Island End River (IER) Flood Resilience Project

Community Background

The City of Everett is home to over 50,000 residents and the City of Chelsea has a population of approx. 40,000 people. These communities are located along the northern side of the Mystic River. The Project Site is in proximity to neighborhoods defined as Environmental Justice (EJ) Populations and was constructed on top of former tidal flats and marshes. The area is inherently vulnerable to coastal flooding because of the it's topography and hydrology. The project area supports the backbone of New England's fresh produce system. The Chelsea/Everett food cluster generates $2.3 billion in annual economic activity and sustains approximately 11,000 indirect jobs and 3,000 direct jobs. Damage to these facilities would have cascading impacts on food availability and pricing throughout the region.

MVP REGION	Greater Boston
GRANT AWARD	$716,500
MATCH AMOUNT, SOURCE	$241,388; Local Cash/In-Kind
PROJECT TYPE	Design and Permitting
CORE VALUES EXEMPLIFIED	Utilizing Climate Change Data for a Proactive Solution, Utilizing Regional Solutions Toward Regional Benefit
OUTCOMES	Protective flood barrier system, underground surge control structure, wetland enhancements, and public amenities
ADDITIONAL RESOURCES	North Suffolk Office of Resilience and Sustainability | City of Chelsea MA
	Planning Studies and Reports | City of Chelsea MA
	Planning & Development - Everett, MA - Official Website

Project Goals

This project focused on evaluating flood wall alignments in Everett and initiated design work on a selected alignment while continuing work in Chelsea related to permitting, design development, and climate modeling for benefit assessment and program validation. Community engagement through advisory groups of both residents and private business stakeholders continued in this phase of the project. The project team determined the environmental permitting strategy and initiated permitting through pre-filing meetings with interagency federal, state, and local participants, develop an overall permitting strategy and timeline, and prepare initial permit application materials. The project team prepared a detailed benefit-cost analysis (BCA) on the preferred alternative for a major FEMA BRIC request in winter 2021. Stakeholder outreach engaged both the business community in Everett through an established working group and Chelsea and Everett environmental justice residents through an existing equitable engagement framework.

A portion of the former river, tidal flats and marshes were gradually filled in late 1800s, which facilitated the construction of the New England Produce Center and industrial development into the 1960s.

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Climate Change Impacts Addressed

1. Incorporation of state-recommended Resilient Massachusetts Action Team (RMAT) design criteria in the design of flood resilience measures to account for future sea level rise.
2. Protection of industrial sites that store hazardous chemicals and fuels that could pose a risk to the Mystic River watershed in the event of coastal storm.
3. Planting of native species, including 19 new shade trees, and reducing impervious surfaces throughout Project Site to address urban heat island effect.
4. Enhancing existing degraded salt marsh area by removing a thick wall of invasive species (phragmites) and replanting bare spots further into the marsh with native species.
5. Proposing salt marsh improvements that will improve habitat and awareness of the salt marsh resource area from adjacent publicly accessible areas.

Project Outcomes

The entire Project will include approximately 4,640 linear-foot (lf) of protective flood barrier system, an approximately 2,150 square-foot underground surge control structure, wetland enhancements, and public amenities including public kayak launch and bathrooms, shared office/workspace, and existing boardwalk.

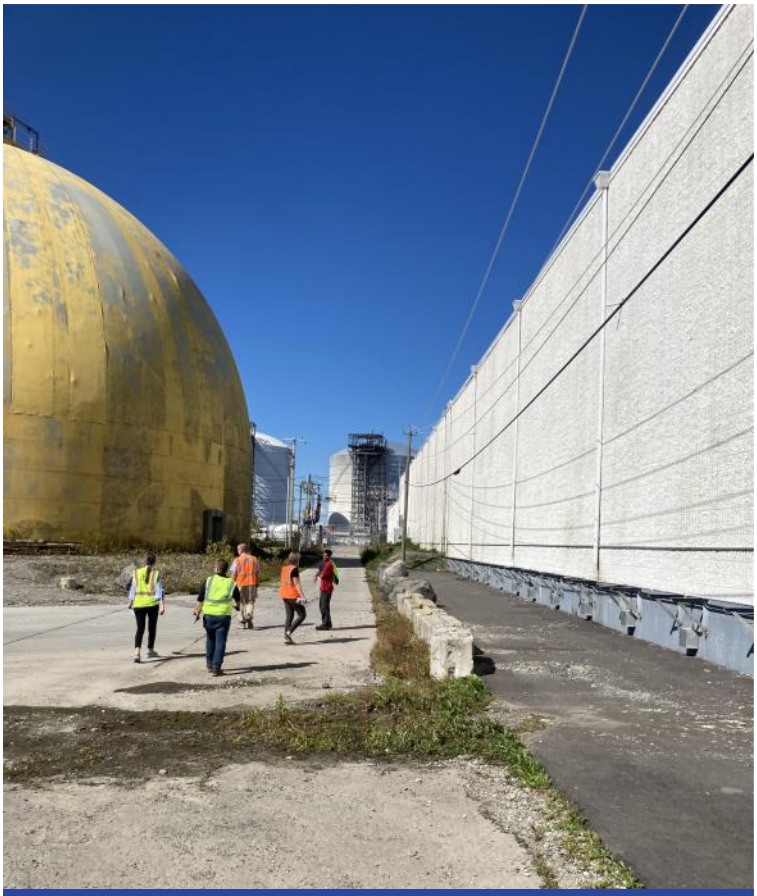
The Stakeholder Working Group, led by Tetra Tech, comprised of more than a dozen business representatives from the private sector in the Everett Industrial District to provide feedback on the project design and long-term operation and maintenance.
The Community Advisory Group, led by GreenRoots, has been comprised of 4-6 Everett and Chelsea community members to provide input on the project's public benefits and potential impacts.

Lessons Learned

- The importance of regional collaboration and good communication.
- The value of creating multiple stakeholder working groups to gather feedback from a diverse set of stakeholders.
- The critical nature of building relationships with private properties owners in order to implement district -wide flooding solutions.
- The value of multiagency pre-filing meetings to shape a project and encourage dialogue between regulators o The support available from MEMA and their technical assistance consultants to aid municipalities in federal grant application process.
- The significance of nonprofit partners and their relationships within communities to engage with EJ communities .

For More Information

Other communities can collaborate with Resilient Mystic Collaborative to learn more about the project in addition to the City of Everett's Planning & Development Department page and the City of Chelsea's Housing & Community Development Department page



The Stakeholder Working Group in the Everett Industrial District to provide feedback on the project design and long-term operation and maintenance

GreenRoots led community and youth event on the Mystic River