

COASTAL WATER AUTHORITY
CAPITAL IMPROVEMENT PLAN SUMMARY
5-YEAR PLAN (2024-2028)

The Coastal Water Authority Capital Improvement Plan (CIP) is the strategy for physical improvements to Coastal Water Authority raw water pumping, storage, conveyance, distribution and treatment infrastructure. The CIP describes all CWA systems and critical components, associated needs, and planned funding sources. CWA currently provides approximately 1-Billion Gallons of Water every day (BGD) to the region which is used for drinking water, industrial processes, and agricultural irrigation. The water is delivered to the customers through a series of reservoirs, pump stations, canals, and transmission pipelines. To meet current and future demands CWA must modernize equipment and facilities, build in increased redundancy, and improve system reliability and resiliency. These approaches are discussed below.

Modernization Approaches

Pumps and Motors - Replace end of life pumps and motors with the most advanced/efficient pumps and motors.

Electrical and Control Equipment – Replace end of life electrical/control equipment (transformers, breakers, motor starters, VFDs, protection relays and SCADA Systems) with the most advanced/efficient electrical/control equipment.

Buildings/Facilities – Renovate and/or replace existing facilities (administration buildings, control rooms, electrical buildings, repair shops and storage buildings). Incorporate ADA and safety standards, energy efficient lighting and HVAC systems, conference/meeting rooms, upgraded kitchens/breakrooms, restrooms, IT/Communications systems.

Redundancy, Reliability and Resiliency Approaches

IT/Cybersecurity – Provide reliable primary and backup systems for pump station SCADA, communications, historical operating data, etc.

Electrical Equipment – Provide backup equipment for breakers, starters, transformers, relays/switches and Remote Terminal Units (RTUs).

Pipelines – Reduce and/or eliminate the risks associated with PCCP by inspection, repair, protection, slip-lining and adding redundant parallel transmission lines and valves/valve stations.

Buildings/Facilities – Harden critical buildings that house electrical equipment, control equipment, and chemical feed systems to protect from floods, hurricanes, tornados, freezes and excessive heat.

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The CIP provides an estimate of delivery by fiscal year for the next five years. The FY 2024-2028 CIP will be financed by a combination of existing CWA funds, COH HPW funds, TWDB Loans, FEMA Grant Programs and other funding sources. Funding status for highlighted projects is provided below.

Highlights of the Fiscal Year 2024-2028 CIP:

- Continue work to add additional pump capacity to the Lynchburg Pump Station B-System (Funding Secured)
- Continue work to add the full pump capacity to the Capers Ridge Pump Station (Funding Secured)
- Continue replacement of Bayport System pipelines (Funding Secured)
- Continue work to add discharge capacity to the Lake Houston Dam (Engineering Funded; Construction Funding TBD)
- Continue work to install a fully redundant B-2 Pipeline (Preliminary Engineering Funded; Final Design and Construction Funding TBD)
- Complete SCADA System Upgrades and Replacements (Preliminary Engineering Funded; Final Design and Construction Funding TBD)
- Complete Building and Facility Renovations and Replacements (Preliminary Study Funded; Final Design and Construction Funding TBD)
- Complete Pipeline Cathodic Protection upgrades and replacements (Funding TBD)
- Continue Transmission Pipeline Condition Assessments (Funding TBD)

CIP projects are described on the attached slides.