

Town of Seabrook Resilience Upgrades - Wastewater Treatment Facility



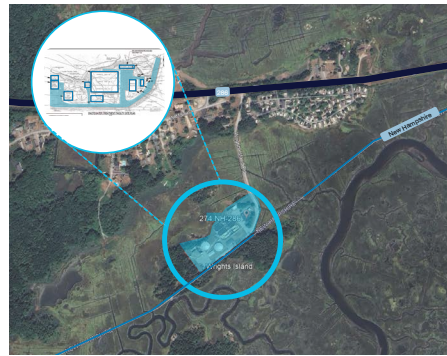
The Problem

- ① **Wastewater infrastructure is often damaged by flooding during extreme events**
 - Wastewater Treatment Facility (WWTF)
 - Pump station
- ② **Serves many Seabrook users** - residential, commercial, and industrial
- ③ **Projections show increasing flood risks to treatment functions from**
 - Coastal storm surge
 - Sea level rise
- ④ **On low-lying properties** surrounded by extensive tidal wetlands, the Blackwater River, and the Atlantic Ocean

Project Goals

-  Protect wastewater treatment and pump station from sea level rise and storm surge
-  Address flood risk through design upgrades
-  Implement flood resilience measures before damage or disruption occurs
-  Prevent risks to public health and environmental pollution

Site location



Storm Surge Map



Project Overview

Seabrook's Wastewater Treatment Facility (WWTF), supporting roadway, and pump stations are vulnerable to climate impacts such as sea level rise and coastal storm surge. Located on Wright's Island, the aging WWTF collects and treats residential, commercial, and industrial wastewater from most of the town. Any disruptions to WWTF operation due to flooding from sea-level rise and storm surge could result in significant public health risks, disrupt business activities, and potentially pollute groundwater and our oceanfront areas. The Town is proactively planning and preparing the facility for flooding now, before it causes damage or disruption.



PHASE I
Wastewater Treatment Facility (WWTF) Resilience Study



PHASE II
Designing Resilient WWTF Upgrades



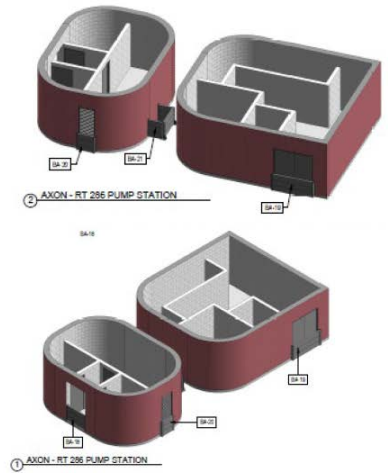
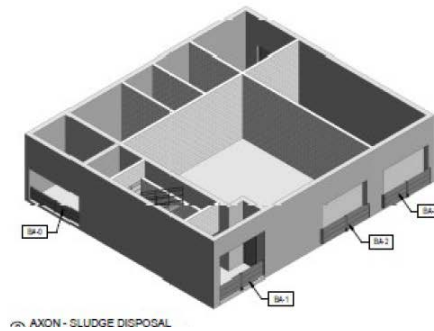
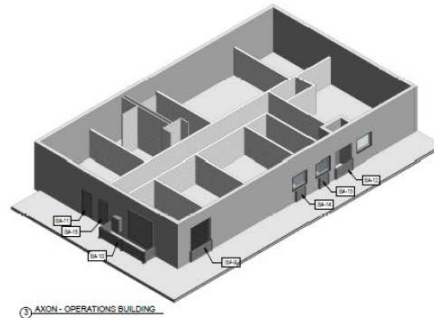
PHASE III
Implementation of Resilient WWTF Upgrades



WE ARE HERE!
PHASE IIII
Construction of Resilient WWTF Upgrades

Benefits

This project supports resilient operations of critical assets - the WWTF and pump station - throughout their remaining useful life (approx. 2050) during flooding due to sea level rise and major storm events.

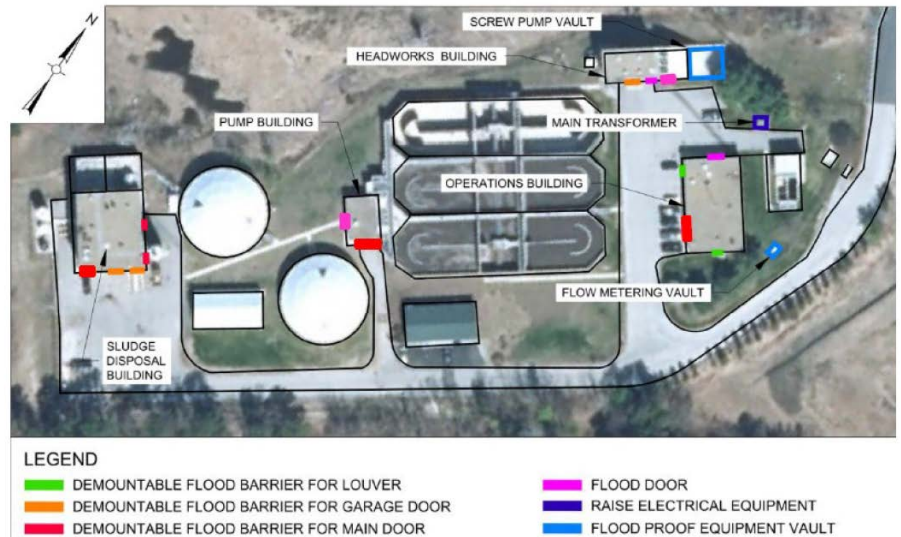


Sludge Disposal Building
Diagrams show the multiple flood resilience measures being installed including demountable barriers and flood doors

Flood Resilience Measures

Identified through Climate Resilience Assessment conducted in 2021

- Demountable flood barriers
- Flood doors
- Raising structures



Implementation Milestones:



Design funded by:
HUD CPF grant



No significant environmental
impacts expected (according
to HUD review)



Construction funded by:
ARPA CFRING and
HUD grant