



Engineering & Operations Committee

Regional Recycled Water Program Update

Item #6a

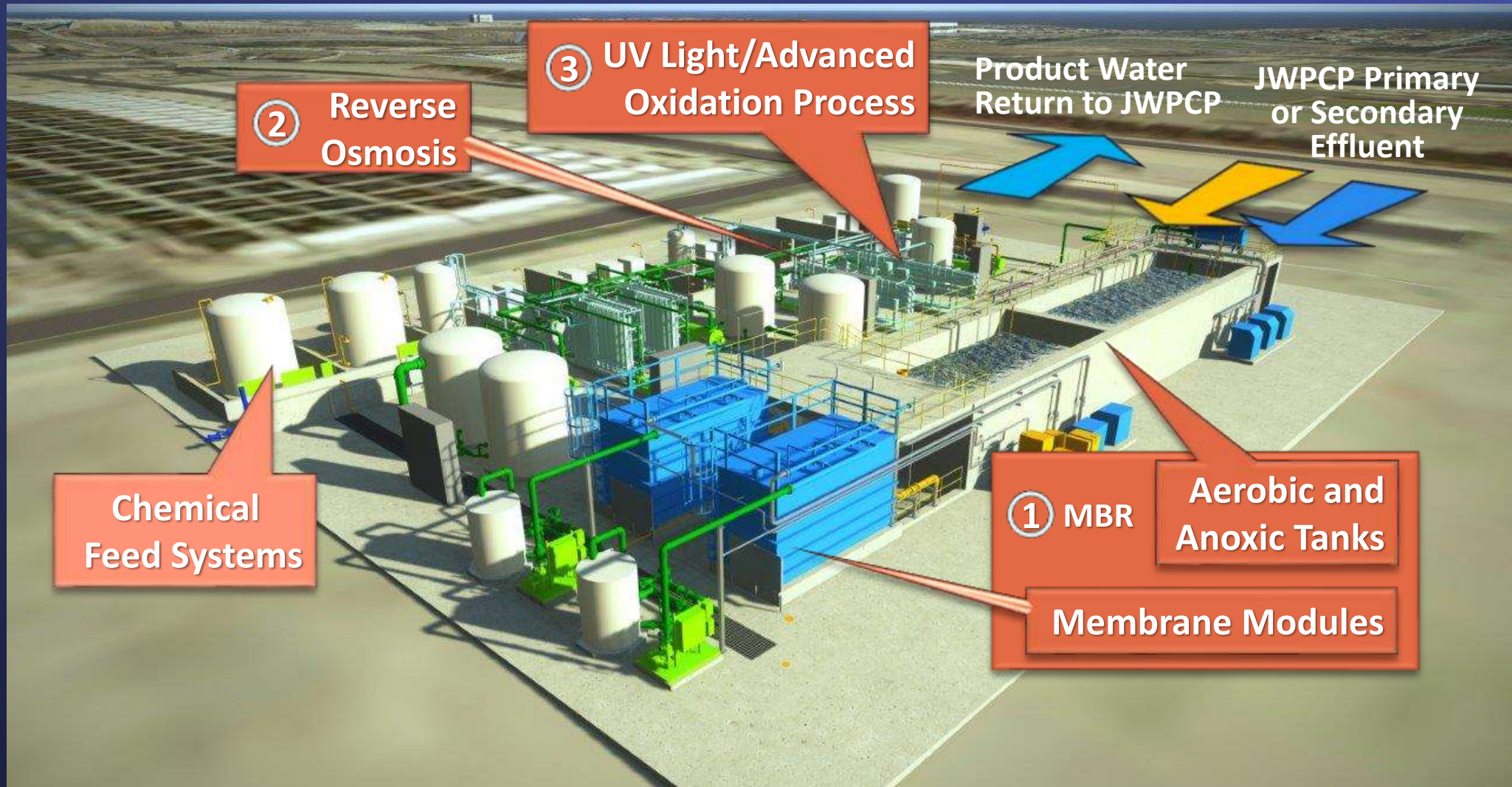
Monday, March 7, 2022

08:30 a.m.

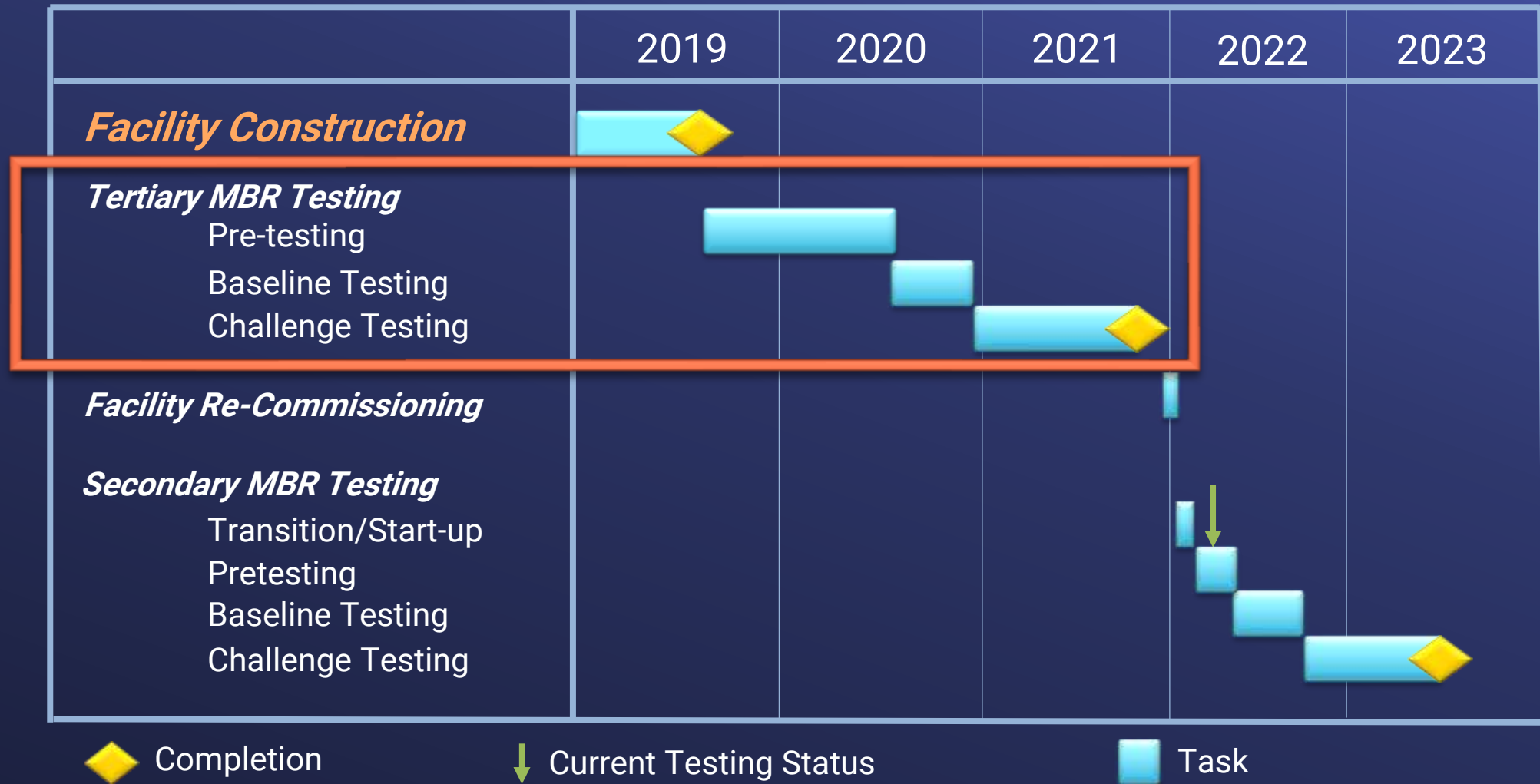
Outline

- Demonstration Plant **Activities**
 - Tertiary MBR (tMBR) Testing Completion
 - Secondary MBR (sMBR) Testing Start
 - Independent Scientific Advisory Panel (ISAP)
 - Regulatory Engagement
- Program **Activities**
 - Agency Coordination
 - Public Outreach
 - Environmental Planning Phase Activities
 - Schedule and Next Steps

Demonstration Facility



Demonstration Plant Testing Schedule



tMBR Testing Completion

- tMBR test phase completed in Nov 2021
- Draft Summary Report currently in progress
- Ongoing engagement with ISAP & Regulators on pathogen removal results and next steps



tMBR Testing Completion

MBR Pathogen Removal Evaluation

- Optimized sample volumes for sensitivity
- Refined approach to evaluate surrogates
- Sample treatment to inactivate SARS-CoV-2
- Analyzed nearly 800,000 L of MBR filtrate
- Analyzed 500 L of secondary effluent



tMBR Testing Completion

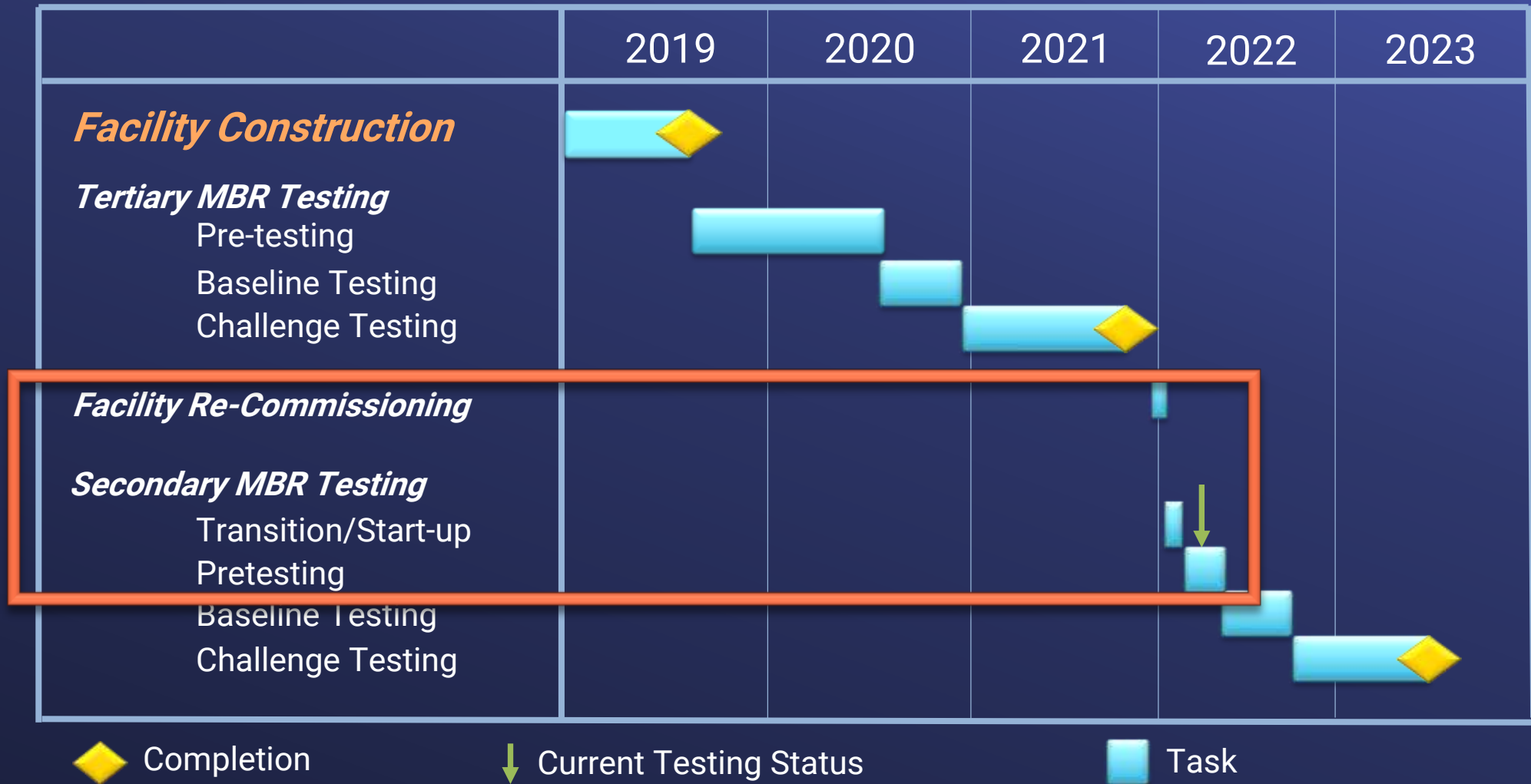
Nov 2021



Staff remove and analyze final microbial sample on the last day of tMBR testing



Demonstration Plant Testing Schedule



Secondary MBR Testing Start



- Site maintenance completed in late 2021
- Plant re-commissioning and startup in Jan-Feb 2022
- LACSD bench-scale testing informed demo plant startup
- Final test plan awaiting regulatory approval



Independent Science Advisory Panel

- Title 22 Regulations require an **independent panel of experts** to review alternative approaches
- National Water Research Institute secured panel for the demonstration project
- Panel helps guide
 - Testing and monitoring approach
 - Water quality, operations data and reporting
 - Regulatory engagement

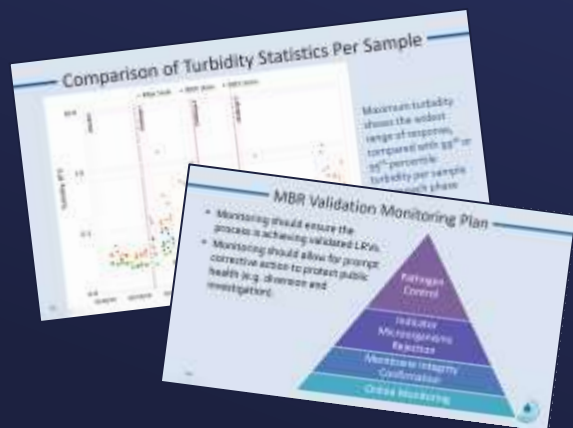
ISAP Panel Members

Ed Means	Facilitation
Chuck Haas (Chair)	Microbiology
Adam Olivieri	Regulations/Permitting
Joe Cotruvo	Chemistry
Nancy Love	Wastewater Treatment
Paul Anderson	Toxicology
Paul Westerhoff	Drinking Water/AWT
Thomas Harder	Hydrogeology
Vernon Snoeyink	Pipe Corrosion/Water Chemistry



ISAP Workshop No. 5

January 4-5, 2022



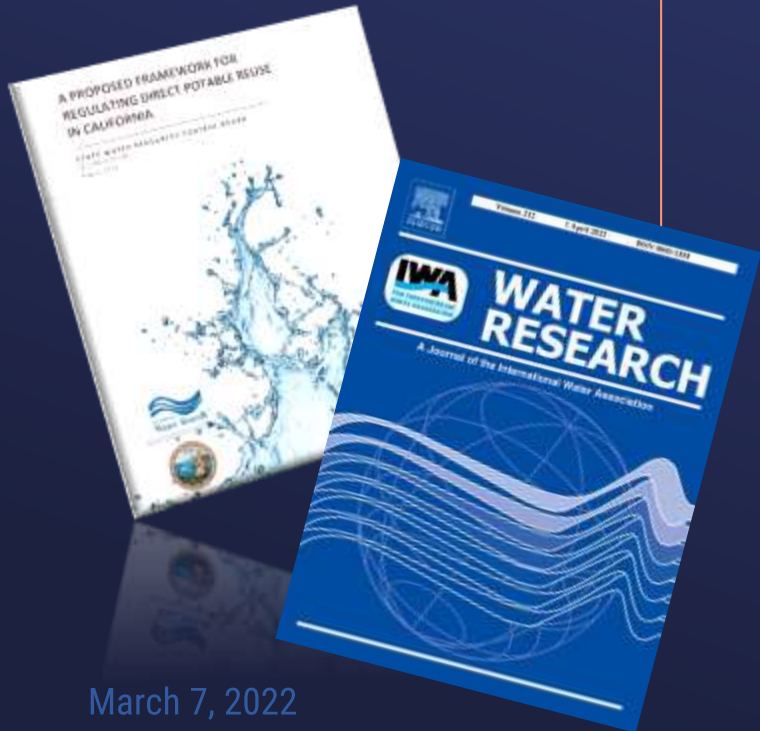
- Preliminary **tMBR testing results** reviewed & discussed for adequacy to obtain
 - 2.5 LRV for protozoa through MBR
 - Water quality suitable for groundwater recharge
 - Suitability of RO concentrate for ocean discharge
- Obtained feedback on bench & pilot scale testing results to inform sMBR startup & testing
- Final Report March 2022
- Subsequent discussions April 2022

ISAP Workshop No. 5

Panel Feedback

“The Panel **applauds the Metropolitan Water District Project Team** on the level of research effort, the quality of the results... and ... is impressed with the microbial analytical results and level of effort undertaken to generate this information. It is a **remarkable contribution to the advancement of using recycled water in the United States.**”

Regulator Engagement



- Conducted Regulatory Meeting No. 10
 - LACSD, Regional Boards & DDW to discuss the sMBR test plan & next steps (Feb. 25)
- Direct Potable Reuse (DPR) Topics
 - Advocate for use of DPR-2 data published
 - Discuss technical approaches with DDW's DPR subgroup (Feb. 11)
 - Providing comments on the developing framework for CA Direct Potable Reuse
 - Monitoring the Expert Panel process

Grants & Funding



Funding opportunities

- Considering Title XVI grant application
- Pursuing State grants
- Advocating for Federal Large Scale Water Recycling grants
- Investigating opportunities to accelerate the RRWP schedule to position Metropolitan for grant funding
 - Alternative Delivery
 - AB 1845 (Calderon)

Agency Coordination

- Continued LACSD coordination
 - Monitoring for residuals
 - CEQA planning support
 - Nitrogen management process selection
- Continuing boron studies
- Discussing program flows & nitrogen limits
- Continuing to meet with LOI Agencies
- Draft LOI with San Gabriel Valley MWD



Outreach & Public Engagement

- Program briefings and presentations
- Virtual tours
- News and social media



Program Briefings and Presentations



Virtual Tours



News and Social Media

Environmental Planning Phase Activities

CEQA

- Developing CEQA objectives & defining alternatives
- Continuing technical analyses
- Developing Project Description

Advanced Water Treatment

- Investigating distributed plants, alternative sites, flow & phasing, developing site plans, updating costs
- Defining ancillary facilities
- Developing approach for DPR

Environmental Planning Phase Activities

Conveyance

- Identifying preferred pipeline alignment for CEQA
- Investigating alignments
- Coordinating with SCE for potential ROW

Public Outreach

- Created outreach charter & stakeholder database
- Providing program briefings to stakeholders
- Developing public involvement plan for CEQA outreach and support

Program Schedule



Environmental
Planning

IN PROGRESS



Design &
Construction

FUTURE



Start-up &
Operations

FUTURE

