



Regional Recycled Water Program Update

Engineering and Operations Committee

Item 6a

December 9, 2019

Outline

- Demonstration Plant Activities
 - Grand Opening
 - Operations and Testing
 - Schedule
- Panel and Regulatory Activities
- Program Activities
- Next Steps



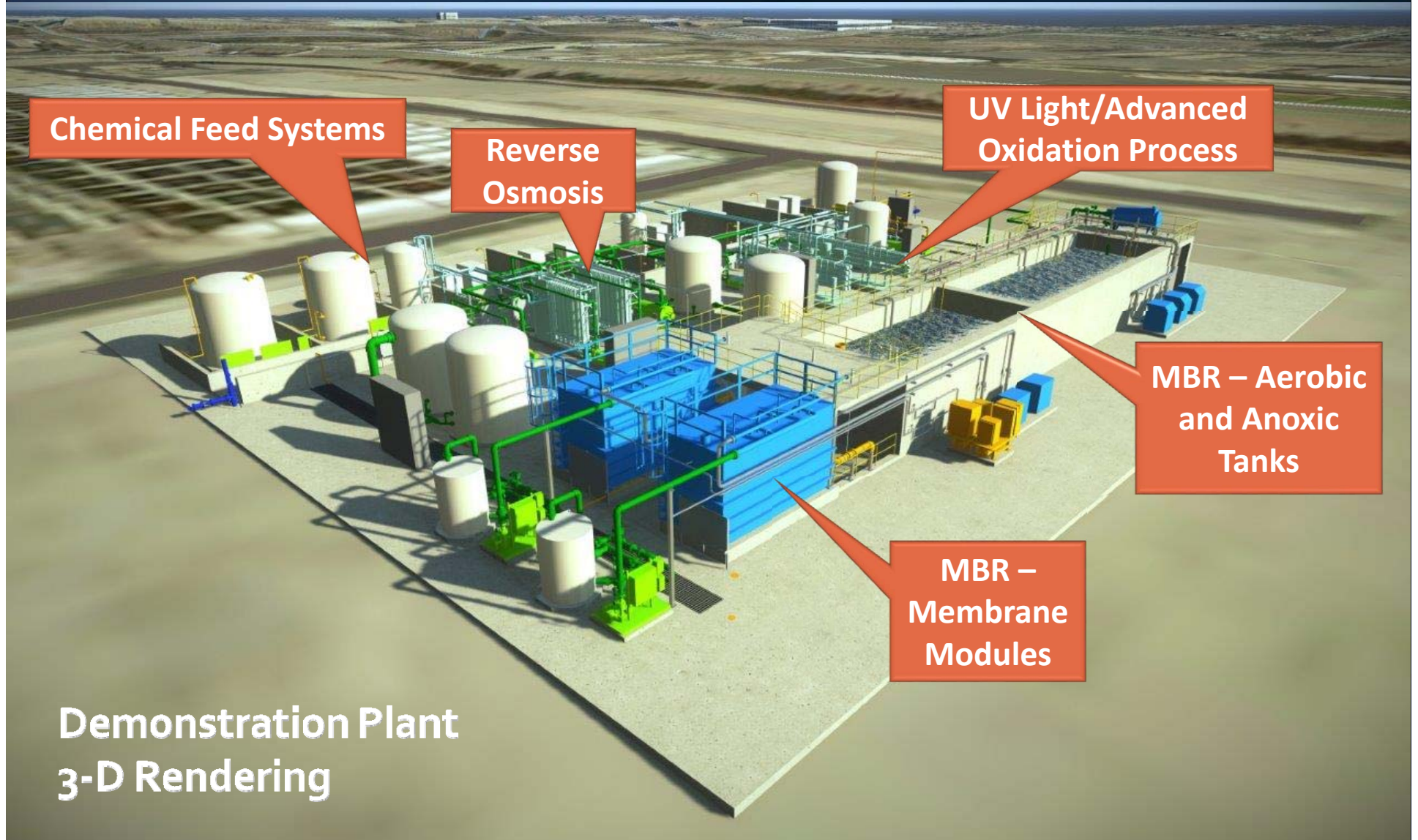
Demonstration Plant

Grand Opening Event

October 10, 2019 - Approximately 250 attendees



Demonstration Plant Process Train



Demonstration Plant
3-D Rendering

Demonstration Plant Pre-Testing Activities

- Continued Weekly Coordination & Operational Meetings
 - Metropolitan
 - LACSD
 - Project Consultants
- Monitoring & Maintenance
- Microbial Method Development
- Start-up Operations



Monitoring & Maintenance



Analyzer Maintenance

Date	Time	Location	Sample	Analysis
12/09/19	08:00	1000	1000	1000
12/09/19	08:15	1000	1000	1000
12/09/19	08:30	1000	1000	1000
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12/09/19	10:45	1000	1000	1000
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Sample Analyses

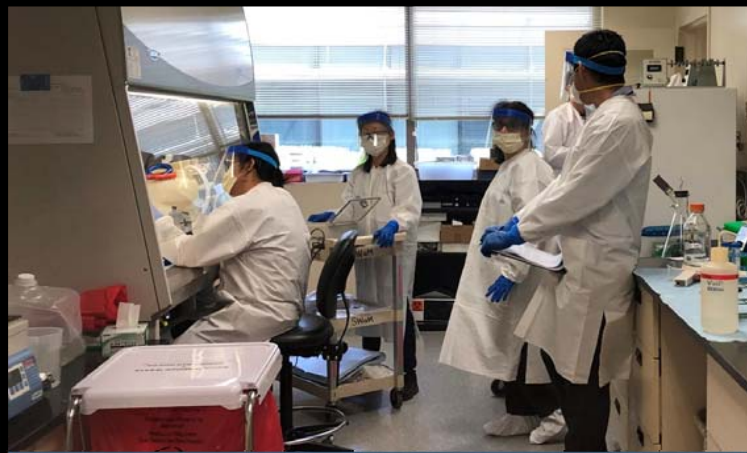


Field Sampling



Chemical Tote Handling

Process Testing and Microbial Method Development



Pathogen Analyses Training



Sanitation Districts' Brine Test Platform



Bench-Scale Testing



Denitrification Reactor Test Setup

Start-up Operations



Biological Acclimation

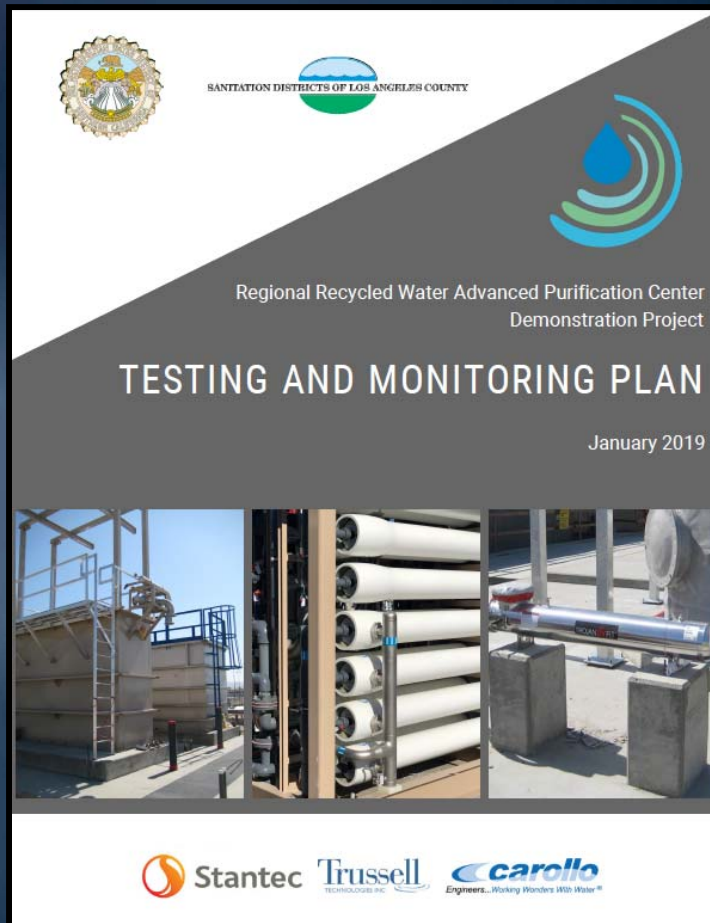


Equipment Troubleshooting



Bioreactor Sampling

Demonstration Plant Testing



Pre-testing

Equipment Testing and Process
Acclimation (3 months)

Phase 1

Baseline Performance Testing
(4 months)

Phase 2

Challenge Testing and Evaluation
(8 months)

Independent Scientific Advisory Panel

- Title 22 Regulations require independent panel of experts to review alternative approaches for meeting existing regulations (e.g., application of Membrane Bioreactor)
- National Water Research Institute commissioned to secure panel for demonstration project
- Panel will help guide demonstration project
 - Testing and monitoring approach
 - Water quality, operations data and reporting
 - Regulatory engagement



Ed Means

Adam Olivieri

Nancy Love

Chuck Haas (Chair)

Vernon Snoeyink

Paul Westerhoff

Richard Bull

Joe Cotruvo

Thomas Harder

Facilitation

Regulations/Permitting

Wastewater Treatment

Microbiology

Pipeline Corrosion/Water Chemistry

Drinking/Advanced Water Treatment

Toxicology

Chemistry

Hydrogeology

ISAP Workshop 2 and Regulatory Mtng. 7

Focus Areas covered on Dec. 4-5, 2019



Process Technology

- Testing Approach
- Operational Criteria



Monitoring and Analysis

- Microbial Sampling
- Analytical Methodology



Raw Water Augmentation

- Conceptual Approach
- Technology Considerations

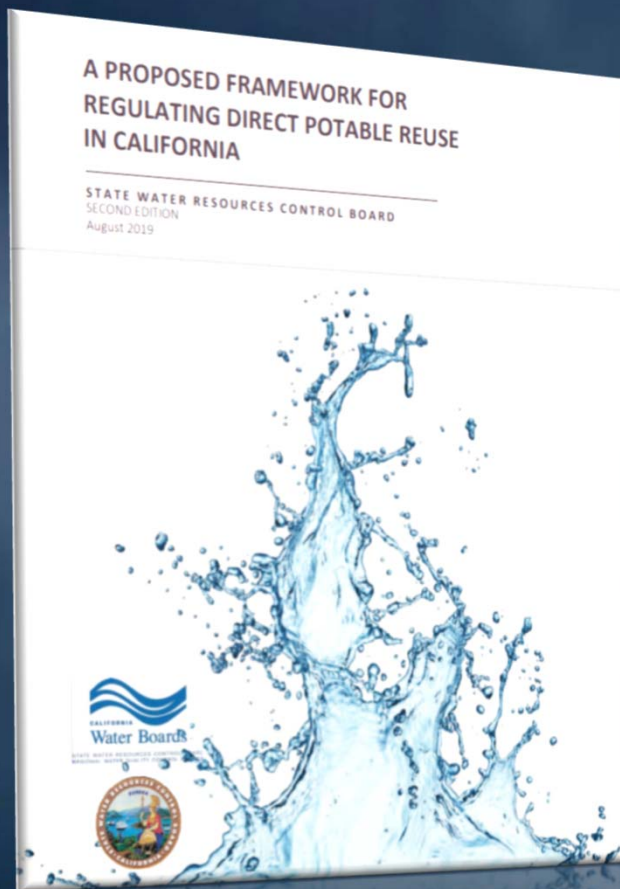
Independent Scientific Advisory Panel

Final ISAP report available by early 2020

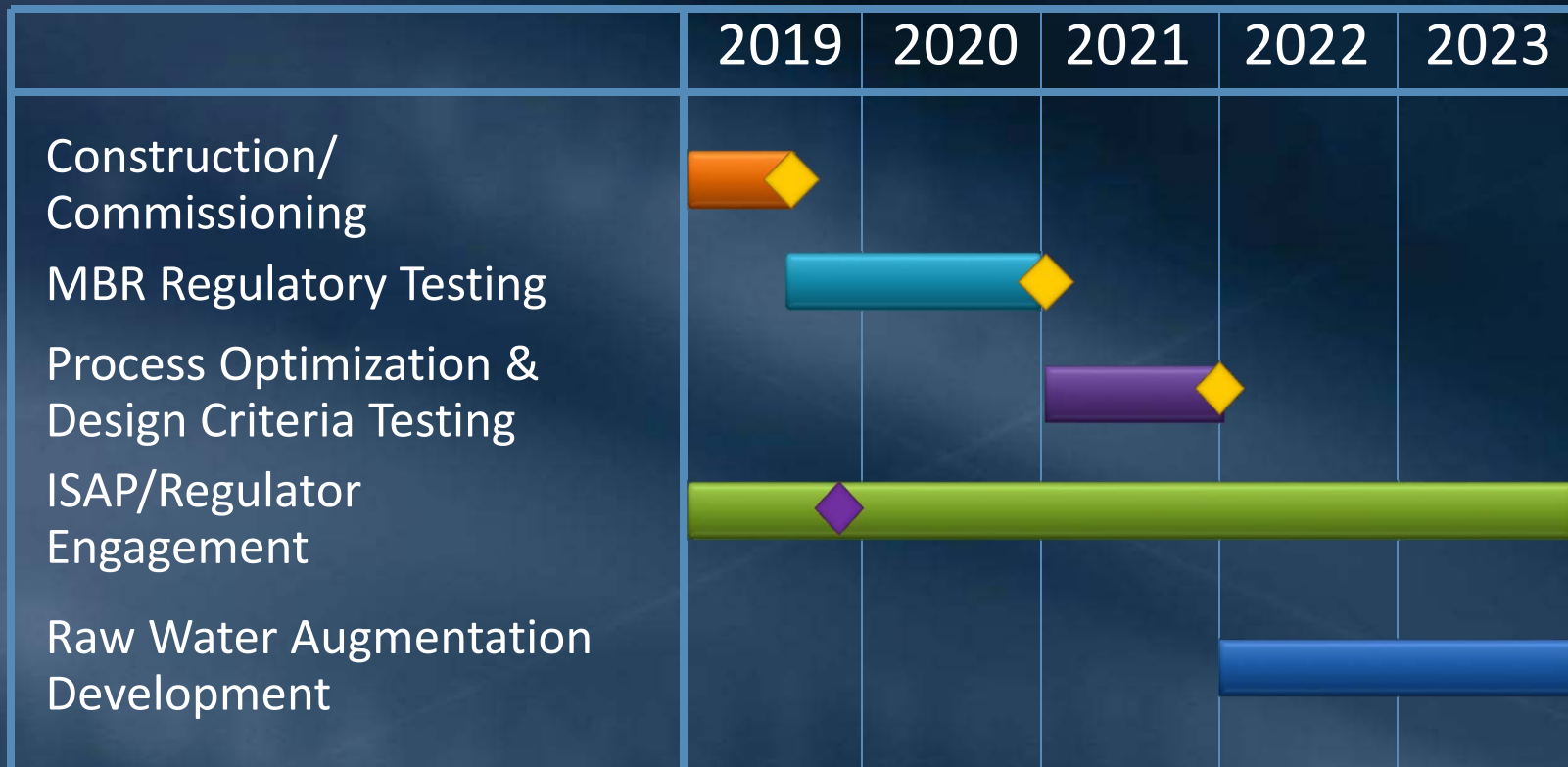


Raw Water Augmentation (RWA)


- State Water Resources Control Board released a revised DPR Framework in August 2019
 - Staff provided verbal and written comments on framework
- Joint support letter for RWA Expert Panel
 - Metropolitan, LADWP & Santa Clara Valley Water District
- Research to support and inform regulation in progress



Demonstration Facility Testing Schedule



 Completion

 ISAP Meeting No. 2 (Dec. 4 and 5), Regulator Meeting No. 7 (Dec. 5)

Program Outreach Activities

Full Tour Program Launched



Public Tours

E&O Committee



Group Tours

Item 6a Slide 16



School Tours

December 9, 2019

Next Steps for Program

White Papers



Early 2020

Board Letter



DONE

Workshop #1:
Implementation and
DPR Considerations

Workshop #2:
Planning, Agreements
and Financial
Considerations

Board Action on Next
Steps

July 23, 2019



Letters of Intent

Mid 2020

Innovative Partnership Opportunity

Southern Nevada Water Authority

- Metropolitan and SNWA collaboration and partnership history
 - Colorado River water supply
 - Water quality, treatment technologies, and laboratory methods
- SNWA assessing future long-term supply needs
- Explore partnership opportunities in Program development
 - Letter of Intent
 - Coordination on 2026 Colorado River Operating Guidelines

Metropolitan's Recycled Water Website



INTRODUCTION HOW IT WORKS PROCESS BENEFITS STRATEGY MILESTONES RESOURCES PARTNERSHIP



Regional Recycled Water Advanced Purification Center

A NEW SOURCE OF WATER FOR SOUTHERN CALIFORNIA

Water is too precious to use just once. So the Metropolitan Water District of Southern California is making a major investment in a potential water recycling project that will reuse water currently sent to the ocean.

www.mwdh2o.com/RRWP

