

Narragansett Wastewater Treatment Facility - CLIMATE VULNERABILITY SUMMARY



Scarborough WWTF is located at 990 Ocean Road in Narragansett. It treats an average of 1.4 million gallons of wastewater per day, serving approximately 7,300 customers in the southern portion of Narragansett. Additional information is on the back of this summary.



TOP 2 HAZARD MODELING RESULTS



Stanton Ave, Galilee, and Mettatuxet pump stations inundated during a 100-year storm.



The proposed WWTF flood barrier will impede shoreline erosion and dampen waves but inundation will become a factor during a 100-year storm with 5 feet of SLR if adjacent properties do not harden and protect their shoreline.



Legend

- Treatment Plant
- Pump Station
- Approx. Parcel Boundary
- Wave Transect
- 2115 Shoreline
- 2065 Shoreline
- 2040 Shoreline
- 100-Year Flood Level
- 100-Year Flood Level Plus 1' SLR
- 100-Year Flood Level Plus 2' SLR
- 100-Year Flood Level Plus 3' SLR
- 100-Year Flood Level Plus 5' SLR



PLANNED CLIMATE CHANGE ADAPTATION MEASURES

Construction of a flood-proofing barrier is planned for 2017 to protect the facility from damaged caused by storm surge.

NARRAGANSETT, RI - CLIMATE VULNERABILITY SUMMARY

FACILITY SUMMARY	
Owner	Town of Narragansett
Operator	Town of Narragansett
Facility Address	990 Ocean Road Narragansett, RI 02882
Contact Name	Peter Eldridge, Superintendent
Phone	401.782.0682
Design Flow Capacity	1.4 MGD
Average Daily Flow	0.6 MGD
Receiving Water	Rhode Island Sound
Extreme Weather Related SSO Events 2010 - 2014	4 out of 18 events or 22%

The Scarborough WWTF is located on a coastal bluff adjacent to Rhode Island Sound, which makes it susceptible to storm surge and other severe weather impacts.

The Stanton Avenue PS is isolated and floods regularly because of its location adjacent to a salt-water marsh. Access to the Stanton Avenue PS has been restricted during seasonal high tides and heavy rainfalls.

ADAPTIVE STRATEGIES (SEE REPORT FOR COMPLETE LIST)				
SYSTEM	Hardening	Relocating	Readily Repairable/ Replaceable	Mitigation Strategy
Influent Pump Station and Preliminary Treatment (Screening / Grit Removal)	B			Replace influent pumps with submersibles.
Aeration Tanks	A		B	Protect facility entrances with flood barriers. Store replacement drive components on-site.
Disinfection System (Chlorine Contact Tanks)	A			Protect facility entrances from contact tank surcharge with flood barriers.
Generator	A			Protect facility entrances from contact tank surcharge with flood barriers.
Mettatuxet PS	B	C		Protect slab penetrations and equipment with flood barriers or slab perimeter wall. Relocate pump station inland.

A = < \$50,000 B = \$50,000 to \$250,000 C = \$250,000 - \$1,000,000 D = > \$1,000,000