

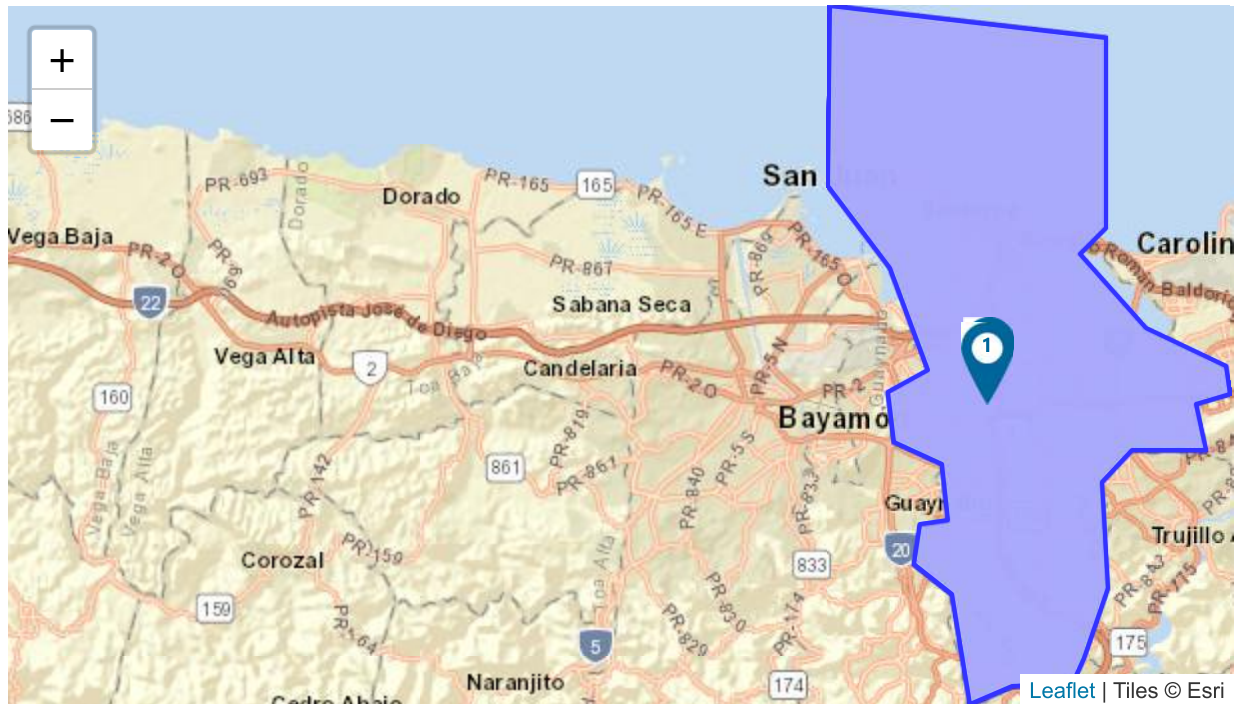


Benefit-Cost Calculator

V.6.0 (Build 20240105.2249 | Release Notes)

Benefit-Cost Analysis

Project Name: New Trauma Center Hospital



Map Marker	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate			Using 3% Discount Rate (For BRIC and FMA only)		
				Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Other @ Hospital Municipal de San Juan		DFA - Infrastructure Failure	\$ 247,764,343	\$ 106,244,697	2.33	\$ 461,925,604	\$ 123,512,857	3.74
2	Other @ San Juan Municipal Hospital		DFA - Uncategorized	\$ 32,864,090	\$ 13,175,634	2.49	\$ 61,270,982	\$ 15,317,095	4.00
3	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 36,387,365	\$ 15,603,392	2.33	\$ 67,839,687	\$ 18,139,441	3.74
4	Other @ San Juan Municipal Hospital		DFA - Uncategorized	\$ 13,408,322	\$ 5,749,681	2.33	\$ 24,998,138	\$ 6,684,188	3.74

Map Marker ▲	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate			Using 3% Discount Rate (For BRIC and FMA only)		
				Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
5	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 16,406,327	\$ 7,035,271	2.33	\$ 30,587,544	\$ 8,178,727	3.74
6	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 4,790,584	\$ 2,054,256	2.33	\$ 8,931,444	\$ 2,388,137	3.74
7	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 9,023,646	\$ 3,869,470	2.33	\$ 16,823,458	\$ 4,498,380	3.74
8	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 24,667,012	\$ 10,577,552	2.33	\$ 45,988,557	\$ 12,296,738	3.74
9	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 20,087,455	\$ 30,337,272	0.66	\$ 37,450,546	\$ 35,268,048	1.06
10	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 4,474,961	\$ 13,370,009	0.33	\$ 8,343,004	\$ 15,543,058	0.54
11	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 114,973,465	\$ 49,302,185	2.33	\$ 214,353,634	\$ 57,315,371	3.74
12	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 13,878,914	\$ 7,470,033	1.86	\$ 25,875,498	\$ 8,684,157	2.98
13	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 12,548,578	\$ 29,444,231	0.43	\$ 17,622,324	\$ 31,241,160	0.56
14	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 2,509,711	\$ 5,888,848	0.43	\$ 3,524,459	\$ 6,248,235	0.56
15	Other @ San Juan Municipal Hospital		DFA - Infrastructure Failure	\$ 2,509,711	\$ 5,888,848	0.43	\$ 3,524,459	\$ 6,248,235	0.56
TOTAL (SELECTED)				\$ 556,294,484	\$ 306,011,379	1.82	\$ 1,029,059,338	\$ 351,563,827	2.93
TOTAL				\$ 556,294,484	\$ 306,011,379	1.82	\$ 1,029,059,338	\$ 351,563,827	2.93

Property Configuration
 Other @ Hospital Municipal de San Juan

Property Title: Other @ Hospital Municipal de San Juan

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39482000000004, -66.07430999999997

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation
 Other @ Hospital Municipal de San Juan

Project Useful Life (years): 50

Project Cost: \$86,267,068

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$1,447,576

Damage Analysis Parameters - Damage Frequency Assessment
 Other @ Hospital Municipal de San Juan

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties
 Other @ Hospital Municipal de San Juan

Critical Facility Type: Hospital

Number of people are served by Hospital: 1,591,288

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 8,940,086

Historical Damages Before Mitigation
 Other @ Hospital Municipal de San Juan

Damage Year	Recurrence Interval (years)	HOSPITAL Impact (days)	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
			Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	5,026,957	0	0	0	0	5,026,957	No	5,165,663
2017	4	3	5,600,380	0	0	0	0	32,420,637	No	33,655,805

Annualized Damages Before Mitigation

Other @ Hospital Municipal de San Juan

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	5,165,663	9,889,043
4	33,655,805	8,413,948
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	38,821,468	18,302,991

Expected Damages After Mitigation

Other @ Hospital Municipal de San Juan

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	1,400,094.9	0	0	0	0	1,400,095

Annualized Damages After Mitigation

Other @ Hospital Municipal de San Juan

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	1,400,095	350,024
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	1,400,095	350,024

Benefits-Costs Summary

Other @ Hospital Municipal de San Juan

Total Standard Mitigation Benefits:	\$247,764,343
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$247,764,343
Total Mitigation Project Cost:	\$106,244,697
Benefit Cost Ratio - Standard:	2.33
Benefit Cost Ratio - Standard + Social:	2.33

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Uncategorized

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$10,698,165

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$179,517

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 197,339

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 1,108,679

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	623,404	0	0	0	0	623,404	No	640,605
2017	4	3	1,034,490	0	0	0	0	4,360,527	No	4,588,685

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	640,605	1,285,880
4	4,588,685	1,147,171
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	5,229,290	2,433,051

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	206,897.9	0	0	0	0	206,898

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	206,898	51,724
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	206,898	51,724

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$32,864,090
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$32,864,090
Total Mitigation Project Cost:	\$13,175,634
Benefit Cost Ratio - Standard:	2.49
Benefit Cost Ratio - Standard + Social:	2.49

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$12,669,422

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$212,595

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 233,701

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 1,312,966

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	738,273	0	0	0	0	738,273	No	758,644
2017	4	3	822,487	0	0	0	0	4,761,385	No	4,942,785

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	758,644	1,452,332
4	4,942,785	1,235,696
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	5,701,429	2,688,028

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	205,621.83	0	0	0	0	205,622

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	205,622	51,405
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	205,622	51,405

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$36,387,365
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$36,387,365
Total Mitigation Project Cost:	\$15,603,392
Benefit Cost Ratio - Standard:	2.33
Benefit Cost Ratio - Standard + Social:	2.33

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.3960310, -66.0738540

Hazard Type: Uncategorized

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$4,668,544

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$78,339

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 86,116

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 483,812

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	272,045	0	0	0	0	272,045	No	279,551
2017	4	3	303,078	0	0	0	0	1,754,514	No	1,821,358

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	279,551	535,168
4	1,821,358	455,339
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	2,100,910	990,507

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	75,769.4	0	0	0	0	75,769

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	75,769	18,942
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	75,769	18,942

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$13,408,322
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$13,408,322
Total Mitigation Project Cost:	\$5,749,681
Benefit Cost Ratio - Standard:	2.33
Benefit Cost Ratio - Standard + Social:	2.33

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$5,712,400

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$95,855

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 105,371

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 591,989

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	332,873	0	0	0	0	332,873	No	342,058
2017	4	3	370,844	0	0	0	0	2,146,812	No	2,228,602

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	342,058	654,828
4	2,228,602	557,150
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	2,570,660	1,211,978

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	92,710.96	0	0	0	0	92,711

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	92,711	23,178
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	92,711	23,178

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$16,406,327
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$16,406,327
Total Mitigation Project Cost:	\$7,035,271
Benefit Cost Ratio - Standard:	2.33
Benefit Cost Ratio - Standard + Social:	2.33

Property Configuration

Other @ San Juan Municipal Hospital

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$1,667,987

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$27,989

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 30,768

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 172,859

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	97,197	0	0	0	0	97,197	No	99,879
2017	4	3	108,284	0	0	0	0	626,861	No	650,743

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	99,879	191,207
4	650,743	162,686
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	750,622	353,893

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	27,071.05	0	0	0	0	27,071

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	27,071	6,768
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	27,071	6,768

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$4,790,584
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$4,790,584
Total Mitigation Project Cost:	\$2,054,256
Benefit Cost Ratio - Standard:	2.33
Benefit Cost Ratio - Standard + Social:	2.33

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$3,141,881

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$52,721

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 57,955

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 325,600

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	183,084	0	0	0	0	183,084	No	188,136
2017	4	3	203,968	0	0	0	0	1,180,767	No	1,225,752

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	188,136	360,162
4	1,225,752	306,438
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	1,413,888	666,600

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	50,992.01	0	0	0	0	50,992

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	50,992	12,748
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	50,992	12,748

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$9,023,646
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$9,023,646
Total Mitigation Project Cost:	\$3,869,470
Benefit Cost Ratio - Standard:	2.33
Benefit Cost Ratio - Standard + Social:	2.33

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$8,588,616

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$144,118

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 158,426

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 890,060

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	500,476	0	0	0	0	500,476	No	514,285
2017	4	3	557,565	0	0	0	0	3,227,745	No	3,350,717

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	514,285	984,537
4	3,350,717	837,679
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	3,865,002	1,822,216

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	139,391.29	0	0	0	0	139,391

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	139,391	34,848
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	139,391	34,848

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$24,667,012
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$24,667,012
Total Mitigation Project Cost:	\$10,577,552
Benefit Cost Ratio - Standard:	2.33
Benefit Cost Ratio - Standard + Social:	2.33

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Utilities

Analysis Method Type: Historical Damages

Cost Estimation
Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$24,632,830

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$413,343

Damage Analysis Parameters - Damage Frequency Assessment
Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Utilities Properties
Other @ San Juan Municipal Hospital

Type of Service: Potable Water

Number of Customers Served: 20,550

Value of Unit of Service (\$/person/day): \$138 Use Default:Yes

Total Value of Service Per Day (\$/day): \$2,835,900

Historical Damages Before Mitigation
Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	POTABLE WATER Impact (days)	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
			Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	1,968,401	0	0	0	0	1,968,401	No	2,022,714

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	2,022,714	2,022,714
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	2,022,714	2,022,714

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	POTABLE WATER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
1	0	567,180	0	0	0	0	567,180

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	567,180	567,180
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	567,180	567,180

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$20,087,455
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$20,087,455
Total Mitigation Project Cost:	\$30,337,272
Benefit Cost Ratio - Standard:	0.66
Benefit Cost Ratio - Standard + Social:	0.66

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Utilities

Analysis Method Type: Historical Damages

Cost Estimation
Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$10,855,996

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$182,165

Damage Analysis Parameters - Damage Frequency Assessment
Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Utilities Properties
Other @ San Juan Municipal Hospital

Type of Service: Potable Water

Number of Customers Served: 20,550

Value of Unit of Service (\$/person/day): \$138 Use Default:Yes

Total Value of Service Per Day (\$/day): \$2,835,900

Historical Damages Before Mitigation
Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	POTABLE WATER Impact (days)	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
			Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	867,499	0	0	0	0	867,499	No	891,435

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	891,435	891,435
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	891,435	891,435

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	POTABLE WATER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
1	0	567,180	0	0	0	0	567,180

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	567,180	567,180
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	567,180	567,180

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$4,474,961
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$4,474,961
Total Mitigation Project Cost:	\$13,370,009
Benefit Cost Ratio - Standard:	0.33
Benefit Cost Ratio - Standard + Social:	0.33

Property Configuration

Other @ San Juan Municipal Hospital

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$40,031,685

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$671,739

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 738,427

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 4,148,589

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	2,332,727	0	0	0	0	2,332,727	No	2,397,092
2017	4	3	2,598,821	0	0	0	0	15,044,589	No	15,617,762

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	2,397,092	4,588,947
4	15,617,762	3,904,439
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	18,014,854	8,493,386

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	649,705.14	0	0	0	0	649,705

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	649,705	162,426
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	649,705	162,426

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$114,973,465
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$114,973,465
Total Mitigation Project Cost:	\$49,302,185
Benefit Cost Ratio - Standard:	2.33
Benefit Cost Ratio - Standard + Social:	2.33

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Critical Facility Building

Analysis Method Type: Historical Damages

Cost Estimation

Other @ San Juan Municipal Hospital

Project Useful Life (years): 50

Project Cost: \$6,065,407

Number of Maintenance Years: 50 Use Default:Yes

Annual Maintenance Cost: \$101,779

Damage Analysis Parameters - Damage Frequency Assessment

Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Critical Facilities Properties

Other @ San Juan Municipal Hospital

Critical Facility Type: Hospital

Number of people are served by Hospital: 111,883

Distance in miles between this hospital and the hospital that would treat these people in the event this hospital was inoperative: 2.1

Number of people that are normally served by the alternate hospital: 344,791

Total (\$/day): 628,575

Historical Damages Before Mitigation

Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	0	353,444	0	0	0	0	353,444	No	363,196
2017	4	2	393,761	0	0	0	0	1,650,911	No	1,737,755

Annualized Damages Before Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	363,196	595,835
4	1,737,755	434,439
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	2,100,951	1,030,274

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	HOSPITAL	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	0	98,440.17	0	0	0	0	98,440

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	98,440	24,610
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	98,440	24,610

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits: \$13,878,914

Total Social Benefits: \$0

Total Mitigation Project Benefits: \$13,878,914

Total Mitigation Project Cost: \$7,470,033

Benefit Cost Ratio - Standard: 1.86

Benefit Cost Ratio - Standard + Social: 1.86

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Other

Analysis Method Type: Historical Damages

Cost Estimation
Other @ San Juan Municipal Hospital

Project Useful Life (years): 20

Project Cost: \$25,000,000

Number of Maintenance Years: 20 Use Default:Yes

Annual Maintenance Cost: \$419,504

Damage Analysis Parameters - Damage Frequency Assessment
Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Historical Damages Before Mitigation
Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Damages (\$)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	1,456,801	0	0	0	0	0	1,456,801	No	1,496,998

Annualized Damages Before Mitigation
Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	1,496,998	1,496,997
	Sum Damages and Losses (\$)	Sum Annualized Damages and Losses (\$)
	1,496,998	1,496,997

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Damages (\$)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	1,250,000	0	0	0	0	0	1,250,000

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	1,250,000	312,500
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	1,250,000	312,500

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$12,548,578
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$12,548,578
Total Mitigation Project Cost:	\$29,444,231
Benefit Cost Ratio - Standard:	0.43
Benefit Cost Ratio - Standard + Social:	0.43

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Other

Analysis Method Type: Historical Damages

Cost Estimation
Other @ San Juan Municipal Hospital

Project Useful Life (years): 20

Project Cost: \$5,000,000

Number of Maintenance Years: 20 Use Default:Yes

Annual Maintenance Cost: \$83,901

Damage Analysis Parameters - Damage Frequency Assessment
Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Historical Damages Before Mitigation
Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Damages (\$)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	291,360	0	0	0	0	0	291,360	No	299,399

Annualized Damages Before Mitigation
Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	299,399	299,399
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	299,399	299,399

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Damages (\$)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	250,000	0	0	0	0	0	250,000

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	250,000	62,500
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	250,000	62,500

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$2,509,711
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$2,509,711
Total Mitigation Project Cost:	\$5,888,848
Benefit Cost Ratio - Standard:	0.43
Benefit Cost Ratio - Standard + Social:	0.43

Property Configuration

Property Title: Other @ San Juan Municipal Hospital

Property Location: 00921, San Juan, Puerto Rico

Property Coordinates: 18.39603100000005, -66.07385399999998

Hazard Type: Infrastructure Failure

Mitigation Action Type: Other

Property Type: Other

Analysis Method Type: Historical Damages

Cost Estimation
Other @ San Juan Municipal Hospital

Project Useful Life (years): 20

Project Cost: \$5,000,000

Number of Maintenance Years: 20 Use Default:Yes

Annual Maintenance Cost: \$83,901

Damage Analysis Parameters - Damage Frequency Assessment
Other @ San Juan Municipal Hospital

Year of Analysis was Conducted: 2024

Year Property was Built: 1960

Analysis Duration: 65 Use Default:Yes

Historical Damages Before Mitigation
Other @ San Juan Municipal Hospital

Damage Year	Recurrence Interval (years)	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Damages (\$)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2022	1	291,360	0	0	0	0	0	291,360	No	299,399

Annualized Damages Before Mitigation
Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
1	299,399	299,399
	Sum Damages and Losses (\$)	Sum Annualized Damages and Losses (\$)
	299,399	299,399

Expected Damages After Mitigation

Other @ San Juan Municipal Hospital

Recurrence Interval (years)	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Damages (\$)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
4	250,000	0	0	0	0	0	250,000

Annualized Damages After Mitigation

Other @ San Juan Municipal Hospital

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
4	250,000	62,500
Sum Damages and Losses (\$)		Sum Annualized Damages and Losses (\$)
	250,000	62,500

Benefits-Costs Summary

Other @ San Juan Municipal Hospital

Total Standard Mitigation Benefits:	\$2,509,711
Total Social Benefits:	\$0
Total Mitigation Project Benefits:	\$2,509,711
Total Mitigation Project Cost:	\$5,888,848
Benefit Cost Ratio - Standard:	0.43
Benefit Cost Ratio - Standard + Social:	0.43