



**US Army Corps
of Engineers** ®
Wilmington District

**General Re-evaluation Report and Environmental Assessment
Surf City, Onslow and Pender Counties, North Carolina
Coastal Storm Risk Management Project**



Appendix F: Cost Estimate

Draft

August 2024

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1.0 INTRODUCTION

Costs for the recommended plan within the main report of the Surf City Coastal Storm Risk Management (CSRМ) General Re-evaluation were developed at an October 1st 2024 price level; the Program Year is 2025 (Project 1st Cost). The fully funded project is priced to the mid-point of construction for Initial Construction and Periodic Nourishments events.

The recommended plan is approximately 5.5 miles in length, starting at Station 234+82 and ending at Station 520+45, near the town limits with North Topsail Beach. **Figure 1** presents the location of proposed sand borrow locations in proximity to the town of Surf City.

2.0 ANALYSIS

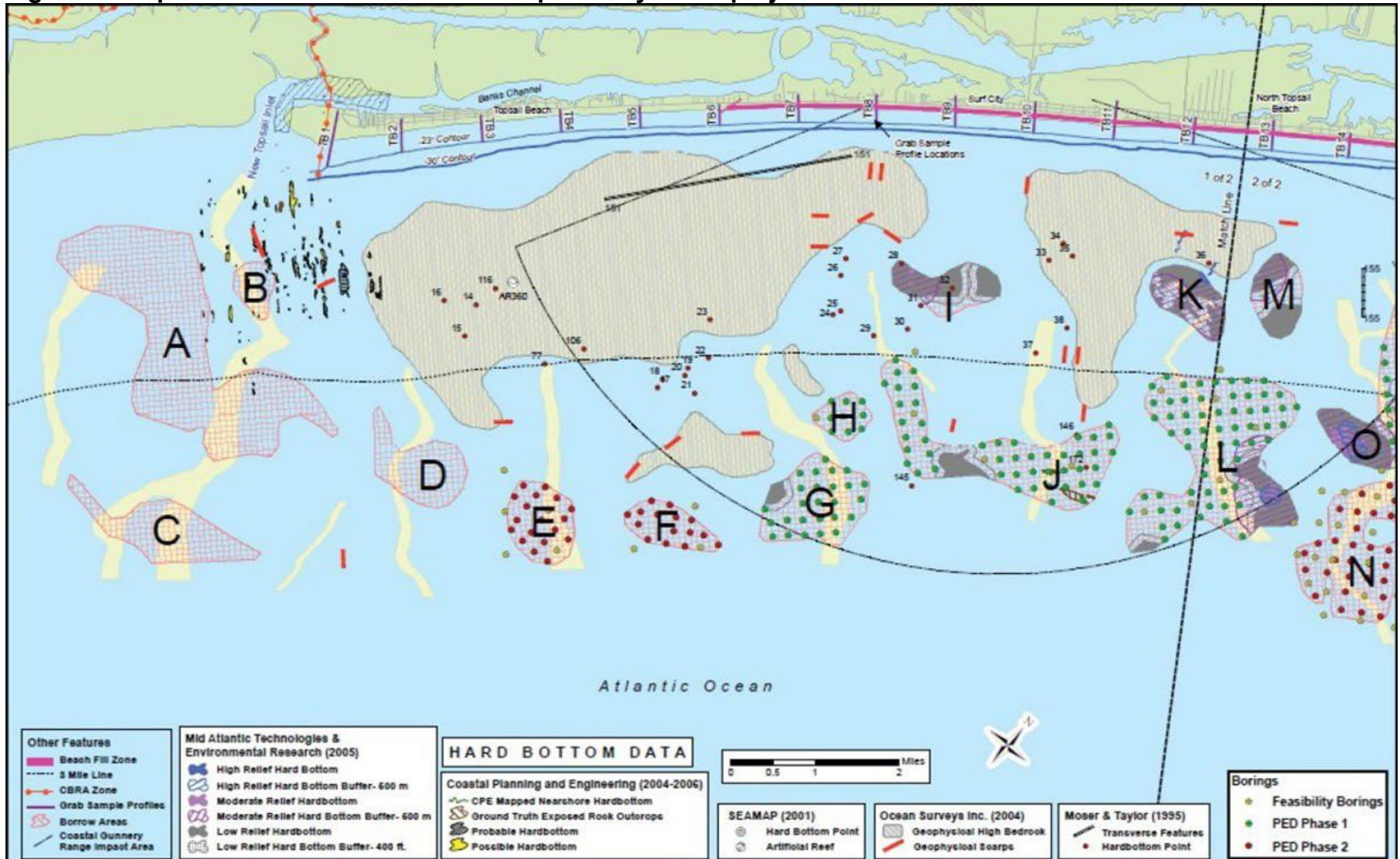
The Initial Construction midpoint is projected to be September 2024. Periodic Nourishments will be completed at 6-year intervals with approximately 2 million cubic yards (MCY) of sand, including mechanical and overfill losses.

Template volume quantities and associated overfill factors and mechanical losses are provided in **Table 1**. Overfill factors were determined by comparing the volume of borrow material required to produce a stable unit of usable fill material with the same grain size characteristics as the native beach sand. Mechanical losses were estimated based on historical averages.

Table 1. Template Volume Quantities.

Borrow Area	Design Template Volumes (cy)	Overfill Factor	Volume Placed on Beach	Mechanical Losses (%)	Required Borrow Volumes (cy)
Initial Construction (Area A, O, & P)	6,419,281	1.15	6,594,100	8.7	7,940,650
1 st Periodic (Area N & O)	1,594,648	1.15	1,814,700	8.7	1,972,579
2 nd Periodic (Area J, L, & N)	1,594,648	1.15	1,814,700	8.7	1,972,579
3 rd Periodic (Area A, G, H, & J)	1,594,648	1.15	1,814,700	8.7	1,972,579
4 th Periodic (Area A)	1,594,648	1.15	1,814,700	8.7	1,972,579
5 th Periodic (Area A)	1,594,648	1.15	1,814,700	8.7	1,972,579
6 th Periodic (Area A)	1,594,648	1.15	1,814,700	8.7	1,972,579
7 th Periodic (Area A)	2,126,196	1.15	2,419,600	8.7	2,630,105

Figure 1. Proposed sand borrow locations in proximity to the project area.



The Total Project Cost Summary (TPCS) includes base construction cost, which is escalated to the mid-point of construction for each respective nourishment. These escalation values were developed based on the Civil Works Construction Cost Index System (CWCCIS) for coastal storm risk management.

Baseline CWE's, October 2023 price level, are shown in the MCACES (Microcomputer Aided Cost Engineering System). The construction contract acquisition strategy for this cost estimate is an open competition Invitation for Bid (IFB). All pricing was done according to this strategy.

Emphasis was placed on accuracy of dredging costs during evaluation of alternative borrow area locations to evaluate the resulting recommended plan. The location and features of borrow areas in relation to the project, as well as historical production of dredges for similar projects, were used in conjunction with the Corps of Engineers Dredge Estimating Program (CEDEP). Data mining for historical production was conducted for projects using a large hopper dredge, and this data was used in the CEDEPS analysis.

Data indicates a production rate of between 600 to 1000 cy/hr for a large hopper, and 400 to 600 cy/hr for a medium hopper. It will take approximately 16 months to complete initial construction (7,940,650 cy), using one medium hopper and one large hopper working simultaneously within the designated borrow areas. For nourishments, it will take approximately 5.5 months per nourishment to complete the required volumes.

CEDEP considers details of borrow area characteristics, depth of borrow, effective production time, distances from borrow sites, costs of dredge plant ownership, operating and repair, fuel consumption/prices, and other economic adjustments for labor and equipment.

Construction contract time for mobilization/demobilization and pipe set-up on the beach will be included for each contract. Mobilization and demobilization of pipe and equipment off the beach, as well as beach tilling, dune vegetation, sand fencing, etc. are included in the estimate.

The costs for other contract items such as beach tilling, dune vegetation, sand fencing, surveys, etc., were based on historical bid abstracts for similar coastal storm damage reduction projects. These projects include 2012, 2015, and 2018 Carolina/Kure Beach; and 2013 and 2017 Wrightsville Beach.

Detailed Cost Schedule and Risk Analyses (CSRAs) were developed by Wilmington District to determine initial construction and periodic nourishment contingencies. These CSRA(s) were reviewed by the Cost Center of Expertise in Walla Walla, Washington, during ATR. A contingency of 26% was included for Initial Construction, and 21% for Periodic Nourishments. These contingencies represent unanticipated conditions and uncertainties at the time the estimate was developed. The contingency percentages are like several other beach nourishment projects with similar conditions and risks.

2.1 Initial Construction, Current Working Estimate

Initial Construction of the project will start during the 2nd quarter of FY25, with the mid- point of construction being around the 1st quarter of FY26 and will take approximately 16 months to complete using one large hopper dredge and one medium hopper dredge.

The Total Current Working Estimate (CWE):

- Initial Construction - CWE \$132,128 - October 2023 price level
(\$179,112with 36% contingency)
- Initial Construction - FIRST COST \$135,760,000- October 2024 price level
(\$186,637,000 with 36% contingency).
- Initial Construction - Fully Funded \$139,263,000 - October 2026 price level
(\$191,402,000 with 36% contingency).

2.2 Periodic Nourishments, Current Working Estimate

Seven Periodic Nourishments will occur every 6 years after completion of Initial Construction (2030, 2036, 2042, 2048, 2054, 2060, & 2066). The periodic nourishments will take approximately 5.5 months of dredging using a large hopper dredge. Pricing is shown in the TPCS with the 7 periodic totals as follows (21% contingency):

The Total Current Working Estimate (CWE) - CSR

- 7 Periodic Projects - CWE \$241,367,000 - October 2023 price level
(\$308,950,000 w/~ 28% contingency).
- 7 Periodic Projects - FIRST COST \$247,989,000 - October 2023 price level
(\$317,426,000 w/~28% contingency).
- 7 Periodic Projects – Fully-funded \$491,258,000 - Feb 2030-2067 price level
(\$628,810,000 w/ ~28% contingency).

3.0 REFERENCES

This cost estimate was prepared under guidance provided by Engineers Regulation ER 1110-2-1302, CIVIL WORKS COST ENGINEERING; ER 1110-1-300, Cost Engineering Policy and General Requirements; and ETL 1110-2-573 Construction Cost Estimating Guide for Civil Works.

PROJECT: SURF CITY CSRM - INITIAL CONSTRUCTION
 PROJECT NO: P2 - 117270
 LOCATION: PENDER COUNTY, NC

DISTRICT: USACE - WILMINGTON DISTRICT PREPARED: 7/9/2024
 POC: CHIEF, COST ENGINEERING, Stephen Roman
 USACE - WILMINGTON

This Estimate reflects the scope and schedule in report; SURF CITY COST UPDATE

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)					TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Program Year (Budget EC):	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
										Effective Price Level Date:					
A	B	C	D	E	F	G	H	I	J	2025 1 OCT 24	K	L	M	N	O
17	BEACH REPLENISHMENT	\$123,047	\$44,297	36.0%	\$167,344	2.7%	\$126,375	\$45,495	\$171,870		\$0	2.6%	\$129,660	\$46,678	\$176,338
	CONSTRUCTION ESTIMATE TOTALS:	\$123,047	\$44,297		\$167,344	2.7%	\$126,375	\$45,495	\$171,870		\$0	2.6%	\$129,660	\$46,678	\$176,338
01	LANDS AND DAMAGES	\$5,292	\$1,323	25.0%	\$6,615	3.1%	\$5,456	\$1,364	\$6,820		\$0	0.0%	\$5,456	\$1,364	\$6,820
30	PLANNING, ENGINEERING & DESIGN	\$2,441	\$879	36.0%	\$3,320	3.7%	\$2,531	\$911	\$3,443		\$2,604	6.6%	\$2,698	\$971	\$6,273
31	CONSTRUCTION MANAGEMENT	\$1,348	\$485	36.0%	\$1,833	3.7%	\$1,398	\$503	\$1,901		\$0	3.7%	\$1,450	\$522	\$1,971
	PROJECT COST TOTALS:	\$132,128	\$46,984	35.6%	\$179,112		\$135,760	\$48,273	\$184,033		\$2,604	2.6%	\$139,263	\$49,535	\$191,402

CHIEF, COST ENGINEERING, Stephen Roman

ESTIMATED TOTAL PROJECT COST: \$191,402

PROJECT MANAGER, Kent Tranter

CHIEF, REAL ESTATE, John Hinley

CHIEF, PLANNING, Bret Walters

CHIEF, ENGINEERING, Tamara Murphy

CHIEF, OPERATIONS, Daniel Brown

CHIEF, CONSTRUCTION, Jeremy Smith

CHIEF, CONTRACTING, John Mayo

CHIEF, PM-PB, Robert Keistler

CHIEF, DPM, Christine Brayman

**** CONTRACT COST SUMMARY ****

PROJECT: SURF CITY CSRM - INITIAL CONSTRUCTION
 LOCATION: PENDER COUNTY, NC
 This Estimate reflects the scope and schedule in report; SURF CITY COST UPDATE

DISTRICT: USACE - WILMINGTON DISTRICT
 POC: CHIEF, COST ENGINEERING, Stephen Roman
 PREPARED: 7/9/2024

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER A	Civil Works Feature & Sub-Feature Description Borrow Areas A, O, & P Initial Construction 2022	COST (\$K) C	CNTG (\$K) D	CNTG (%) E	TOTAL (\$K) F	RISK BASED				Mid-Point Date P	INFLATED (%) L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
						ESC (%) G	COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J					
						Estimate Prepared: 3-Jul-24 Effective Price Level: 1-Oct-23 Program Year (Budget EC): 2025 Effective Price Level Date: 1 OCT 24								
17	BEACH REPLENISHMENT	\$123,047	\$44,297	36.0%	\$167,344	2.7%	\$126,375	\$45,495	\$171,870	2026Q1	2.6%	\$129,660	\$46,678	\$176,338
	CONSTRUCTION ESTIMATE TOTALS:	\$123,047	\$44,297	36.0%	\$167,344		\$126,375	\$45,495	\$171,870			\$129,660	\$46,678	\$176,338
01	LANDS AND DAMAGES	\$5,292	\$1,323	25.0%	\$6,615	3.1%	\$5,456	\$1,364	\$6,820	2025Q1	0.0%	\$5,456	\$1,364	\$6,820
30	PLANNING, ENGINEERING & DESIGN Project Management	\$2,441	\$879	36.0%	\$3,320	3.7%	\$2,531	\$911	\$3,443	2026Q4	6.6%	\$2,698	\$971	\$3,669
31	CONSTRUCTION MANAGEMENT Construction Management	\$1,348	\$485	36.0%	\$1,833	3.7%	\$1,398	\$503	\$1,901	2026Q1	3.7%	\$1,450	\$522	\$1,971
	CONTRACT COST TOTALS:	\$132,128	\$46,984		\$179,112		\$135,760	\$48,273	\$184,033			\$139,263	\$49,535	\$188,798

**** CONTRACT COST SUMMARY ****

PROJECT: SURF CITY CSRM
 PROJECT NO: P2 - 117270
 LOCATION: PENDER COUNTY, NC

DISTRICT: USACE - WILMINGTON DISTRICT PREPARED: 7/9/2024
 POC: CHIEF, COST ENGINEERING, Stephen Roman
 USACE - WILMINGTON

This Estimate reflects the scope and schedule in report; SURF CITY COST UPDATE

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)					TOTAL PROJECT COST (FULLY FUNDED)				
						Program Year (Budget EC): 2025									
						Effective Price Level Date: 1 OCT 24									
WBS NUMBER A	Civil Works Feature & Sub-Feature Description B	COST (\$K) C	CNTG (\$K) D	CNTG (%) E	TOTAL (\$K) F	ESC (%) G	COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J	Spent Thru: 1-Oct-23 (\$K) K	TOTAL FIRST COST (\$K) K	INFLATED (%) L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
17	BEACH REPLENISHMENT	\$231,848	\$64,917	28.0%	\$296,765	2.7%	\$238,118	\$66,673	\$304,791	\$0	\$304,791	94.8%	\$463,929	\$129,900	\$593,830
	CONSTRUCTION ESTIMATE TOTALS:	\$231,848	\$64,917		\$296,765	2.7%	\$238,118	\$66,673	\$304,791	\$0	\$304,791	94.8%	\$463,929	\$129,900	\$593,830
01	LANDS AND DAMAGES	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0
30	PLANNING, ENGINEERING & DESIGN	\$7,069	\$1,979	28.0%	\$9,048	3.7%	\$7,331	\$2,053	\$9,383	\$0	\$9,383	177.0%	\$20,304	\$5,685	\$25,989
31	CONSTRUCTION MANAGEMENT	\$2,450	\$686	28.0%	\$3,136	3.7%	\$2,541	\$711	\$3,252	\$0	\$3,252	176.5%	\$7,025	\$1,967	\$8,992
	PROJECT COST TOTALS:	\$241,367	\$67,583	28.0%	\$308,950		\$247,989	\$69,437	\$317,426	\$0	\$317,426	98.1%	\$491,258	\$137,552	\$628,810

CHIEF, COST ENGINEERING, Stephen Roman

ESTIMATED TOTAL PROJECT COST: \$628,810

PROJECT MANAGER, Kent Tranter

CHIEF, REAL ESTATE, John Hinley

CHIEF, PLANNING, Bret Walters

CHIEF, ENGINEERING, Tamara Murphy

CHIEF, OPERATIONS, Daniel Brown

CHIEF, CONSTRUCTION, Dennis Lynch

CHIEF, CONTRACTING, John Mayo

CHIEF, PM-PB, Robert Keistler

CHIEF, DPM, Christine Brayman

**** CONTRACT COST SUMMARY ****

PROJECT: SURF CITY CSRM
 LOCATION: PENDER COUNTY, NC
 This Estimate reflects the scope and schedule in report;

SURF CITY COST UPDATE

DISTRICT: USACE - WILMINGTON DISTRICT
 POC: CHIEF, COST ENGINEERING, Stephen Roman

PREPARED: 7/9/2024

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:		3-Jul-24		Program Year (Budget EC):		2025						
		Effective Price Level:		1-Oct-23		Effective Price Level Date:		1 OCT 24						
		RISK BASED												
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	Borrow Areas N & O Periodic Nourishment 1 (2030)	C	D	E	F	G	H	I	J	P	L	M	N	O
17	BEACH REPLENISHMENT	\$30,053	\$8,415	28.0%	\$38,468	2.7%	\$30,866	\$8,642	\$39,508	2030Q2	14.4%	\$35,323	\$9,890	\$45,213
CONSTRUCTION ESTIMATE TOTALS:		\$30,053	\$8,415	28.0%	\$38,468		\$30,866	\$8,642	\$39,508			\$35,323	\$9,890	\$45,213
01	LANDS AND DAMAGES	\$0	\$0		\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
30	PLANNING, ENGINEERING & DESIGN Project Management	\$889	\$249	28.0%	\$1,138	3.7%	\$922	\$258	\$1,180	2030Q3	22.5%	\$1,129	\$316	\$1,446
31	CONSTRUCTION MANAGEMENT Construction Management	\$350	\$98	28.0%	\$448	3.7%	\$363	\$102	\$465	2030Q2	21.4%	\$440	\$123	\$564
CONTRACT COST TOTALS:		\$31,292	\$8,762		\$40,054		\$32,151	\$9,002	\$41,153			\$36,893	\$10,330	\$47,223

**** CONTRACT COST SUMMARY ****

PROJECT: SURF CITY CSRM
 LOCATION: PENDER COUNTY, NC
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SURF CITY COST UPDATE

DISTRICT: USACE - WILMINGTON DISTRICT
 POC: CHIEF, COST ENGINEERING, Stephen Roman

PREPARED: 7/9/2024

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		3-Jul-24 1-Oct-23		Program Year (Budget EC): Effective Price Level Date:		2025 1 OCT 24						
WBS NUMBER	Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	Borrow Areas J, L, and N Periodic Nourishment 2 (2036)	C	D	E	F	G	H	I	J	P	L	M	N	O
17	BEACH REPLENISHMENT	\$32,374	\$9,065	28.0%	\$41,439	2.7%	\$33,250	\$9,310	\$42,559	2036Q2	33.5%	\$44,386	\$12,428	\$56,814
CONSTRUCTION ESTIMATE TOTALS:		\$32,374	\$9,065	28.0%	\$41,439		\$33,250	\$9,310	\$42,559			\$44,386	\$12,428	\$56,814
01	LANDS AND DAMAGES	\$0	\$0		\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
30	PLANNING, ENGINEERING & DESIGN													
	Project Management	\$889	\$249	28.0%	\$1,138	3.7%	\$922	\$258	\$1,180	2036Q3	54.2%	\$1,421	\$398	\$1,819
	Borrow Sampling 12 Year 2034	\$282	\$79	28.0%	\$361	3.7%	\$292	\$82	\$374	2036Q3	54.2%	\$451	\$126	\$577
31	CONSTRUCTION MANAGEMENT													
	Construction Management	\$350	\$98	28.0%	\$448	3.7%	\$363	\$102	\$465	2036Q2	52.7%	\$554	\$155	\$709
CONTRACT COST TOTALS:		\$33,895	\$9,491		\$43,386		\$34,827	\$9,752	\$44,578			\$46,813	\$13,108	\$59,920

**** CONTRACT COST SUMMARY ****

PROJECT: SURF CITY CSRM
 LOCATION: PENDER COUNTY, NC
 This Estimate reflects the scope and schedule in report;

SURF CITY COST UPDATE

DISTRICT: USACE - WILMINGTON DISTRICT
 POC: CHIEF, COST ENGINEERING, Stephen Roman

PREPARED: 7/9/2024

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)					
		Estimate Prepared:		3-Jul-24	Program Year (Budget EC):		2025	Effective Price Level Date:		1 OCT 24					
		Effective Price Level:		1-Oct-23											
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)	
A	Borrow Areas A, G, H, and J Periodic Nourishment 3 (2042)	C	D	E	F	G	H	I	J	P	L	M	N	O	
17	BEACH REPLENISHMENT	\$31,840	\$8,915	28.0%	\$40,755	2.7%	\$32,701	\$9,156	\$41,857	2042Q2	55.7%	\$50,922	\$14,258	\$65,181	
CONSTRUCTION ESTIMATE TOTALS:		\$31,840	\$8,915	28.0%	\$40,755		\$32,701	\$9,156	\$41,857			\$50,922	\$14,258	\$65,181	
01	LANDS AND DAMAGES	\$0	\$0		\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0	
30	PLANNING, ENGINEERING & DESIGN PED	\$889	\$249	28.0%	\$1,138	3.7%	\$922	\$258	\$1,180	2042Q3	95.7%	\$1,804	\$505	\$2,309	
31	CONSTRUCTION MANAGEMENT Construction Management	\$350	\$98	28.0%	\$448	3.7%	\$363	\$102	\$465	2042Q2	93.7%	\$703	\$197	\$900	
CONTRACT COST TOTALS:		\$33,079	\$9,262		\$42,341		\$33,986	\$9,516	\$43,502			\$53,430	\$14,960	\$68,390	
**** CONTRACT COST SUMMARY ****															

PROJECT: SURF CITY CSRM
 LOCATION: PENDER COUNTY, NC
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SURF CITY COST UPDATE

DISTRICT: USACE - WILMINGTON DISTRICT
 POC: CHIEF, COST ENGINEERING, Stephen Roman

PREPARED: 7/9/2024

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)					
WBS NUMBER A	Civil Works Feature & Sub-Feature Description Borrow Area A Periodic Nourishment 4 (2048)	Estimate Prepared:		3-Jul-24	Program Year (Budget EC):		2025	Effective Price Level Date:		1 OCT 24	FULLY FUNDED PROJECT ESTIMATE				
		Effective Price Level:	1-Oct-23	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)			
		C	D	E	F	G	H	I	J	P	L	M	N	O	
17	BEACH REPLENISHMENT	\$32,176	\$9,009	28.0%	\$41,185	2.7%	\$33,046	\$9,253	\$42,299	2048Q2	81.6%	\$60,028	\$16,808	\$76,835	
CONSTRUCTION ESTIMATE TOTALS:		\$32,176	\$9,009	28.0%	\$41,185		\$33,046	\$9,253	\$42,299			\$60,028	\$16,808	\$76,835	
01	LANDS AND DAMAGES	\$0	\$0		\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0	
30	PLANNING, ENGINEERING & DESIGN														
	Project Management	\$889	\$249	28.0%	\$1,138	3.7%	\$922	\$258	\$1,180	2048Q2	146.5%	\$2,273	\$636	\$2,909	
	Borrow Sampling 12 Year 2046	\$282	\$79	28.0%	\$361	3.7%	\$293	\$82	\$374	2048Q2	146.5%	\$721	\$202	\$923	
31	CONSTRUCTION MANAGEMENT														
	Construction Management	\$350	\$98	28.0%	\$448	3.7%	\$363	\$102	\$465	2048Q2	146.5%	\$895	\$251	\$1,145	
CONTRACT COST TOTALS:		\$33,697	\$9,435		\$43,132		\$34,624	\$9,695	\$44,318			\$63,916	\$17,897	\$81,813	
**** CONTRACT COST SUMMARY ****															

PROJECT: SURF CITY CSRM
 LOCATION: PENDER COUNTY, NC
 This Estimate reflects the scope and schedule in report;

SURF CITY COST UPDATE

DISTRICT: USACE - WILMINGTON DISTRICT
 POC: CHIEF, COST ENGINEERING, Stephen Roman

PREPARED: 7/9/2024

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER A	Civil Works Feature & Sub-Feature Description Borrow Area A Periodic Nourishment 5 (2054)	Estimate Prepared:		3-Jul-24	TOTAL (\$K)	Program Year (Budget EC):		2025	TOTAL (\$K)	FULLY FUNDED PROJECT ESTIMATE				
		Effective Price Level:		1-Oct-23		Effective Price Level Date:		1 OCT 24		Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
		COST (\$K)	CNTG (\$K)	CNTG (%)		ESC (%)	COST (\$K)	CNTG (\$K)		P	L	M	N	O
		C	D	E	F	G	H	I	J					
17	BEACH REPLENISHMENT	\$32,176	\$9,009	28.0%	\$41,185	2.7%	\$33,046	\$9,253	\$42,299	2054Q2	111.9%	\$70,022	\$19,606	\$89,628
CONSTRUCTION ESTIMATE TOTALS:		\$32,176	\$9,009	28.0%	\$41,185		\$33,046	\$9,253	\$42,299			\$70,022	\$19,606	\$89,628
01	LANDS AND DAMAGES	\$0	\$0		\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
30	PLANNING, ENGINEERING & DESIGN Project Management	\$889	\$249	28.0%	\$1,138	3.7%	\$922	\$258	\$1,180	2054Q3	217.0%	\$2,922	\$818	\$3,740
31	CONSTRUCTION MANAGEMENT Construction Management	\$350	\$98	28.0%	\$448	3.7%	\$363	\$102	\$465	2054Q2	213.8%	\$1,139	\$319	\$1,458
CONTRACT COST TOTALS:		\$33,415	\$9,356		\$42,771		\$34,331	\$9,613	\$43,944			\$74,083	\$20,743	\$94,826
**** CONTRACT COST SUMMARY ****														

PROJECT: SURF CITY CSRM
 LOCATION: PENDER COUNTY, NC
 This Estimate reflects the scope and schedule in report;

SURF CITY COST UPDATE

DISTRICT: USACE - WILMINGTON DISTRICT
 POC: CHIEF, COST ENGINEERING, Stephen Roman

PREPARED: 7/9/2024

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	Estimate Prepared:		3-Jul-24		Program Year (Budget EC):		2025		FULLY FUNDED PROJECT ESTIMATE				
		Effective Price Level:		1-Oct-23		Effective Price Level Date:		1 OCT 24		Mid-Point	INFLATED	COST	CNTG	FULL
A	Borrow Area A Periodic Nourishment 6 (2060)	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Date	(%)	(\$K)	(\$K)	(\$K)
		C	D	E	F	G	H	I	J	P	L	M	N	O
17	BEACH REPLENISHMENT	\$32,176	\$9,009	28.0%	\$41,185	2.7%	\$33,046	\$9,253	\$42,299	2060Q2	147.2%	\$81,681	\$22,871	\$104,552
	CONSTRUCTION ESTIMATE TOTALS:	\$32,176	\$9,009	28.0%	\$41,185		\$33,046	\$9,253	\$42,299			\$81,681	\$22,871	\$104,552
01	LANDS AND DAMAGES	\$0	\$0		\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
30	PLANNING, ENGINEERING & DESIGN													
	Project Management	\$889	\$249	28.0%	\$1,138	3.7%	\$922	\$258	\$1,180	2060Q2	299.3%	\$3,681	\$1,031	\$4,712
	Borrow Sampling 12 Year 2058	\$282	\$79	28.0%	\$361	3.7%	\$293	\$82	\$374	2060Q2	299.3%	\$1,168	\$327	\$1,495
31	CONSTRUCTION MANAGEMENT													
	Construction Management	\$350	\$98	28.0%	\$448	3.7%	\$363	\$102	\$465	2060Q2	299.3%	\$1,449	\$406	\$1,855
	CONTRACT COST TOTALS:	\$33,697	\$9,435		\$43,132		\$34,624	\$9,695	\$44,318			\$87,979	\$24,634	\$112,613
**** CONTRACT COST SUMMARY ****														

PROJECT: SURF CITY CSRM
 LOCATION: PENDER COUNTY, NC
 This Estimate reflects the scope and schedule in report;

SURF CITY COST UPDATE

DISTRICT: USACE - WILMINGTON DISTRICT
 POC: CHIEF, COST ENGINEERING, Stephen Roman

PREPARED: 7/9/2024

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER A	Civil Works Feature & Sub-Feature Description Borrow Area A Periodic Nourishment 7 (2066)	Estimate Prepared:		3-Jul-24	TOTAL (\$K)	Program Year (Budget EC):		2025	TOTAL (\$K)	FULLY FUNDED PROJECT ESTIMATE				
		Effective Price Level:		1-Oct-23		Effective Price Level Date:		1 OCT 24		Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
		C (\$K)	D (\$K)	E (%)	F	G (%)	H (\$K)	I (\$K)	J	P	L	M	N	O
17	BEACH REPLENISHMENT	\$41,053	\$11,495	28.0%	\$52,548	2.7%	\$42,163	\$11,806	\$53,969	2066Q2	188.3%	\$121,567	\$34,039	\$155,606
	CONSTRUCTION ESTIMATE TOTALS:	\$41,053	\$11,495	28.0%	\$52,548		\$42,163	\$11,806	\$53,969			\$121,567	\$34,039	\$155,606
01	LANDS AND DAMAGES	\$0	\$0		\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
30	PLANNING, ENGINEERING & DESIGN Project Management	\$889	\$249	28.0%	\$1,138	3.7%	\$922	\$258	\$1,180	2066Q3	413.4%	\$4,733	\$1,325	\$6,058
31	CONSTRUCTION MANAGEMENT Construction Management	\$350	\$98	28.0%	\$448	3.7%	\$363	\$102	\$465	2066Q2	408.2%	\$1,844	\$516	\$2,361
	CONTRACT COST TOTALS:	\$42,292	\$11,842		\$54,134		\$43,448	\$12,165	\$55,614			\$128,144	\$35,880	\$164,025
**** CONTRACT COST SUMMARY ****														