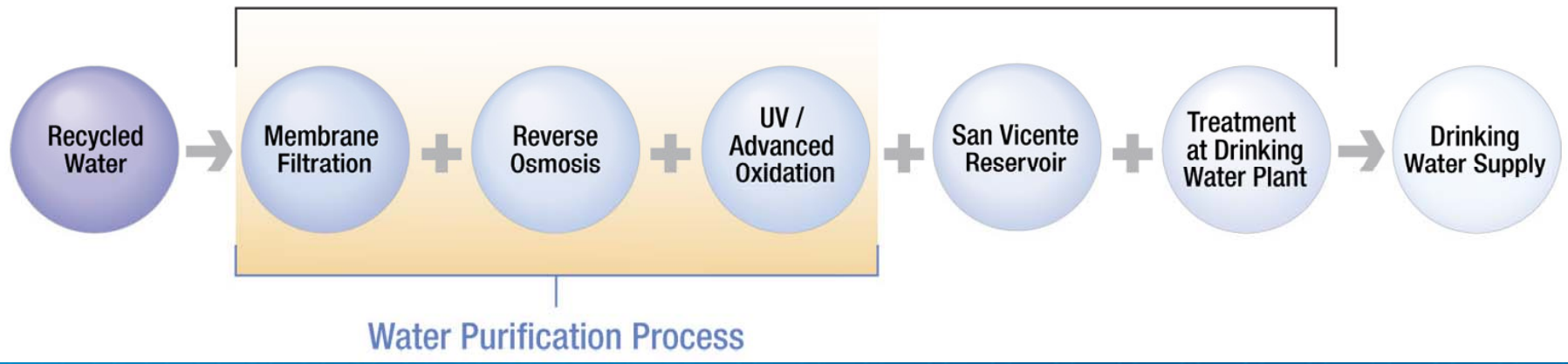
Purification Process

Demonstration-Scale Project



Purification Process

Multi-Barrier Water Purification Steps



Microfiltration & Ultrafiltration



Reverse Osmosis



Ultraviolet Light / Hydrogen Peroxide



A look inside...

This video explains the treatment processes you will see on the tour



Project Results

Advanced Water Purification Facility

- Operated 12 months; water produced met all state and federal standards

Reservoir Study

- Satisfied all anticipated regulatory requirements

Regulatory Coordination

- Received conceptual approval for a full-scale plan from CDPH & Regional Water Board

Energy & Cost Analysis

- Determined energy use is comparable to imported water and costs \$2,000 per AF

Education & Outreach

- Increased understanding and approval of water purification

City Council adopted Project Report on April 23, 2013



Work Continues

- Preferred implementation plan and schedule
- Cost strategy & financing plan
- Monitor direct potable reuse regulations
- Direct Potable Reuse Initiative involvement
 - California State Propositions 50 & 84 grant funding
 - Testing additional treatment options and barriers
- Point Loma 2015 Permit Renewal Application
- AWP Facility operations
- Outreach efforts

Water Purification | Demonstration Project



Visit: www.purewatersd.org

Email: purewatersd@sandiego.gov

Call: (619) 533-7572

Reports: purewatersd.org/projectreports



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