



Regional Water Quality Control Board

Water Reclamation Facility Update Meeting No. 2

June 15, 2020

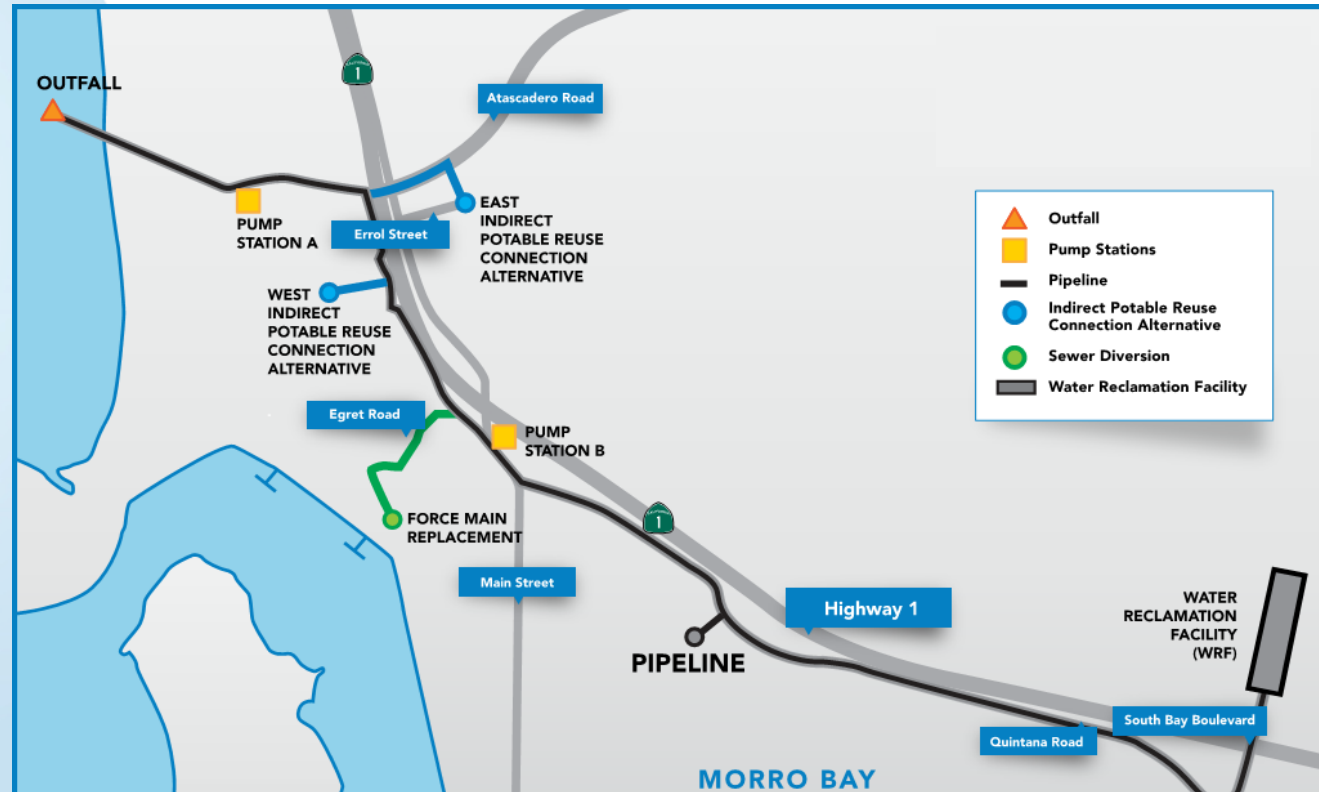
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Project Overview

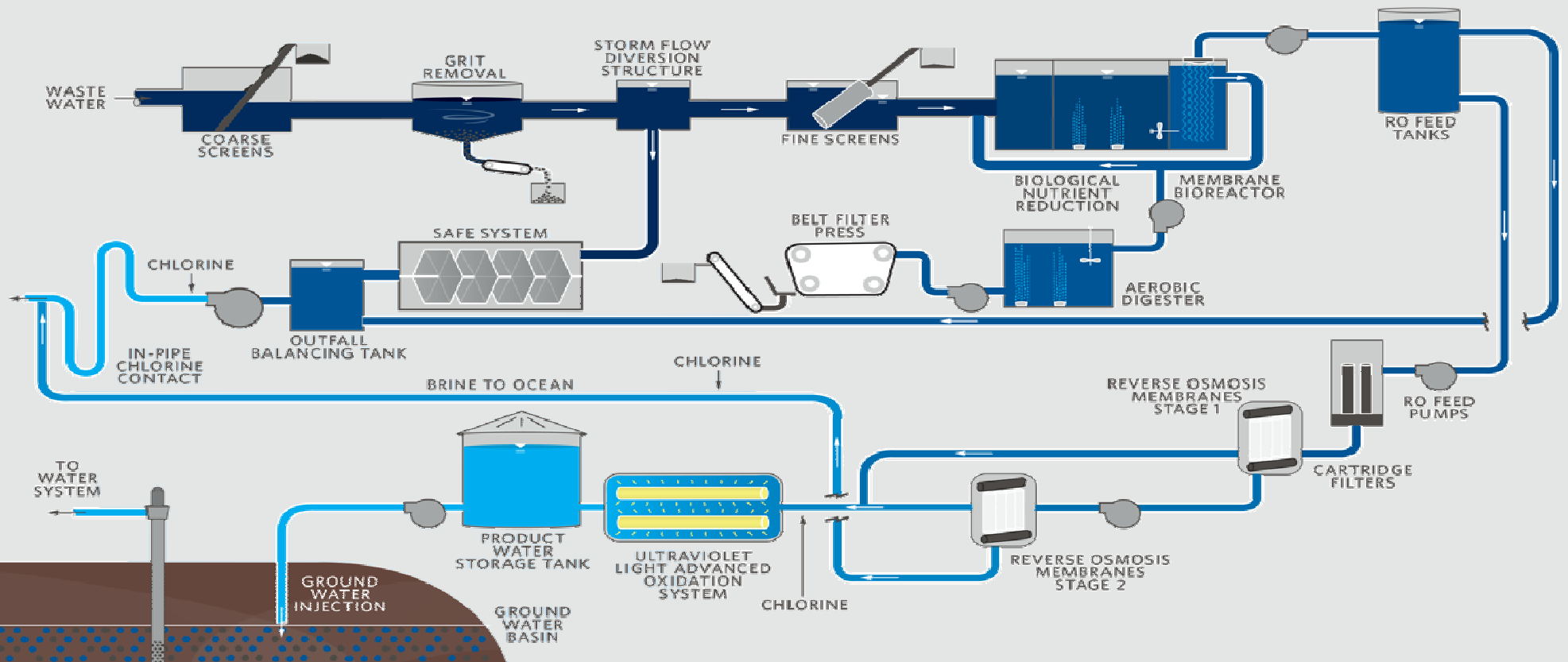
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Major Project Components

- WRF
 - New 1 mgd WRF
- Conveyance Facilities
 - Raw wastewater pump stations
 - Raw wastewater pipelines
 - Pipelines to injection wells
 - Brine pipeline to outfall
- Recycled Water Facilities
 - Injection wells (825 AFY)



WRF process flow diagram





Conveyance Facilities overview

- Pipelines
 - Dual wastewater forcemains
 - Brine to existing ocean outfall
 - Potable reuse line to injection field (east/west)
- Pump stations
 - Bifurcation of the City's sewer shed
 - Dual operation during average flows

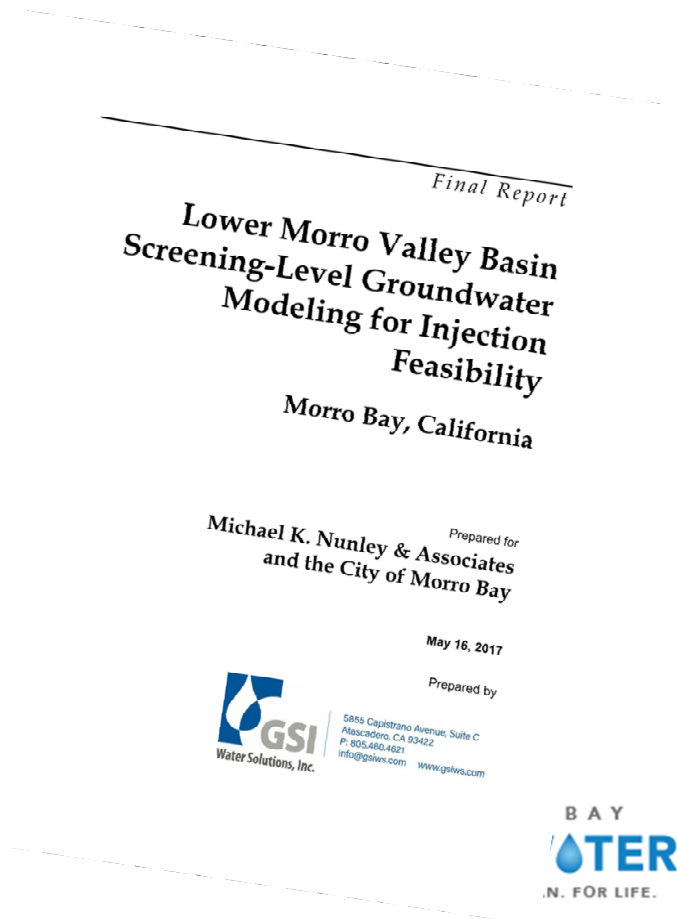


Hydrogeology studies ongoing

- Feasibility Study – 2017
- Phase 1: Modeling Update (TDS/Nitrate) – 2019
- Phase 2: Characterization of East and West Injection Sites – Ongoing
- Phase 3: Injection Well Design Criteria (2020)

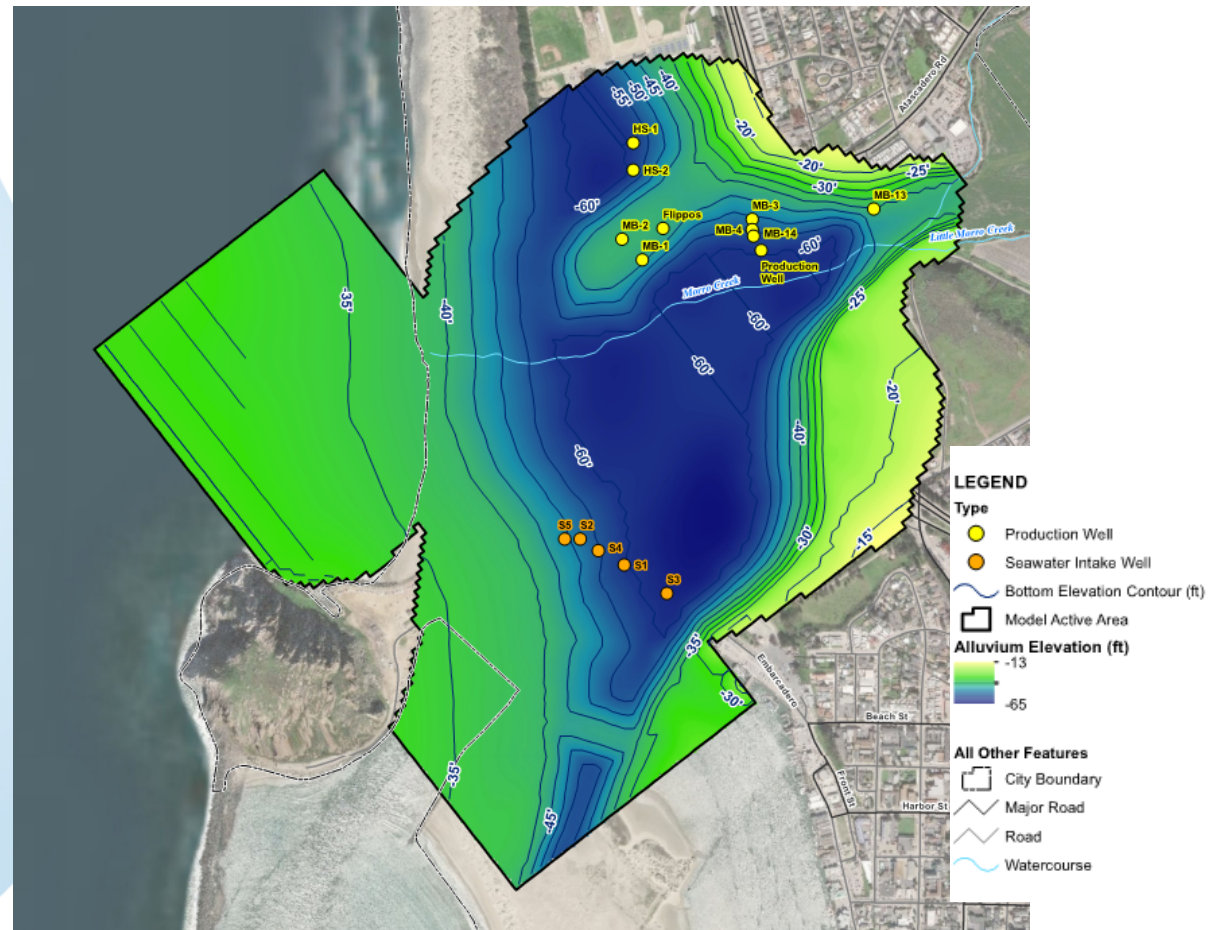
Feasibility Study findings

- Feasible for aquifer to accept injection
- A minimum of four injection wells needed
- Approximately 1,200 acre-feet-per-year (AFY) of groundwater could potentially be produced using IPR
- Minimum 2-month subsurface retention time



Phase 1 results

- Increased pumping without injection will lead to seawater intrusion
- Purified water injection has beneficial impacts on TDS and nitrates in the groundwater basin



Project Status

Progress since January 2020

- WRF
 - Construction started on March 23, 2020
- Conveyance Facilities
 - Project to be advertised by the end of the month
- Recycled Water Facilities
 - Hydrogeological work is ongoing
- Funding
 - WIFIA loan agreement signed
 - Review for CWSRF construction loan ongoing

Water Reclamation Facility

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WRF construction progress (March 2020)



WRF construction progress (April 2020)



WRF construction progress (May 2020)



Recycled Water Facilities

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Hydrogeology studies ongoing

- Feasibility Study – 2017
- Phase 1: Modeling Update (TDS/Nitrate) – 2019
- Phase 2: Characterization of East and West Injection Sites – Ongoing
- Phase 3: Injection Well Design Criteria (2020)

Phase 2 results

- West injection area optimal
- MBMWC well not suitable for injection
- Supports feasibility (retention times 2 to 4 months)



Phase 2 next steps

- Additional modeling
 - Varying injection and extraction volumes
- Soil characterization
- Additional pump testing



Low-threat discharge permit

- XXX

Questions and Discussion

A blue-tinted photograph of a coastal scene. In the foreground, a sandy beach stretches across the frame. In the middle ground, the ocean is visible with gentle waves. On the left side, a large, prominent rock formation (Morro Rock) rises from the water. A few small figures of people are standing on the beach near the water's edge. The sky is a clear, deep blue.

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