Draft Integrated Interim Response Feasibility Report and Environmental Assessment for Actionable Elements

NEW YORK-NEW JERSEY HARBOR AND TRIBUTARIES COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY

SUBAPPENDIX A-1F OAKWOOD BEACH ACTIONABLE ELEMENT SITE CLEAN AIR ACT

July 2025

Record of Non-Applicability (RONA)
Clean Air Act General Conformity Determination

New York New Jersey Harbor and Tributaries (NYNJHAT) Integrated Interim Response Feasibility Report and Environmental Assessment (EA)

Oakwood Beach Actionable Element Site

Record of Non-Applicability:

Project related emissions for Alternatives, including the No Action Alternative, were estimated to evaluate the applicability of General Conformity regulations (40 CFR 93 Subpart B).

The estimated construction emissions were calculated for Ozone (VOC, NOx), $PM_{2.5}$, and CO, and found to be well below the applicable *de minimis* quantities thresholds for the entire project and for the average yearly emissions; therefore, the Action Alternative construction of the CSRM-focused complimentary NBS wetland is considered exempt and not applicable to General Conformity. Refer to the attachment for the CAA calculations.

The project is presumed to conform with General Conformity requirements and is considered to be exempt from Subpart B under 40 CFR 93.153(c)(1).

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Peter M. Weppler
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23 July 25
DATE

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Oakwood Beach Actionable Element Site

Description of the Action: The Oakwood Beach Actionable Element Site is a Coastal Storm Risk Management (CSRM) nature-based feature of the NYNJHAT Study Overall Comprehensive Plan, managing high-frequency flood risk by serving as a natural buffer and also working complementary to the South Shore of Staten Island Project (presently under construction) and to Great Kills Park. The proposed Actionable Element will also reduce wildfire risk for the impacted area. This CSRM-focused Nature-Based Solution (NBS) wetland enhancement includes three primary components: removal of non-native invasive plants, creation of a vegetative mosaic with native plants and tidal channels, and dune restoration described in more detail below.

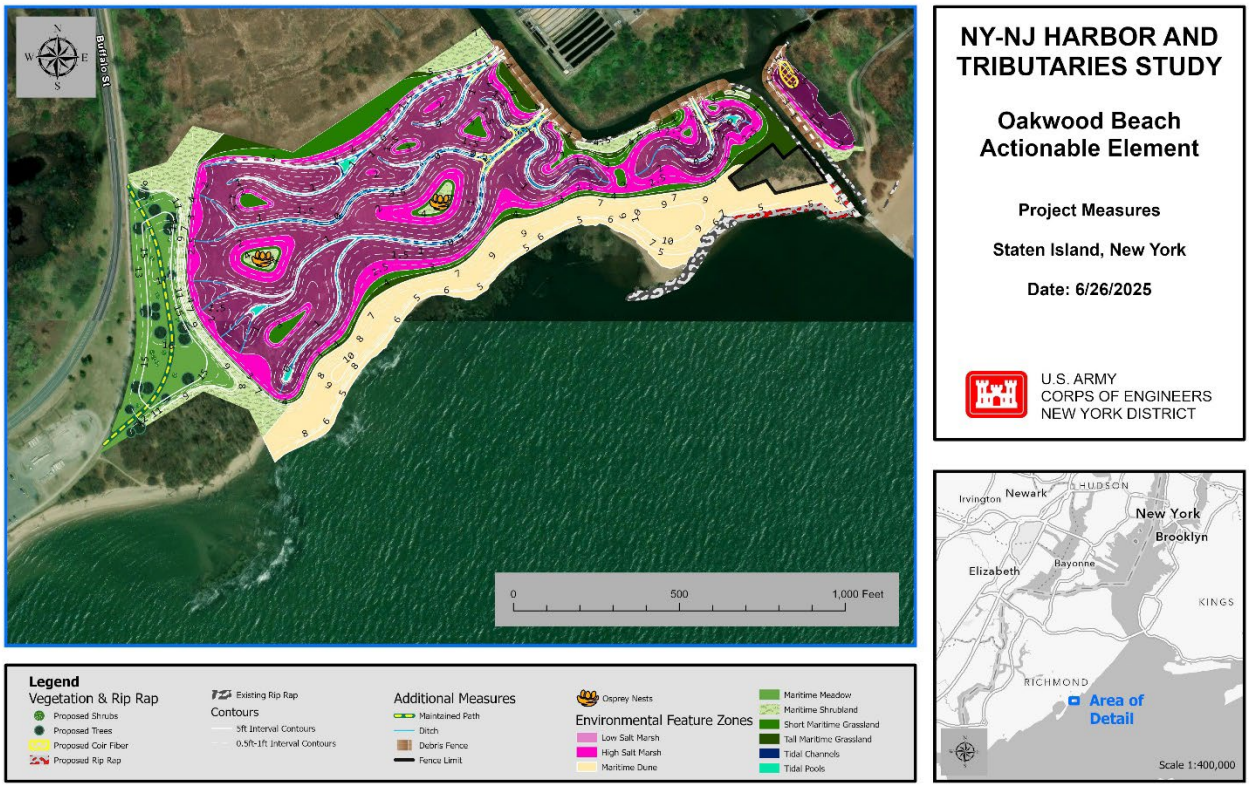
Removal of Non-Native Plants and Creation of Native Vegetative Mosaic and Tidal Channels:
The project proposes the removal of approximately 22.38-acres of non-native invasive Common Reed (*Phragmites australis*) and replacement with a vegetative mosaic of Low Salt Marsh (11.5 acres), High Salt Marsh (4.5 acres), Maritime Grassland (4.5 acres), Maritime Dune (5.5 acres), with upland buffers of Maritime Shrubland (3 acres) and Maritime Woodland (1 acre). Native plants will be established, with a particular focus on *Spartina alterniflora*, *Spartina patens* (salt meadow cordgrass), and *Distichlis spicata* (salt grass) for the created low and high marsh habitats. Any existing native plants that are salvageable will be salvaged and transplanted in the appropriate habitat. A network of tidal channels and/or pools with three main branches will be created within the vegetative mosaic supporting the created habitat, referred to as the North Channel, Middle Channel, and South Channel, totaling approximately 1.30-acres.

Dune Restoration:
Along the shoreline in front of and to the south of the created vegetative mosaic, adjacent to the mudflats and Lower Bay, a dune restoration measure is proposed for shoreline stabilization integral to maintaining the essential function of the restored wetland. The dune will consist of approximately 5.5 acres of clean sand with an elevation range up to 10-feet above mean sea level.

Additional Plan Features:
Riprap will be placed at several locations at the site to support erosion control and channel protection, including an approximate 1,115 cubic yards (CY) area to the east of the restored dune at the southeastern border adjacent to the Lower Bay between the existing riprap and main tidal channel (where a deteriorated wooden seawall is currently), 55-CY along the southwestern banks of the main tidal channel where existing riprap has eroded, 600-CY on the southeastern bank of the main tidal channel convergence with an eastern branching tidal channel where existing riprap is placed, and 700-CY at the inlets of the created tidal channels (along with coir fiber mats).

A maintained lawn trail will be developed on the westernmost edge of the site through the proposed maritime meadow, connecting an existing adjacent concrete bike/walking path to the parking lot for Great Kills Park to be utilized for O&M and public access.

Two osprey nests are proposed in the created maritime shrublands located within central the tidal channel network.



Alternatives Considered:

The consideration of reasonable alternatives is required in accordance with the National Environmental Policy Act (NEPA; 42 United States Code [USC] § 4321 *et seq.*), President's Council on Environmental Quality (CEQ) NEPA Regulations (40 Code of Federal Regulations [CFR] §§ 1500–1508), and Engineering Regulations (ER) 200-2-3 "Environmental Analysis of Army Actions" as promulgated by 32 CFR Part 651. Site selection standards were developed for the Action and used to identify, compare, and evaluate reasonable alternatives. The selection standards were developed to be consistent with the purpose and need for the Action and to address pertinent mission, environmental, safety, and health factors.

No Action Alternative: Under the No Action Alternative, the U.S. Army Corps of Engineers will not enhance the CSRM-focused complimentary Nature-Based Solution (NBS) wetland. The Actionable Element Site would remain as is, comprised of a degraded wetland dominated by non-native invasive phragmites.

Action Alternative: The Actionable Element Site for the Action Alternative is an approximately 39-acres bounded by Great Kills Park to the north and west, a Wastewater Treatment Plant to the west, and the future site of the South Shore of Staten Island floodwall measure, and the Lower Bay to the south. The entire site is comprised of a degraded wetland, dominated by non-native invasive Phragmites (approximately 22-acres). Implementation of the Action Alternative at the Actionable Element Site will create 30-acres of native wetland habitat, as presented on the following table:

Target Natural Community	Elevation Range (above mean sea level, AMSL)	Acreage (total, non-contiguous)
Low Salt Marsh	-0.2 to 2.15 feet	11.5
High Salt Marsh	2.15 to 3 feet	4.5
Maritime Grassland	3 to 5 feet	4.5
Maritime Dune	Up to 10 feet	5.5

Maritime Shrubland	5+ feet	3
Maritime Woodland	6+ feet	1
Total Vegetative Community Acreage Created		**30**

General Conformity Determination:

General Conformity (40 CFR 51 and 93) "prohibits a federal agency from interfering with the ability of a state or tribe to achieve the National Ambient Air Quality Standards [(NAAQS)]". Only actions that cause emissions in designated non-attainment and maintenance areas are subject to these regulations. A vast majority of federal actions do not result in a significant increase in emissions and therefore, include several exemptions. Applicability to General Conformity is determined by:

1. Whether the action will occur in a non-attainment or maintenance area,
2. Whether one or more of the specific exemptions apply to the action,
3. Whether the federal agency has included the action on its list of "presumed to conform" actions,
4. Whether the total direct and indirect emissions are below or above the *de minimis* levels, and/or,
5. Where the facility has an emission budget approved by the state or tribe as part of the SIP or Tribal Implementation Plan, the federal agency determines if the emissions from the proposed action are within the budget.

To provide the upper limit of a conservative estimate, emissions were first calculated on the project as a whole, assuming that construction would be completed within the same calendar year, and additionally estimated on an average yearly basis for the designs current estimation that construction would be conducted over a duration of 2,550-days (approximately 7 years). Should the emissions under this assumption exceed the *de minimis* quantities, then a yearly emissions estimate would provide a more precise calculation on a yearly basis, providing for a comparison of the two for the Action Alternative.

Calculated emissions are anticipated as follows, based on the current level of design for the project as a whole, as well as the average potential yearly average estimates for approximately 2,550-days or 7 years of construction for comparison purposes:

Table 43. Air Quality Emissions Estimates (tons/year)

	Criteria Pollutant				
YEAR	**NO_x**	**VOC**	**SO_2**	**$PM_{2.5}$**	**CO**
1 (12 months)	0.757	0.015	0.004	0.012	0.004
2 (12 months)	0.757	0.015	0.004	0.012	0.004
3 (12 months)	0.757	0.015	0.004	0.012	0.004
4 (12 months)	0.757	0.015	0.004	0.012	0.004
5 (12 months)	0.757	0.015	0.004	0.012	0.004
6 (12 months)	0.757	0.015	0.004	0.012	0.004
7 (12 months)	0.757	0.015	0.004	0.012	0.004
PROJECT TOTAL	**5.3**	**0.106**	**0.003**	**0.089**	**0.003**

Although 12 months is assumed in these emissions calculations to provide a conservative limit, construction would actually occur each year during less than 12 months to account for environmental window restrictions.

As this Actionable Element Site is located within a maintenance zone for CO and $PM_{2.5}$ and is within the Ozone Transportation Region and in non-attainment area for ozone, these criteria pollutants were compared to the applicable *de minimis* quantities emission thresholds, including the more stringent ozone (VOC and NOx) threshold, as follows:

Air Quality Emissions compared to De Minimis Quantities Thresholds

Criteria Pollutant	Estimated Construction Emissions for the Total Project (tons/year)	Applicable De Minimis Quantities (tons/year)[1]
Ozone (VOC)	**0.106**	**25**
Ozone (NOx)	**5.3**	**25**
$PM_{2.5}$	**0.089**	**100**
CO	**0.003**	**100**

Note: Green highlight indicates emissions estimate is below the applicable *de minimis* quantities. Red highlight indicates emissions estimate is above the applicable *de minimis* quantities.

[1] While the recent ozone (2015) nonattainment designation was classified as "moderate" and is being redesignated as "serious", the ozone (2008) nonattainment designation is "severe"; therefore, the more stringent *de minimis* threshold of "severe" is the applicable threshold for NOx and VOC within this nonattainment area, at 25 tons per year.

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NYNJHATS Integrated Interim Response FR/EA; Oakwood Beach Actionable Element Site
Air Quality Assessment
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E = hrs x LF x EF
E = hphr x g/hphr / 1,000,000g/tons

E	Emission estimates	Metric Tons of Criteria Pollutants NOx	VOC	SO2	PM2.5	CO
E						
	Construction emissions, metric tons	**5.300**	**0.106**	**0.003**	**0.089**	**0.003**

			LF	HRS		EF	EF	EF	EF	EF					
			Load	Operating		NOx	VOC	SO2	PM2.5	CO	NOx	VOC	SO2	PM2.5	CO
Equipment Type	**hp**	**Count**	**Factor**	**hours**	**hphr**	**g/hphr**	**g/hphr**	**g/hphr**	**g/hphr**	**g/hphr**	**MT**	**MT**	**MT**	**MT**	
Backhoe	135	1	0.21	1,040	29,484	9.50	0.19	0.005	0.16	1.21	0.280	0.006	1.47E-04	4.72E-03	2.64E-04
Dump Truck	450	2	0.59	1,040	276,126	9.50	0.19	0.005	0.16	1.21	2.623	0.052	1.38E-03	4.42E-02	7.42E-04
Dozer	200	2	0.59	1,248	147,264	9.50	0.19	0.005	0.16	1.21	1.399	0.028	7.36E-04	2.36E-02	8.91E-04
Loader	200	2	0.21	1,248	52,416	9.50	0.19	0.005	0.16	1.21	0.498	0.010	2.62E-04	8.39E-03	3.17E-04
Compactor	310	1	0.43	208	27,726	9.50	0.19	0.005	0.16	1.21	0.263	0.005	1.39E-04	4.44E-03	1.08E-04
Grader	135	1	0.59	312	24,851	9.50	0.19	0.005	0.16	1.21	0.236	0.005	1.24E-04	3.98E-03	2.23E-04
Totals		**9**		**5,096**	**557,867**						**5.300**	**0.106**	**0.003**	**0.089**	**0.003**

*Emissions Factors and equipment sourced from a recent USACE project (Hudson Raritan Estuary (HRE) Spring Creek North (2018) utilizing similar equipment and estimated conservatively.
Calculates total emissions for entire project duration. Divide by construction years duration to get yearly estimates.