



Boston-Logan International Airport RUNWAY 9-27 SAFETY AREA IMPROVEMENTS PROJECT



Draft EIR Briefing
Wednesday, July 20, 2022





Draft Environmental Impact Report (DEIR) Briefing Agenda

- **Project Overview**

- Project Purpose and Need/FAA Requirements
- Existing Runway Safety Area (RSA) – conditions/resource areas
- Proposed Action – concept level
- Environmental findings

- **Preliminary Project Schedule**

- Environmental Review (MEPA & NEPA)
- Permitting
- Construction

- **Questions**





FAA has mandated Massport to bring RW 9/27 RSA up to current federal safety standards

Background

- The RW 27 approach end was last enhanced in 1992 with the construction of an Inclined Safety Area (ISA)
- While the ISA enhanced safety, it pre-dated the technologies that now allow closer adherence to FAA safety standards while minimizing environmental impacts

Project Purpose

- Increase safety for aircraft and their passengers in emergency situations by enhancing the Runway 27 end safety area consistent with FAA requirements

Existing RSA Conditions

- The approach (east) end of Runway 27 does not meet FAA design standards for Runway Safety Area (RSA) undershoot or RSA overrun criteria
- The ISA is 500-feet wide with a length of 150-feet along centerline
- A standard RSA overrun would be 1000-feet long
- A standard RSA undershoot area would be 600-feet long



Example Runway Emergencies

Aircraft Overrun



Source: CBC Canada



Aircraft Overrun At Logan Airport

Source: Aviation International News Online

Aircraft Undershoot



Runway Excursion



Source: AVweb

RW 27 Runway Safety Area (RSA) Project Site Location



Runway 27 End – Existing Runway Safety Area (500' wide x 150' long)



RW 9-27 Concept RSA Enhancements Selected Alternative





The selected alternative envisions construction of a similar deck to what was built to enhance the RW 33L RSA

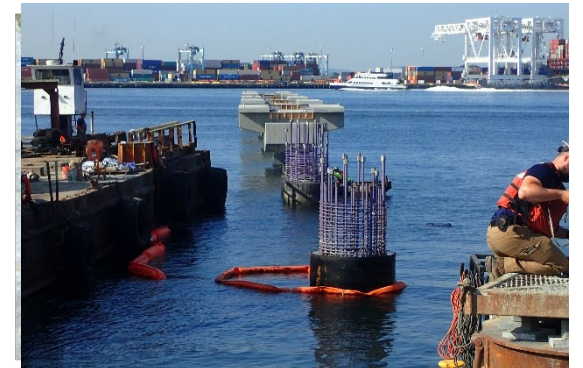


Runway Safety Area Deck - Foundation Support Alternatives Screening

- Taking the Preferred Alternative (4B) identified as part of the RSA study, the WSP/VHB team developed four different deck support alternatives to determine the least impactful options in terms of environmental impacts and constructability.
- Wave detection monitors were deployed as part of the coastal analyses to assess anticipated impacts from scour and any tidal changes not only within project site but also at Snake Island, Cottage Park Yacht Club and the Winthrop Yacht Club



Precast concrete piles



Marine Drilled Shaft



RSA Deck - Pile Support Option Construction Considerations

RW 9-27 is used in a majority of Logan's runway use configurations – unlike RW 15R/33L, there are no seasons with significantly lower utilization

Impacts to airport operations

- Minimize runway shutdowns
- Evaluate temporary runway shifts/community impacts

Coordination with other airfield construction projects

Seasonal weather conditions

Time-of-Year restrictions in harbor (winter flounder, etc.)

- No in-water work February through June

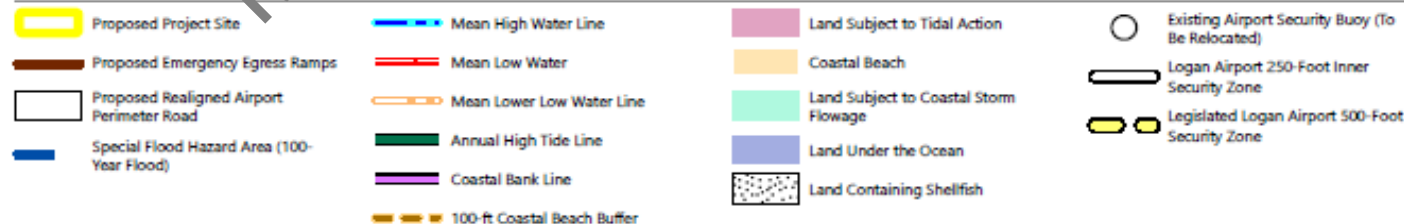
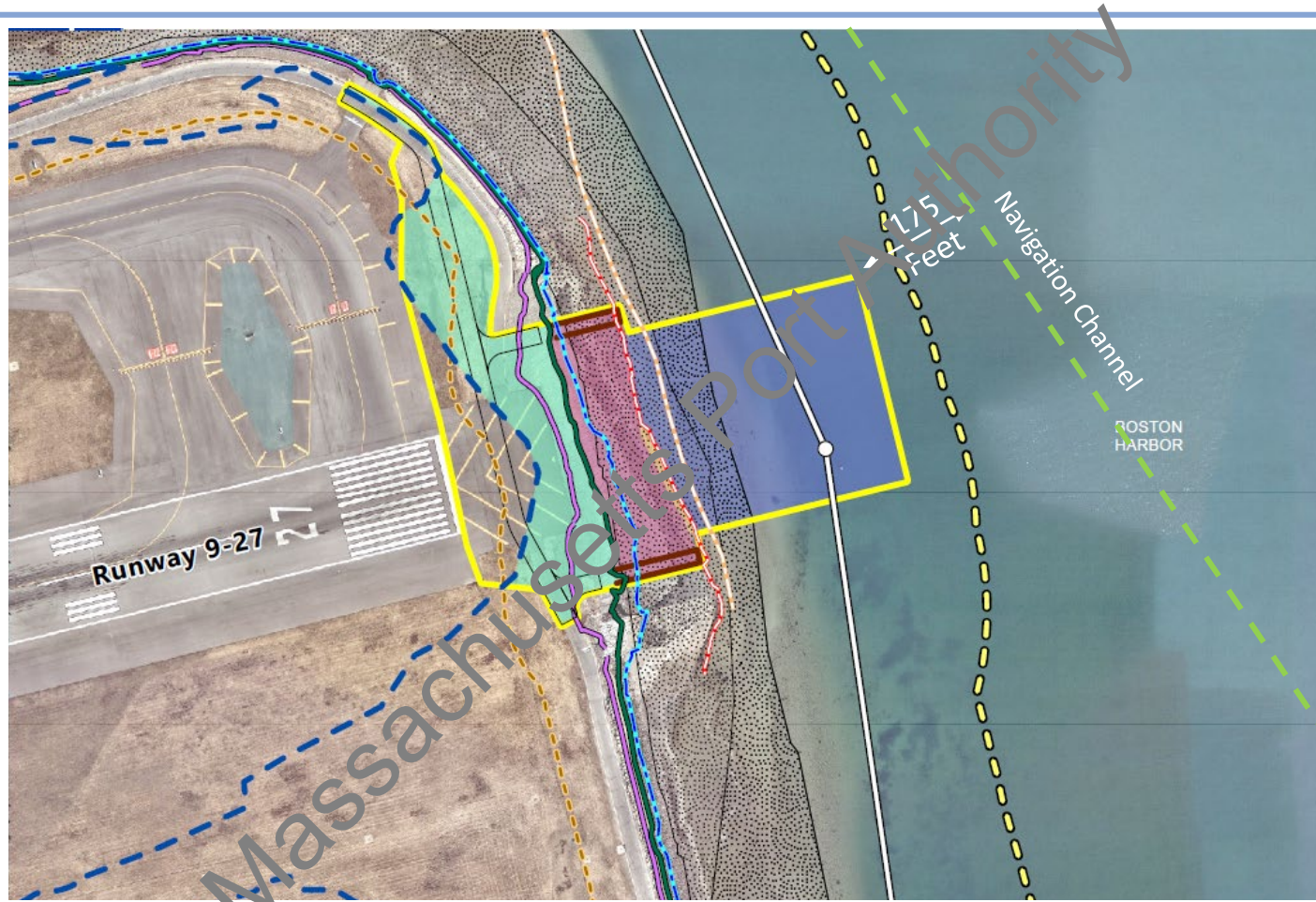
Harbor navigation

Community impacts

- Minimize temporary noise due to construction
- Truck trips
- Hours/duration of construction



RW 9-27 RSA Site Environmental Resource Areas





RSA Deck - Pile Support Alternatives Screening Summary

Screening Criteria	Deck Support Alternatives			
	1	2	3	4
	416 Concrete Piles	326 Concrete Piles	160 Caissons	128 Caissons
Permanent Coastal Wetlands Resource Area Impact:				
Total footprint of piles/caissons (total sq ft)	4,156	867	3,140	2,512
Total scour of piles/caissons (total meters ³)	291	258	826	873
Runway Closure/Airfield Disruption: Can construction be completed in 2 seasons @ 60 days/season?	No	Yes	No	No
Flexibility to demobilize/remobilize in event of emergency	High	High	Low	Low





There are a range of Anticipated federal, state and local environmental permits/approvals required for this safety project

Agency/Department	Permit/Approval/Action
Federal	
Federal Aviation Administration	National Environmental Policy Act (NEPA)
U.S Army Corps of Engineers	Section 10 of the Rivers and Harbors Act/ Section 404 of the Clean Water Act
National Oceanic and Atmospheric Administration Fisheries Service	Section 7 Consultation
U.S. Environmental Protection Agency (EPA)	National Pollutant Discharge Elimination System Construction General Permit (NPDES CGP)
Commonwealth of Massachusetts	
Executive Office of Energy and Environmental Affairs	Massachusetts Environmental Policy Act (MEPA) Review Public Benefit Determination
Coastal Zone Management	Consistency Statement with Massachusetts CZM Plan
Massachusetts Department of Environmental Protection	Individual Section 401 Water Quality Certification for filling and for dredging Chapter 91 Waterways Program License Modification
Massachusetts Natural Heritage and Endangered Species Program	Conservation and Management Permit (TBD)
City of Boston	
Boston Conservation Commission	MA Wetlands Protection Act Order of Conditions





Tentative RW 27 Runway Safety Area Permitting Design and Construction Schedule

- ✓ • MEPA Pre-ENF Briefing June 2021
- ✓ • MEPA ENF filing August 2021
- ✓ • ENF Meeting September 2021
- ✓ • Draft EIR June 2022
- ✓ • **Draft EIR Briefing July 20, 2022**
- Final EIR/EA* Late 2022
- FONSI/MEPA Certificate issued Late 2022/early 2023
- File permit applications 2022 - 2023
- All permits/approvals issued Summer 2023
- Final Design 2023 - 2024
- Construction 2025 - 2026

The NEPA (federal/FAA) and MEPA (state) environmental reviews include multiple opportunities for public comments, as do the individual local, state and federal environmental permit processes; *where possible, these reviews will be combined*



- June 30, 2022 Draft EIR filed
- July 7, 2022 MEPA Environmental Monitor published - *start of 30-day comment period*
- July 20, 2022 DEIR virtual public meeting
- **August 8, 2022** **MEPA comment period closes**
- *TBD* Final EIR submitted; expected to be combined w/NEPA EA
 - Includes responses to DEIR comments
 - FAA lead NEPA Agency
- 2022 – 2023 Individual permit applications prepared and, when feasible, submitted: (some require final design to be completed)



Submitting comments to the MEPA Office

The EEA Analyst and MEPA emailing addresses are:

Jennifer.Hughes@mass.gov

The EEA/MEPA Comment Portal Address is:

<https://eeaonline.eea.state.ma.us/EEA/PublicComment/Landing/>

Massport Contacts:

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Boston-Logan International Airport

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Questions?

Massachusetts Port Authority

