

About this project

The City of Revere is proactively taking steps to address climate vulnerabilities. The goal of the Diamond Creek Catchment Improvements Investigation and Assessment Project is to reduce inland and coastal flooding and urban heat island effects in the Diamond Creek catchment area. The project also includes strategies to reduce stormwater discharge from the catchment area into important natural resources – the Rumney Marsh and Oak Island Salt Marsh.



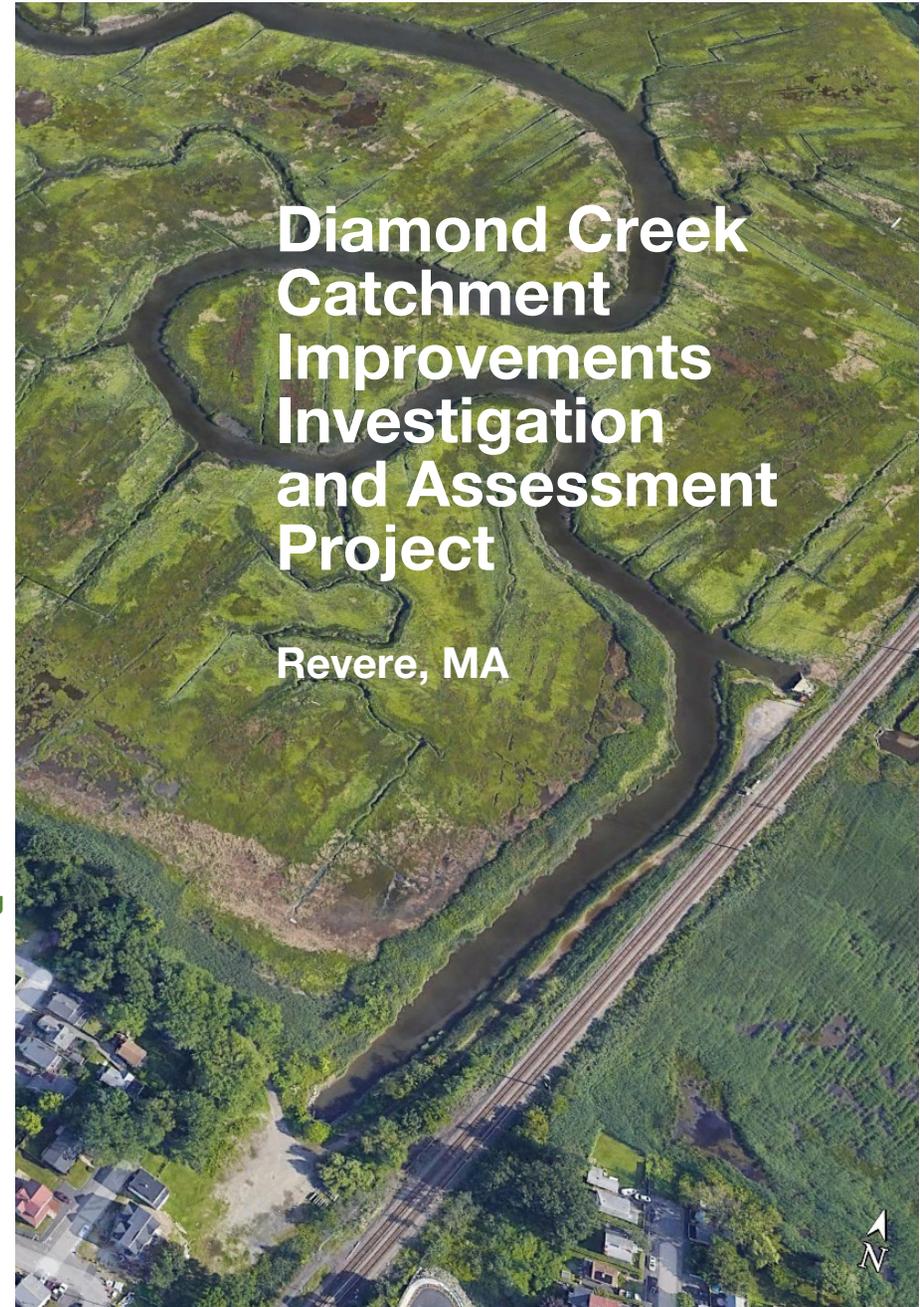
Municipal Vulnerability
Preparedness

How is the city doing this?

Revere is studying the existing drainage system through field investigation and modeling. A hydrologic and hydraulic model can be used to evaluate the stormwater volumes that can be handled during current and future rainfall events. Using this information, the city will decide what upgrades to the system are needed to reduce the impacts of stormwater. The result of this project will be preliminary designs and initial steps to permit these strategies. The goal is to reduce the impacts of flooding caused by stormwater and tidal flooding on the neighborhood.

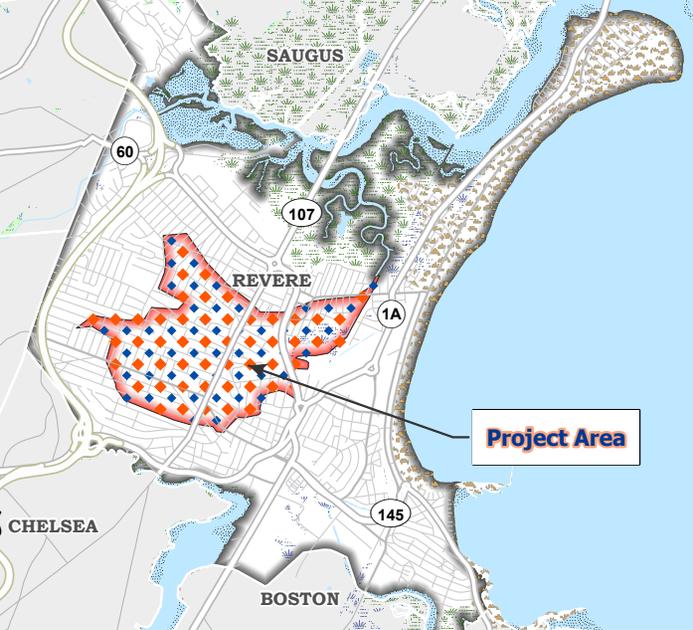
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Diamond Creek Catchment Improvements Investigation and Assessment Project

Revere, MA



The city is looking at several strategies to address climate change, including tide gate upgrade, culvert replacement, & **nature-based solutions.**

Revere is taking action to address climate vulnerability



Sea Level Rise



Heavy Rain



Winter Storms



Heat Waves



Higher Annual Temperatures



Nature-Based Solutions (NBS)

Nature-Based Solutions (NBS) are adaptation measures focused on the **PROTECTION, RESTORATION, or MANAGEMENT** of ecological systems.

NBS can safeguard public health, provide clean air and water, increase natural hazard resilience, and sequester carbon.

Incorporating NBS in local planning and design projects produces long-term solutions that benefit human and natural systems (ResilientMA).

Benefits

1. Can reduce volume of stormwater runoff, lowering flood risks.
2. Soil infiltration can improve water quality, preventing pollutants carried by runoff from immediately entering downstream habitats.
3. Can improve urban heat island effect and improves air quality.
4. Can provide ecological habits.
5. Can improve appearances, and foster a sense of community through additional landscaped or planted areas.