



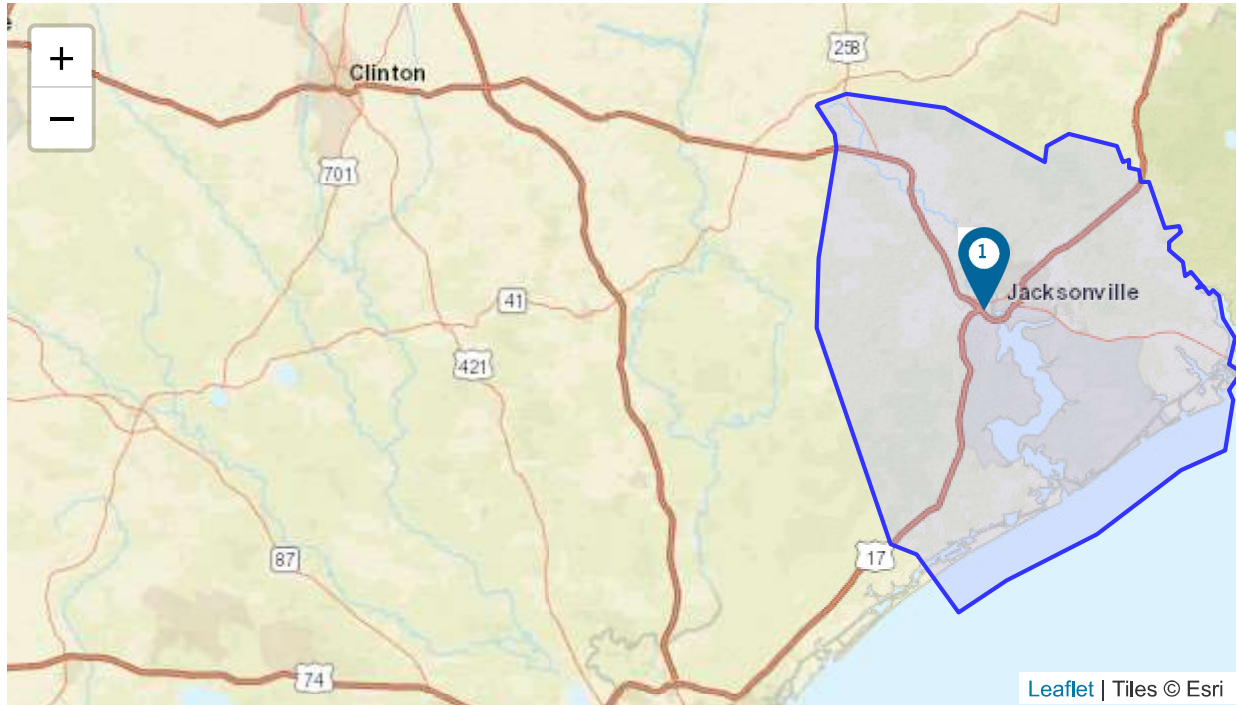
FEMA

# Benefit-Cost Calculator

V.6.0 (Build 20221028.1600 | Release Notes)

## Benefit-Cost Analysis

Project Name: Mount Pleasant Road Pump Station Relocation



Map Marker	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate			Using 3% Discount Rate (For FY22 BRIC and FMA only)		
				Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540		DFA - Riverine Flood	\$ 1,437,724	\$ 1,238,767	1.16	\$ 2,019,037	\$ 1,285,980	1.57
<b>TOTAL (SELECTED)</b>				<b>\$ 1,437,724</b>	<b>\$ 1,238,767</b>	<b>1.16</b>	<b>\$ 2,019,037</b>	<b>\$ 1,285,980</b>	<b>1.57</b>
<b>TOTAL</b>				<b>\$ 1,437,724</b>	<b>\$ 1,238,767</b>	<b>1.16</b>	<b>\$ 2,019,037</b>	<b>\$ 1,285,980</b>	<b>1.57</b>

## Property Configuration

<b>Property Title:</b>	Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540
<b>Property Location:</b>	28540, Onslow, North Carolina
<b>Property Coordinates:</b>	34.74237301142065, -77.4491620238168
<b>Hazard Type:</b>	Riverine Flood
<b>Mitigation Action Type:</b>	Floodproofing Measures
<b>Property Type:</b>	Utilities
<b>Analysis Method Type:</b>	Historical Damages

## Cost Estimation

Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540

<b>Project Useful Life (years):</b>	20
<b>Project Cost:</b>	\$1,122,000
<b>Number of Maintenance Years:</b>	20 Use Default:Yes
<b>Annual Maintenance Cost:</b>	\$11,022

## Damage Analysis Parameters - Damage Frequency Assessment

Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540

<b>Year of Analysis was Conducted:</b>	2021
<b>Year Property was Built:</b>	2000
<b>Analysis Duration:</b>	22 Use Default:Yes

## Utilities Properties

Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540

<b>Type of Service:</b>	Wastewater
<b>Number of Customers Served:</b>	1,000
<b>Value of Unit of Service (\$/person/day):</b>	\$60 Use Default:Yes
<b>Total Value of Service Per Day (\$/day):</b>	\$60,000

### Historical Damages Before Mitigation

Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540

Damage Year	Recurrence Interval (years)	WASTEWATER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
		Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)	Current Dollars?	Inflated Damages (\$)
2016	0	7	0	0	0	0	0	420,000	No	420,000
2018	0	10	0	0	0	0	0	600,000	No	600,000
2021	0	8	0	0	0	0	0	480,000	No	480,000
2011	0	10	0	0	0	0	0	600,000	No	600,000
2003	0	11	0	0	0	0	0	660,000	No	660,000
2005	0	10	0	0	0	0	0	600,000	No	600,000

### Annualized Damages Before Mitigation

Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
3.80	420,000	20,549
4.60	480,000	62,830
9.9	607,191	61,332
	Sum Damages and Losses (\$)	Sum Annualized Damages and Losses (\$)
	1,507,191	144,711

### Expected Damages After Mitigation

Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540

Recurrence Interval (years)	WASTEWATER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
	Impact (days)	Category 1 (\$)	Category 2 (\$)	Category 3 (\$)	Number of Volunteers	Number of Days	Damages (\$)
20	3	0	0	0	0	0	180,000

### Annualized Damages After Mitigation

Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540

Annualized Recurrence Interval (years)	Damages and Losses (\$)	Annualized Damages and Losses (\$)
20	180,000	9,000
	Sum Damages and Losses (\$)	Sum Annualized Damages and Losses (\$)
	180,000	9,000

Benefits-Costs Summary

Floodproofing Measures @ 228 Georgetown Rd, Jacksonville, North Carolina, 28540

<b>Total Standard Mitigation Benefits:</b>	\$1,437,724
<b>Total Social Benefits:</b>	\$0
<b>Total Mitigation Project Benefits:</b>	\$1,437,724
<b>Total Mitigation Project Cost:</b>	\$1,238,767
<b>Benefit Cost Ratio - Standard:</b>	1.16
<b>Benefit Cost Ratio - Standard + Social:</b>	1.16