

FY2022/2023 Local Government Funding Request

Final Beach Project Assessment

Project Name	Duval County Shore Protection Project
Local Sponsor	City of Jacksonville

Initial Assessment	8/2/2021
Group Assessment	8/20/2021
Draft Assessment	8/31/2021
Final Review	10/5/2021

Project Description
The Duval County Shore Protection Project is located between DEP monuments V501 and R80 in Duval County. The shoreline between V501 and R31 is within the Mayport Naval Station. The Project consists of the restoration and maintenance of approximately 10.1 miles of shoreline. Initial construction was completed in 1978/1980, with nourishments in 1987, 1991, 1995, 2005, 2017 and 2019. The requested funds are for a federal feasibility study to re-authorize the project and for construction of the next nourishment event, scheduled for 2023/2024. Staff have determined that 93.78% of the project is eligible for state cost sharing.

Funds will be used for (list project phase, specify which phase is reimbursement, if applicable)
Feasibility and Construction

State cost share %	46.89% and 50%
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Project Budget Table					
	State %	Federal	State	Local	Total
Feasibility	50.00%	\$1,500,000	\$750,000	\$750,000	\$3,000,000
Design	0.00%	\$0	\$0	\$0	\$0
Construction	46.89%	\$14,476,000	\$4,357,957	\$4,936,043	\$23,770,000
Year 1 Monitoring	0.00%	\$0	\$0	\$0	\$0
Year 2+ Monitoring	0.00%	\$0	\$0	\$0	\$0
Total Project Costs		\$15,976,000	\$5,107,957	\$5,686,043	\$26,770,000

Federal cost share %	50% and 61.6%
Federal agency and description	USACE

TOTAL PROJECT SCORE (100 points)	46.2
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Tier 1

Tourism-related impacts		
Return on investment (10 points)	Score	2.7

Local Sponsor: Project is requesting construction funds.

Department: Verified

Construction + Year 1 Monitoring Cost: \$4,357,957.00

Value: 7.4

Economic impact (10 points)	Score	0.5
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Local Sponsor: N/A

Department: Duval County, 2020 data. Tourism-related sales tax data = \$32,089,978.91. County sales tax collections = \$1,168,032,864.79

Value: 2.75

Tier 2

Federal involvement

Federal authorization (5 points)	Score	5
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Local Sponsor: Project federally authorized by USACE through 2028

Department: Verified

Federal cost share (5 points)	Score	3.5
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Local Sponsor: 61.60%

Department: Verified

Federal funds available (5 points)	Score	5
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Local Sponsor: Project in USACE work plan. Signed project agreement.

Department: Verified

Storm damage reduction benefits

Current conditions (8 points)	Score	0.4
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Local Sponsor: 37,200 cy (April 2021 survey) relative to 2019 fill of 318,100 cy above MHWL; i.e., -11.7%

Department: The last nourishment was completed in 2019. Calculations by Olsen Associates utilizing the April 2021 LIDAR data shows that 37,200 cy have been lost above MHWL (see application) from the initial fill value of 318,100 cy. Therefore, 11.7% have been lost above MHW.

CEG calculated value: 11.70%

Threat to upland development (2 points)	Score	0
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Local Sponsor: N/A

Department:

The 2020 Year-1 monitoring report (Olsen Associates, December 2020, page iii) shows the berm and MHW shoreline were an average of 58 and 64 feet seaward of the authorized locations respectively. Volume analysis shows the majority of fill remains from the 2019 nourishment as of April 2021 and plot overlays show the frontal dune in April 2021 is intact and therefore is expected to provide protection from a 25-year storm event and is therefore not eligible for the award of points.

CEG calculated value: 0

Value of upland property (5 points)	Score	4.3
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Local Sponsor: \$4,607,365,076.00

Department: Calculated by Department GIS staff with 2020 data.

Total value: \$4,601,158,587.00

Cost-effectiveness

Cost/volume/mile/year (10 points)	Score	7.5
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Local Sponsor: Sand placement volume = 850,000 cy; nourishment interval = 7 years

Department: Construction cost = \$23,770,000, volume = 850,000 cy, length = 10.06 mi, nourishment interval = 7 yrs

Value: \$0.40

Enhanced longevity, dune addition, innovative technology, and regionalization (5 points)	Score	3
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Local Sponsor: None proposed.

Department: Application states none of the cost-effectiveness criteria have been proposed, however funds will be used for design of the 2023 project which will incorporate dune repair, therefore eligible for dune addition.

Tier 3

Previous state commitment

Previously funded phases (1 point)	Score	1
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Local Sponsor: Yes - feasibility and design

Department: Verified

Total amount of previous funding (3 points)	Score	1.5
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Local Sponsor: N/A

Department: Fiscal year 2012/2013 through 2021/2022
Total funds: \$5,646,415.00

Previous partial appropriation (1 point)	Score	0
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Local Sponsor: No previous partial appropriation

Department: Verified

Recreational benefits

Accessible beach area (2 points)	Score	2
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Local Sponsor: ECL and MHWL. R31 to R80, plus Mayport Naval Station. Olsen Associates monitoring reports.

Department: The design profile is a 60' wide berm from the ECL followed by a 1V:20H slope to MHW for a total width of 180 feet. The 2020 Year-1 monitoring report (Olsen Associates, December 2020, page 41) calculated an accessible beach area for R-31 to R-80 of 8,527,019 square feet. Raw calculated score was 3.6, but only eligible for a maximum of 2 points.

Total area: 8,527,019

Recreational benefits (3 points)	Score	1
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Local Sponsor: 32.80%

Department: Verified
Percentage: 32.8

Mitigation of inlet effects (5 points)	Score	0
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Local Sponsor: Project is immediately downdrift of the St. Johns River entrance, which has no ongoing sand bypass project

Department: The St. Johns River Entrance has no target bypassing to mitigate, therefore this criterion yields zero (0) points.

CEG calculated value: 0

Volume/mile/year (5 points)	Score	3.8
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Local Sponsor: N/A

Department:

The project was initially restored in 1978-1980 has been maintained with periodic beach nourishment in 1985-87, 1991, 1995, 2003-05, 2011 and 2017-2019. The 2005 and 2019 beach nourishments were scheduled maintenance events that were also storm damage repairs. This equates to 6 nourishment events in the 42 years since initial restoration. Therefore, the average nourishment interval is approximately 7.0 years. The project length is 53,100 feet or 10.06 miles. The planned sand placement volume as stated in the application is 850,000 cy.

CEG calculated value: 12,070

Tier 4

Successive unfunded requests (5 points)	Score	0
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Local Sponsor: No

Department: Verified

Environmental habitat enhancement (5 points)	Score	0
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Local Sponsor: Project is not within a critical habitat area.

Department: The project is within a designated critical habitat area, but only 2.27 miles or 22.6% of the project shoreline is armored, which is less than the 30% threshold for extensive armoring and is therefore not eligible for the award of points.

Overall readiness to proceed

Readiness to construct (1 point)	Score	1
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Local Sponsor: N/A

Department: The project is eligible for the additional point.

Active permits (1 point)	Score	1
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Local Sponsor: State: yes. Federal: not required

Department: Verified

Easements acquired (1 point)	Score	1
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Local Sponsor: Yes

Department: Verified

Local funds secured (1 point)	Score	1
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Local Sponsor: Yes

Department: Signed Resolution was submitted by application deadline.

Erosion Control Line established (1 point)	Score	1
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Local Sponsor: Yes, ECL established.

Department: Verified