
2023 Update to the October 2022 Addended Decision
Document and Environmental Assessment for
Section 111 Shore Damage Mitigation Project

Saco River and Camp Ellis Beach Saco, Maine



Photo taken 8 March 2001



**US Army Corps
of Engineers** ®
New England District

August 2023

1.0 INTRODUCTION

In April 2019 the New England District, U.S. Army Corps of Engineers (USACE) completed a Final Decision Document and Environmental Assessment (DD&EA) for a shore damage mitigation project at the Saco River and Camp Ellis Beach in Saco, Maine. The report recommended a Federally Implementable Plan consisting of a 750-foot-long stone spur jetty and sand beachfill designed to best address the erosion problems at Camp Ellis while keeping costs below the \$26.9 million Federal cost limit established in the Water Resources Development Act (WRDA) of 2007.

Approval of the report in 2019 would have allowed the project to proceed to final design and implementation (D&I) of the recommended plan. However, in 2019 the City was unable to provide a letter of support for the project that would fully meet the requirements of a project sponsor.

In January 2020 the USACE terminated further work on the project due to the lack of a willing and capable non-Federal sponsor for the project. In consequence the final DD & EA were never approved as a basis for proceeding to D&I.

On 15 April 2021 the City of Saco submitted a letter of support for the recommended plan that fully and unambiguously complied with the requirements of non-Federal cooperation.

In 2022 an addendum to update the information in the April 2019 final report by the New England District was completed to continue forward in light of the sponsor's support. The 2022 Addendum was signed by the District Commander on 15 Dec 2022 (Attachment 2) and approved by the Division Commander on 23 Dec 2022 (Attachment 3) and was transmitted to USACE Headquarters to support the preparation of the Project Partnership Agreement.

However, since that time, Sec. 8342 of WRDA 2022 strikes language provided in WRDA 2007 and increases the cost limit to \$45M, removes the non-federal cost-sharing requirement and allows for federal participation in post-construction renourishment, also at 100% federal cost.

In order to develop a Project Partnership Agreement that reflects changes to the project authorization, an update to the most recently approved 2022 Addendum (Decision Document and Environmental Assessment) that clearly reflects the changes due to Sec 8342 WRDA 2022 must be provided. This subject 2023 update has been prepared for that purpose.

2.0 PROJECT AUTHORIZATIONS

Section 3085 of the Water Resources Development Act of 2007 (repealed in 2022) raised the limit at Camp Ellis, Saco, Maine to \$26.9 million based on initial estimates of plans to mitigate shoreline erosion. Section 3085 states the following:

“The maximum amount of Federal funds that may be expended for the project being carried out under section 111 of the River and Harbor Act of 1968 (33 U.S.C. 426i) for the mitigation of shore damages attributable to the project for navigation, Camp Ellis, Saco, Maine, shall be \$26,900,000.”

Section 8342 of the Water Resources Development Act of 2022 repeals Section 3085 of WRDA 2007 (above) and raised the limit at Camp Ellis, Saco, Maine to \$45 million, allows for periodic renourishment and dictates construction of the project at full federal expense. Section 8342 states the following:

“(a) IN GENERAL.—The project being carried out under section 111 of the River and Harbor Act of 1968 (33 U.S.C. 426i) for the mitigation of shore damages attributable to the project for navigation, Camp Ellis, Saco, Maine, is modified as follows: (1) The maximum amount of Federal funds that may be expended for the project shall be \$45,000,000. (2) The project may include Federal participation in periodic nourishment. (3) For purposes of subsection (b) of section 111 of the River and Harbor Act of 1968 (33 U.S.C. 426i(b)), the Secretary shall determine that the navigation works to which the shore damages are attributable were constructed at Federal expense. (b) CONFORMING AMENDMENT—Section 3085 of the Water Resources Development Act of 2007 (121 Stat. 1129), and the item relating to such section in the table of contents for such Act, are repealed.”

3.0 PREVIOUSLY RECOMMENDED AND APPROVED PLAN

The October 2022 Addendum Decision Document and Environmental Assessment for Section 111 Shore Damage Mitigation Project recommended the following federally implementable plan to fit within the \$26.9 million limit: full construction of the 750-foot-long stone spur jetty followed by construction of a reduced width section of the beachfill component of the project totaling 91,700 CY of sand (Plan 6 with a reduced beachfill volume; Figure A-1).

During the preparation of the 2023 Update, it was found that the 2022 Addendum presented an incorrect beachfill quantity when compared to the cost estimates presented in the 2022 Cost Appendix. Updated costs presented in the 2022 Cost appendix were based on a beachfill quantity of 73,170CY, this was confirmed with the Cost Estimator that prepared the estimates and updates in the report.

To present the correct data and updated costs, a revised Total Project Cost Summary report that shows the federally implementable plan with costs updated to FY23 price levels has been prepared and is included as Appendix A to this document. It should be

noted that Prior Design Costs (\$2,500,000) are not shown in Appendix A but are included in the Cost Summary Table (Table A).



4.0 UPDATED 2023 FEDERALLY IMPLEMENTABLE PLAN

The updated 2023 federally implementable plan is the 2022 approved federally implementable plan with WRDA 2022 provisions included and corrections discussed in Section 3.0. This plan is as follows:

- 750-foot-long stone spur jetty
- Initial beach nourishment of 73,170 CY of sand
- 0% non-federal cost-share
- Future federal participation in periodic nourishment

The plan and total costs for the project are summarized in the table below (Table 1).

2023 Federally Implementable Plan Cost Summary	
750' Stone Spur Jetty	\$17,348,000
Initial Beachfill (73,170CY)	\$5,075,000
LERRDs	\$761,000
Prior Design Costs	\$2,500,000
Prior Feasibility Costs	\$1,048,000
Planning Engineering and Design	\$4,244,000
Construction Management	\$1,280,000
Total Initial Project Cost*	\$32,256,000
<i>*Per WRDA 2022, the total project cost limit is \$45M. The total number of renourishments will be limited to the WRDA2022 project cost limit.</i>	

Table 1: 2023 Federally Implementable Plan Cost Summary

5.0 COST ESTIMATES

5.1 750F Spur Jetty and Initial Beachfill. Updated cost estimates were prepared for the federally implementable plan (see Appendix A 2023 Update Total Project Cost Summary report).

5.2 Periodic Renourishment. Referencing the 2019 Decision Document, Appendix B Coastal Engineering Table 10-2, Based on a renourishment cycle of when 30% remains of the prior placement, it is estimated that there is the potential for three renourishment events that will fit within the \$45M federal expenditure.

5.3 Real Estate Costs

For Section 111 projects the USACE is responsible for acquiring the LERRDs. The administrative cost to acquire the easements, including such tasks as title work, preparing, and recording legal agreements, etc., is estimated at \$761,000 (ref Appendix A 2023 Update Total Project Cost Summary report).

5.0 ENVIRONMENTAL COORDINATION

The major environmental impact of the proposed project is the conversion of sandy subtidal habitat to both sandy intertidal habitat and subtidal rock habitat due to the placement of sand on the beach and construction of the spur jetty. The conversion of this habitat, however, is offset by the creation of stone reef along the spur that will

provide structured habitat for numerous species, the availability of upland sandy beach areas suitable for Piping Plover nesting, and increased stability of the shoreline. Updated coordination done to prepare the October 2022 Addended Decision Document and Environmental Assessment is still valid for the updated federally implementable plan. As noted in the 2022 Addendum, the monitoring and administering of the beach in accordance with plans for protecting endangered species would be determined in conjunction with the USFWS during final project design.

6.0 SPONSOR COORDINATION

Due to provisions of Sec 8342 in WRDA 2022, there is no NFS cost share for the subject project. The City of Saco is aware of the non-Federal requirements for OMR&R.

In a letter dated July 27, 2023, the City re-confirmed their support for the Section 111 project.

7.0 OPERATION, MAINTENANCE, REPAIR, REPLACEMENT AND REHABILITATION (OMRR&R)

The costs for OMRR&R of the project is a non-Federal responsibility. Referencing the October 2022 Addended Decision Document and Environmental Assessment, table A-8), the annual cost to the non-Federal Sponsor for required periodic inspection and repairs to the spur jetty and reinforced section of the existing north jetty are estimated at about \$68,000. The optional non-Federal annual cost of monitoring and managing the beach to document further storm damage and erosion is estimated at about \$19,000 annually. The cost of monitoring and administering the beach in accordance with plans for protecting endangered species would be determined in conjunction with the USFWS during final project design.

8.0 RECOMMENDATIONS

USACE recommends implementation under Section 111 of the River and Harbor Act of 1968, as amended, a plan to mitigate further shore damages at the Saco River and Camp Ellis Beach, Saco, Maine, consisting of a 750-foot stone spur jetty, beachfill of about 73,170 CY of sand over the 3,250 feet of beach northward from the main jetty, future periodic beach nourishment, with an estimated total project cost not to exceed \$45 million all at 100% federal expense in accordance with Section 8342 of WRDA 2022.

10 August 2023

Date



Justin R. Pabis
Colonel, U.S. Army
District Engineer

APPENDIX A

FY23 TOTAL PROJECT COST SUMMARY REPORT

This Estimate reflects the scope and schedule in report:

[illegible]

CHIEF, COST ENGINEERING, Jeffrey Gaeta

PROJECT MANAGER, Mark Habel

CHIEF, REAL ESTATE, Gaelen Daly

CHIEF, PLANNING, John Kennelly

CHIEF, ENGINEERING, David Margolis

CHIEF, OPERATIONS, Eric Pedersen

CHIEF, CONSTRUCTION, Sean Dolan

CHIEF, CONTRACTING, Sheila Winston-Vincuillia

CHIEF, PM-PB, Janet Harrington

CHIEF, DPM, Scott Acone

ESTIMATED INITIAL TOTAL PROJECT COST:

ESTIMATED FEDERAL COST¹⁾:

ESTIMATED NON-FEDERAL COST:

22 - FEASIBILITY STUDY (CAP studies):

ESTIMATED FEDERAL COST:

ESTIMATED NON-FEDERAL COST:

ESTIMATED FEDERAL COST OF PROJECT:

ESTIMATED TOTAL COST OF PROJECT:

1) The spur jetty construction and the initial beach fill construction is now 100% Federal.

Filename: Saco 6 CAP-111 TPCS Mar 2023 12Sep2022_Revised 07Aug2023.xlsx
TPCS-CERT \$27.56M

***** TOTAL PROJECT COST SUMMARY *****

***** CONTRACT COST SUMMARY *****

PROJECT: Saco River & Camp Ellis Beach Section 111
LOCATION: Saco, Maine
This Estimate reflects the scope and schedule in report;

Plan 6- Jetty & Reduced Beach

DISTRICT: New England District
POC: CHIEF, COST ENGINEERING, Jeffrey Gaeta
PREPARED: 9/12/2022
REVISED: 8/7/2023

Saco River and Camp Ellis Final Decision Document & Final Environmental Assessment and Section 404(b)(1) Evaluation Dec 2016

Civil Works Work Breakdown Structure			ESTIMATED COST			PROJECT FIRST COST (Constant Dollar Basis)			TOTAL PROJECT COST (FULLY FUNDED)							
Contract 2: Initial Beach Fill Construction (73,170 cy)			Estimate Prepared: Effective Price Level			12-Sep-22 1-Oct-21			2023 1 OCT 22							
WBS NUMBER	Civil Works Feature & Sub-Feature Description B	PHASE 2 or CONTRACT 2	COST		CNTG	TOTAL		ESC	COST	CNTG	TOTAL	Mid-Point Date	INFLATED	COST	CNTG	FULL
			(<u>\$K</u>) C	(<u>\$K</u>) D	(<u>%</u>) E	(<u>\$K</u>) F	(<u>%</u>) G	(<u>\$K</u>) H	(<u>\$K</u>) I	(<u>\$K</u>) J	(<u>%</u>) L	(<u>\$K</u>) M	(<u>\$K</u>) N	(<u>\$K</u>) O		
17	BEACH REPLENISHMENT		\$3,283	\$821	25.0%	\$4,104	12.3%	\$3,687	\$922	\$4,609	2026Q1	10.1%	\$4,060	\$1,015	\$5,075	
CONSTRUCTION ESTIMATE TOTALS:			\$3,283	\$821	25.0%	\$4,104		\$3,687	\$922	\$4,609			\$4,060	\$1,015	\$5,075	
01	LANDS AND DAMAGES		\$586	\$59	10.0%	\$645	12.3%	\$658	\$66	\$724	2024Q3	5.1%	\$691	\$69	\$761	
30 PLANNING, ENGINEERING & DESIGN			\$5,545	\$1,155	25.0%	\$6,700	4.5%	\$4,811	\$1,144	\$5,955	2025Q2	9.7%	\$5,456	\$1,144	\$6,600	
-	Project Management		\$48	\$12	25.0%	\$60	4.5%	\$50	\$13	\$63	2025Q2	9.7%	\$55	\$14	\$69	
-	Planning & Environmental Compliance		\$30	\$8	25.0%	\$38	4.5%	\$31	\$8	\$39	2025Q2	9.7%	\$34	\$9	\$43	
-	Engineering & Design		\$157	\$39	25.0%	\$196	4.5%	\$164	\$41	\$205	2025Q2	9.7%	\$180	\$45	\$225	
-	Reviews, ATRs, IEPRs, VE		\$128	\$32	25.0%	\$160	4.5%	\$134	\$33	\$167	2025Q2	9.7%	\$147	\$37	\$183	
-	Life Cycle Updates (cost, schedule, risks)		\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0	
-	Contracting & Reprographics		\$35	\$9	25.0%	\$44	4.5%	\$37	\$9	\$46	2025Q2	9.7%	\$40	\$10	\$50	
-	Engineering During Construction		\$112	\$28	25.0%	\$140	4.5%	\$117	\$29	\$146	2026Q1	12.3%	\$131	\$33	\$164	
-	Planning During Construction		\$41	\$10	25.0%	\$51	4.5%	\$43	\$11	\$54	2026Q1	12.3%	\$48	\$12	\$60	
-	Project Operations		\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0	
31 CONSTRUCTION MANAGEMENT			\$6,565	\$1,125	25.0%	\$7,690	4.5%	\$5,575	\$1,148	\$6,723	2026Q1	12.3%	\$6,242	\$1,148	\$7,390	
-	Construction Management		\$337	\$84	25.0%	\$421	4.5%	\$352	\$88	\$440	2026Q1	12.3%	\$395	\$99	\$494	
-	Project Operation:		\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0	
-	Project Management		\$60	\$15	25.0%	\$75	4.5%	\$63	\$16	\$78	2026Q1	12.3%	\$70	\$18	\$88	
CONTRACT COST TOTALS:			\$4,817	\$1,116		\$5,934		\$5,336	\$1,235	\$6,571			\$5,853	\$1,360	\$7,213	