

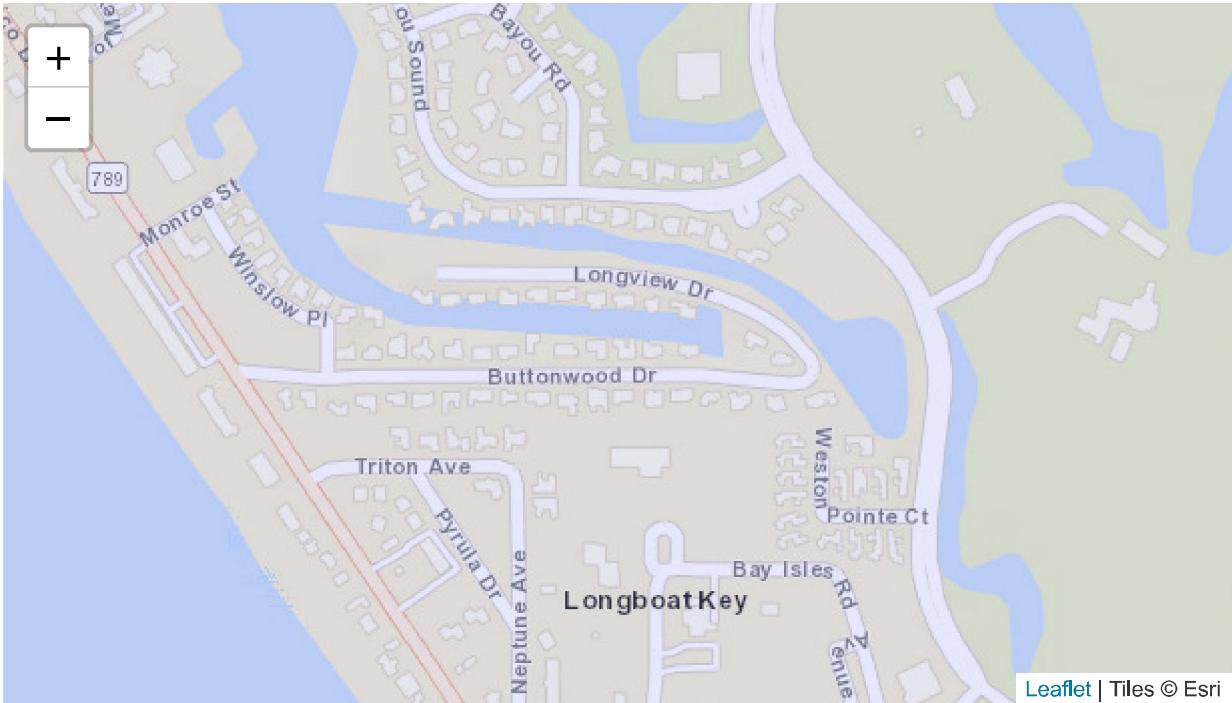


Benefit-Cost Calculator

V.6.0 (Build 20230324.2039 | Release Notes)

Benefit-Cost Analysis

Project Name: Buttonwood Projects 1, 2, & 3 - Preliminary Application Data



Using 7% Discount Rate							Using 3% Discount Rate (For FY22 BRIC and FMA only)			
Map Marker ▲	Mitigation Title	Property Type	Hazard	Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)	
1	Drainage Improvement @ Sarasota County, Florida		DFA - Coastal A Flood	\$ 18,200,792	\$ 3,523,170	5.17	\$ 25,559,889	\$ 3,544,587	7.21	
TOTAL (SELECTED)				\$ 18,200,792	\$ 3,523,170	5.17	\$ 25,559,889	\$ 3,544,587	7.21	
TOTAL				\$ 18,200,792	\$ 3,523,170	5.17	\$ 25,559,889	\$ 3,544,587	7.21	

Property Configuration

Property Title:	Drainage Improvement @ Sarasota County, Florida
Property Location:	34228, Sarasota, Florida
Property Coordinates:	27.180511, -82.3222581
Hazard Type:	Coastal A Flood
Mitigation Action Type:	Drainage Improvement
Property Type:	Residential Building
Analysis Method Type:	Professional Expected Damages

Cost Estimation

Drainage Improvement @ Sarasota County, Florida

Project Useful Life (years):	20
Project Cost:	\$3,470,200
Number of Maintenance Years:	20 Use Default:Yes
Annual Maintenance Cost:	\$5,000

Damage Analysis Parameters - Damage Frequency Assessment

Drainage Improvement @ Sarasota County, Florida

Year of Analysis was Conducted:	2023
Year Property was Built:	1954
Analysis Duration:	70 Use Default:Yes

Comments

- Year Built:

Based on oldest home in the floodplain - neighborhood was originally constructed in the 1950's and 1960's.

Professional Expected Damages Before Mitigation

Drainage Improvement @ Sarasota County, Florida

Recurrence Interval (years)	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Damages (\$)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
2	0	2,061,837	1,187,808	83,291	0	0	3,332,936
5	0	2,763,477	1,595,830	108,177	0	0	4,467,484
10	0	4,973,471	2,877,795	178,121	0	0	8,029,387
25	0	5,614,866	3,257,435	180,429	0	0	9,052,730
50	0	6,908,921	4,017,070	170,796	0	0	11,096,787
100	0	8,927,826	5,205,871	331,155	0	0	14,464,852

Comments

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Damages Before Mitigation:

Based on preliminary modeling. Values will be adjusted / updated during final design phase. Category 1 Damages = Structure Damages; Category 2 Damages = Content Damages; Category 3 Damages = Displacement

Annualized Damages Before Mitigation Drainage Improvement @ Sarasota County, Florida		
Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
2	3,332,936	1,157,621
5	4,467,484	598,925
10	8,029,387	511,543
25	9,052,730	200,456
50	11,096,787	126,694
100	14,464,852	144,647
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	50,444,176	2,739,886

Professional Expected Damages After Mitigation Drainage Improvement @ Sarasota County, Florida							
Recurrence Interval (years)	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Damages (\$)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
2	0	0	0	0	0	0	0
5	0	2,012,345	1,162,072	77,270	0	0	3,251,687
10	0	2,737,206	1,583,827	92,623	0	0	4,413,656
25	0	3,740,898	2,170,262	111,991	0	0	6,023,151
50	0	4,946,334	2,875,959	115,403	0	0	7,937,696
100	0	6,494,469	3,786,965	154,539	0	0	10,435,973

Comments

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Damages After Mitigation:

Based on preliminary modeling. Values will be adjusted / updated during final design phase. Category 1 Damages = Structure Damages; Category 2 Damages = Content Damages; Category 3 Damages = Displacement

Annualized Damages After Mitigation

Drainage Improvement @ Sarasota County, Florida

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
2	0	0
5	3,251,687	378,838
10	4,413,656	309,359
25	6,023,151	138,289
50	7,937,696	91,015
100	10,435,973	104,359
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	32,062,163	1,021,860

Standard Benefits - Ecosystem Services

Drainage Improvement @ Sarasota County, Florida

Total Project Area (sq.ft):	0
Percentage of Urban Green Open Space:	0.00%
Percentage of Rural Green Open Space:	0.00%
Percentage of Riparian:	0.00%
Percentage of Coastal Wetlands:	0.00%
Percentage of Inland Wetlands:	0.00%
Percentage of Forests:	0.00%
Percentage of Coral Reefs:	0.00%
Percentage of Shellfish Reefs:	0.00%
Percentage of Beaches and Dunes:	0.00%
Expected Annual Ecosystem Services Benefits:	\$0

Comments

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Total Project Area:

Data not included - damages provide a BCR greater than 1.0

Additional Benefits - Social

Drainage Improvement @ Sarasota County, Florida

Number of Workers:	0
Expected Annual Social Benefits:	\$0

Comments

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Number of Residents:

Data not included - damages provide a BCR greater than 1.0

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Number of Workers:

Data not included - damages provide a BCR greater than 1.0

Benefits-Costs Summary	
Drainage Improvement @ Sarasota County, Florida	
Total Standard Mitigation Benefits:	\$18,200,792
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$18,200,792
Total Mitigation Project Cost:	\$3,523,170
Benefit Cost Ratio - Standard:	5.17
Benefit Cost Ratio - Standard + Social:	5.17