



# SBWSB Capital Renewal Plan (CRP)

(DRAFT April 19, 2024)

Phase	Scope Name	Schedules
<b>Phase A</b>	<b>Immediate Needs Assessment &amp; Conceptual Design Report for Phase A Facilities Upgrade Engineering Services</b>  <u>Notes:</u> 1) Laboratory Roof Replacement. Completed July 2023. 2) Contract 2022-1 Phase A Facilities Upgrades includes the upgrades that are considered immediate. The initial list of asset actions include: Putnamville and Longham Gatehouse Improvements; Backwash Valve, Meter, and Pipe Replacement; Replace Piping in Filter Pipe Gallery; New Filter Media/ Surface Wash Pipes and Agitators; Paint Filter Bays / Ceilings; Remedy 30-inch Backwash Drain Line Valve Issue; Evaluate Sedimentation Basin Equipment and Alternatives; and Fluoride Tank Containment. 3) In-house project includes inspection and cleaning of WFP Finished Water Reservoir (aka Clear Well). Clear Well Inspection Completed 9/2/21, Cleaning Started 10/5/21 to 90% Complete (claim).	<b>Scope &amp; Budget (Ph A.2):</b> Approved 08/17/21 (AECOM). <b>Concept Design Report:</b> Complete. <b>100% Design Report:</b> Kickoff March 2022. Draft 100% Completed November 2023. Design delays caused by PFAS EPA/DEP Regulations/MCL's changes late in 2023. Final 100% completed April 2024. <b>Bid and Award:</b> Anticipated Summer 2024.
<b>Phase B</b>	<b>Water Supply Transmission Pipeline Condition Assessments</b>  <u>Notes:</u> 1) CDM report divides the water supply projects into three (3) phases as follows: Ph. 1 - Canal PS Conduit to Wenham Lake, Ph. 2 - Longham Pipeline, and Ph. 3 - Putnamville Pipeline. Phases 2 & 3 will require design / installation of robot access ports to be included in Phase E work.	<b>Scope &amp; Budget:</b> Phase 1 Completed 1/2022 CDM-Smith & RedZone). Phases 2 & 3 will be updated in Phase E.
<b>Phase C</b>	<b>20-Year Capital Sustainability Master Plan (CSMP)</b>  <u>Notes:</u> 1) CSMP funding is currently planned via the Mass Clean Water Trust Asset Management Grant Program. Due to grant funding limits, the CSMP will be completed in two phases and the scope will align to grant funding goals. The Phase 1 grant application proposal was submitted and includes the following tasks: Data Collection and Review, Asset Inventory, Condition Assessment and Criticality/Risk Analysis, Demand Analysis, Regionalization Considerations, Cybersecurity Risk Assessment, Financial and Legislative Considerations, and a Phase 1 Asset Management and Sustainability Plan Report. 2) The anticipated Phase 2 scope will expand upon the Phase 1 work including further assessment of the following: Evaluation of SBWSB water supply source (raw water quality and quantity), Assessment of treatment plant unit processes necessary to achieve future regulatory compliance, Regional water solutions, Creation of a prioritized ranking and schedule of improvements and updates to the SBWSB's Capital Improvements Plan (CIP), Cybersecurity, Financial and legislative issues, and a Phase 2 Asset Management and Sustainability Plan Report. Both reports will be combined into a 20-Year CSMP.	<b>Develop Ph 1 Scope:</b> Completed and submitted to MADEP in August 2023. Grant Award Announcement made in January 2024 with NTP in December 2024 through December 2025.  <b>Ph 2 Scope and Schedule:</b> Like above with 1-year added to each date. The full CSMP anticipated completion is December 2026 - January 2027. This CSMP is the first of a series of perpetual 20-Year Master Plans. See Phase K.
<b>Phase D</b>	<b>Canal Pump Station Upgrades</b>  <u>Notes:</u> 1) The Canal Pump Station projects include Canal PS Redundant Pump Concept Design (to 30%). 2) Canal Pipeline Outlet Repairs at Wenham Lake (Concept Sketches by CDM).	<b>Scope &amp; Budget:</b> Phase A anticipated April 2024 (Wright-Pierce) <b>Concept Design Report:</b> Kickoff May 2024. Anticipated completion Summer 2024. <b>Bid &amp; Award/Construction:</b> TBD
<b>Phase E</b>	<b>Water Filtration Plant Upgrades</b>  <u>Notes:</u> 1) Scope to be determined in Phase C and may include PFAS EPA/DEP Regulations/MCL's changes anticipated in December 2023 (TBD). Phase C or E will include upgrades to WFP's Electrical System (Generator, MCCs, Cabling, Lighting), HVAC System, SCADA, Chemical Process/Storage/Feed, Yard Piping, and Entire Plant Roof (minus Lab Roof), and work items removed from Phase A including MCC Room Air Conditioning, Process Water Pump System Review, Pipeline Tees for Robot Access / Condition Assessment, and 42-inch Coupling Adaptors on Filter Influent Pipe. 2) The outcomes of the North Shore Water Resiliency Task Force (NSWRTF) may impact the scope.	<b>Schedule:</b> Phase C work will further detail scope and schedule.  The outcomes of the North Shore Water Resiliency Task Force (NSWRTF) may impact the scope and schedule.
<b>Phase F</b>	<b>Finished Water Storage System Evaluation &amp; Upgrades</b>  <u>Notes:</u> 1) Scope to be determined in Phase C including evaluation of Topsoil, addition of Membrane, new Vent System, Artificial Turf (i.e., Astro Turf) for Geese Control, Drainage, and Solar Panels (TBD).	<b>Schedule:</b> Phase C work will further update scope and schedule. See Phase A.3 inspection reports.
<b>Phase G</b>	<b>WFP Expansion Evaluation / Expansion</b>  <u>Notes:</u> 1) Scope includes addition of Filters and Sedimentation Basin to get Plant back to 24 MGD capacity.	<b>Schedule:</b> Phase C work and NSWRTF outcomes will further update scope and schedule.
<b>Phase H</b>	<b>Low Lift Station Re-Activation Evaluation &amp; Upgrades</b>  <u>Notes:</u> 1) Includes: Intake Structure, Pumping System, Electrical, SCADA, Internal and Yard Piping, HVAC, and Chemical Feed from WFP. This is a Redundancy Project for consideration.	<b>Schedule:</b> Phase C work will further update scope and schedule.
<b>Phase I</b>	<b>Additional Water Supply Capacity Needs Assessment</b>  <u>Notes:</u> 1) Includes Topsfield Reservoir / NIKE Site Properties and outcomes of NSWRTF work.	<b>Schedule:</b> Phase C work and NSWRTF outcomes will further update scope and schedule.
<b>Phase J</b>	<b>Dredge Canal</b>  <u>Notes:</u> 1) Anticipate need in 10 years; last dredged in 1975. August 2024 Work Order to layout current profile.	<b>Schedule:</b> Phase C work and results of 2024 preliminary profiling project will further update scope and schedule.
<b>Phase K</b>	<b>20-Year Capital Sustainability Master Plans (CSMPs)</b>  <u>Notes:</u> 1) Includes a series of perpetual 20-Year Master plans to help manage costs, risks, service levels, and associated continuous improvement activities beyond the next 100 years.	<b>Schedule:</b> This is the continuation of a series of perpetual 20-Year Master Plans. See Phase C.