

# East Providence Wastewater Treatment Facility - CLIMATE VULNERABILITY SUMMARY



East Providence WWTF is located at Crest Avenue in Riverside. It treats an average of 2.5 million gallons of wastewater per day, serving approximately 46,100 customers in East Providence and Barrington. Additional information is on the back of this summary.



Coastal Flood Hazard

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Significant Wave Height for 100-year Event

## TOP 3 HAZARD MODELING RESULTS

Inundation of most of the facility during a 100-year storm with water depth between the aeration tanks and secondary clarifiers at 5-6 feet.

Inundation of Sabin Point PS and Silver Street PS during a 100-year storm.

4-5 feet approaching the shoreline.



## COMPLETED CLIMATE CHANGE ADAPTATION MEASURES

Recent flood mitigation projects include constructing the new Watchemoket pump station above the FEMA designated 100-year floodplain, and upgrading and elevating multiple generators at the WWTF site on belly tanks.

# EAST PROVIDENCE, RI - CLIMATE VULNERABILITY SUMMARY

FACILITY SUMMARY	
Owner	East Providence
Operator	Suez
Facility Address	Crest Avenue Riverside, RI 02915
Contact Name	Tom Azevedo, Superintendent
Phone	401.433.6363
Design Flow Capacity	14.2 MGD
Average Daily Flow	6.7 MGD
Receiving Water	Providence River
Extreme Weather Related SSO Events 2010 - 2014	9 out of 24 events or 38%

East Providence has extensive infiltration and inflow issues that are being addressed by a variety of means including raising manhole covers and epoxy lining the collection system piping.

The new (2012) Watchemoket Cove pump station capacity was increased to 10 MGD to mitigate SSOs.

ADAPTIVE STRATEGIES (SEE REPORT FOR COMPLETE LIST)					
SYSTEM	Hardening	Relocating	Readily Repairable/ Replaceable	Redundancy	Mitigation Strategy
Aeration Tanks (Circular)	A				Protect facility entrances with flood barriers.
Secondary Clarifiers	B		B	B	Replace glass entranceway with flood resistance walls. Protect facility entrance with flood barriers. Store replacement drive components on-site. Pumps may be temporarily augmented.
Disinfection System (Chlorine Contact Tanks)	A				Protect facility entrances with flood barriers.
Operations Building	A				Protect facility entrances with flood barriers.
Silver Street PS	A	B			Protect facility entrances with flood barriers. Relocate fuel tank.

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