

COASTAL WATER AUTHORITY
CAPITAL IMPROVEMENTS




October 2024

COASTAL WATER AUTHORITY CAPITAL IMPROVEMENT PLAN

- ▶ Infrastructure Improvement Strategy for CWA Facilities
 - Pump Stations – Trinity River, Lynchburg, Lake Houston, Bayport, Capers Ridge
 - Canal Systems – Main Canal, Cedar Point Lateral, West Canal, Luce Bayou
 - Pipelines – A System, B–System, C–System, Bayport, Capers Ridge
 - Buildings
 - Lake Houston Dam
- ▶ Improvements will provide modernization, redundancy, increased capacity, reliability, and resiliency

COASTAL WATER AUTHORITY CAPITAL IMPROVEMENT PLAN

- ▶ Pump Stations
 - Lynchburg PS – B System Improvements (P201 and 206)
 - Capers Ridge – Add 4 Pumps and Motors
 - SCADA (All Pump Stations) – Replace Hardware and Software, Cybersecurity Upgrades
 - 2030–2040 – Lynchburg A System Expansion (P101 and P102)
 - ▶ Pipelines
 - B2 Pipeline
 - Bayport Phase 4 Waterline Replacement
 - 2030–2040 – A3 Pipeline, B3 Pipeline and D Pipeline
 - ▶ Building/Facilities
 - Building Renovations, Expansions, Replacement (All Facilities)
 - ▶ Lake Houston Dam
 - 11 New Tainter Gates
 - Future – Dam Replacement
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Pump Stations

- ▶ Lynchburg PS – B System Improvements
 - 2 new 50,000 GPM Pumps, Motors and VFDs (P201 and P206)
 - Design near Completion
 - Pumps, Motors and VFDs being Procured
 - Construction – 2025
- ▶ Benefits
 - Increases B-System capacity to EWPP and Industry
 - Replace P201 (50 years of age)
- ▶ Construction Cost – \$18M
- ▶ Design: 2022–2024
- ▶ Construction: 2025



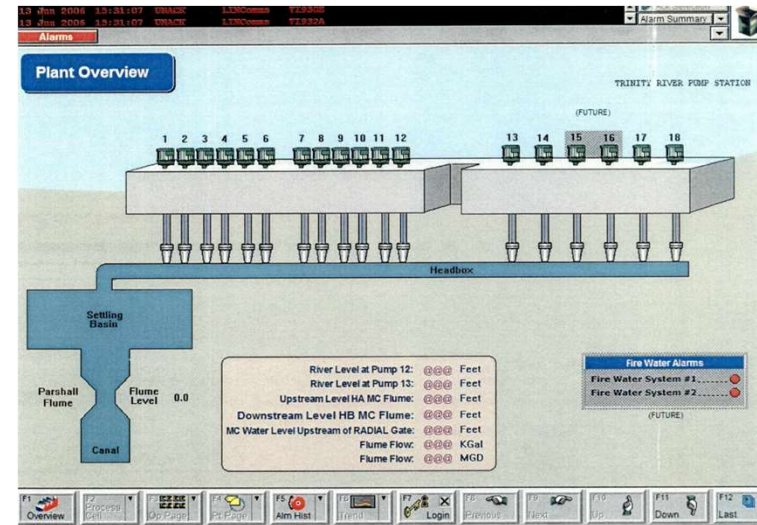
Pump Stations

- ▶ Capers Ridge Pump Station
 - Add Final 4 Pumps and Motors, Electrical and Piping/Valves
- ▶ Benefits
 - Increases LBITP to 500 MGD
 - Drought Mitigation
- ▶ Construction Cost – \$31M
- ▶ Design: 2023–2024
- ▶ Construction: 2025–2026



Pump Stations

- ▶ SCADA Upgrades/Replacement
 - Replace/Upgrade SCADA Hardware, Software and Cybersecurity at all Pump Stations
- ▶ Benefits
 - Standardize and Modernize Hardware, Software, Cybersecurity and Communications
 - Replace Hardware and Software that is 20 years of Age
- ▶ Construction Cost – \$15–\$20M
- ▶ SCADA Master Plan: 2024
- ▶ Design: 2024–2029
- ▶ Construction: 2025–2030



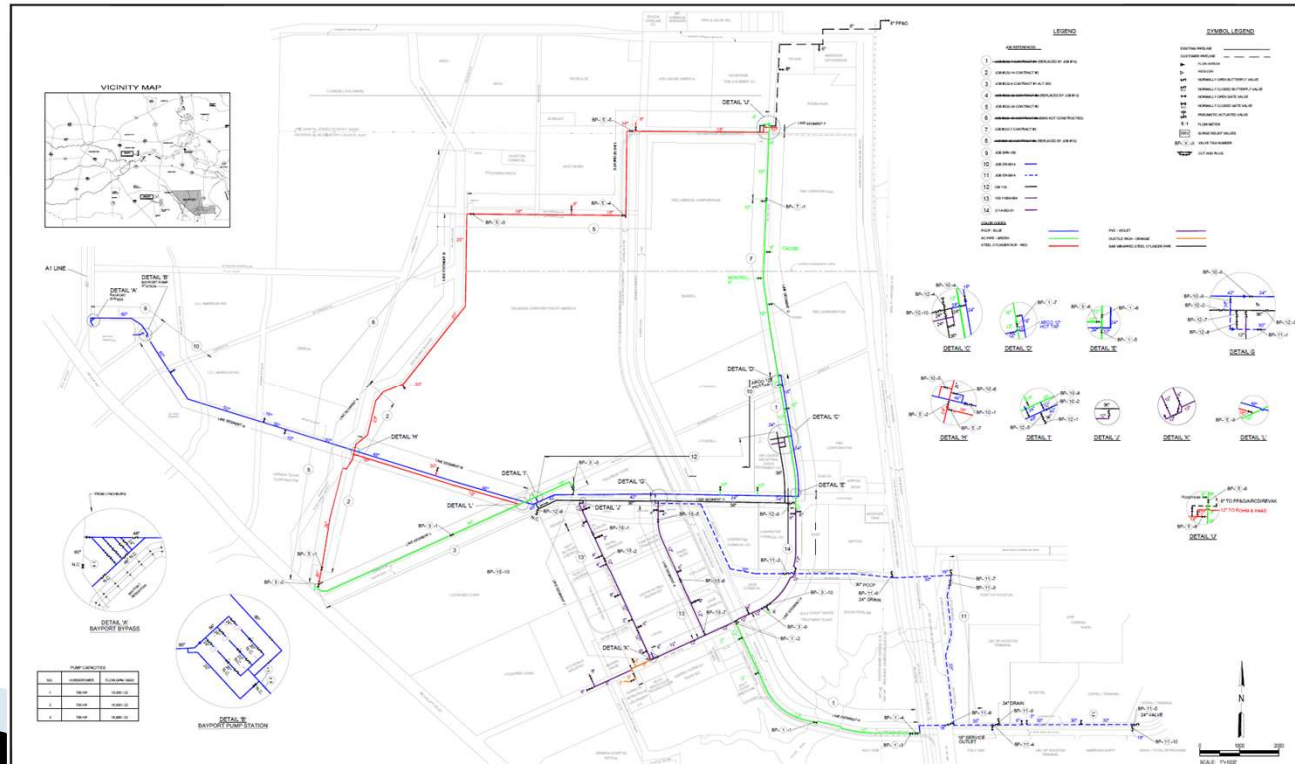
Pipelines

- ▶ B-2 Pipeline and East Lateral
 - 17 Miles of Parallel Redundant Pipeline to B1 (48in to 96in)
 - Existing ROW
- ▶ Benefits
 - Increases capacity to EWPP and Industry
 - Provides redundant supply to Industry along HWY 225 and EWPP
 - Facilitates Inspection and Repair of existing B1
- ▶ Construction Cost – \$300M
- ▶ PER/Design: 2024–2026
- ▶ Construction: 2026–2029



Pipelines

- ▶ Bayport Phase 4 Waterline Replacement
 - 3.2 Miles of 18 & 20 – Inch waterlines
 - Original Installed in 1968
- ▶ Construction Cost: \$2–3M
- ▶ Design: 2025
- ▶ Construction: 2025–2026



Building/Facilities Improvements

- ▶ Admin Buildings, Control Buildings, Electrical Buildings and Other Infrastructure (All Facilities)
 - Building Ages – 30–50 years
 - No Previous Renovations
 - Space Planning Needed – ADA, Safety, Staff, Conference Rooms, Kitchens, Locker Rooms, Restrooms
 - New Flooring, Paint, Roofs, Ceilings
 - Modernize Lighting, Communications, HVAC
 - ▶ Construction Cost: \$30M
 - ▶ Facilities Master Plan: 2024
 - ▶ Designs: 2025–2027
 - ▶ Construction: 2025–2028
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Lake Houston Dam

- ▶ 11 Tainter Gates added to East Embankment
- ▶ Increased Discharge - 79,000 cfs
- ▶ Studies - 2019-2023
- ▶ Final Design: 2024-2026
- ▶ Construction: 2026-2028
- ▶ FEMA/TDEM and TWDB Funded

