

# ISLAND END RIVER (IER) FLOOD RESILIENCE PROJECT

## DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)

### PROJECT DESCRIPTION

On behalf of the Cities of Chelsea and Everett (the “Proponents”), this Draft Environmental Impact Report (DEIR) is submitted to the Executive Office of Energy and Environmental Affairs (“EEA”) for the Island End River (“IER”) Flood Resilience Project (the “Project”). The Proponents propose to construct an approximately 4,460 linear-foot (“lf”) storm surge barrier, an approximately 3,000 square-foot (“sf”) underground storm surge control facility (“SSCF”), approximately 18,000 square feet of nature-based approaches (“NbA”) along the riverfront, and associated wetland and public access improvements along the IER in the Cities of Chelsea and Everett (the “Project Site”) to protect over 5,000 residents. The approximately 5.2-acre Project Site is currently composed of a mix of commercial and industrial uses and supporting roadway and utility infrastructure. The existing banks of the river are highly degraded by legacy industrial uses and are comprised of hardened slope stabilization measures and littered with debris.

The Project includes the following critical flood resilience elements:

Resilience Provisions East (“RPE”) – This Project element consists of a storm surge barrier along the Chelsea banks of the IER. Additionally, the Project will provide public amenities such as a resilient riverwalk, which has been designed to increase community access to the waterfront in the form of an elevated boardwalk and vegetated berm sections. The existing Island End Park is a mix of urban wild and manicured greenspace and provides the community with limited waterfront access. The park will be refreshed as part of the Project to enhance the community’s enjoyment of the space and to increase the resilience of this parkland to rising tides. This element protects not only critical regional infrastructure in Chelsea but will also safeguard several residences within neighborhoods comprised of Environmental Justice (“EJ”) Populations.

Storm Surge Control Facility (“SSCF”) – This structure will be constructed at the outlet to the IER of the existing Market Street Culvert to prevent inland flood damage during coastal storm events. The catchment area for this outlet is approximately 420 acres within which the population has been determined to be EJ or underserved. The control gates will normally be open to allow for tidal flow into culverted and daylighted sections of the IER. Additionally, control measures will be installed on the Beacham Street drainage system to prevent backflow into the existing stormwater drainage system.

Resilience Provisions West (“RPW”) – This project element consists of a storm surge barrier along the Everett banks of the IER, which is situated in the Mystic River Designated Port Area (“DPA”), in the form of vertical freestanding concrete wall and flood gates to protect working port businesses from coastal inundation. This element protects not only water-dependent industrial uses (“WDIUs”) in the DPA but other critically important infrastructure including

key transportation corridors and homes for more than 5,000 residents comprised of EJ Populations.

Nature-based Approaches (“NbA”) – Existing degraded riverfront slopes in portions of the Project Site will be reimagined using NbA consisting of tiered cobble beach nourishment underpinned by coir logs and with integrated coastal and upland plantings. This Project component will provide slope stabilization to prevent further erosion while also allowing for nourishment of the coastal beach along the IER waterway. This design is adaptive and will provide opportunity for intertidal vegetation to migrate landward as the sea level rises. Areas proposed for NbA treatment include the IER shoreline directly adjacent to both sides of the SSCF, as well as along the shoreline of Island End Park.

Wetlands Enhancements – The Project will improve the health of the remaining salt marsh along the Chelsea banks of the IER by removing invasive Phragmites (*Phragmites australis*), replanting with and maintaining native species, and removing significant deposits of existing trash and debris in this resource area. Additionally, it will address issues of erosion and sparse vegetation on coastal bank resource areas around the IER through robust native planting program and slope stabilization efforts.

IER Park Revitalization – The Island End River Park will be revitalized as a climate resilient space with a climate-adaptable, coastal planting palette coordinated with adjacent nature-based approaches to shoreline stabilization and resilience. The design responds to community feedback indicating a desire for a contemporary space with pathways for active recreation, like jogging and walking, as well as plenty of space to sit and take in the views of the water. The new park design elevates passive use park space above 2070 tidal cycles, eliminates the low-elevation, wood gazebo that was structurally vulnerable to storm surge and future tides, and provides new durable seating to withstand potential inundation. A planting palette that includes shade trees will help combat the local urban heat island effect.

The Project is critical for the flood protection of the IER district and surrounding low-lying areas in Chelsea and Everett, which include the residences of under-served EJ communities, vital regional food distribution facilities, over 11,000 jobs, significant transportation (rail and roadway) infrastructure, health care facilities, a grocery store serving much of the community, and a public high school. As this district contains vital regional infrastructure facilities every effort was made to protect roadway access to seaward parcels to ensure private operator and public safety access to these facilities. These assets are all projected to be within the 100-year floodplain by 2070. This Project has selected for further review under the 2022 Federal Emergency Management Agency (“FEMA”) Building Resilience Infrastructure and Communities (“BRIC”) grant program to support construction funding starting in late 2025 and ending in late 2028.

Additionally, the Project will enhance natural resource areas, improve public access to the IER, and substantially improve Island End Park. Regional collaboration between the municipalities of the Mystic River watershed, nonprofit organizations, and other partners has

been key to developing this flood protection initiative through extensive stakeholder input and community engagement.

## **EXISTING CONDITIONS**

The IER is a tributary to the Mystic River and is tidally influenced. The IER is abutted by Everett on its western bank and Chelsea on its eastern bank. It has a Federal Navigation Channel that consists of a six-foot-deep, 2,500-foot-long channel extending from the Mystic River the Admirals Hill Marina in Chelsea. The channel is 75 feet wide at its upstream end and 100 feet wide at its downstream end. The surrounding area is heavily developed with high amounts of impervious surfaces and undersized stormwater infrastructure. The area is home to critical infrastructure including the New England Produce Center, the regional FBI headquarters, Massachusetts General Hospital's ("MGH") Chelsea HealthCare Center, the City of Chelsea's Carter Street Pump Station, Williams Middle School, and Chelsea High School. The Project Site itself contains facilities ranging in uses from industrial, such as cold storage and liquified natural gas distribution, to recreational, such as Island End Park. See Figure 1, Project Locus Map.

## **PUBLIC AND COMMUNITY BENEFITS**

The Project's substantial public and community benefits include but are not limited to:

- Introduction of coastal flood resilience improvements to protect approximately 11,000 jobs, critical transportation corridors, key assets such as the MGH Chelsea HealthCare Center, Williams Middle School, Chelsea High School, Excel Academy, and a regional FBI Headquarters, and residences occupied by EJ communities within the Cities of Everett and Chelsea;
- Improvement of the IER shoreline through stabilization of eroded riverbanks with NbA that mimic natural cobble tidal riverbank slopes and plantings;
- Enhancements to the existing degraded salt marsh that will improve habitat functions and generate awareness of natural resources;
- Reduction of impervious surfaces within the Project site to increase groundwater recharge and minimize stormwater runoff;
- Investment in the existing Island End Park, including new connecting walkways, multilingual interpretive signage, new benches, bike racks, and other site furnishings, native landscape plantings and trees to enhance habitat and address urban heat island effect, and other amenities;
- Creation of community stewardship opportunities for Island End Park and proximate resource areas;

- Creation of between 670-1,000 construction jobs over the projected 36 months of construction of the Project;
- Establishment of the Community Advisory Group, composed of more than half a dozen community members, to provide input on the public benefits of the Project; and
- Formation of the Stakeholder Working Group, composed of over 20 representatives from private sector industrial businesses in Chelsea and Everett, to contribute feedback on the Project.

## CONTACT INFORMATION

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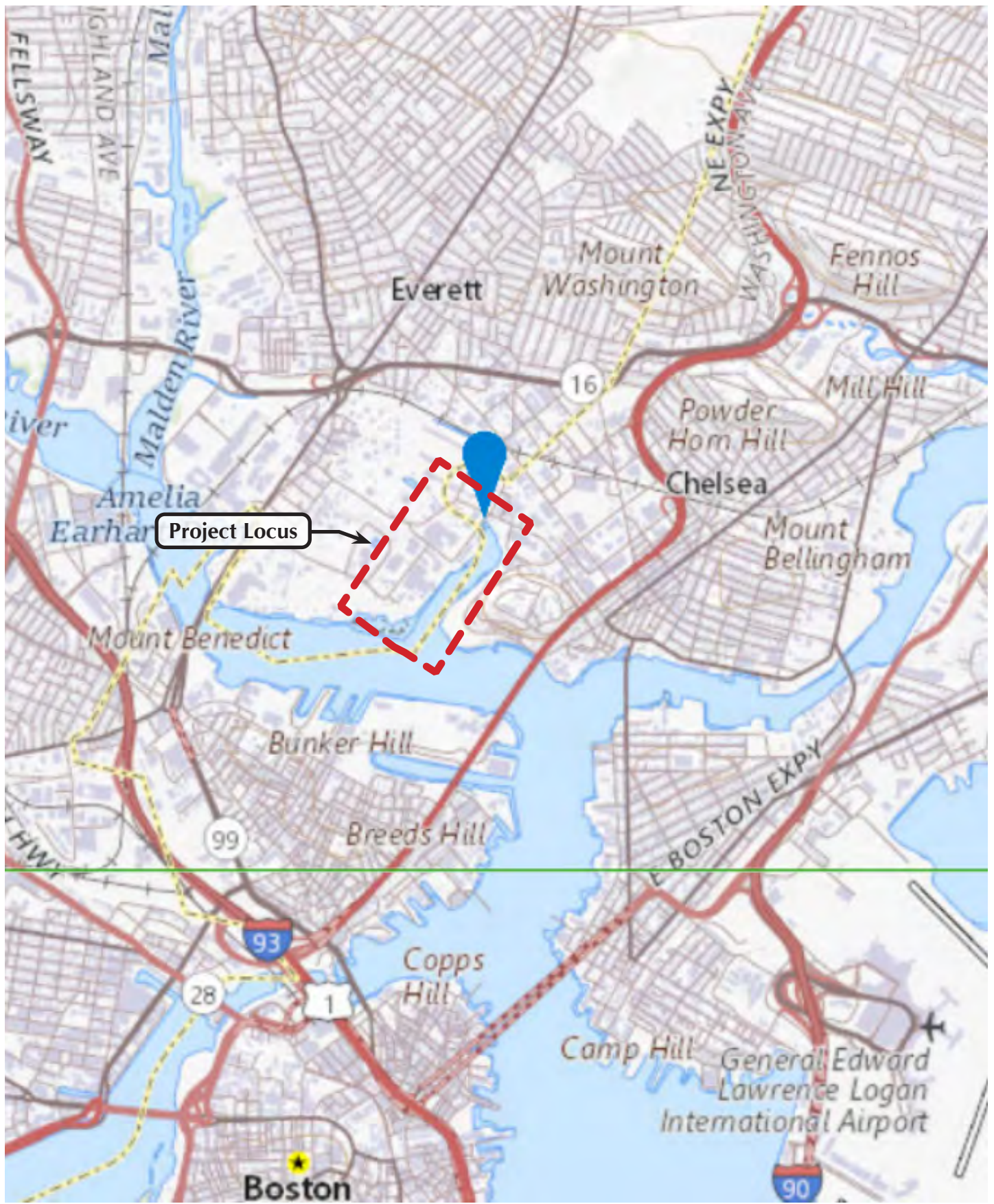
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Attachments: Figure 1 - Project Locus Map

Figure 2 - IER Flood Resilience Project Exhibit





Chelsea, MA  
Everett, MA

Figure 1  
Project Locus Map  
Source: Fort Point Associates, Inc., 2023



