



Regional Recycled Water Program

Engineering & Operations Committee

Item 6b

March 12, 2018

Outline

- Progress to Date
- Demonstration Plant Construction
- Program Conceptual Assessment
- Looking Forward



Regional Recycled Water Program

Initial Progress

- ✓ Pilot-scale studies (2010-2012)
- ✓ Progress report to Metropolitan Board (Sep 2015)
- ✓ Board approval of Demonstration Plant & Feasibility Study (Nov 2015)
- ✓ Presentation on Feasibility Study to Board (Jan 2017)
- ✓ Award of const. contract for Demonstration Plant (July 2017)
- Conceptual planning studies underway (2017-2018)
- Demonstration Plant start-up (Dec 2018)

Current Activities - Demonstration Plant

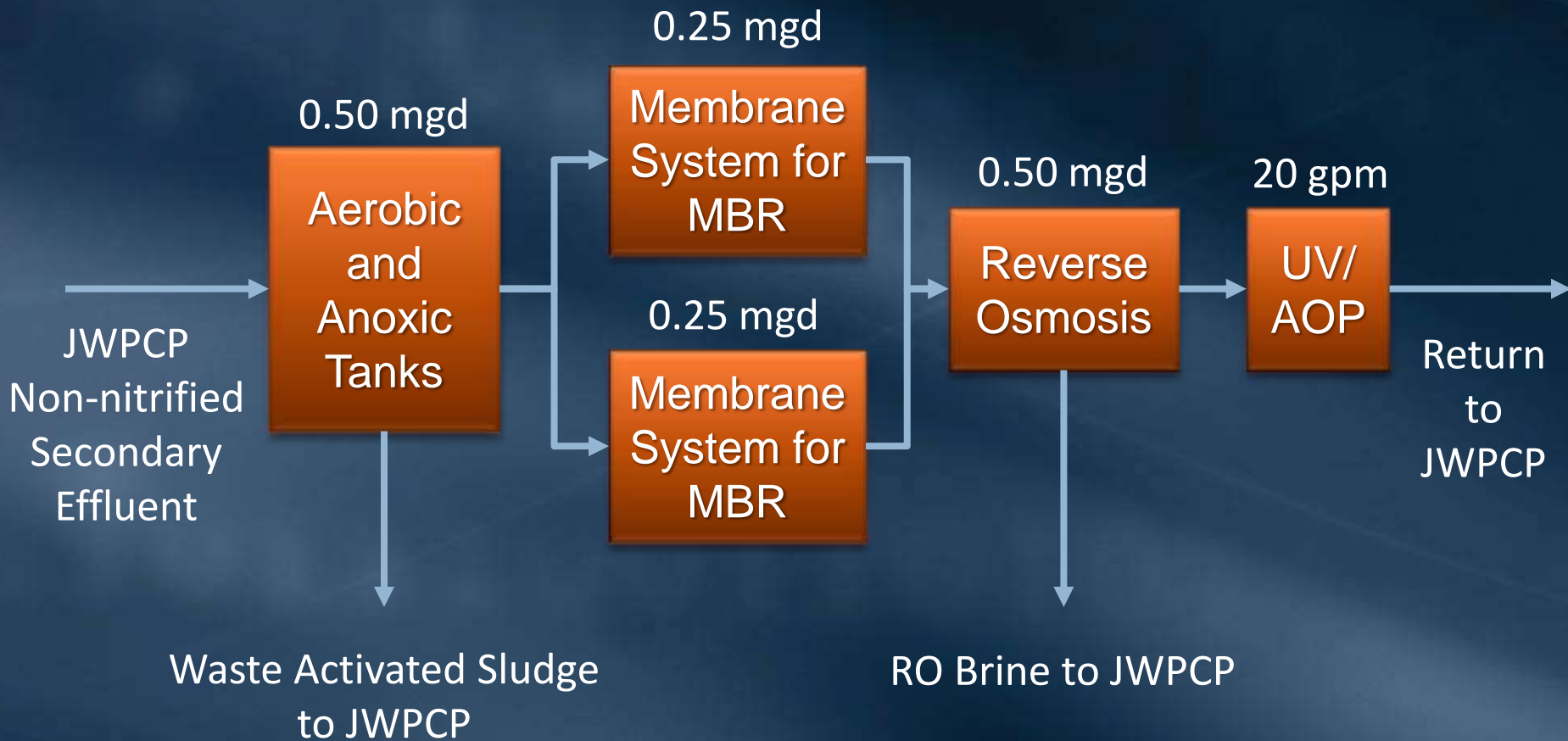
- Construction approximately 30% complete
- Complete construction - Late 2018
- Commence start-up & operation - Late 2018



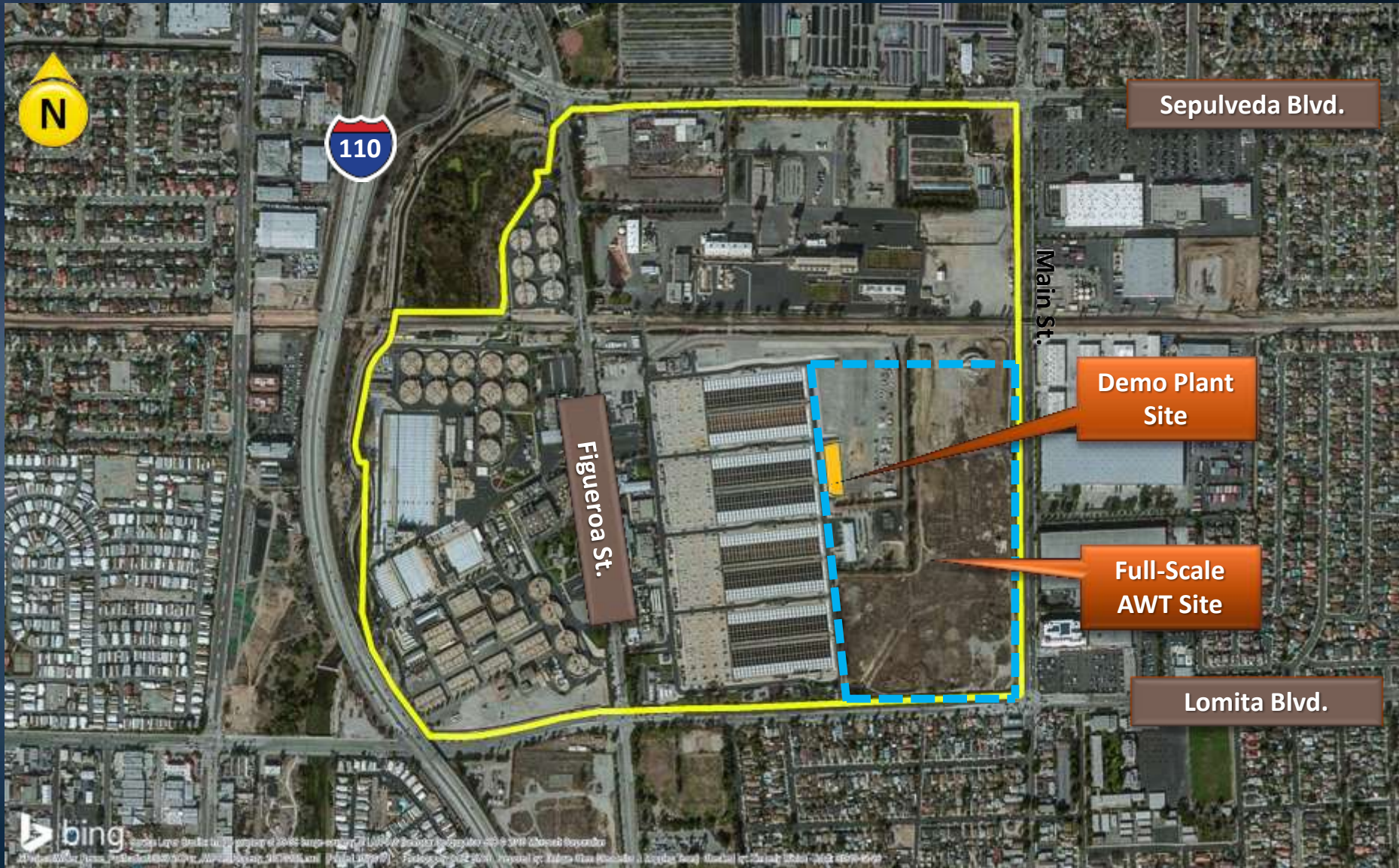
Demonstration Plant Objectives

- Provide data for regulatory acceptance
- Confirm viability of MBR process
- Optimize full-scale treatment process design
- Establish cost clarity for treatment
- Confirm operational dependencies/interfaces with LACSD
- Provide vehicle for public outreach & acceptance

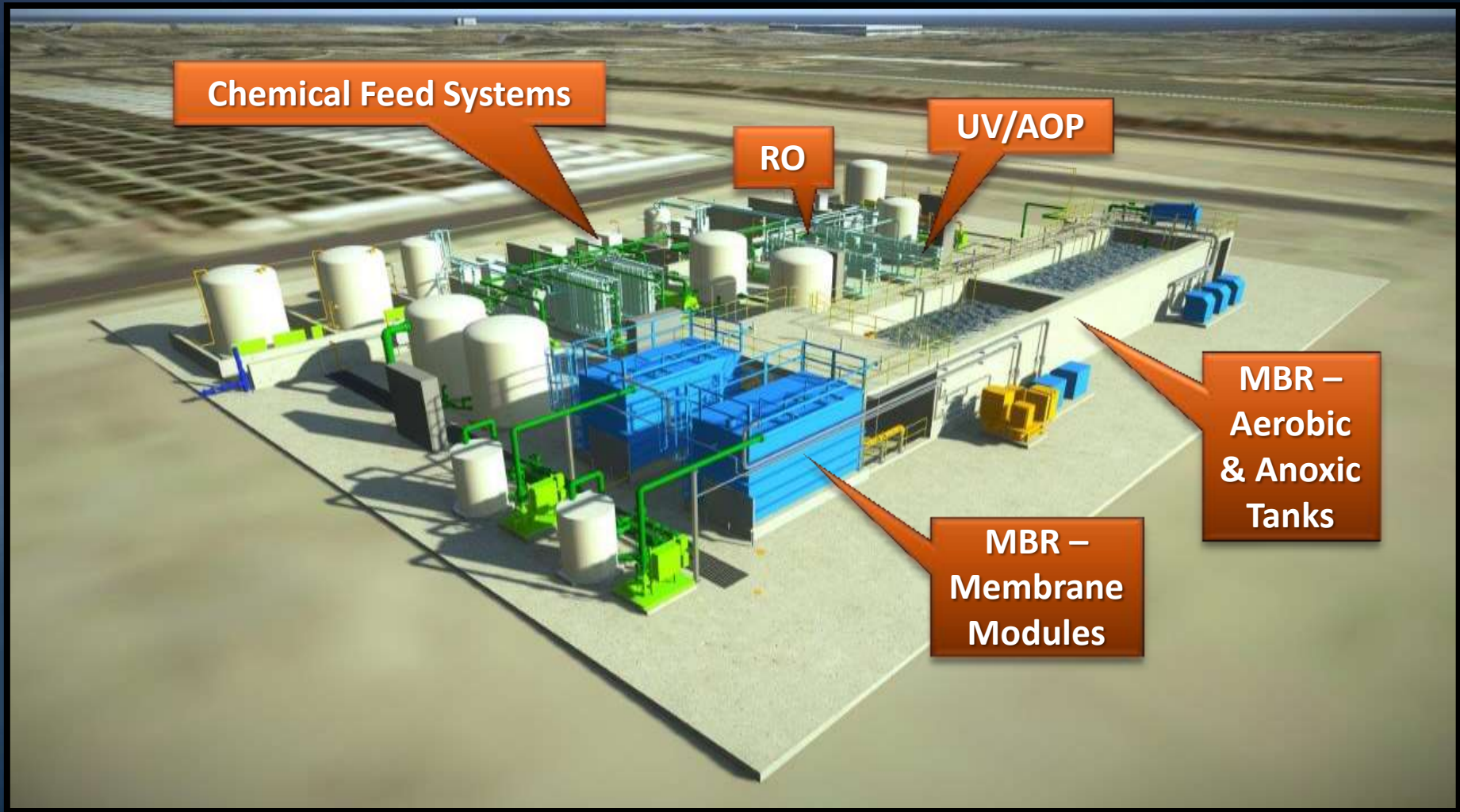
0.5 MGD Demonstration Plant



Location of AWT Facilities at JWPCP



AWT Demonstration Plant



Aerial View of Site



MBR Reactor Basin



Tank Farm Area



LACSD Secondary Effluent / AWT Influent Pipe



LACSD Power Supply Construction



LACSD Construction Support



Independent Advisory Panel

- Richard Bull - Toxicology
- Joe Cotruvo - Chemistry
- Chuck Hass - Microbiology
- Thomas Harder - Hydrogeology
- Michael Stenstrom - Wastewater Treatment
- Adam Olivieri - Water Regulations/Permitting
- Vernon Snoeyink - Pipeline Corrosion/Water Chemistry
- Paul Westerhoff - Drinking/Advanced Water Treatment
- Ed Means - Facilitator

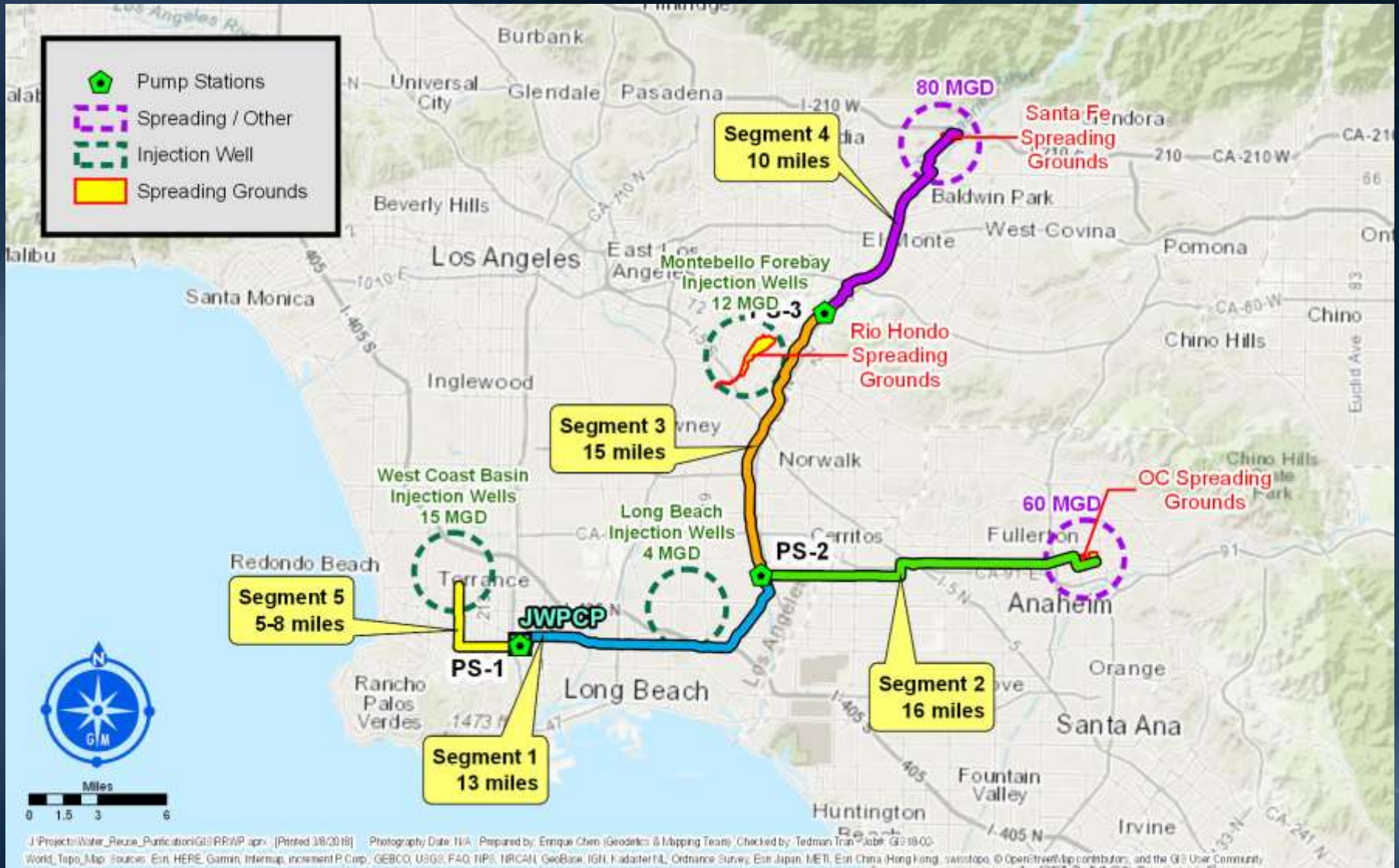
Additional Activities - Full-Scale Assessments

- Conceptual planning, evaluation of phasing, & additional GW modeling
- Source water assessments & nitrogen mgmt. studies
- Institutional & financial arrangements needed for implementation of full-scale program
- Public outreach effort focused on Demonstration Plant

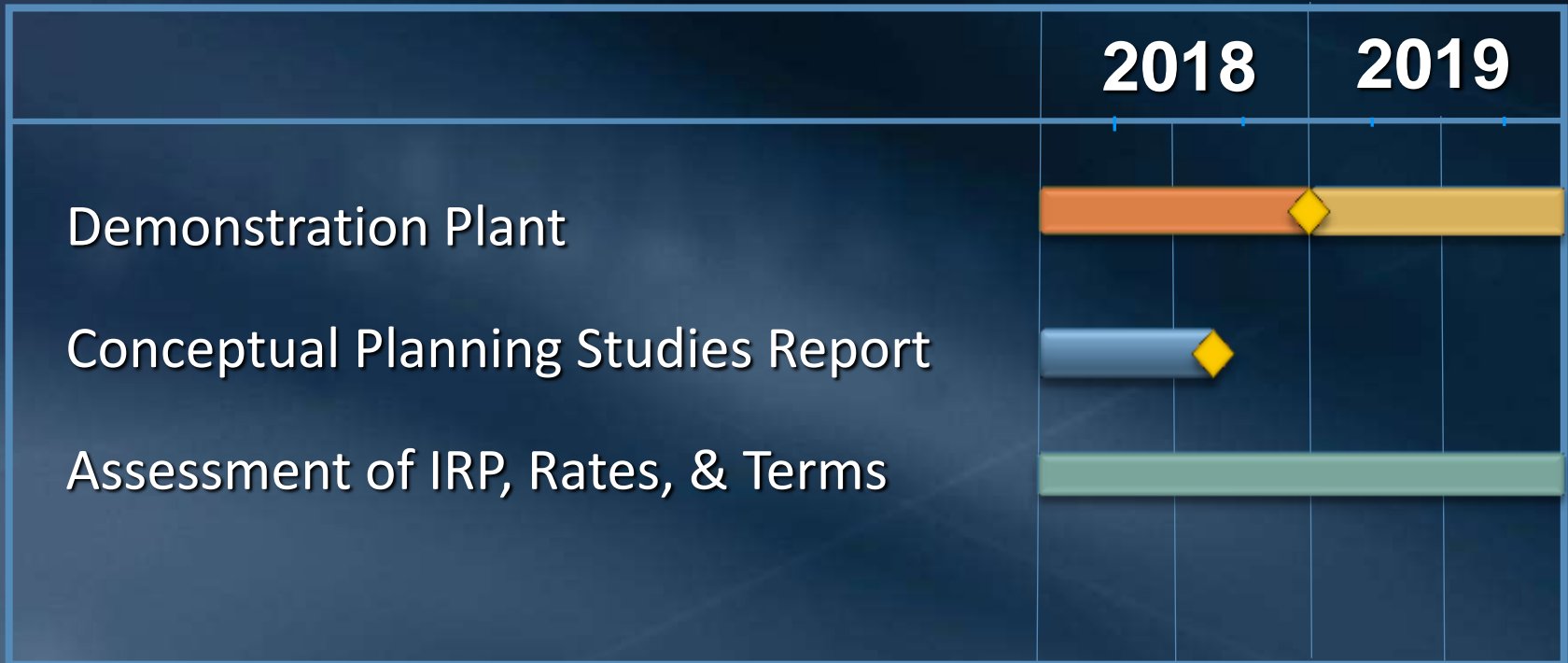
Potential Full-Scale Alternatives

- Groundwater basins potentially served by program
 - Central Basin
 - West Coast Basin
 - Orange County Basin
 - Main San Gabriel Basin
- Potential program phasing approaches
 - Single Phase - 150 MGD
 - Two Phases - 100/50 MGD or 50/100 MGD
 - Three Phases - 50/50/50 MGD or 25/75/50 MGD

Full-Scale Phasing Alternatives



Schedule



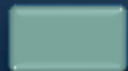
Construction



Operations/Testing



Studies

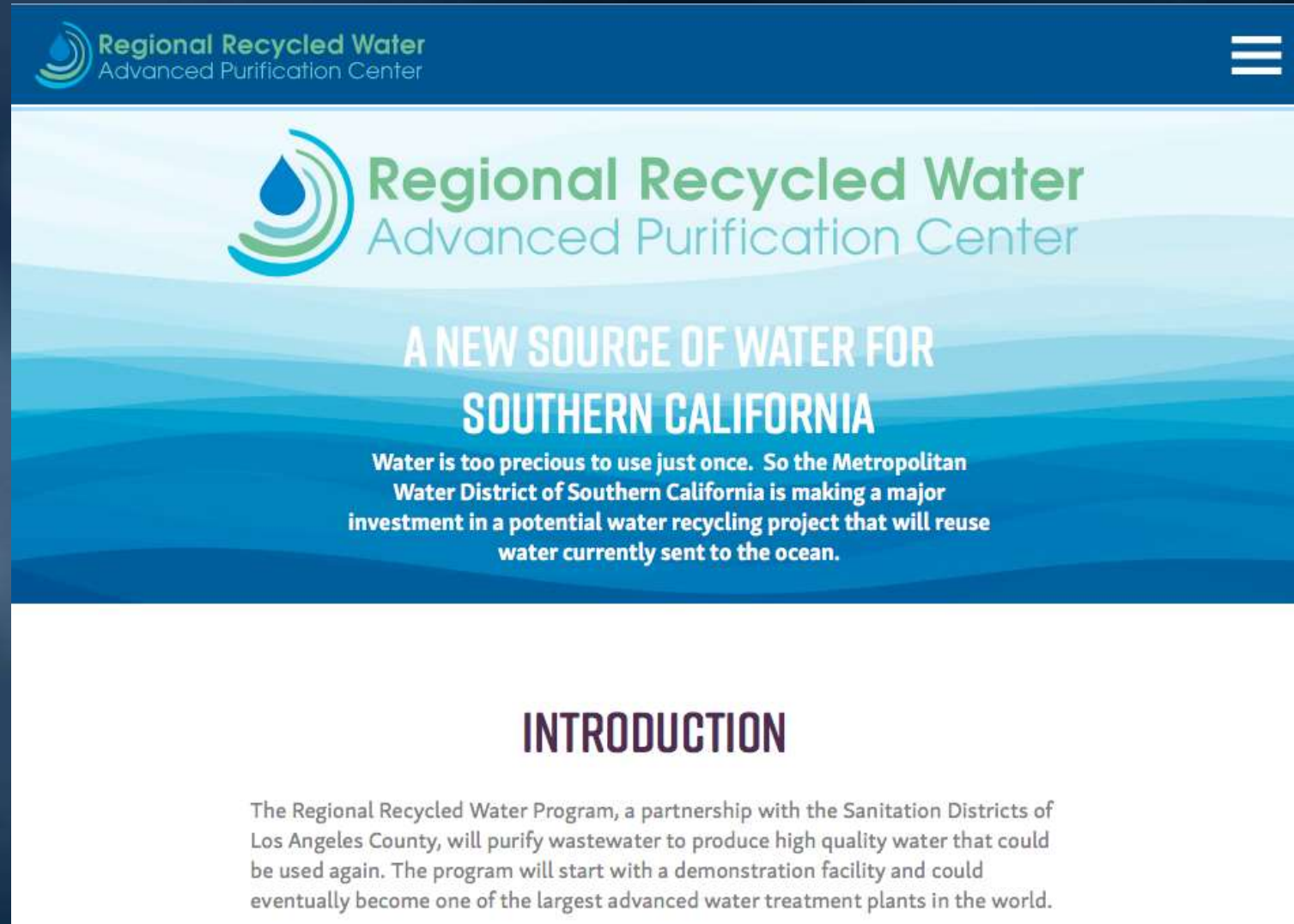


Other



Completion

Metropolitan Website



The image shows a screenshot of a website header and main content area. The header is dark blue with the logo and text 'Regional Recycled Water Advanced Purification Center' on the left and a hamburger menu icon on the right. The main content area has a light blue background with a large logo and text 'Regional Recycled Water Advanced Purification Center'. Below this is a headline 'A NEW SOURCE OF WATER FOR SOUTHERN CALIFORNIA' and a paragraph of text. The bottom section is white with the heading 'INTRODUCTION' and a paragraph of text.

Regional Recycled Water
Advanced Purification Center

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.**

INTRODUCTION

The Regional Recycled Water Program, a partnership with the Sanitation Districts of Los Angeles County, will purify wastewater to produce high quality water that could be used again. The program will start with a demonstration facility and could eventually become one of the largest advanced water treatment plants in the world.

