



STATE OF FLORIDA ACTION PLAN FOR DISASTER RECOVERY



Submitted to the U.S. Department of Housing and Urban Development (HUD) in fulfillment of requirements for the Community Development Block Grant-Disaster Recovery (CDBG-DR) program for recovery from Hurricane Sally.



Document Abstract

The State of Florida boasts the most miles of coastline in the contiguous United States. While these miles of coastline are a significant economic driver, they also mean the Sunshine State is more frequently impacted by hurricanes. The following 2022 State of Florida Action Plan for Disaster Recovery (the “Plan”) outlines Florida’s plan for expending Community Development Block Grant – Disaster Recovery (CDBG-DR) funds allocated by the U.S. Department of Housing and Urban Development. Through this Plan and the activities outlined within, the Florida Department of Economic Opportunity (the “Department”) strives to assist impacted communities in Northwest Florida with recovering from the losses suffered during Hurricane Sally (2020), as well as strengthen and prepare Florida’s infrastructure, businesses, and most vulnerable populations and communities for future disasters. These CDBG-DR funds will serve mainly to address housing and infrastructure needs in communities impacted by Hurricane Sally, as well as increase resiliency by mitigating against future disasters.

Amendments

Amendment 1 (Non-Substantial)

Non-Substantial Amendment 1			
Previous Page #	New Page #	Section	Change/Addition/Deletion
5	N/A	Executive Summary	<p>Updated Table 1: Unmet Need and Proposed Allocation. to reflect the following redistribution of funds:</p> <ul style="list-style-type: none"> • \$30,138,500 removed from the Housing Repair and Replacement Program • \$13,829,885.20 removed from the Voluntary Home Buyout Program • \$43,990,384.82 added to the Infrastructure Repair Program • \$2,478,458.74 added to the Hometown Revitalization Program • \$2,500,458.36 removed from the Workforce Recovery Training Program
130	N/A	General Requirements	Corrected reference to Federal Register Vol. 87, No. 23 (p. 6390)
136	N/A	General Requirements	Removed mention of “agency informal appeal” from 3.5.4 Contractors Standards as all CDBG-DR Hurricane Sally Programs are subrecipient administered and an agency informal appeal is only applicable to direct implementation programs
141-142	N/A	Grantee Proposed Use of Funds	<p>Updated Table 89: Program Budget columns “Budget” “HUD Identified MID Budget” “Grantee Identified MID Budget” and “% of Allocation” to reflect the redistribution of funds within the following program categories:</p> <ul style="list-style-type: none"> • Housing: <ul style="list-style-type: none"> ○ Rehab ○ Buyout • Economic Revitalization

			<ul style="list-style-type: none"> ○ Workforce Training ○ Other ● Infrastructure ○ Other <p>Made minor capitalization corrections to column titles</p>
N/A	143	Grantee Proposed Use of Funds	Added Section 4.2.1 Reallocations of Funds which includes Table 91: Reallocations of Funds and justification language for the budget reallocations completed through this amendment.
148	149	Grantee Proposed Use of Funds	Updated Subrecipient Housing Repair and Replacement Program (HRRP) program budget table to reflect the updated “Proposed Budget” “Proposed MID Budget HUD Defined” and “Proposed MID Budget Grantee Defined”
151	152	Grantee Proposed Use of Funds	Updated language with “Program Maximum Assistance” within 4.7.1.1 Subrecipient Housing Repair and Replacement Program (HRRP) to clarify that the minimum and maximum program award caps apply to each subrecipient if located in a HUD MID, and apply cumulatively to the whole county for subrecipients located in State MIDs.
152	153	Grantee Proposed Use of Funds	Updated Table 96: Housing Activities Scoring Criteria by removing item 6 “Overall Housing Eligible Activities” as eligible housing activities are a requirement of program participations and the points associated with this line item would apply to all eligible subrecipients equally. Updated “Vulnerable Populations” criteria number to “6” and updated “Total Maximum Score” amount to 170 to reflect this removal.
155	156	Grantee Proposed Use of Funds	Updated 4.7.2.1 Voluntary Home Buyout (VHB) program budget table to reflect the updated “Proposed Budget” “Proposed MID Budget HUD Defined” and “Proposed MID Budget Grantee Defined”
159	160	Grantee Proposed Use of Funds	Updated 4.7.3.1 Infrastructure Repair Program budget table to reflect the updated “Proposed Budget” “Proposed MID Budget HUD Defined” and “Proposed MID Budget Grantee Defined”
161	162	Grantee Proposed Use of Funds	<p>Within 4.7.3.1 Infrastructure Repair Program:</p> <p>Updated language under “Eligible Activities:” to remove mention of activities carried out through other CDBG-DR programs.</p> <p>Updated “Maximum Award” under “Program Maximum Assistance” to reflect the updated Infrastructure Repair Program Budget of \$110,990,384.82</p>
163	164	Grantee Proposed Use of Funds	Removed somewhat duplicative language preceding list of example mitigation measures in How Mitigation Set-Aside Activities will Address Current and future Risks (if Applicable) within 4.7.3.1 Infrastructure Repair Program
165	N/A	Grantee Proposed Use of Funds	Updated 4.7.4.1 Hometown Revitalization Program budget table to reflect the updated “Proposed Budget” “Proposed MID Budget HUD Defined” and “Proposed MID Budget Grantee Defined”

166	167	Grantee Proposed Use of Funds	Updated 4.7.4.2 Workforce Recovery Training Program budget table to reflect the updated “Proposed Budget” “Proposed MID Budget HUD Defined” and “Proposed MID Budget Grantee Defined”
187	N/A	Appendix	Within Appendix E: Important Definitions and Terms, corrected definition of “Section 3” to state that Section 3 means Section 3 of the Housing and Urban Development Act of 1968.
N/A	N/A	Entire Document	As of July 1, 2023, and per Florida HB 5, ch. 2023-173, L.O.F. the former Florida Department of Economic Opportunity has been renamed the Florida Department of Commerce, referred to as “FloridaCommerce.” To reflect this change, all references to the former Florida Department of Economic Opportunity (including “the Department” and “DEO”) have been updated to represent FloridaCommerce.

Table of Contents

- 1.0 Executive Summary 1
 - 1.1 Overview 1
 - 1.2 Disaster Specific Overview 1
 - 1.3 Summary 2
 - 1.3.1 DEO Monitoring Standards and Procedures 4
 - 1.4 Unmet Need and Proposed Allocation..... 5
- 2.0 Unmet Needs Assessment..... 6
 - 2.1 Overview 6
 - 2.1.1 Hurricane Sally’s Impacts to Florida 6
 - 2.2 Housing Unmet Need..... 19
 - 2.2.1 Disaster Damage and Impacts..... 19
 - 2.2.2 Single Family v. Multi-Family Needs; Owner Occupied v. Tenant..... 21
 - 2.2.3 Public Housing and Affordable Housing 25
 - 2.3 Social Equity, Fair Housing and Civil Rights 26
 - 2.4 Infrastructure Unmet Need..... 39
 - 2.4.1 Disaster Damage and Impacts..... 39
 - 2.5 Economic Revitalization Unmet Need..... 48
 - 2.5.1 Disaster Damage and Impacts..... 48
 - 2.6 Mitigation Only Activities 51
 - 2.6.1 Risk-Based Assessment Methodology 51
 - 2.6.2 Hazard Threat Areal/Frequency Assessment..... 52
 - 2.6.3 Severity of Consequences 73
 - 2.6.4 Hazard Threat and Risk Assessment..... 85
 - 2.6.5 Composite Threats and Risks 111
 - 2.6.6 Mitigation and Resilience Efforts aimed at Future Protection..... 119
- 3.0 General Requirements 123
 - 3.1 Citizen Participation 123
 - 3.1.1 Outreach and Engagement 123
 - 3.1.2 Public Hearings 126
 - 3.1.3 Complaints 127
 - 3.2 Public Website 129
 - 3.2.1 Rebuild Florida Website..... 129
 - 3.2.2 Accessibility..... 130

3.3 Amendments	130
3.3.1 Substantial Amendment	130
3.3.2 Non-Substantial Amendment.....	131
3.4 Displacement of Persons and Other Entities.....	131
3.4.1 Policy to Minimize Displacement	131
3.4.2 Policy on Relocation Assistance	131
3.4.3 Steps to Minimize Displacement.....	132
3.4.4 Applicable Waivers	132
3.5 Protection of People and Property	132
3.5.1 Elevation Standards	134
3.5.2 Flood Insurance Requirements	134
3.5.3 Construction Standards	135
3.5.4 Contractors Standards	136
3.5.5 Preparedness, Mitigation and Resiliency.....	137
3.5.6 Broadband Infrastructure in Housing	140
3.5.7 Cost-Effectiveness	140
3.5.8 Duplication of Benefits	141
4.0 Grantee Proposed Use of Funds	142
4.1 Overview	142
4.2 Connection to Unmet Needs	143
4.2.1 Reallocations of Funds.....	144
4.2.2 Public Housing, Affordable Housing and Housing for Vulnerable Populations.....	145
4.3 Leveraging Funds	146
4.4 Program Partners.....	146
4.5 Distribution of Funds.....	146
4.5.1 Basis for Allocation	147
4.5.2 Eligible and Ineligible Activities	148
4.5.3 CDBG-DR Program National Objectives	148
4.6 Program Income	149
4.6.1 Resale or Recapture.....	150
4.7 Program Details	150
4.7.1 Housing Program(s)	150
4.7.2 Buyout Program(s).....	157
4.7.3 Infrastructure Program(s)	161
4.7.4 Economic Revitalization Program(s).....	166

5.0 Appendix 170

 Appendix A: Certifications..... 170

 Appendix B: Waivers (if applicable)..... 172

 II.B.1. New housing construction waiver and alternative requirement (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6371) 172

 II.B.5. Homeownership assistance waiver and alternative requirement. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6373) 172

 II.B.8. Safe housing incentives in disaster-affected communities. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6374) 172

 II.D.2. National objective documentation for activities that support economic revitalization. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6375) 173

 II.D.3. Public benefit for activities that support economic revitalization. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6375) 173

 II.D.5. Waiver and modification of the job relocation clause to permit assistance to help a business return. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6376)..... 173

 III.B.2.c Direct grant administration and means of carrying out eligible activities (state grantees only). (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6379) 173

 III.B.2.f Recordkeeping (state grantees only) (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6379)174

 III.B.2.h Responsibility for review and handling of noncompliance (state grantees only). (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6379) 174

 III.C. Action Plan for Disaster Recovery Waiver and Alternative Requirement. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6379)..... 174

 III.C.4. Waiver of 45-day review period for CDBG-DR action plans to 60 days. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6383) 174

 III.D.1. Citizen participation waiver and alternative requirement (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6383) 174

 III.E.1. Program income waiver and alternative requirement. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6385) 175

 III.F.1. Consolidated Plan waiver. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6385)..... 175

 III.F.3. Use of the urgent need national objective. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6386) 175

 III.F.4. Reimbursement of disaster recovery expenses by a grantee or subrecipient. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6386)..... 176

 III.F.6. Alternative requirement for the elevation of structures when using CDBG-DR funds as the non-Federal match in a FEMA-funded project. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6386)..... 176

 III.F.7. Certifications waiver and alternative requirement (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6387)..... 176

 IV.F.1. Section 104(d) one-for-one replacement of lower-income dwelling units. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390) 177

 IV.F.2. Section 104(d) relocation assistance. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390) 177

IV.F.3. URA replacement housing payments for tenants (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390) 177

IV.F.4. URA voluntary acquisition—homebuyer primary residence purchase. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390) 177

IV.F.5. CDBG displacement, relocation, acquisition, and replacement housing program regulations - Optional relocation assistance. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390)..... 178

IV.F.6. Waiver of Section 414 of the Stafford Act. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390) 178

V.A. Timely Distribution and Expenditure of Funds (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6391) 178

V.C.1. DRGR-related waivers and alternative requirements. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6392) 178

Appendix C: Summary and Response of Public Comments 179

 Summary of Public Comments Received During Draft Action Plan Publication..... 179

 Summary of Public Comments Received During Virtual Public Hearings 180

Appendix D: Data Sources/Methodologies..... 182

Appendix E: Important Definitions and Terms 183

 Acronyms..... 183

 Definitions 185

Appendix F: Standard Form 424 191

List of Figures

Figure 1: LMI Map for Hurricane Sally Impacted Counties 4

Figure 2: Hurricane Sally's wind field overlaying croplands in the Florida panhandle 7

Figure 3: Estimated power outages for Hurricane Sally on September 17, 2020 8

Figure 4: Wind speed observations for Hurricane Sally..... 9

Figure 5: Tree damage in Pensacola from Hurricane Sally..... 9

Figure 6: Peak storm surge at Pensacola NOS tide monitoring gauge during Hurricane Sally 10

Figure 7: Damage to Pensacola Bay Ferry from Hurricane Sally's storm surge 11

Figure 8: Peak storm surge from Hurricane Sally near Destin, Florida..... 12

Figure 9: Estimated peak rainfall totals from Hurricane Sally..... 13

Figure 10: Inland flash flooding in Pensacola during Sally 13

Figure 11: Declared counties for Presidential Disaster Declaration 4564 (Hurricane Sally)..... 14

Figure 12: HUD initial assessment of most impacted counties and zip codes 15

Figure 13: Estimated impacts and unmet needs for Hurricane Sally 17

Figure 14: Declared counties for Presidential Disaster Declaration 4399 (Hurricane Michael)..... 19

Figure 15: Median House Value 20

Figure 16: Renter Populations..... 21

Figure 17: Hurricane Irma HRRP Applicants by Race/Ethnicity..... 31

Figure 18: Percent of tract non-English-speaking population..... 32

Figure 19: Age dependent (< 5 Years or > 65 Years) populations by tract..... 32

Figure 20: LMI Map for Hurricane Sally Impacted Counties 36

Figure 21: Percent of population living below poverty line by tract 36

Figure 22: Percent unemployment by tract 37

Figure 23: Percent mobile home populations by tract 38

Figure 24: Three Mile Bridge over Pensacola Bay collapsed during Hurricane Sally..... 40

Figure 25: High-water trucks performing rescues and assists to residents of Escambia County during flooding caused by Hurricane Sally. 41

Figure 26: Escambia County beach and dune erosion conditions from Hurricane Sally 42

Figure 27: Santa Rosa County beach and dune erosion from Hurricane Sally 42

Figure 28: Okaloosa County beach and dune erosion from Hurricane Sally..... 43

Figure 29: Walton County beach and dune erosion conditions from Hurricane Sally 43

Figure 30: Bay County beach and dune erosion conditions from Hurricane Sally 44

Figure 31: Gulf County beach and dune erosion conditions from Hurricane Sally 44

Figure 32: Minority- and Woman-Owned Business Location 50

Figure 33: Elements of a risk assessment (FEMA 2013) 52

Figure 34: Example Transformation of Complex Data to Hexagonal Grid 57

Figure 35: The Hurricane Sally AOI’s Population Distribution..... 59

Figure 36: Social Vulnerability Index Factors 62

Figure 37: The Hurricane Sally AOI’s Social Vulnerability Index..... 63

Figure 38: FEMA Community Lifelines utilized in this assessment..... 64

Figure 39: Safety and Security Community Lifelines utilized in this assessment 67

Figure 40: Food, Water, and Shelter Community Lifelines utilized in this assessment..... 67

Figure 41: Health and Medical Community Lifelines utilized in this assessment..... 68

Figure 42: Energy and Fuel Community Lifelines utilized in this assessment 68

Figure 43: Communication and Finance Community Lifelines utilized in this assessment..... 69

Figure 44: Transportation Community Lifelines utilized in this assessment..... 69

Figure 45: Hazardous Materials Community Lifelines utilized in this assessment..... 70

Figure 46: The Hurricane Sally AOI’s Critical Infrastructure Elements gathered using FEMA’s lifeline guidance... 71

Figure 47: The Hurricane Sally AOI’s Composite Hazard Vulnerability..... 72

Figure 48: 100-Year Flood Zone Hazard Areas 88

Figure 49: Flash Flood Hazard Areas..... 89

Figure 50: 100-Year Flood Zone Composite Risk..... 90

Figure 51: Flash Flood Composite Risk 91

Figure 52: Saffir-Simpson Hurricane Wind Scale. Source: NOAA 92

Figure 53: Hurricane Wind Hazard Areas..... 94

Figure 54: Hurricane Wind Composite Risk..... 95

Figure 55: Hurricane Category 5 Storm Surge Hazard Areas 98

Figure 56: Hurricane Category 5 Storm Surge Composite Risk 99

Figure 57: Severe Storm Hazard Frequency Areas 101

Figure 58: Severe Storm Hazard Composite Risk 102

Figure 59: Tornado Hazard Areas 104

Figure 60: Tornado Hazard Composite Risk 105

Figure 61: Composite Hazard Threat 112

Figure 62: The Hurricane Sally AOI’s Aggregate Risk..... 113

Figure 63: Hurricane Sally’s Highest Risk Hazards by Hexagonal Grid..... 115

Figure 64: Hurricane Sally AOI’s Risk by Hazard Threat..... 116

Figure 65: Bay County’s Risk by Hazard Threat 116

Figure 66: Escambia County’s Risk by Hazard Threat 117

Figure 67: Okaloosa County’s Risk by Hazard Threat 117

Figure 68: Santa Rosa County’s Risk by Hazard Threat..... 118

Figure 69: Walton County’s Risk by Hazard Threat 118

Figure 70: Total FEMA Hazard Mitigation Assistance Projects by Program for Florida (1992 – 2020)..... 119

Figure 71: Total FEMA Hazard Mitigation Assistance Spending across the Hurricane Sally AOI 121

Figure 72: Total FEMA Hazard Mitigated Properties for Florida (1992-2019) 122

Figure 73: FEMA Hazard Mitigation Assistance Mitigated Property Summary for the Hurricane Sally AOI..... 122

Figure 74: Barriers to Implementing Hazard Mitigation Projects..... 124

Figure 75: General Activity Types 125

Figure 76: Additional Mitigation Activities..... 125

Figure 77: Hurricane Sally Most Impacted and Distressed (MID) Communities 147

List of Tables

Table 1: Unmet Need and Proposed Allocation 5

Table 2: Number of major structures with major damage--comparison of Hurricane Sally to prior hurricanes in Escambia County 11

Table 3: Declared County list for Presidential Disaster Declaration 4564 (Hurricane Sally)..... 14

Table 4: Data Sources Utilized in the Assessment of Impacts and Unmet Needs..... 16

Table 5: Estimated Impact, Support and Unmet Needs 17

Table 6: Rental Units by Year Built 21

Table 7: Minimum Affordability Periods..... 22

Table 8: FEMA IA Owner Occupied..... 23

Table 9: FEMA IA Tenant Applicants..... 23

Table 10: FEMA IA Applicants by Housing Type 24

Table 11: FEMA Real Property Damage Owner Occupied Units 24

Table 12: FEMA Real Property Damage Rental Units 25

Table 13: Insurance Claims and Losses in Disaster Impacted Areas..... 25

Table 14: Public Housing Authorities Damaged 26

Table 15: Statewide Demographics and Disaster Impacted Populations 28

Table 16: Demographics of MID Areas 29

Table 17: Demographics of the Racially or Ethnically Concentrated Area of Poverty (RECAP) within Escambia County..... 30

Table 18: Education Demographics 33

Table 19: Income Demographics 33

Table 20: Limited English Proficiency Breakdown..... 34

Table 21: LMI Analysis Statewide 34

Table 22: LMI Analysis-Federally Declared Disaster Areas	35
Table 23: LMI Population Counts for the Hurricane Sally Impacted Area	35
Table 24: LMI Population Counts for Hurricane Sally Impacted Counties	35
Table 25: Mobile Housing Units Impacted by Disaster	37
Table 26: Affected Continuum of Care Entities	39
Table 27: Point-In-Time Count - Type of Shelter	39
Table 28: FEMA Public Assistance Program	45
Table 29: Estimated Total Cost and Need by PA Category	46
Table 30: Count of Businesses by Business Size	48
Table 31: Count of Businesses by Number of Employees.....	48
Table 32: Count of Businesses by Location Type for Hurricane Sally Impacted Counties	49
Table 33: Count of Businesses by Minority and Woman Owned Status.....	49
Table 34: Summarized SBA Losses to Businesses.....	50
Table 35: Summarized SBA Support to Businesses	51
Table 36: Hazards Included in this Risk Assessment.....	54
Table 37: Population Density Vulnerability Hex Area Summary	59
Table 38: Social Vulnerability Index Input Variables	60
Table 39: Social Vulnerability Hex Area Summary.....	63
Table 40: Data sources for community lifelines and critical assets.....	65
Table 41: Lifeline Vulnerability Hex Area Summary	71
Table 42: Lifeline Vulnerability Hex Area Summary	73
Table 43: Bay County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 49).....	74
Table 44: Escambia County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 50)	75
Table 45: Okaloosa County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 51)	75
Table 46: Santa Rosa County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 52)	76
Table 47: Walton County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 53).....	77
Table 48: Climate Sensitivity by Hazard Type	78
Table 49: Bay County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score).....	80
Table 50: Escambia County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)	81
Table 51: Okaloosa County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)	82
Table 52: Santa Rosa County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score).....	83
Table 53: Walton County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)	84

Table 54: Historical Frequency of Occurrence for Loss Causing Flooding and Flash Flooding Hazards 86

Table 55: 100-Year Flood Zone Hazard Threat Area Summary 88

Table 56: Flash Flood Hazard Threat Area Summary..... 89

Table 57: 100-Year Flood Zone Hazard Risk Area Summary 90

Table 58: Flash Flood Zone Hazard Risk Area Summary 91

Table 59: Historical Frequency of Occurrence for Hurricane Hazards (Wind and Storm Surge) 93

Table 60: Hurricane Wind Hazard Threat Area Summary..... 94

Table 61: Hurricane Wind Zone Hazard Risk Area Summary 95

Table 62: Historical Frequency of Occurrence for Hurricane Hazards (Wind and Storm Surge) 96

Table 63: Hurricane Storm Surge Hazard Threat Area Summary..... 98

Table 64: Hurricane Storm Surge Hazard Risk Area Summary 99

Table 65: Historical Frequency of Occurrence for Severe Storm Hazards 100

Table 66: Severe Storm Hazard Threat Area Summary 101

Table 67: Severe Storm Hazard Risk Area Summary 102

Table 68: Historical Frequency of Occurrence for Tornado Hazards..... 103

Table 69: Tornado Hazard Threat Area Summary 104

Table 70: Tornado Hazard Risk Area Summary 105

Table 71: Wind Hazard Risk Area Summary..... 106

Table 72: Fog Hazard Risk Area Summary..... 106

Table 73: Hail Hazard Risk Area Summary 107

Table 74: Heat Hazard Risk Area Summary..... 107

Table 75: Low Temperature Risk Area Summary 108

Table 76: Winter Weather Hazard Risk Area Summary..... 108

Table 77: Sinkhole Hazard Risk Area Summary 109

Table 78: Earthquake Hazard Risk Area Summary 109

Table 79: Drought Hazard Risk Area Summary 110

Table 80: Wildfire Hazard Risk Area Summary..... 110

Table 81: Lightning Hazard Risk Area Summary..... 111

Table 82: Sea-Level Rise Hazard Risk Area Summary 111

Table 83: Composite Hazard Threat Area Summary 112

Table 84: Aggregate Hazard Risk Area Summary 114

Table 85: Highest Hazard Risk Area Summary 115

Table 86: Summary of FEMA Hazard Mitigation Grant Program Activity for Florida..... 120

Table 87: Summary of FEMA Hazard Mitigation Grant Program Activity for Hurricane Sally Counties..... 120

Table 88: Summary of FEMA Hazard Mitigation Grant Program Activity Spending for Hurricane Sally Counties 120

Table 89: Program Budget	142
Table 90: Projected LMI Benefit by Program	144
Table 91: Reallocations of Funds	144
Table 92: Florida IA and PA Declared Counties	146
Table 93: Income Limits	149
Table 94: Subrecipient Housing Program Affordability Periods.....	151
Table 95: Purchase Price Limits	153
Table 96: Housing Activities Scoring Criteria.....	154
Table 97: Voluntary Home Buyout Application Selection Criteria	160
Table 98: IRP Application Criteria	164
Table 99: HRP Application Criteria	167
Table 100: WRTP Application Criteria.....	169

1.0 Executive Summary

1.1 Overview

The U.S. Department of Housing and Urban Development (HUD) announced that the state of Florida will receive \$187,383,000 in funding to support long-term recovery efforts following Hurricane Sally (FEMA 4564) through the Florida Department of Economic Opportunity's (the "Department") Office of Long-Term Resiliency (OLTR). Community Development Block Grant - Disaster Recovery (CDBG-DR) funding is designed to address needs that remain after all other assistance has been exhausted. This plan details how funds will be allocated to address remaining unmet need in the disaster-impacted areas in Northwest Florida.

To meet disaster recovery needs, the statutes making CDBG-DR funds available have imposed additional requirements and authorized HUD to modify the rules that apply to the annual CDBG program to enhance flexibility and allow for a quicker recovery. HUD has allocated \$187,383,000 in CDBG-DR funds to the State of Florida in response to Hurricane Sally (FEMA 4564), through the publication of the [Federal Register, Vol. 87, No. 23, February 3, 2022](#). This allocation was made available through the Disaster Relief Supplemental Appropriations Act, 2022 (Pub. L. 117-43) approved September 30, 2021.

The total CDBG-DR funds allocated to Florida for Hurricane Sally recovery and mitigation were announced in two publications. On October 29, 2021, HUD announced that \$113,191,000 in CDBG-DR funds would be allocated to Florida following Hurricane Sally (2020); these funds are allocated in [Federal Register Vol. 87, No. 23 \(p. 6364\)](#). Then, on March 22, 2022, HUD announced in press release [No. 22-049](#) that Florida had been awarded an additional \$74,192,000 in CDBG-DR funds. These funds amount to a total of \$187,383,000.

The Disaster Relief Appropriations Act requires that the state or local government must expend the funds within six years of the executed agreement between HUD and the grantee unless an extension is granted by HUD. To ensure that the funds assist the most impacted areas, at least 80 percent must be expended on disaster recovery or mitigation activities in the HUD-identified Most Impacted and Distressed (MID) areas. FloridaCommerce will expend the remaining up to 20 percent of funds on disaster recovery or mitigation activities in State-identified MID areas.

1.2 Disaster Specific Overview

Hurricane Sally brought heavy rainfall and flooding, causing damage to housing, businesses, and infrastructure in Northwest Florida, east of where the storm made initial landfall. After sweeping over parts of southern Florida and the Florida Keys as a tropical storm, Hurricane Sally, a Category 2 hurricane, made landfall on September 16, 2020, in Gulf Shores, Alabama, west of Pensacola.¹ However, due to the storm's asymmetrical structure, several communities in Northwest Florida suffered the brunt of the storm.

Hurricane Sally moved slowly across the gulf coast, resulting in significant flooding in Northwest Florida; a maximum total of 24.88 inches of rainfall was measured just west of Naval Air Station Pensacola.² Record flooding also occurred on Holmes Creek in Washington County, and Wrights Creek in Holmes County.² Hurricane Sally was directly responsible for four fatalities in the United States, two of which were in Florida.²

Hurricane Sally's winds, storm surge, and excessive rainfall caused extensive damage across Northwest Florida. Thousands of structures were damaged in Escambia and Santa Rosa Counties by strong wind and storm surge, and approximately 50 structures were destroyed. Many homes suffered roof and siding damage, and reports indicate that at least 240,000 customers lost power due to widespread downed trees and power lines. A study from the

¹"NOAA/NHC" via <https://weather.com/storms/hurricane/news/2020-09-17-hurricane-sally-recap-gulf-coast-landfall-flooding>.

² All data in the Disaster Specific Overview is from the *National Hurricane Center Tropical Cyclone Report, Hurricane Sally* www.nhc.noaa.gov/data/tcr/AL192020_Sally.pdf unless otherwise noted.

University of Florida estimates that Hurricane Sally caused \$55–100 million (USD) in agricultural losses in the western part of the region alone.³ The largest storm surge impacts occurred in the Perdido Key area and along parts of Pensacola and Escambia Bays, where numerous structures were significantly damaged. The storm surge moved numerous large boats and barges onto land and contributed to damage sustained by a section of the U.S. Highway 98 Three Mile Bridge, over Pensacola Bay. The surge and rough waves covered Johnson Beach Road along the Gulf Islands National Seashore with four to five feet of sand, and National Oceanic and Atmospheric Administration (NOAA) National Geodetic Survey aerial imagery indicates that three new cuts were created on the east side of Johnson Beach.

Due to the incoming storm surge, extreme rainfall produced by Hurricane Sally had nowhere to drain, which resulted in widespread flash and river flooding as well. Significant flooding occurred in many homes and structures across the region, and thousands of water rescues were performed. Numerous roads were made impassable, and some roads and small bridges were washed out. Freshwater and storm surge flooding produced two to four feet of inundation in parts of downtown Pensacola. In Walton County, Alaqua Creek rapidly rose above record flood stage and inundated homes along SR-20 west of Freeport with up to four feet of water. Record flooding occurred along multiple creeks in Northwest Florida, which resulted in numerous road closures and some nearby homes being inundated with two to four feet of water. The Shoal and Blackwater Rivers both reached major flood stage, and the Interstate 10 bridge over the Shoal River in Okaloosa County was closed. In locations where resources have not already been allocated to address this damage to critical and natural infrastructure, repairs may be needed sooner than anticipated due to the impacts of Hurricane Sally.

Following initial recovery efforts led by local governments, and Federal Emergency Management Agency (FEMA) operations,⁴ there is still lingering damage from Hurricane Sally. The impacted communities experienced lasting long-term impacts reflected in local economies as well as infrastructure and preparedness for future disasters. There was a drastic reduction in toll revenue due to prolonged closure of the Bob Sikes Toll Bridge, amounting to a projected loss of hundreds of thousands of dollars of potential revenue. In addition, the nine-month closure of the significantly damaged Three Mile Bridge resulted in economic hardship—and in some cases closure—of local businesses due to lack of access and increased commute, which, in turn, reduced sales tax revenue that would typically be generated by these businesses.

Finally, it is worth noting that Hurricane Sally impacted several of the same counties impacted by Hurricane Michael in 2018, a Category 5 hurricane. The overlap between these two storms slowed recovery in these communities who experienced additional damage to already weakened infrastructure and housing.

1.3 Summary

Federal Register/Vol. 87, No. 23/February 3, 2022, Section II, Use of Funds, states: “The Appropriations Act requires that prior to the obligation of CDBG–DR funds by the Secretary, a grantee shall submit a plan to HUD for approval detailing the use of funds. The plan must include the criteria for eligibility, and how the use of these funds will address long-term recovery and restoration of infrastructure and housing, economic revitalization, and mitigation in the MID areas.” In compliance with these requirements outlined in the [Federal Register](#), FloridaCommerce has developed this 2022 State Action Plan for Disaster Recovery (the “Plan”) to describe how the allocated funding will be administered to address long-term recovery needs in the HUD- and State-identified MID areas by Hurricane Sally, in a way that is compliant with all Federal, State, and local regulations.

The programs and funding outlined in this Plan were informed by the findings of the unmet needs assessment and risk assessment, included in this document, along with the findings captured from the community outreach survey

³ “NOAA/NHC” via <https://weather.com/storms/hurricane/news/2020-09-17-hurricane-sally-recap-gulf-coast-landfall-flooding>.

⁴ “Hurricane Sally: One Year Later, More Than \$326.5 Million in Federal Aid for Florida’s Panhandle” <https://www.FEMA.gov/press-release/20210917/hurricane-sally-one-year-later-more-3265-million-federal-aid-floridas#:~:text=PENSACOLA%2C%20Fla.,flooding%20along%20the%20Gulf%20Coast>.

and other additional feedback methods that sought direct input from constituents in the areas impacted by Hurricane Sally. These sources helped determine the remaining unmet needs in these local communities, as required by HUD.

As outlined in the unmet needs assessment, the largest portion of unmet needs resulting from Hurricane Sally are related to housing and infrastructure recovery. Table 5: Estimated Impact, Support and Unmet Needs, within the unmet needs assessment, includes figures estimating the total amount of impact to Housing (\$54,591,317), Infrastructure (\$113,305,596), and the economy (\$6,851,501) within the identified MID communities, as well as the estimated remaining unmet needs in each sector—\$28,823,809, \$23,359,218, and \$0, respectively.

The unmet needs associated with housing are particularly to repair single family homes and reduce vulnerability through acquisition and buyout programs. Table 8: FEMA IA Owner Occupied data shows that there were a total of 19,677 applicants for FEMA IA assistance to owner-occupied homes. Table 11: FEMA Real Property Damage Owner Occupied Units displays FEMA Real Property Damage to owner-occupied units for each of the MID identified counties (Bay, Escambia, Okaloosa, Santa Rosa, and Walton); the total number of owner-occupied units identified as having “FEMA Real Property Damage” is 6,087. When factoring in rental units as well as owner-occupied (see Table 10: FEMA IA Applicants by Housing Type and Table 12: FEMA Real Property Damage Rental Units), there were a total of 33,416 applicants for FEMA IA assistance and 11,111 structures noted as having various levels of FEMA Real Property Damage.

There are also infrastructure needs following the destruction caused by Hurricane Sally; addressing these needs will increase the resiliency of neighborhoods and other areas within impacted communities in the future. In compliance with the use of funds required by Federal Register Vol. 87, No. 23 (p. 6365), *II. Use of Funds*, and informed by the unmet needs assessment, the allocation of CDBG-DR funds primarily considers and addresses unmet housing and infrastructure needs. Any economic revitalization and infrastructure activities approved by FloridaCommerce will have documented contributions to the long-term recovery and restoration of housing in the MID areas.

The primary objective of this Plan is to address unmet housing needs in the impacted communities and replace and repair damaged infrastructure to increase resiliency against future disasters that impact Northwest Florida.

Funds will be used for necessary expenses related to disaster relief, long-term recovery, restoration of housing, infrastructure, and economic revitalization resulting from Hurricane Sally and will contribute to mitigation and resiliency of these areas, to meet the requirements of the 15 percent mitigation set-aside, as specified in Federal Register Vol. 87, No. 23.

As specified in Federal Register Vol. 87, No. 23 (p. 6365), 15 percent of the funds allocated to Florida through PL 117-43 must be used for mitigation activities informed by the mitigation needs assessment included in this Plan. These mitigation activities do not require a “tie-back” to Hurricane Sally but must increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship by lessening the impact of future disasters. Mitigation activities must also address current and future risks identified in the mitigation assessment in the MID areas, must be CDBG-eligible under Title I of the Housing and Community Development Act (HCDA) of 1974 or a waiver or alternative requirement, and must meet a national objective as defined by HUD.

In consideration of the unmet needs assessment and HUD requirements, and to prioritize limited funding in areas with highest damage, Department assistance outlined in this Plan will be limited to local governments within counties (and cities within those counties) identified as HUD or State MID areas. All projects and programs described in this Plan will primarily benefit low and moderate-income (LMI) households.

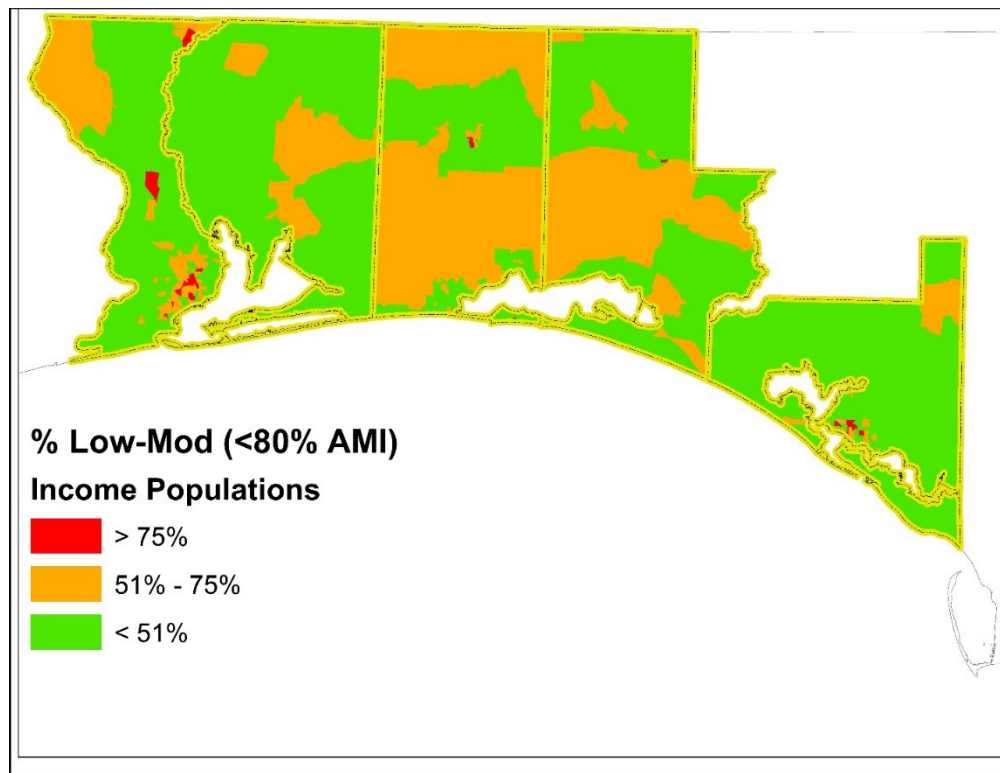


Figure 1: LMI Map for Hurricane Sally Impacted Counties

For all activities—including infrastructure, economic revitalization, housing, and acquisition and buyout activities—jurisdictions from the MID areas will select projects to propose to FloridaCommerce for funding, in accordance with Department thresholds and criteria.

FloridaCommerce will implement program management, monitoring, and oversight standards necessary to ensure compliance with state and federal requirements.

1.3.1 DEO Monitoring Standards and Procedures

The state has adopted monitoring standards, including procedures to (1) ensure program requirements (including non-duplication of benefits) are met, and (2) provide for continual quality assurance and adequate program oversight. These standards and procedures are included in the pre-award Implementation Plan as required by the Federal Register. Monitoring will be conducted by FloridaCommerce who will be supported by an external vendor procured through competitive solicitation to ensure that program activities progress toward timely completion and to allow for the early identification of potential issues and problems so they can be prevented or corrected.

Monitoring will also include environmental compliance under 24 CFR Part 58. FloridaCommerce currently has staff that will oversee environmental compliance. Additionally, the current staff will be augmented by external vendors procured through competitive solicitation.

FloridaCommerce’s monitoring program includes desk monitoring and onsite monitoring with priority and frequency based on the results of a risk assessment of each subrecipient. The purpose of the risk assessment is to define the scope and focus of the monitoring efforts, including establishing a framework for determining the appropriate level of monitoring consistent with available resources. In addition, the risk assessment will be required each state fiscal year to guarantee continuous review of risks. FloridaCommerce monitoring is based on criteria consistent with HUD guidance in assessing program risk. The risk assessment provides the basis for developing individual monitoring strategies and documents the decisions and recommendations regarding where to apply staff and travel resources for monitoring, training, and/or technical assistance.

The Florida Auditor General and staff will act as the state’s independent external auditor and conduct financial audits of the accounts and records of state agencies. Where applicable, accounting policies and procedures of FloridaCommerce should mirror the requirements of the Office of the Auditor General.

1.4 Unmet Need and Proposed Allocation

Table 1: Unmet Need and Proposed Allocation⁵

Category	Remaining Unmet Need	% of Unmet Need	Program Allocation Amount	% of Program Allocation
Administration	\$0	N/A	\$9,369,150	5.00%
Planning	\$0	N/A	\$500,000	0.27%
Housing	\$28,823,809	55.24%	\$48,031,614.80	25.63%
Infrastructure	\$23,359,218	44.76%	\$110,990,384.82	59.23%
Economic Revitalization	\$0	0.00%	\$18,491,850.38	9.87%
Public Services	\$0	0.00%	\$0	0.0%
Total	\$52,183,027.00	100%	\$187,383,000	100%

⁵ FEMA IA PA data, SBA data, public housing programs, and other sources.

2.0 Unmet Needs Assessment

2.1 Overview

Florida is required by HUD to document the impacts and unmet needs resulting from Hurricane Sally for the state to receive federal CDBG-DR program funds. The assessment identifies impacts and unmet needs to three sectors: Housing, Infrastructure, and Economic Revitalization to help guide recovery program development aimed at supporting successful recovery for the MID areas.

This unmet needs assessment covers Florida's housing, infrastructure, and economic damage and recovery efforts in the wake of Hurricane Sally. As Florida continues its long-term recovery efforts from this storm, a focus on identifying impacts and addressing unmet needs is key. State and local government agencies, as well as civic organizations and community leaders, will continue to address the challenges from these events for years to come.

HUD uses the best available data to identify and calculate unmet needs for disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization. Based on this assessment, HUD notified Florida that it will receive an allocation of \$187,383,000.

In accordance with Federal Register Vol. 87, No. 23 (p. 6371), FloridaCommerce may use up to five percent of the total grant award for grant administration and up to 15 percent of the grant award for planning expenditures. All planning activities will benefit the HUD-identified MID areas. The HUD-identified MID communities to receive at least 80 percent of the funds include Escambia County and 32583 (Santa Rosa County) zip code. As specified in Federal Register Vol. 87, No. 23 (p. 6371), where HUD identified specific zip codes as MID communities, FloridaCommerce intends to expand program operations and eligibility to the entire county. The remaining up to 20 percent may be spent in state-identified MID communities, which include Bay, Okaloosa, and Walton Counties. FloridaCommerce will ensure, as required and identified in the Federal Register Guidance, that at least 70 percent of the allocation of CDBG-DR funds will be used for activities benefiting LMI persons.

All of the allocated funds must be used for eligible activities to address unmet disaster needs or mitigation activities. To ensure that fraud, waste, and misuse of funds does not occur, effective controls must be in place and monitored for compliance.

The sections of this unmet needs assessment detail the impacts to Northwest Florida as caused by Hurricane Sally, beginning with a description of the hurricane's wind, rain, flooding, and storm surges and related impacts. From there, the report focuses on housing and infrastructure impacts, with an emphasis on particular vulnerabilities in the Hurricane Sally impacted areas, including LMI. Though economic needs include uncertainties that are difficult to measure, the housing and infrastructure impacts in the Florida panhandle led to substantial unmet needs, estimated to be approximately \$52 million and detailed in Section 2.1.1.6 Summary of Impact and Unmet Needs. Housing accounts for more than 55 percent of unmet needs in the areas impacted by Hurricane Sally, and infrastructure accounts for nearly 45 percent of unmet needs, based on available data. This Plan aims to assist in the Hurricane Sally recovery planning and decision making process by providing information to help identify the MID areas affected by Hurricane Sally.

2.1.1 Hurricane Sally's Impacts to Florida

Hurricane Sally made landfall in Gulf Shores, Alabama at 5AM CDT on Wednesday, September 16, 2020, as a strong Category 2 hurricane with winds at 105 miles per hour (MPH) and a minimum pressure of 965 millibars. Notably, Hurricane Sally impacted an area that has historically been impacted by many storms. Hurricane Sally made landfall exactly 16 years after Hurricane Ivan (2004) hit nearly the same location. Several Florida counties that were previously impacted by the catastrophic Category 5 Hurricane Michael in 2018, including Bay, Gulf, and Franklin, were subsequently impacted by Hurricane Sally less than two years later.

The following impacts from Hurricane Sally are summarized using data from the National Weather Service (NWS) Mobile/Pensacola Office⁶ and NOAA National Hurricane Center⁷ (NHC) and include other descriptive impacts referenced from local sources.

Hurricane Sally brought hurricane-force winds to the Florida panhandle along with torrential rains, a long-duration storm surge, and significant freshwater flooding due to the storm's intensity and slow movement. Two fatalities from drowning occurred in Escambia County; one when a car was overtaken by storm surge flooding at Innerarity Point and the other when an individual was swept away by storm surge and high surf while attempting to retrieve a boat at Perdido Key. An indirect fatality also occurred in Escambia County and was related to carbon monoxide poisoning from improper generator use. The University of Florida estimated \$55-100 million in agricultural losses related to wind damage, loss of electricity, and flooded fields and croplands (Figure 2: Hurricane Sally's wind field overlaying croplands in the Florida panhandle).⁸ Furthermore, the combination of strong winds and storm surge resulted in widespread structural damage in Escambia County, with preliminary damage surveys finding more than 1,756 structures damaged, 629 with major damage, and at least 44 completely destroyed.⁹ In Santa Rosa County, preliminary damage surveys noted approximately 1,400 residential structures impacted, 139 with major damage, and at least 6 destroyed. In Santa Rosa County, 19 commercial buildings were impacted with major damage (NWS did not provide similar counts for other Florida counties).¹⁰ It should be noted, however, that preliminary damage assessments oftentimes provide inaccurate or incomplete information about the true scale of damage and are likely underestimates. Inspections and more accurate reporting of damage can take weeks or months to complete.

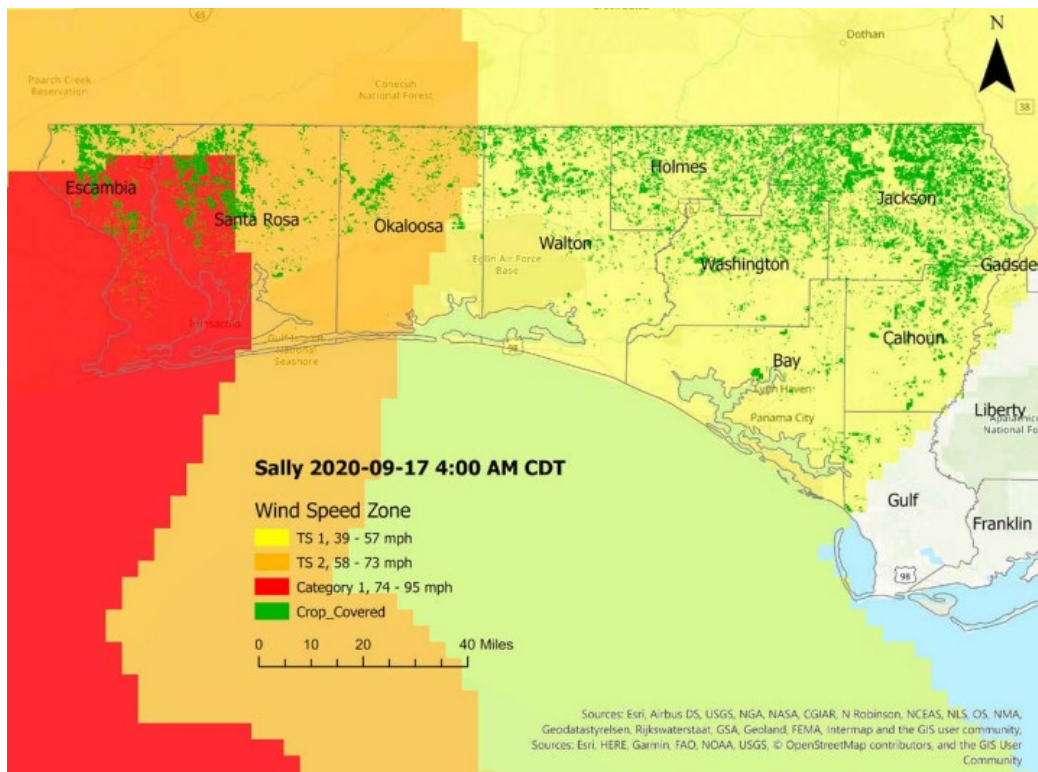


Figure 2: Hurricane Sally's wind field overlaying croplands in the Florida panhandle

⁶ <https://www.weather.gov/mob/Sally>

⁷ https://www.nhc.noaa.gov/data/tcr/AL192020_Sally.pdf

⁸ https://fred.ifas.ufl.edu/pdf/economic-impact-analysis/FRE_Initial_Briefing_Hurricane_Sally_Impacts_Report_2020_WEB.pdf

⁹ <https://www.weather.gov/mob/Sally>

¹⁰ <https://www.weather.gov/mob/Sally>

2.1.1.1 Wind Impacts

Hurricane Sally produced prolonged, sustained hurricane-force winds and extensive damage across western parts of the Florida panhandle, with sustained winds at 113 MPH and gusts to 137 MPH approximately 20 feet above ground level just a few miles west of the Alabama-Florida state line.¹¹ Winds gusted to 119 MPH at Perdido Pass, and, at the Pensacola Naval Air Station, sustained winds at 74 MPH were recorded with a peak gust at 92 MPH.¹¹ Hurricane force winds caused widespread power outages¹² (Figure 3: Estimated power outages for Hurricane Sally on September 17, 2020, at least 240,000 customers according to the NHC¹³), hundreds of downed trees blocking roads,¹⁴ and roof and siding damage to many buildings throughout Escambia County.¹¹ Several sites in the Florida panhandle, from Pensacola to Panama City, reported sustained winds higher than 60 MPH (Figure 4: Wind speed observations for Hurricane Sally), with tropical storm force sustained winds at 40 MPH occurring as far east as St. Marks and Tallahassee;¹⁵ however, only a few reports of tropical storm force winds occurred inland from the coast. In the first week of recovery from Hurricane Sally, the City of Pensacola’s sanitation crews picked up more than 2,800 truckloads of debris totaling more than 122,644 cubic yards of debris.¹⁶ Tree damage was noted in more than 100 city and 34 county parks in Pensacola and Escambia County, respectively (Figure 5: Tree damage in Pensacola from Hurricane Sally).¹⁷

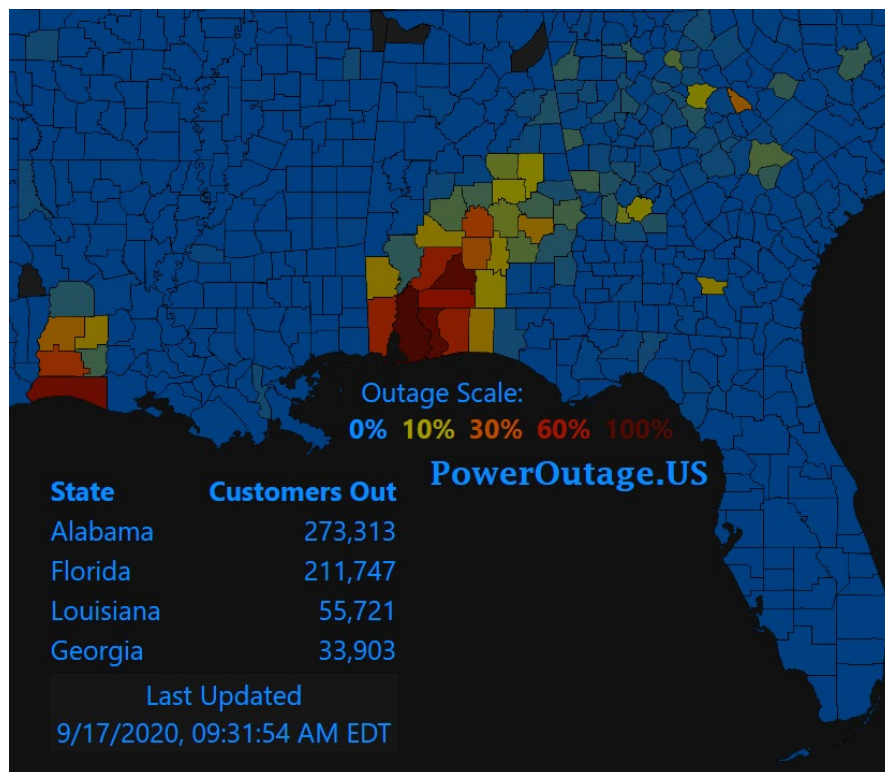


Figure 3: Estimated power outages for Hurricane Sally on September 17, 2020¹⁸

¹¹ <https://www.weather.gov/mob/Sally>

¹² https://secure.floridapsc.com/Files/PDF/HurricaneReport/Sally_09-16-20_0600_PM.pdf?date=%203/17/2022%202:37:06%20PM

¹³ https://www.nhc.noaa.gov/data/tcr/AL192020_Sally.pdf (page 11)

¹⁴ <https://www.cityofpensacola.com/CivicSend/ViewMessage/Message/123512>

¹⁵ <https://www.weather.gov/tae/Sally2020>

¹⁶ <https://www.cityofpensacola.com/CivicSend/ViewMessage/Message/124727>

¹⁷ <https://www.cityofpensacola.com/CivicSend/ViewMessage/Message/124767>

¹⁸ https://twitter.com/PowerOutage_us/status/1306594880378945537

Location	Wind Gust (mph)	Date	Time	Instrument
Fort Morgan*	121	16-Sep	442am	NOS-PORTS
Buoy 42012	110	16-Sep	1210am	NDBC
Dauphin Island	104	16-Sep	506am	NOS-PORTS
Dauphin Island	99	16-Sep	319am	NDBC
Elberta	99	16-Sep	414am	CHILI
Gulf Shores	93	16-Sep	253am	WeatherFlow
Foley	93	16-Sep	345am	WeatherFlow
NAS Pensacola (NPA)	92	16-Sep	618am	AWOS
West Mobile (KMOB)	82	16-Sep	635am	ASOS
1.0 NE Pace	82	16-Sep	140am	WeatherSTEM
2.3 N Brent, FL	81	16-Sep	710am	WeatherSTEM
2.1 NE Bellview	81	16-Sep	450am	WeatherSTEM
0.7 W Gonzalez	80	16-Sep	1100am	WeatherSTEM
0.8 N Myrtle Grove	78	16-Sep	910am	WeatherSTEM
2 S Navarre	78	16-Sep	120am	WeatherSTEM
2.3 N Ferry Pass	77	16-Sep	710am	WeatherSTEM
Foley	76	16-Sep	344am	CHILI
Gulf Breeze	76	16-Sep	609am	WeatherFlow
Mobile Downtown (KBFM)	75	16-Sep	608am	ASOS
1.6 E Bratt, FL	75	16-Sep	220am	WeatherSTEM

*elevated platforms

Figure 4: Wind speed observations for Hurricane Sally



Figure 5: Tree damage in Pensacola from Hurricane Sally¹⁹

¹⁹ <https://www.cityofpensacola.com/DocumentCenter/View/19919/Hurricane-Sally-trees?bidId=>

2.1.1.2 Storm Surge Impacts

Hurricane Sally’s storm surge produced maximum inundation levels of five to seven feet above ground level along the coasts of Escambia and Santa Rosa Counties in Florida. Exacerbated by an errant storm track and high tides at landfall, the highest peak water level measured 5.6 feet above high tide at a National Ocean Survey gauge in Pensacola (Figure 6: Peak storm surge at Pensacola NOS tide monitoring gauge during Hurricane Sally)—notably, the surge observed at Pensacola ranks third in the list of historical hurricane storm surges. The storm surge also resulted in a portion of the Three Mile Bridge over Pensacola Bay collapsing (see Section 2.4 Infrastructure Unmet Need for further details).²⁰ Numerous buildings and structures were damaged significantly by the large storm surge in Escambia County, with numerous large boats and barges moved onto land by the surge (Figure 7: Damage to Pensacola Bay Ferry from Hurricane Sally’s storm surge). The vast amount of structural damage from storm surge occurred not along the immediate Gulf-facing beaches but in back bays, although there was significant damage to Gulf Islands National Seashore at Johnson Beach, where surge and waves destroyed many first- and second-line dunes, and Fort Pickens, where a ferry pier was “obliterated.”²¹

Beach and dune erosion was most significant and impactful in Escambia County, but fringe effects of the storm caused damage from Santa Rosa to Gulf Counties with areas of major dune erosion in parts of each county.²² Approximately 336 structures in the Coastal Building Zones of the impacted counties were damaged, representing single family, multi-family, commercial and other buildings—approximately 292 structures were damaged in Escambia County’s Coastal Building Zone, more than any storm in 40 years of records dating back to Hurricane Frederic in 1979 (Table 2: Number of major structures with major damage--comparison of Hurricane Sally to prior hurricanes in Escambia County).²³ The Florida Department of Environmental Protection (DEP) also reported approximately 483 feet of damage to coastal flood protection armoring structures, including seawalls, bulkheads, retaining walls, revetments, sills, or other rigid protection structures.²⁴

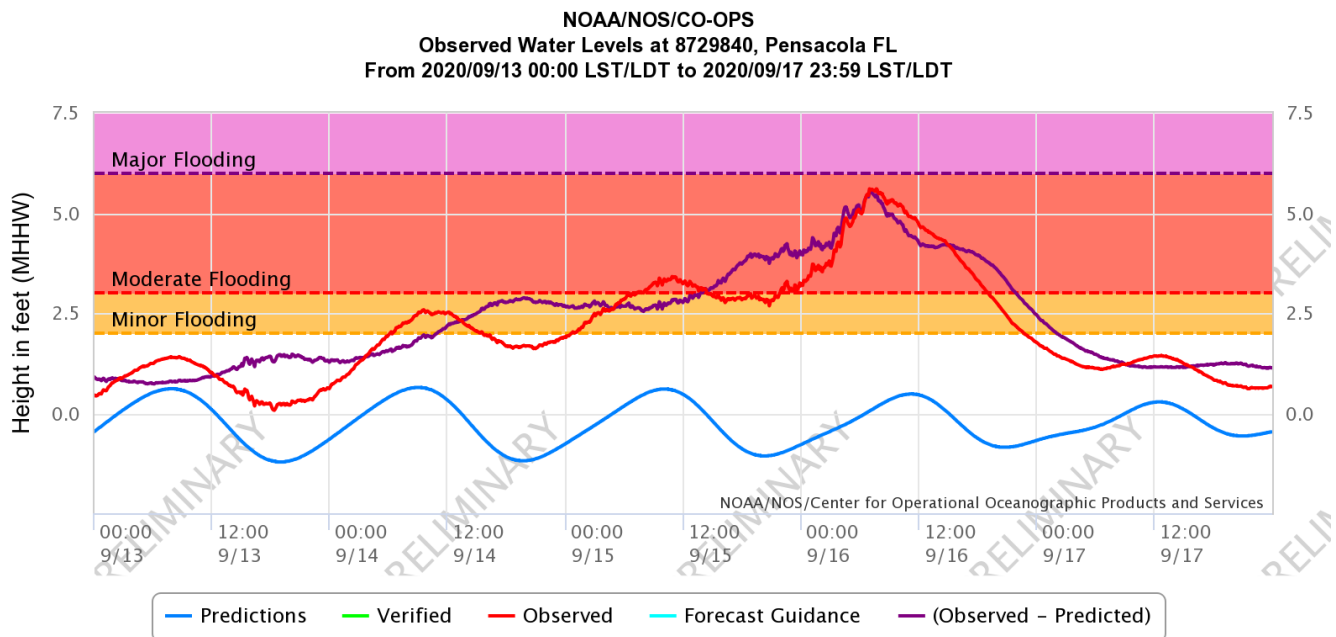


Figure 6: Peak storm surge at Pensacola NOS tide monitoring gauge during Hurricane Sally

²⁰<https://www.pnj.com/picture-gallery/news/2020/09/18/hurricane-sally-photos-3-mile-bridge-damage-after-hurricane-sally/5827270002/>

²¹ <https://www.pnj.com/story/news/2020/11/20/gulf-islands-estimates-4-5-million-damage-sally-florida/3777695001/>

²² https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf

²³ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf (page 21).

²⁴ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf



Figure 7: Damage to Pensacola Bay Ferry from Hurricane Sally's storm surge²⁵

Table 2: Number of major structures with major damage--comparison of Hurricane Sally to prior hurricanes in Escambia County²⁶

Year	Storm Event	Number of Structures
2020	Hurricane Sally	292
2005	Hurricane Katrina	2
2005	Hurricane Dennis	126
2004	Hurricane Ivan	231*
1998	Hurricane Georges	8
1995	Hurricane Opal	124
1995	Hurricane Erin	14
1979	Hurricane Frederic	96
TOTAL		893*

Survey teams from NWS noted debris lines upwards of six to nine feet above ground level in some vulnerable backwater areas in the upper reaches of Escambia and Blackwater Bays, likely representing the effects of waves on top of the surge. In Okaloosa County, many homes on the sound side of the Mary Esther area were inundated by surge flooding, with portions of Highway 98 flooded and homes throughout the county flooded by the combination of surge and flash flooding. Hurricane Sally’s storm surge inundation averaged approximately two to four feet above ground level along the coast of the Florida panhandle (Figure 8: Peak storm surge from Hurricane Sally near Destin, Florida) eastward to the Big Bend, along with an estimated 5.8 feet above high tide observation more than 200 miles east on the Aucilla River at Nutall Rise. At Panama City Beach, a peak surge height of 3.8 feet above high tide occurred.

²⁵ <https://www.cityofpensacola.com/DocumentCenter/View/19892/Pensacola-Ferry-is-damaged-by-Hurricane-Sally?bidId=>

²⁶ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf

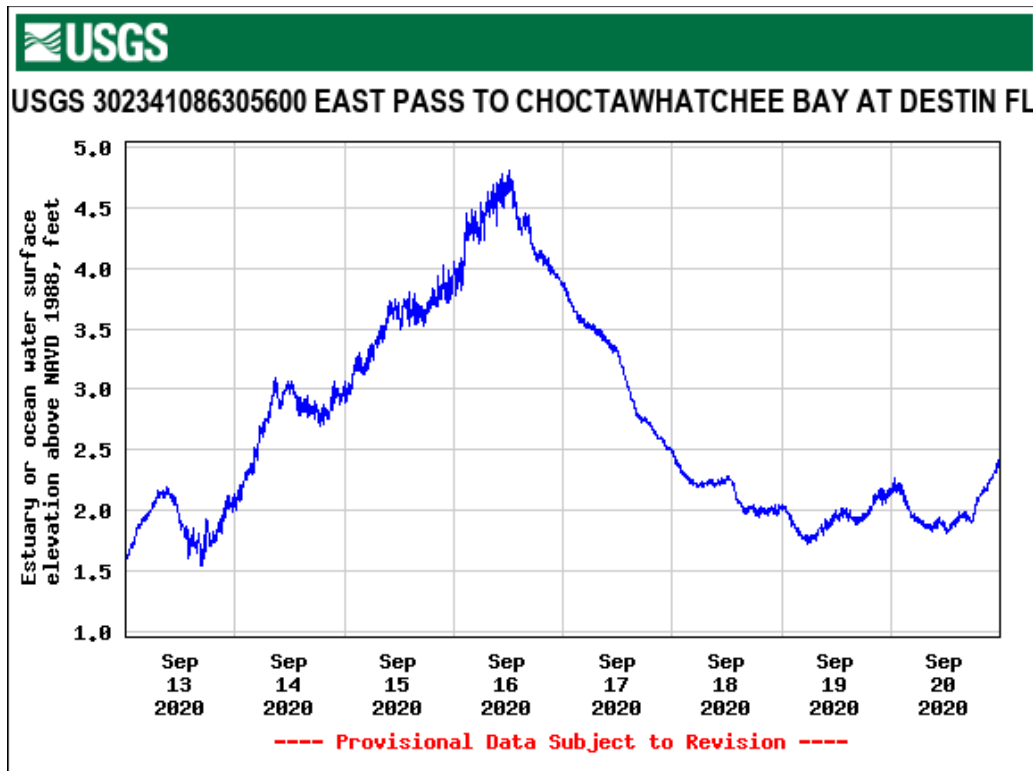


Figure 8: Peak storm surge from Hurricane Sally near Destin, Florida

2.1.1.3 Rainfall and Flooding

The very slow inland movement of Hurricane Sally, at only 2 MPH in the hours up to and after landfall (a near-record slow pace for the northern Gulf coast region),²⁷ produced rainfall totals of 15-30 inches across the Florida panhandle. Pensacola recorded approximately 25 inches on September 16, 2020, and NWS reported 20-30 inches of rain across much of the southern half of Escambia County (Figure 9: Estimated peak rainfall totals from Hurricane Sally). As a result, much of the Florida panhandle experienced major river and flash flooding (Figure 10: Inland flash flooding in Pensacola during Sally), necessitating thousands of water rescues due to rapidly rising waters and flooded homes.²⁸ There were extensive road closures due to damaged or washed-out roads, and several rivers reached major flood stage with crests in the top five of all historical flood crests. Freshwater flooding in downtown Pensacola reached levels of two to four feet, even where the storm surge did not reach from the coastline. Flooding was widespread across Santa Rosa County, where 20 inches of rain fell and resulted in compound flooding from freshwater sources coupled with Hurricane Sally’s storm surge along the Blackwater and Yellow Rivers. In Okaloosa County, the Shoal and Blackwater Rivers reached major flood stage, temporarily closing the Interstate 10 bridge. Rainfall amounts in Okaloosa County ranged from 10 to 20 inches and caused widespread flooding, again compounded by freshwater sources coupling with surge.

²⁷ <https://twitter.com/AlexJLamers/status/1305828454449975297>

²⁸ <https://www.cityofpensacola.com/CivicSend/ViewMessage/Message/123113>



WEATHER PREDICTION CENTER
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



Hurricane Sally Preliminary Rainfall Totals through 8 am EDT, Thursday, September 17, 2020

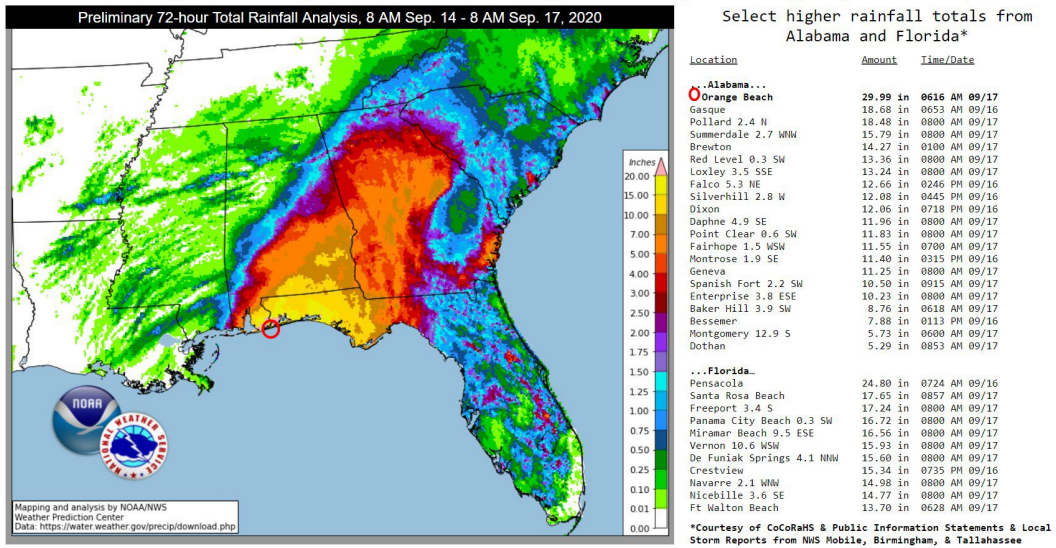


Figure 9: Estimated peak rainfall totals from Hurricane Sally²⁹



Figure 10: Inland flash flooding in Pensacola during Sally³⁰

2.1.1.4 Presidential Disaster Declaration for Hurricane Sally

As a result of the impacts of Hurricane Sally, Presidential Disaster Declaration DR-4564 was signed for the state of Florida on September 23, 2020. The devastation wrought by the hurricane impacted an already tight housing supply, necessitating the availability of the FEMA IA program to provide support for residents impacted by Hurricane Sally. Table 3: Declared County list for Presidential Disaster Declaration 4564 (Hurricane Sally) sets out

²⁹ <https://www.weather.gov/mob/Sally>

³⁰ <https://www.cityofpensacola.com/DocumentCenter/View/20166/Hurricane-Sally-flooding?bidId=>

the counties where FEMA IA, FEMA public assistance (PA), or both were made available under the FEMA disaster declaration, and Figure 11: Declared counties for Presidential Disaster Declaration 4564 (Hurricane Sally) displays a map of the Florida counties receiving a disaster declaration. There were multiple amendments to the initial notice of the disaster declaration for Hurricane Sally, with the most substantial revision occurring on March 15, 2021 when federal cost sharing provisions for the public assistance program were revised from 75 percent to 90 percent due to the ongoing burdens of the Coronavirus Disease 2019 (COVID-19) pandemic in 2020 and 2021.³¹ Figure 12: HUD initial assessment of most impacted counties and zip codes displays the HUD-identified MID counties and zip codes eligible for assistance.

Table 3: Declared County list for Presidential Disaster Declaration 4564 (Hurricane Sally)³²

County	Declaration Type	County	Declaration Type
Bay	Individual and Public Assistance	Jackson	Public Assistance
Calhoun	Public Assistance	Jefferson	Public Assistance
Escambia	Individual and Public Assistance	Liberty	Public Assistance
Franklin	Public Assistance	Okaloosa	Individual and Public Assistance
Gadsden	Public Assistance	Santa Rosa	Individual and Public Assistance
Gulf	Public Assistance	Walton	Individual and Public Assistance
Holmes	Public Assistance	Washington	Public Assistance
Total	5 Individual and Public Assistance and 9 Public Assistance Only		

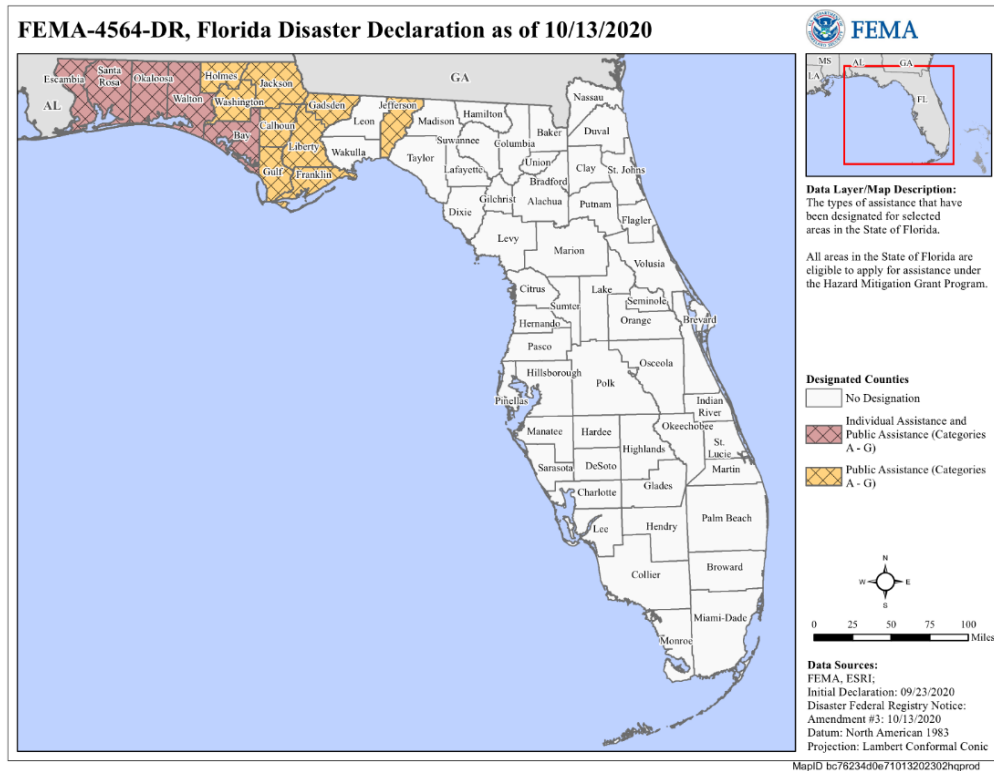


Figure 11: Declared counties for Presidential Disaster Declaration 4564 (Hurricane Sally)³³

³¹ <https://www.FEMA.gov/disaster/4564/notices>

³² <https://www.FEMA.gov/disaster/4564>

³³ <https://www.FEMA.gov/disaster/4564/designated-areas>

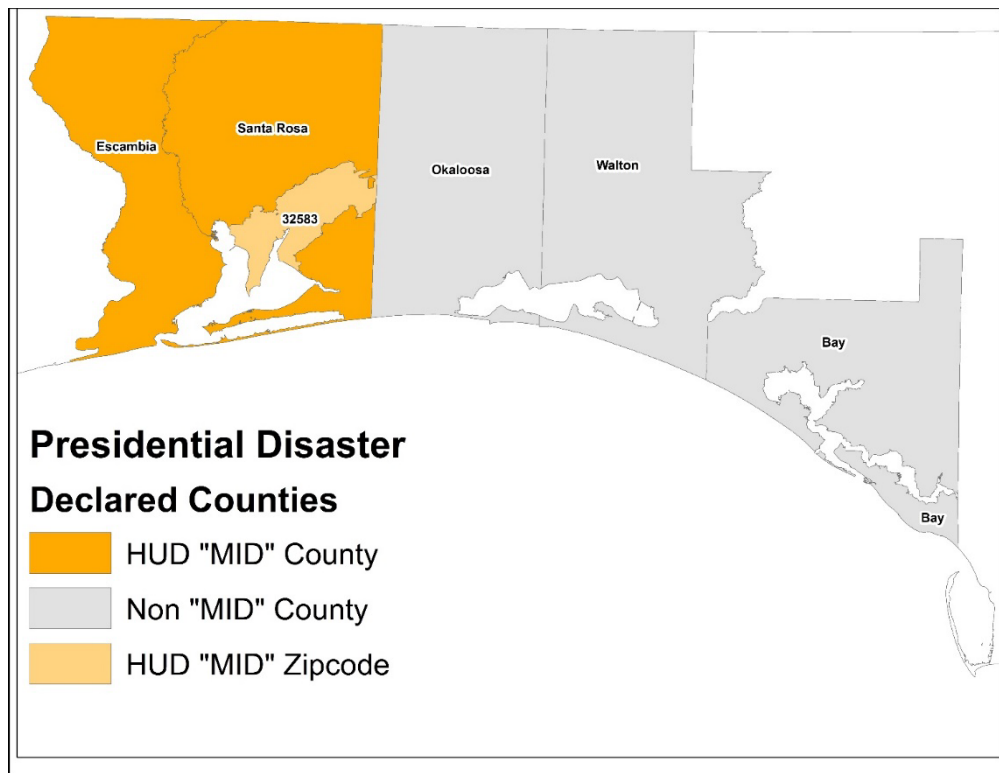


Figure 12: HUD initial assessment of most impacted counties and zip codes

2.1.1.5 Background and Process

Unmet needs are calculated for each of the three sectors (Housing, Economy, Infrastructure) based on guidance provided by HUD in [Federal Register Vol. 87, No. 23](#), (published Thursday, February 3, 2022) on how to complete an impact and unmet needs assessment including appropriate data sources, methodological processes, and rebuilding costs for structures identified as impacted by Hurricane Sally. Generally, an accounting of impacts to individuals and residences, businesses and economic sectors, and public infrastructure is measured against all available funds for recovery from FEMA, the Small Business Administration (SBA), Public Housing Programs, and other sources. Residual impacts, after accounting for all support, represent unmet needs. These unmet needs are eligible for CDBG-DR assistance. Specific methods utilized in this assessment are detailed in sections 2.2 Housing Unmet Need, 2.3 Social Equity, Fair Housing and Civil Rights, 2.4 Infrastructure Unmet Need, and 2.5 Economic Revitalization Unmet Need.

2.1.1.6 Summary of Impact and Unmet Needs

HUD defines “unmet needs” as those resources necessary to recover from a disaster that are not likely to be addressed by other sources of funds, by accounting for the various forms of assistance available to, or likely to be available to, affected communities (e.g., projected FEMA funds) and individuals (e.g., estimated insurance) and using the most recent available data to estimate the portion of need unlikely to be addressed by insurance proceeds, other Federal assistance, or any other funding sources (thus producing an estimate of unmet need). Florida’s current unmet needs across HUD’s defined focus areas (housing, infrastructure, and economic revitalization) are detailed in sections 2.2 Housing Unmet Need, 2.4 Infrastructure Unmet Need, and 2.5 Economic Revitalization Unmet Need. Findings show substantial unmet recovery needs in infrastructure and housing sectors.

HUD requires grantees to assess community impacts and unmet needs, quantifying the need for additional recovery funding for impacted areas. This assessment follows the process described in detail in Federal Register Vol. 87, No. 23 and summarizes impacts and remaining needs across three sectors: (1) housing, (2) the economy, and (3) infrastructure. Results from the unmet needs assessment are used to determine “who” and “where” the

highest impacts are across the impact area and form the basis from which targeted recovery program development takes place.

Assessments meeting these criteria have been prepared previously for Florida, including CDBG-DR Impact and Unmet Needs Assessments for: Hurricanes Hermine and Matthew (2016), Hurricane Irma (2017), and Hurricane Michael (2018). These and similar assessments have identified impacts and unmet needs to housing, economy, and infrastructure utilizing HUD provided methods outlined in the associated Federal Register Guidance³⁴ and each has been approved by HUD and implemented to support disaster recovery across the state. Data sources for this unmet needs assessment are outlined in Table 4: Data Sources Utilized in the Assessment of Impacts and Unmet Needs.

Table 4: Data Sources Utilized in the Assessment of Impacts and Unmet Needs

Data Sources Utilized in The Assessment of Impacts and Unmet Needs	
Data	Source
Hurricane Wind Speeds	NOAA, NWS (Ruskin, Tallahassee)
Hurricane Surge Data	FEMA
Presidential Disaster Declaration Areas	FEMA
Most Impacted Counties and Zip Codes	HUD
Socio-economic and demographics	United States Census Bureau
Low-Moderate Income Breakdown by counties	HUD
Homelessness	National Homeless Information Project, Florida Coalition for the Homeless
Shelter Needs	Red Cross, FDEM

A summary of FEMA-derived impacts for the entire presidentially declared area and each county are provided on the following pages. Estimated housing impacts were calculated from FEMA applicant data based on guidance from the Federal Register Guidance for this CDBG-DR allocation and are detailed in Section 2.2 Housing Unmet Need of this assessment. Recovery funds available represent the total provided by FEMA to disaster survivors for housing repair and replacement. Unmet needs are derived by subtracting funds available from estimated impact and accounting for resiliency costs – in this case, 15 percent in additional funds required to reduce risk in the MID areas and make structures more resilient to future disasters. Infrastructure impacts are estimated from FEMA’s PA Program Funded Project Details.³⁵ FEMA’s PA program maintains a system of record for every federally approved PA project, which includes total project cost and federal obligations. FEMA’s cost share percentage for Hurricane Sally is 90 percent for all categories of PA (previously 75 percent, adjusted by Congressional legislation in March 2022 for disasters occurring in 2020 and 2021 during the COVID-19 pandemic³⁶) except categories A & B where FEMA covers 100 percent of the costs (see Section 2.4 Infrastructure Unmet Need), thereby requiring states and local governments to provide only a 10 percent match for funds.³⁶ The remaining 10 percent of each project amount forms the basis for unmet disaster recovery need. Including an additional resilience measure (30 percent)—used to update outdated systems to current standards and account for increased costs of building

³⁴ <https://www.govinfo.gov/content/pkg/FR-2022-02-03/pdf/2022-02209.pdf>

³⁵ <https://www.FEMA.gov/openfema-data-page/public-assistance-funded-projects-details-v1>

³⁶ <https://www.FEMA.gov/press-release/20220318/fema-announces-9010-cost-share-adjustment>

supplies compared to previous costs (including lumber,³⁷ concrete,³⁸ and steel³⁹)—produces an estimated \$23 million in unmet infrastructure needs related to Hurricane Sally (Table 5: Estimated Impact, Support and Unmet Needs). Finally, economic sector losses were assessed by summarizing SBA assessment of real property (building) and operational (machinery, equipment, inventory, furniture, and fixtures) losses and associated loan approvals.⁴⁰ As of March 2022, SBA has approved more loans than the total real property and operational losses documented, which leaves no unmet economic needs across the area of impact.

Table 5: Estimated Impact, Support and Unmet Needs⁴¹

Estimated Impact, Support and Unmet Needs				
Summary of Impacts/Support	Housing	Infrastructure	Economy ⁴²	Total
Amount of Estimated Impact	\$54,591,317	\$113,305,596	\$6,851,501	\$174,748,415
Amount of Funds Available	\$29,527,136	\$89,946,378	\$8,706,100	\$128,179,614
Unmet Needs (Impact - Available Funds) + Resiliency Costs	\$28,823,809	\$23,359,218	\$0	\$52,183,027
Percent of Total Unmet Needs	55.24%	44.76%	0.00%	100.00%

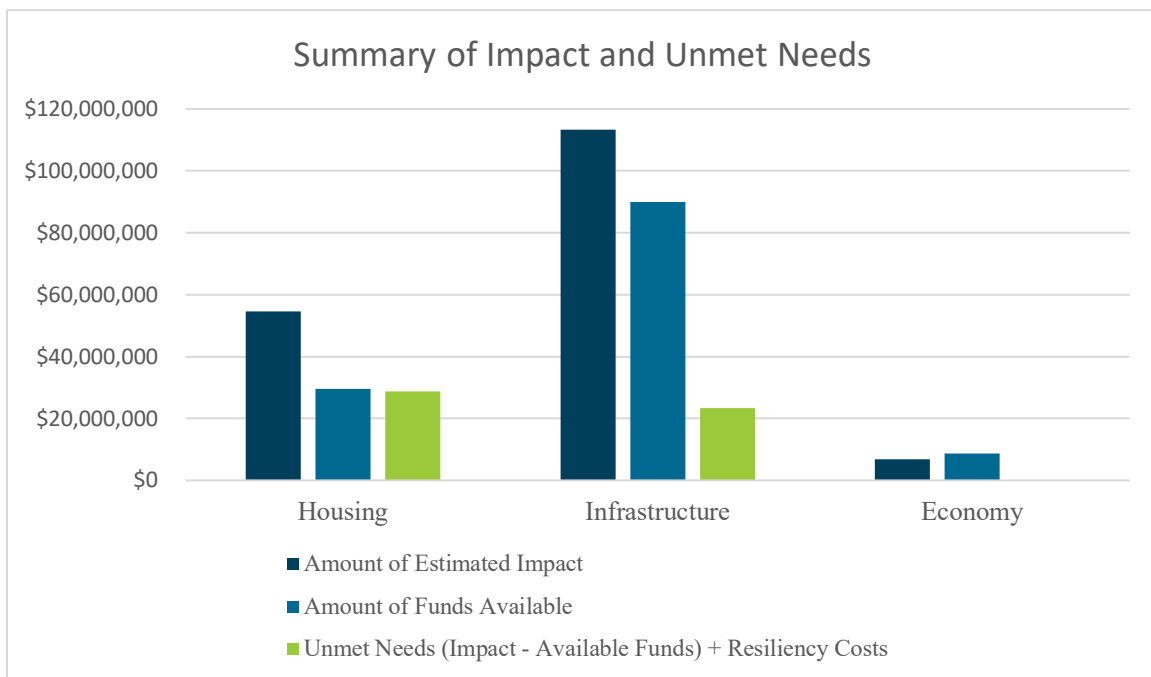


Figure 13: Estimated impacts and unmet needs for Hurricane Sally

There are significant unmet needs remaining across Florida’s panhandle following Hurricane Sally. Although each of the counties noted in the presidentially declared disaster are still recovering, unmet needs remain, as demonstrated by FloridaCommerce’s outreach and engagement with local stakeholders. In congruence with the findings highlighted by the unmet needs assessment, the overall sentiment of the community stakeholder survey suggests there are significant remaining unmet needs in the infrastructure sector.

³⁷ <https://eyeonhousing.org/2021/11/building-materials-prices-post-record-year-to-date-increase-through-october/>

³⁸ <https://fred.stlouisfed.org/series/PCU32733273>

³⁹ <https://tradingeconomics.com/commodity/steel>

⁴⁰ <https://www.sba.gov/document/report-sba-disaster-loan-data>

⁴¹ Source: Unmet needs summary data from sections 2.2, 2.4, and an assessment of SBA disaster loan data.

⁴² <https://www.sba.gov/document/report-sba-disaster-loan-data>

2.1.1.7 Impacts from Prior Disasters

Hurricanes impact the Florida panhandle frequently; though residents are generally storm-ready and understand the potential for evacuations and losses, sometimes the “chronic stresses and acute shocks”⁴³ can be overwhelming, leading to complicated, slow, and uncertain recoveries. The Presidential Disaster Declaration for Hurricane Sally designated five Florida counties to receive both FEMA IA and PA and an additional nine counties to receive FEMA PA only (Figure 11: Declared counties for Presidential Disaster Declaration 4564 (Hurricane Sally) in Section 2.1.1.4 Presidential Disaster Declaration for Hurricane Sally). It is important to note that several of these counties impacted by Hurricane Sally were also impacted by Hurricane Michael only two years prior in 2018 (Figure 14: Declared counties for Presidential Disaster Declaration 4399 (Hurricane Michael)). Bay County received FEMA IA and PA designations for both Hurricane Sally in 2020 and Hurricane Michael in 2018, potentially influencing recovery activities; however, both Gulf and Franklin Counties received FEMA IA and PA for Hurricane Michael but only received a FEMA PA designation for Hurricane Sally. Okaloosa and Walton Counties received FEMA IA and PA designations for Hurricane Sally but only FEMA PA designations for Hurricane Michael. The compounded damage of both storms (Hurricanes Michael and Sally) has made some aspects of recovery more difficult.

In 2019, media sources described the recovery from catastrophic Category 5 Hurricane Michael as “slow” and noted that coastal communities were “struggling” to rebuild.⁴⁴ In Bay County, reopening of some businesses was delayed due to labor shortages that stemmed from tight housing supply and high rents, with contractors engaged in rebuilding experiencing “more work than they can handle.”⁴⁴ Many public housing and apartment complexes were significantly damaged, leaving thousands without homes, and some estimates suggested that the housing stock would reach 85 percent restoration by February 2020, 18 months after Hurricane Michael, making affordable housing “the area’s most acute need.”⁴⁴ Additionally, balancing municipal budgets became more of an issue because Hurricane Michael damaged approximately 85 percent of structures in Panama City, “substantially reducing their value on the tax rolls,” and leading to more than 25 percent of city residents—approximately 8,000 to 9,000 people—leaving the area, further compounding recovery efforts as the 2020 census could reflect the decreased population and result in fewer grants and rebuilding funds.⁴⁴ However, HUD awarded Florida \$680 million through the Community Development Block Grant-Mitigation (CDBG-MIT) program for resiliency planning and disaster mitigation to foster recovery.⁴⁵ Additionally, FEMA awarded the city of Mexico Beach, in Bay County, approximately \$2.7 million for developing an enhanced stormwater management plan that includes new plans, codes, and ordinances designed to reduce physical damage to buildings and infrastructure from flooding.⁴⁶ Although some resources have attempted to improve and expedite recovery from Hurricane Michael, some metrics of recovery are inherently uncertain and it is very likely that Hurricane Sally’s impacts had a very substantial negative effect on disaster recovery in many communities throughout the Florida panhandle.

⁴³ <https://www.planning.org/blog/blogpost/9124762/>

⁴⁴ <https://www.npr.org/2019/10/10/768722573/recovery-is-slow-in-the-florida-panhandle-a-year-after-hurricane-michael>

⁴⁵ https://www.thecentersquare.com/florida/florida-to-use-million-federal-disaster-mitigation-grantfor-resilience/article_5dc147fc-f1ce-11e9-9e77-432ad7c92799.html

⁴⁶ https://www.FEMA.gov/sites/default/files/2020-08/fema_mitigation-action-portfolio-support-document_08-01-2020_0.pdf

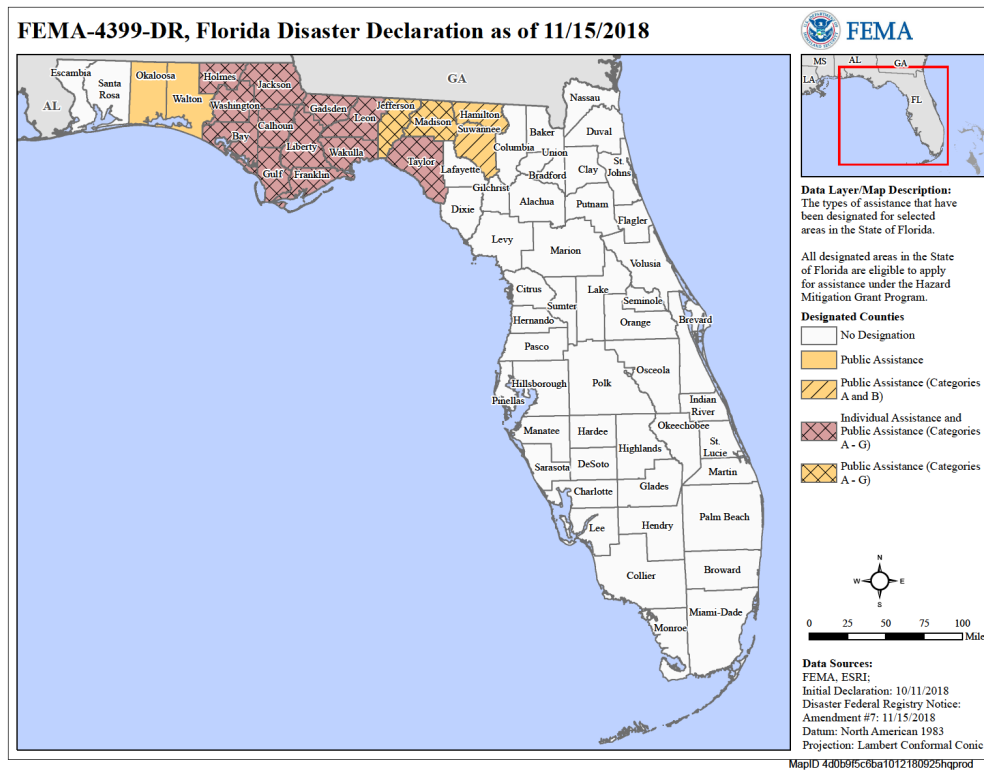


Figure 14: Declared counties for Presidential Disaster Declaration 4399 (Hurricane Michael)⁴⁷

2.2 Housing Unmet Need

To meet the requirements of the HUD CDBG-DR program, the following paragraphs describe the losses and unmet needs related to Hurricane Sally’s impacts to housing on Florida’s gulf coast, specifically in the HUD-identified MID areas of Escambia and Santa Rosa Counties (identified in Federal Register Vol. 87, No. 23 as zip code 32583), and the State MID areas of Okaloosa, Walton, and Bay Counties. Specific references are made to housing damage and challenges to recovery, building upon the introductory damage and impact characterizations in prior sections.

2.2.1 Disaster Damage and Impacts

Hurricane Sally caused extensive damage to housing, noted in preliminary damage assessments and in post-event inspections through the FEMA assistance and insurance programs. Damage to roofs and siding from high winds was widespread throughout the Florida panhandle, along with substantial damage from storm surge and inland flooding (See Section 2.1.1 Hurricane Sally’s Impacts to Florida).⁴⁸ DEP also found that Hurricane Sally caused damage to more structures in the Coastal Building Zone, including single and multi-family homes, than any hurricane in the past 40 years (with exception for Hurricane Ivan, where data is incomplete and thought to be significantly undercounted).⁴⁹ Home values in the Florida panhandle increased following Hurricane Michael (2018), increasing financial pressure on many renters in the area as housing supply decreased due to damage; moreover, ongoing recovery from Hurricane Michael was likely exacerbated by the arrival of Hurricane Sally in 2020.⁵⁰

Hurricane Michael had a significant impact on the housing supply, creating an increased demand for new construction and home repair activities, with additional impact on commercial construction and repair activities. The increased demand for construction activities following Hurricane Michael has created or increased the supply

⁴⁷ <https://www.FEMA.gov/disaster/4399>

⁴⁸ <https://www.weather.gov/mob/Sally>

⁴⁹ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf

⁵⁰ <https://www.npr.org/2019/10/10/768722573/recovery-is-slow-in-the-florida-panhandle-a-year-after-hurricane-michael>

gap in many construction occupations. Although Hurricane Michael occurred in 2018, this supply gap has not been completely met. The impact of Hurricane Michael created a long-term supply gap for skilled workers across several construction trades across the Hurricane Sally MID areas.

Figure 15: Median House Value shows the median home value in the Hurricane Sally-affected areas of the Florida panhandle, and Figure 16: Renter Populations shows the spatial distribution of renters in the same area (both maps at the census tract scale). Table 6: Rental Units by Year Built provides information about the number of rental units by year built, highlighting both the aging housing stock and the overall numbers of rental units in the Florida panhandle, which provides some insight into how more recent building and land use ordinances may reflect differential damages for areas that only more recently required improvements to withstand and bounce back from hurricane damage.

In summary, Florida’s panhandle counties impacted by Hurricane Sally are familiar with repetitive damage, losses, recovery, and rebuilding, even though each event posed unique challenges for reconstruction.

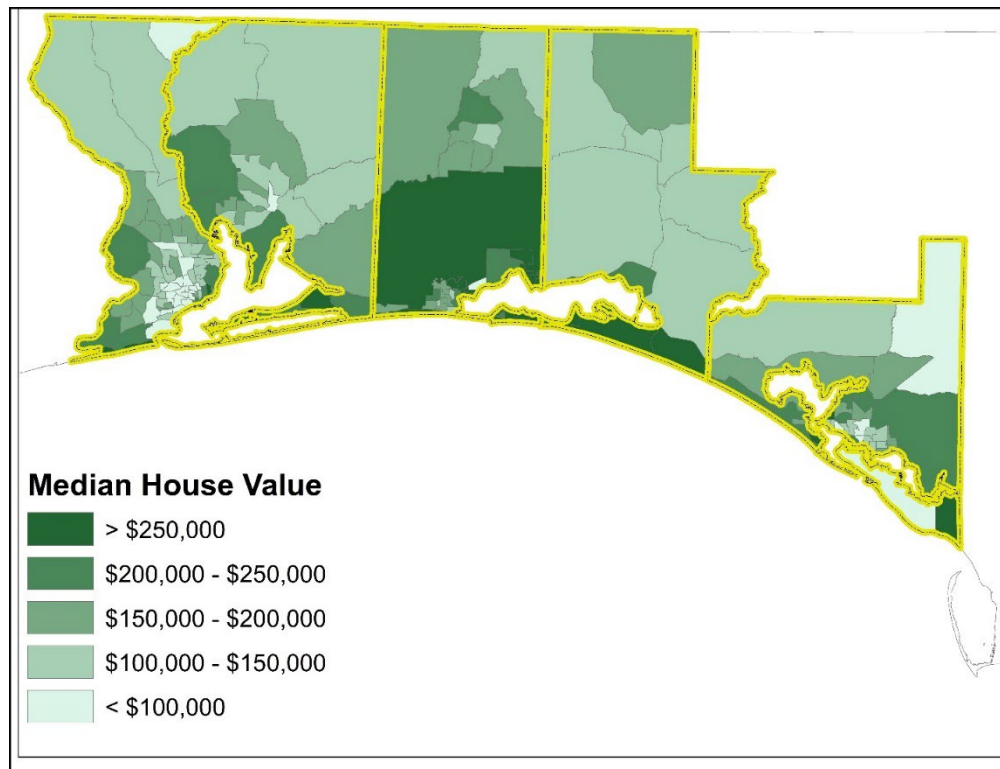


Figure 15: Median House Value

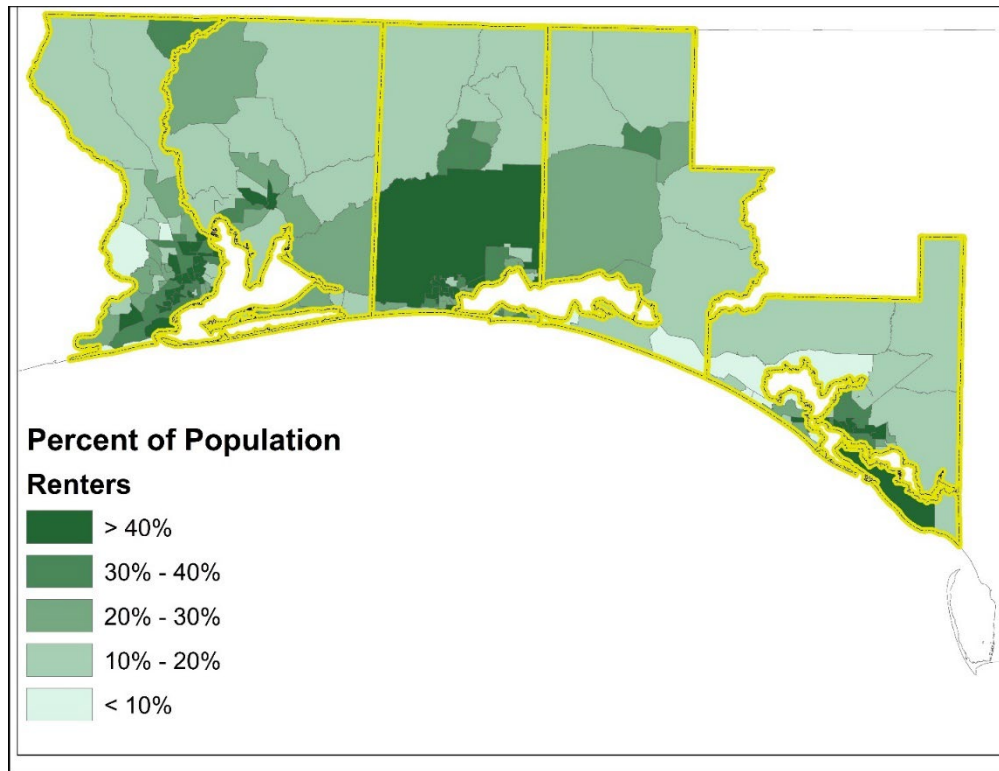


Figure 16: Renter Populations

Table 6: Rental Units by Year Built⁵¹

Rental Units by Year Built		
Year Built	Number of Units	Percentages
Built 2010 or later:	67,195	2.58%
Built 2000 to 2009:	477,626	18.33%
Built 1980 to 1999:	943,492	36.21%
Built 1960 to 1979:	773,660	29.69%
Built 1940 to 1959:	271,692	10.43%
Built 1939 or earlier:	72,277	2.77%
Total Units	2,605,942	

2.2.2 Single Family v. Multi-Family Needs; Owner Occupied v. Tenant

FloridaCommerce, in accordance with HUD guidelines, defines affordable rent as the lesser of:

- The fair market rent for existing housing for comparable units in the area, as established by HUD under 24 CFR 888.111; or
- A rent that does not exceed 30 percent of the adjusted income of a family whose annual income equals 65 percent of the Area Median Income (AMI), as determined by HUD, with adjustments for number of bedrooms in the unit. The HUD HOME Investment Partnerships Program rent limits will include average occupancy per unit and adjusted income assumptions.

⁵¹ ACS 2012-2016, B25127 - VACANCY STATUS

The minimum required affordability time periods are listed in Table 7: Minimum Affordability Periods below.

Table 7: Minimum Affordability Periods

Type of Project	Number of Units	Minimum Required Affordability
Multi-family	less than 8	5 years
	8 or more	15 years
Single Family	1 - 4	5 years

Affordability restrictions will be enforceable by deed restrictions, covenants, or other similar mechanisms and/or instruments.

FloridaCommerce will utilize the most current income rates set by HUD each year. At a minimum, 70 percent of program funds meet a low- and moderate-income national objective. Households with income higher than 120 percent of AMI will not be eligible for this program.

HUD calculates “unmet housing needs” as the number of housing units with unmet needs times the estimated cost to repair those units minus repair funds already provided. However, because complete data on impacts after major disaster events are difficult to obtain or do not exist comprehensively across a disaster area, HUD has stated that empirically justified calculations may be used to determine the average cost to fully repair a home. Generally, this is accomplished by “using the average real property damage repair costs determined by the SBA for its disaster loan program for the subset of homes inspected by both SBA and FEMA. Because SBA is inspecting for full repair costs, it is presumed to reflect the full cost to repair the home, which is generally more than the FEMA estimates on the cost to make the home habitable.”⁵²

Previously approved impact assessment methodologies have utilized a combination of SBA estimates of damage and repair needs, FEMA IA Housing Assistance data, and National Flood Insurance Program (NFIP) claim and payment information to triangulate total impacts and unmet needs as opposed to relying only on FEMA verified losses alone. Utilizing SBA damage estimates provides a more comprehensive look at recovery than simply looking at FEMA inspected damage. SBA sends “construction specialists” trained to evaluate a more complete cost of repairing or replacing a damaged structure to each applicant, returning a more comprehensive estimate of recovery than original estimates from FEMA. In addition, further accounting for under-representation of impacted populations stemming from FEMA ineligible applicants provides a more accurate picture of overall housing impact across a study area.

Homeowners across the Hurricane Sally impacted area saw significant impacts from high winds, flooding, and storm surges, and Table 8: FEMA IA Owner Occupied sets out the distributions of owner-occupied applicants to the FEMA IA program under the Hurricane Sally disaster declaration. Escambia County accounts for most applicants to the program, with nearly \$30 million approved for verified losses. The average FEMA verified loss for Hurricane Sally is approximately \$7,194 with Escambia County losses averaging the lowest payout and Walton County losses averaging the most. The second highest number of applications and inspections occurred in Santa Rosa County, and Walton County had the least. In all, 7,647 inspections occurred for the 19,677 applications to the FEMA program, representing only 38.9 percent of all applications to the FEMA IA program and giving a total verified loss of more than \$43.6 million for owner-occupied applicants. Of those inspected, only 21.8 percent (4,288) received assistance and 78.2 percent did not receive assistance—this high denial rate is similar to Hurricane Michael (75 percent). Homeowners who have been unable to secure FEMA, SBA, or other assistance funding have been left with an overwhelming unmet recovery need.

⁵² Federal Register Vol. 78, No. 43 /Tuesday, March 5, 2013 - <https://www.govinfo.gov/content/pkg/FR-2018-02-09/pdf/2018-02693.pdf>

Table 8: FEMA IA Owner Occupied⁵³

County	# of Applicants	# of Inspections	#Inspected with Damage	#Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Bay	569	264	171	117	\$1,656,720.65	\$9,688.42
Escambia	14,299	5,523	4,485	3,219	\$29,800,509.82	\$6,644.48
Okaloosa	848	373	245	132	\$2,824,481.99	\$11,528.50
Santa Rosa	3,520	1,264	1,027	753	\$7,483,042.62	\$7,286.31
Walton	441	223	137	67	\$1,861,231.04	\$13,585.63
Grand Total	19,677	7,647	6,065	4,288	\$43,625,986.12	\$7,193.07

Table 9: FEMA IA Tenant Applicants sets out the distribution of renter applicants to the FEMA IA program under the Hurricane Sally declaration. Like owner-occupied applications, Escambia County accounts for the majority of applicants with 11,081 and Walton County the least with only 293. Another 1,081 applicants in Santa Rosa County account for approximately \$705,801 in IA; however, Bay County shows the highest average FEMA verified losses for renters with applicants receiving approximately \$3,136 in assistance. In sum, the five IA declared counties account for approximately \$14.3 million in assistance for 4,250 applicants. Of the 13,694 renters who applied for assistance, only 47.1 percent were inspected (6,452) and only 31 percent received assistance. Approximately 69 percent of applicants did not receive assistance—this high denial rate represents a very significant estimate of renters with overwhelming unmet recovery needs; furthermore, damage to these vital housing stocks leaves the state with a shortage of rental properties across the impact area, increasing pressure on an already tight housing supply and increasing rents to unsustainable levels for lower income and more vulnerable populations. In summary, these high numbers of rental assistance recipients indicate a growing rental crisis across the impact area.

Table 9: FEMA IA Tenant Applicants⁵⁴

County	# of Applicants	# of Inspections	#Inspected with Damage	#Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Bay	661	264	178	140	\$558,104.23	\$3,135.42
Escambia	11,081	5,523	4,380	3,781	\$12,633,988.80	\$2,884.47
Okaloosa	578	205	131	85	\$292,322.77	\$2,231.47
Santa Rosa	1,081	375	252	214	\$705,800.71	\$2,800.80
Walton	293	85	46	30	\$82,108.81	\$1,784.97
Grand Total	13,694	6,452	4,987	4,250	\$14,272,325.32	\$2,861.91

Table 10: FEMA IA Applicants by Housing Type, shows the distribution of FEMA IA applications received by housing type. Of the 33,146 total applications, most originated from houses or duplexes, followed by apartments and mobile homes to round out the top three applications. Unspecified housing types for “other” accounted for

⁵³ <https://www.FEMA.gov/openfema-dataset-individual-assistance-housing-registrants-large-disasters-v1>

⁵⁴ <https://www.FEMA.gov/openfema-dataset-individual-assistance-housing-registrants-large-disasters-v1>

approximately 963 applications. Overall, 58.9 percent of applicants were owner-occupied housing and approximately 41 percent were tenants.

Table 10: FEMA IA Applicants by Housing Type⁵⁵

Residence Type	# of Applicants	% Owner Occupied	% Tenants	% Unknown	% Type
Apartment	3,918	0.10%	99.87%	0.03%	11.72%
Assisted Living Facility	22	0.00%	100.00%	0.00%	0.07%
Boat	54	77.78%	22.22%	0.00%	0.16%
College Dorm	3	0.00%	100.00%	0.00%	0.01%
Condo	413	64.41%	35.59%	0.00%	1.24%
Correctional Facility	2	0.00%	100.00%	0.00%	0.01%
House/Duplex	23,270	69.79%	30.09%	0.12%	69.64%
Military Housing	17	0.00%	100.00%	0.00%	0.05%
Mobile Home	3,476	57.19%	42.66%	0.14%	10.40%
Other	963	41.54%	57.32%	1.14%	2.88%
Townhouse	851	48.65%	51.35%	0.00%	2.55%
Travel Trailer	427	75.88%	24.12%	0.00%	1.28%
Grand Total	33,416	58.88%	40.98%	0.13%	100.00%

Table 11: FEMA Real Property Damage Owner Occupied Units reflects the distributions of impacts to homeowner units for the FEMA IA-declared counties. Most homeowner units experienced minor impacts and account for 4,357 units. Homeowner units with major and severe impacts account for 1,730 applications, or 28.4 percent of applications. Escambia County had the most homeowner units with impacts classified by all types, and only 2.9 percent of all homeowner units had severe impacts.

Table 11: FEMA Real Property Damage Owner Occupied Units⁵⁶

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Bay	32	59	55	21	5
Escambia	1,244	2,200	704	261	89
Okaloosa	42	94	53	37	20
Santa Rosa	224	401	265	100	42
Walton	21	40	36	23	19
Grand Total	1,563	2,794	1,113	442	175

Table 12: FEMA Real Property Damage Rental Units shows the distribution of hurricane impact to rental units. Again, Escambia County experienced the most overall rental unit damage with approximately 87.7 percent

⁵⁵ <https://www.FEMA.gov/openfema-data-page/individuals-and-households-program-valid-registrations-v1>

⁵⁶ <https://www.FEMA.gov/openfema-data-page/individuals-and-households-program-valid-registrations-v1>

accounting for all damage types. Walton County had the fewest rental units with hurricane impacts. Similar to homeowner units, only 1.4 percent of rental units in Walton County had severe impacts and the vast majority had minor damage that may not have qualified for assistance.

Table 12: FEMA Real Property Damage Rental Units⁵⁷

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Bay	31	40	57	48	3
Escambia	1468	1116	1026	744	54
Okaloosa	29	27	42	31	2
Santa Rosa	66	61	66	57	8
Walton	14	8	12	13	1
Grand Total	1608	1252	1203	893	68

**FEMA does not inspect rental units for real property damage so personal property damage is used as a proxy for unit damage. The monetary thresholds are defined in Appendix D.*

2.2.3 Public Housing and Affordable Housing

Table 13: Insurance Claims and Losses in Disaster Impacted Areas sets out insured claims, claims resulting in losses, and the total direct incurred losses for Hurricane Sally. Residential claims make up the majority of insured claims, with homeowners accounting for the most claims at 47,147. Of those, however, only 24,537 claims resulted in losses, or 52 percent of claims having losses. Mobile homeowners accounted for 1,380 claims and 817 with losses, or 59 percent. Commercial properties accounted for 3,649 claims, but, of those, only 361 claims resulted in losses, or 9.9 percent. Altogether, 71,998 claims were made following Hurricane Sally, with only 50.8 percent resulting in losses that came to an estimated total of \$576,943,637. While these losses paid out through insurance claims are significant, many residents were uninsured or underinsured, leading to significant applications to the FEMA IA program and SBA; however, the previously discussed high rates of denials for disaster assistance indicate that many homeowners have significant unmet recovery needs.

Table 13: Insurance Claims and Losses in Disaster Impacted Areas⁵⁸

County/City/Etc.	# of Claims	# of Claims Resulting in Loss
Residential Property	57,373	29,421
Homeowners	47,147	24,537
Dwelling	8,111	3,996
Mobile Homeowners	1,380	817
Commercial Residential	735	71
Commercial Property	3,649	361
Private Flood	207	48
Business Interruption	50	26
Other Lines of Business*	10,719	6,686
Total	71,998	36,542

⁵⁷ <https://www.FEMA.gov/openfema-data-page/individuals-and-households-program-valid-registrations-v1>

⁵⁸ Source: <https://www.flor.com/Office/HurricaneSeason/HurricaneSallyClaimsData.aspx>

FloridaCommerce sought input from Public Housing Authorities (PHA) located in MID areas and agencies dedicated to serving vulnerable populations as part of the Plan development. A PHA as defined by HUD includes, “any state, county, municipality or other governmental entity or public body or agency or instrumentality of these entities that is authorized to engage or assist in the development or operation of low-income housing under the U.S. Housing Act of 1937.” As part of this unmet needs assessment, FloridaCommerce requested that each identified PHA provide information about the number of housing units that sustained damage from Hurricane Sally and the current status of the damaged units. Table 14: Public Housing Authorities Damaged summarizes on a county level the PHAs consulted and the outcome/result of this consultation.

Table 14: Public Housing Authorities Damaged

County	Total # PHAs	Total PHAs Damaged	# of Units Damaged
Bay	2	0	0
Escambia	2	2	1,400
Okaloosa	2	0	0
Santa Rosa	2	2	1,486
Walton	3	0	0

2.3 Social Equity, Fair Housing and Civil Rights

Title VIII of the Civil Rights Act of 1968 (Fair Housing Act), as amended, prohibits discrimination in the sale, rental, and financing of dwellings, and in other housing-related transactions, on the basis of race, color, religion, sex (including gender identity and sexual orientation), familial status, national origin, and disability. It also requires that all federally funded programs relating to housing and urban development be administered in a manner that affirmatively furthers fair housing.⁵⁹ Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance.⁶⁰ Section 504 of the Rehabilitation Act of 1973 prohibits discrimination based on disability in any program or activity receiving federal financial assistance.⁶¹ Executive Order 13166 requires recipients of federal funding to take steps to ensure that eligible persons with Limited English Proficiency (LEP) are provided meaningful access to all federally-assisted and federally-conducted programs and activities.⁶²

FloridaCommerce’s goal is to ensure that eligible persons from protected classes under federal fair housing and nondiscrimination laws,⁶³ and persons from historically distressed and underserved communities are provided with the opportunity to apply for assistance to rehabilitate their property that sustained damage due to Hurricane Sally and its aftereffects. To ensure that protected classes, vulnerable populations, and other historically distressed and underserved communities have reasonable access to recovery efforts, subrecipients will be asked to prioritize these persons in addition to at-risk and vulnerable populations with the greatest need.

To help ensure that vulnerable and historically underserved populations have reasonable access to recovery efforts, subrecipients will prioritize at-risk and vulnerable populations with the greatest needs. Households with one or more of the below characteristics will be prioritized by subrecipient housing programs:

⁵⁹ See 42 U.S.C. §§ 3601-19 https://www.HUD.gov/program_offices/fair_housing_equal_opp/fair_housing_and_related_law

⁶⁰ 42 U.S.C. § 2000d-1

⁶¹ 29 U.S.C. § 794

⁶² Executive Order 13166, issued on August 11, 2000, Improving Access to Services for Persons with Limited English Proficiency

⁶³ Protected classes include, but is not limited to race, color, national origin, religion, sex, sexual orientation and gender identity, familial status, disability, persons with limited English proficiency, persons with special needs, indigenous people, and other vulnerable populations. A vulnerable population is defined as a group or community whose circumstances present barriers to obtaining or understanding information or accessing resources. See 87 FR 6364, page 6380, Issued Feb. 3, 2022.

- Households with seniors age 62 or older;
- Households with children under the age of 18; and
- Households with special needs or special accommodation requirements (disabled).

Furthermore, OLTR is committed to affirmatively furthering fair housing by providing the following information-based resources to landlords, managers, agents, and the general public:

1. Information Outreach: Requesting landlords, manager, and agents post or provide Fair Housing Notices in multiple languages.
2. Information for the General Public: Providing the general public with an overview of Fair Housing laws, and information regarding individual rights and responsibilities when buying, selling homes 24 CFR.50, 100.65, 100.80.

Florida is committed to providing all citizens with equal access to information about the disaster recovery program, including persons with disabilities and Limited English Proficiency (LEP). FloridaCommerce complies with Executive Order 13166, issued on August 11, 2000, Improving Access to Services for Persons With Limited English Proficiency, which requires all recipients of federal financial assistance from federal agencies, including assistance from HUD. FloridaCommerce will also comply with the guidance regarding accessibility in FR Vol. 87 No. 23 and will provide meaningful access to LEP persons and persons with disabilities.

FloridaCommerce will ensure that all citizens have equal access to information about the disaster recovery programs by providing program information in the languages most commonly spoken in the geographic area served by the jurisdiction.

To ensure meaningful access for individuals with disabilities or LEP, FloridaCommerce developed and implemented a Rebuild Florida Language Access and Accessibility Plan, which details how Florida will address these needs. The Language Access and Accessibility Plan is available in English, Spanish, and Haitian Creole on the OLTR website at www.FloridaJobs.org/CDBG-DR. Additional interpretive and translational services are available upon request.

FloridaCommerce will ensure that CDBG-DR funds are allocated in a way that strives to best serve LMI persons, vulnerable populations, and historically underserved communities. FloridaCommerce will meet or exceed the requirement that at least 70 percent of funds are used for activities that benefit LMI persons. In the interest of advancing equity and reducing barriers when enrolling in and accessing disaster recovery assistance, FloridaCommerce will ensure that all citizens have equal access to information about the programs, including persons with disabilities and those with LEP, and will ensure that program information is available in the appropriate languages for the geographic area served by the jurisdiction. For Hurricane Sally, all vital program documents will be translated into Spanish.

FloridaCommerce is committed to building a foundation for effective outreach throughout the program. FloridaCommerce will continue to make outreach efforts to potential beneficiaries, with targeted efforts to reach those who are elderly, disabled, low-to moderate income level, and minorities. This outreach includes establishing and preparing a network of stakeholders, including elected officials, non-profits, faith-based organizations, civic associations, and media outlets, to ensure well-coordinated and effective outreach. Upon request, FloridaCommerce will provide additional assistance to disabled and LEP individuals who require program documents in a form not already made accessible (i.e., languages in addition to English and Spanish, braille documents, etc.)

FloridaCommerce will ensure ongoing coordination with public service providers that work with vulnerable populations to ensure that any remaining or ongoing storm-related impact is brought to FloridaCommerce's attention for a coordinated approach. In addition, any vulnerable populations brought to FloridaCommerce's attention who are not served under current Departmental programs may be referred to specialized public service providers for assistance.

Table 15: Statewide Demographics and Disaster Impacted Populations represents demographic profiles for the State of Florida and the disaster-declared areas of the state for Hurricane Sally along with HUD-identified MID areas of Escambia County and Santa Rosa County (zip code 32583). These American Community Survey (ACS) data include estimates of populations by race for the declared counties and MID areas. Notably, White or Caucasian populations account for the majority of people in Florida, but the disaster-affected counties and MID zip code reflect more diverse populations. For example, of the total population in the FEMA IA-declared counties (972,094), those classified as Black or African American (133,239) make up 13.7 percent of the total population; in the MID designated county of Escambia County, the Black or African American population (75,004) represents 56.29 percent of the total Black/African American population in the disaster declared area (133,239), but only 2.46 percent of the total Black/African American population in the disaster declared area resides in the MID zip code 32583 (Santa Rosa County), for a total of 3,276 people.

Table 15: Statewide Demographics and Disaster Impacted Populations⁶⁴

Demographic	State Estimates	State Percent (of Total Population)	Disaster Declaration Estimate	Disaster Declaration Percent (of State Total)	MID Estimates (Escambia)	MID Percent (Escambia) of Declared County Total	MID Estimates (32583)	MID Percent (32583) of Declared County Total
Total Population	21,538,187	100.00%	972,094	4.51%	321,905	33.11%	29,365	3.02%
Under 5 years	1,141,524	5.30%	57,804	5.06%	19,314	33.41%	983	1.70%
65 years and over	4,501,481	20.90%	167,994	3.73%	55,046	32.77%	1,586	0.94%
Population with a Disability	1,852,284	8.60%	115,751	6.25%	37,019	31.98%	4,281	3.70%
White or Caucasian	16,649,019	77.30%	768,329	4.61%	221,793	28.87%	23,442	3.05%
Black or African American	3,639,954	16.90%	133,239	3.66%	75,004	56.29%	3,276	2.46%
American Indian and Alaska Native	107,691	0.50%	8,075	7.50%	2897	35.88%	350	4.33%
Asian	646,146	3.00%	26,616	4.12%	10623	39.91%	384	1.44%
Native Hawaiian and Other Pacific Islander	21,538	0.10%	1,944	9.03%	644	33.13%	24	1.23%
Other	473,839	2.20%	33,891	7.15%	23024	67.94%	1,889	5.57%

Table 16: Demographics of MID Areas represent demographic profiles for the State of Florida and the Hurricane Sally MID areas of Escambia, Santa Rosa, Okaloosa, Walton, and Bay Counties. The American Community Survey

⁶⁴ <https://www.census.gov/quickfacts/fact/table/US/PST045216>

(ACS) provided by the United States Census Bureau data includes a percentage breakdown of populations by race for the MID areas. Notably, the Black or African American population of Escambia County (22%) is significantly higher than that of the State of Florida (15%) and of the rest of the MID areas combined (11%). Additionally, Escambia County exhibits a remarkably higher rate of child poverty, with approximately 22.6% of the population under the age of 5 being below the federal poverty line, as opposed to the roughly 5.1% and 5.8% rate for the State of Florida and the MID areas combined, respectively, highlighting the significant socioeconomic disparities that exist within the MID areas, particularly in Escambia County.

Table 16: Demographics of MID Areas

Demographic	State Estimates	MID area Estimate	Escambia County	Santa Rosa County	Okaloosa County	Walton County	Bay County
Per capita income	\$32,848	\$32,523	\$29,166	\$32,322	\$34,357	\$35,996	\$30,774
Population below poverty line	13.3%	12%	14%	10%	10.7%	11.6%	13%
Total Population	21,538,187	972,094	321,905	179,587	207,430	71,049	180,076
Percent of population under 5 years below poverty level	5.1%	5.8%	22.6%	17.0%	17.5%	16.6%	16.3%
Percent 65 years and over below poverty level	11%	7.34%	7.4%	7.3%	6.5%	6.1%	9.4%
Percent White or Caucasian	53%	76%	64%	82%	73%	84%	76%
Percent Black or African American	15%	11%	22%	6%	9%	5%	11%
Percent American Indian and Alaska Native	< 1%	< 1%	< 1%	< 1%	< 1%	1%	< 1%
Percent Asian	3%	2%	3%	2%	3%	1%	2%
Percent Native Hawaiian and Other Pacific Islander	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
Percent Two Races / Other	5%	4%	5%	4%	4%	4%	5%

FloridaCommerce is aware that low-income communities as well as racial and ethnic minorities can be disproportionately impacted by disasters. A Racially or Ethnically Concentrated Area of Poverty (RECAP) is a geographic area with a significant concentration of poverty and minorities. Areas designated as RECAPs must have

a non-white population of 50% or more and a poverty rate that exceeds 40%, or is three or more times the average tract poverty rate for the metropolitan/micropolitan area, whichever threshold is lower.

Based on [data made available by FHFC](#), there is one census tract within the Hurricane Sally MID counties that is designated as a RECAP. Census Tract 4, which is located in Pensacola in Escambia County, a HUD MID area, is notable when compared to Escambia County overall, and when looking specifically at the percentage of persons below the poverty line as well as the racial makeup. Using census data from 2020, Table 17: Demographics of the Racially or Ethnically Concentrated Area of Poverty (RECAP) within Escambia County compares certain demographic percentages in Census Tract 4 to Pensacola and Escambia County as a whole.

These data show that 14% of the residents of Escambia County are below the poverty line, compared to 45.5% of the residents of Census Tract 4. Escambia County as a whole has a higher percentage Black and African American population than the State of Florida as a whole, with 64% White and 22% Black/African American, while Census Tract 4 has an even higher Black/African American population with racial breakdown of 73% Black/African American and 15% White. Also notable is that a higher proportion of the population of Census Tract 4 is under 18 or over 65 (55%) than in Escambia County as a whole (38%). The housing market in this census tract has a higher proportion of renters (72%) compared to Escambia County (37%).

Subrecipients should be aware of this RECAP and other areas of minority concentration and poverty when implementing projects so as to avoid undue discriminatory effects on historically disadvantaged and underserved populations and to maximize the positive impact of these funds on protected classes. For example, subrecipients serving this and other similar areas may consider focusing on a rental housing rehabilitation program or new rental construction to best facilitate recovery in a community characterized by higher levels of renters than homeowners. Subrecipients may also consider extending outreach in areas characterized by minority and impoverished populations to determine what programs and projects would best facilitate recovery. Adequate consideration of such areas and populations, as well as targeted outreach, should be completed to reach minority and historically underserved communities and prevent discrimination.

Table 17: Demographics of the Racially or Ethnically Concentrated Area of Poverty (RECAP) within Escambia County

Demographic	Census Tract 4 (in Escambia County)	Pensacola	Escambia County
Percent of Population White	15%	62%	64%
Percent of Population Black	73%	26%	22%
Percent of Population below the poverty line	45.5%	15.9%	14%
Percent of Population under 18 or over 65	55%	42%	38%
Percent of Population Renters	72%	38%	37%
Percent of Population Homeowners	28%	62%	63%

Escambia County data from American Community Survey (ACS) and <https://censusreporter.org/profiles/05000US12033-escambia-county-fl/>

Census Tract 4 data from <https://censusreporter.org/profiles/14000US12033000400-census-tract-4-escambia-fl/>

Pensacola data from <https://censusreporter.org/profiles/16000US1255925-pensacola-fl/>

While FloridaCommerce does not prioritize applicants based on race or national origin, FloridaCommerce has a history of disaster recovery work that has documented correlations between adverse impacts, household income levels, and certain protected classes.

For example, Figure 17: Hurricane Irma HRRP Applicants by Race/Ethnicity shows the percentage of applicants served through FloridaCommerce’s CDBG-DR Hurricane Irma Housing Repair and Replacement Program (HRRP).

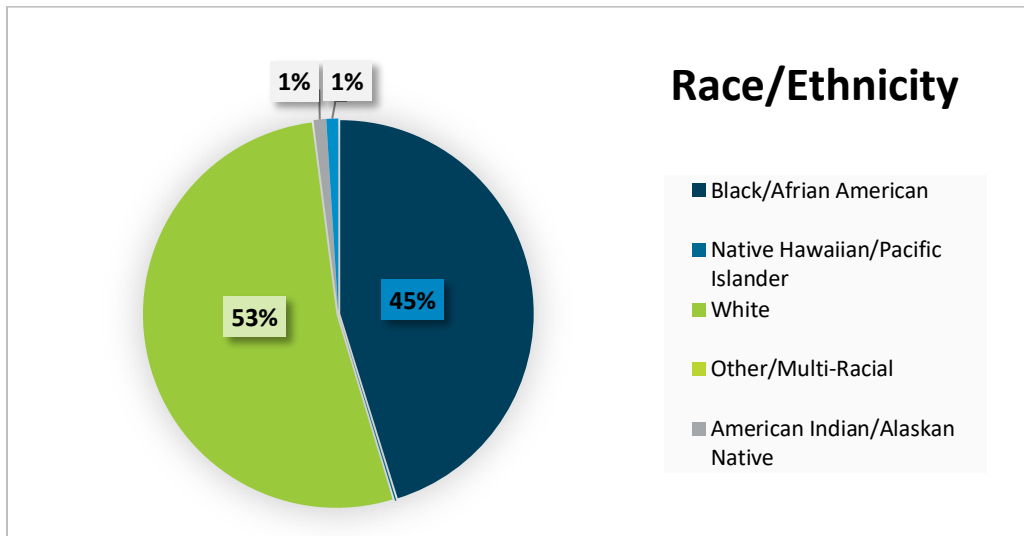


Figure 17: Hurricane Irma HRRP Applicants by Race/Ethnicity

The demographic data for the HUD and State MID areas impacted by Hurricane Irma are 83% White, 12.5% Black or African American, 0.8% American Indian and Alaska Native, 1.9% Asian, and 1.8% other or multi-racial. However, more than 45% of Hurricane Irma’s HRRP applicants are Black/African American.

Therefore, in prioritizing both disaster risk mitigation and benefit to LMI households, FloridaCommerce reasonably anticipates that program areas outlined in this Plan will have a significant positive impact on protected class populations.

Figure 18: Percent of tract non-English-speaking population shows the spatial distribution in the FEMA IA-declared counties of percentages of people speaking English “less than well” as designated by Census ACS. Figure 19: Age dependent (< 5 Years or > 65 Years) populations by tract sets out the spatial distributions of vulnerable populations of ages under 5 years or over 65 years.

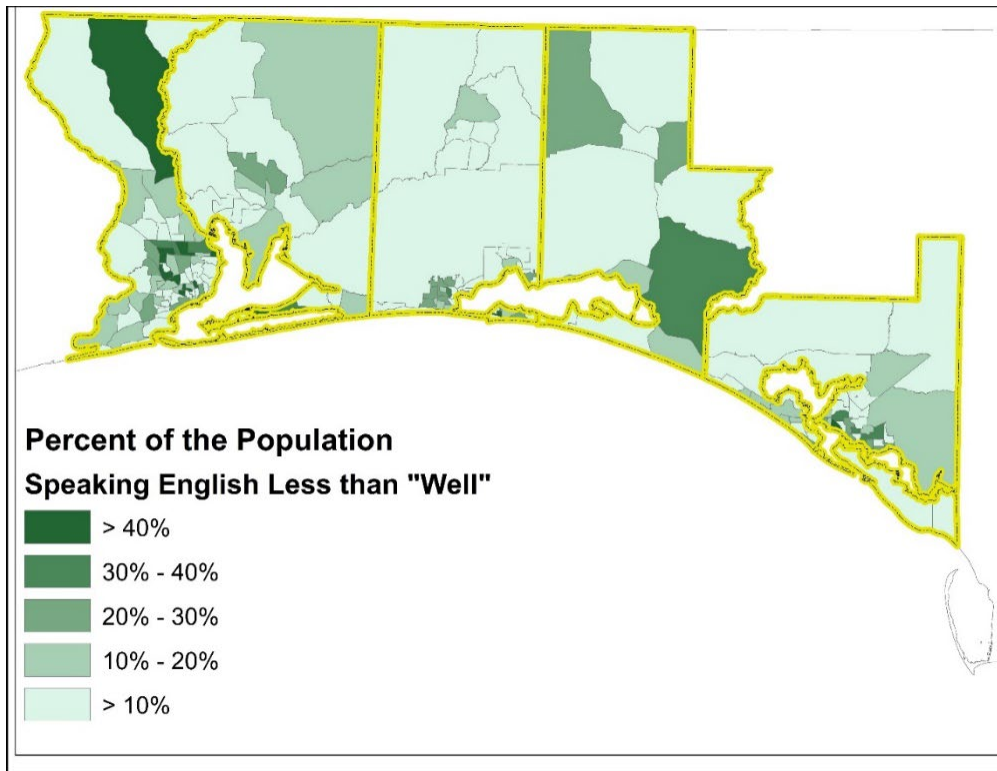


Figure 18: Percent of tract non-English-speaking population

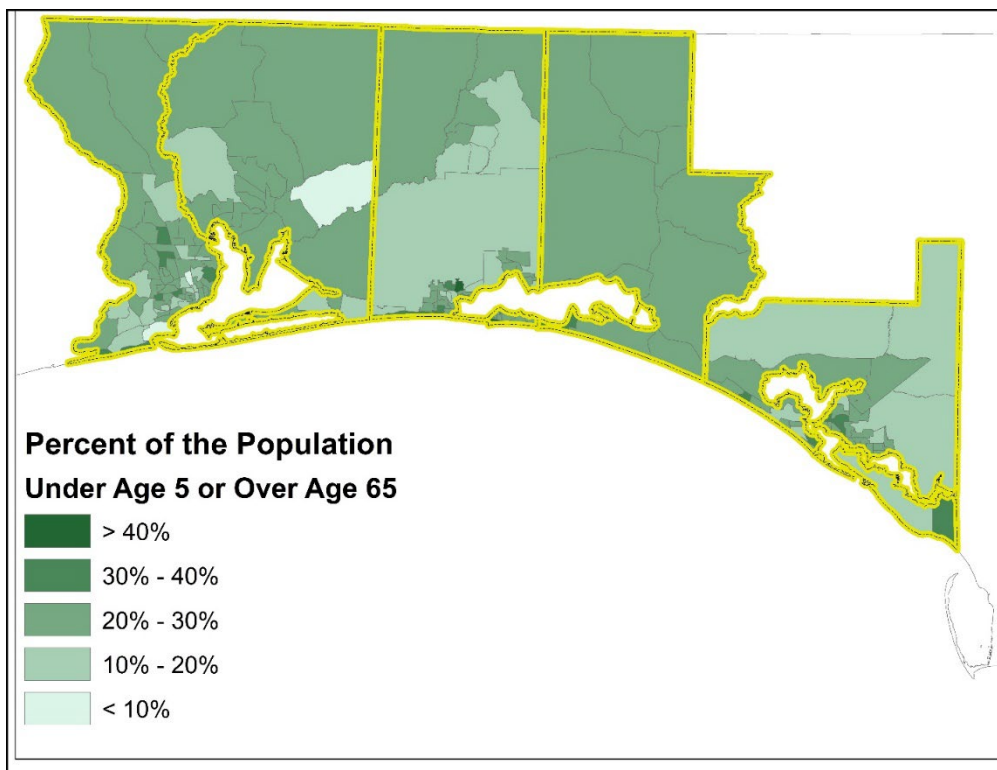


Figure 19: Age dependent (< 5 Years or > 65 Years) populations by tract

Table 18: Education Demographics establishes the education demographics for the State of Florida, the FEMA IA-declared counties, and the HUD-identified MID areas impacted by Hurricane Sally. In general, the areas impacted by Hurricane Sally have lower than state averages of people with less than high school education; however, the disaster affected areas have higher than state average percentages of people with high school or equivalent

education and some college or associates degree education. The impacted areas also have more people with bachelor’s degree or higher education levels when compared to state averages. Education demographics in the HUD-identified MID areas affected by Hurricane Sally are generally commensurate with state averages except that there are higher percentages of people with some college education or bachelor’s degrees in the HUD-identified MID areas. In other words, people living in the disaster declaration and HUD-identified MID areas are generally more educated than state averages for types and levels of education.

Table 18: Education Demographics⁶⁵

Education	State Estimates	State Percent	Disaster Declaration Estimate	Disaster Declaration Percent	MID Estimates	MID Percent
Population 25 and over	15,484,502	100.00%	607,441	100.00%	312,298	100.00%
Less than high school graduate	1,794,635	11.59%	59,709	9.83%	31,652	10.14%
High School graduate or equivalency	4,396,122	28.39%	172,765	28.44%	89,256	28.58%
Some college, associate degree	4,540,108	29.32%	212,965	35.06%	109,538	35.07%
Bachelor's degree or higher	2,982,643	19.26%	162,002	26.67%	81,852	26.21%

Table 19: Income Demographics sets out the income demographics for the State of Florida, counties impacted by Hurricane Sally, and the HUD-identified MID areas. In general, the income demographics for the disaster impacted counties and MID areas are lower than statewide estimates. For the counties impacted by disaster and HUD-identified MID areas, both median household income and per capita income are lower than state averages, implying that these areas are, on average, poorer than other areas in Florida. Approximately 25,001 people in counties impacted by Hurricane Sally had income below the poverty line during the 12 months prior to Hurricane Sally, and 32,186 people in HUD-identified MID areas had income below the poverty line in the 12 months prior to Hurricane Sally. In general, the number of people with low and very low incomes demonstrates a significant potential financial need for rebuilding and recovering from disaster, and, with the high rates of FEMA assistance denials, there are many people with significant unmet disaster recovery needs in the counties impacted by Hurricane Sally, and HUD-identified MID areas.

Table 19: Income Demographics⁶⁶

Income/Economic Demographics	Statewide	Counties Impacted by Disaster	MIDs
Median Household Income	\$59,227	\$50,505	\$52,157
Per Capita Income	\$32,887	\$26,719	\$26,027
Income in the past 12 months below poverty level	2,664,772	25,001	32,186

⁶⁵ Source: US Census <https://data.census.gov/cedsci/advanced?g=0500000US12005> – ACS 5 Year (2105-2019) - Table S1501
⁶⁶ Source: US Census <https://data.census.gov/cedsci/advanced?g=0500000US12005> – ACS 5 Year (2105-2019) - Table B19301 (Per Capita Income), S1901 (Median Income), and S1701 (Poverty)

Table 20: Limited English Proficiency Breakdown provides estimates of the populations with LEP based on Census ACS demographic data. 19,174 people living in the disaster impacted counties speak English less than very well, which may create barriers to recovering from the hurricane. Language assistance may be necessary for loans and other assistance programs, creating unmet needs awaiting proper resources and ability to communicate about recovery from losses, damage, or other impacts. The percentage of residents that listed Spanish as their primary language in the HUD and State MID areas impacted by Hurricane Sally is 3.3% in Escambia County, 3.2% in Santa Rosa County, 6.5% in Okaloosa County, 4.8% in Walton County, and 3.9% in Bay County. In addition to English, Spanish is the only primary language identified by the populations within the HUD and State MID area that exceeds 2% of the population.

Table 20: Limited English Proficiency Breakdown⁶⁷

County	Estimate Speak English Less than 'Very Well'	Percent Speak English Less than 'Very Well'	Percent of the population that speak Spanish as their primary language
Bay	3,877	2.36%	3.9%
Escambia	7,374	2.56%	3.3%
Okaloosa	5,779	3.22%	6.5%
Santa Rosa	2,520	1.66%	3.2%
Walton	1,894	3.38%	4.8%

Table 21: LMI Analysis Statewide provides a low-to-moderate income breakdown,

Table 22: LMI Analysis-Federally Declared Disaster Areas provides a more detailed breakdown of LMI persons in the disaster declared areas on a county level, and Table 23: LMI Population Counts for the Hurricane Sally Impacted Area provides estimated LMI population counts for the Hurricane Sally impacted counties. For LMI areas, the impacted counties have populations that are commensurate with state averages for low to moderate incomes; however, in real world terms, this means that there are more than half a million residents with lower incomes, which generally relates to higher vulnerabilities for losses and attenuated recovery capacity. In other words, this high population of lower income residents in the disaster impacted counties likely have increased needs for financial and other assistance which is reflected in the overall unmet needs for recovery reflected in the housing recovery table in Section 2.1.1.6 Summary of Impact and Unmet Needs.

Table 21: LMI Analysis Statewide⁶⁸

Category	Total Persons	Total Population	Percent LMI
Low (<50% AMI)	5,002,046	19,215,360	26.03%
Low Mod (80% AMI)	8,432,781	19,215,360	43.89%
LMMI (< 120% AMI)	11,998,073	19,215,360	62.44%

⁶⁷ Source: US Census <https://data.census.gov/cedsci/advanced?g=0500000US12005> – ACS 5 Year (2105-2019) - Table S1601 (Language Spoken at Home)

⁶⁸<https://www.HUDexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-block-groups-places/>

Table 22: LMI Analysis-Federally Declared Disaster Areas⁶⁹

County	Non-MID-Total LMI Persons	Non-MID-Total Population	Non-MID-Percentage LMI	MID-Total LMI Persons	MID-Total Population	MID-Percentage LMI
Bay	1,694	172,665	0.98%	-	-	0.00%
Escambia	-	-	0.00%	33,089	287,130	11.52%
Okaloosa	1,746	186,875	0.93%	-	-	0.00%
Santa Rosa	-	-	0.00%	4,210	155,460	2.71%
Walton	806	57,450	1.40%	-	-	0.00%

Table 23: LMI Population Counts for the Hurricane Sally Impacted Area

Category	Total Persons	Total Population	Percent LMI
Low (<50% AMI)	191,890	859,580	22.32%
Low Mod (80% AMI)	342,490	859,580	39.84%
LMMI (< 120% AMI)	514,820	859,580	59.89%

Table 24: LMI Population Counts for Hurricane Sally Impacted Counties represents the breakdown between the total population numbers of the disaster-declared areas applicants along with the total numbers of disaster-declared areas applicants that fall under the definition of an LMI person. This data provides a county-specific view of the percentage of LMI population across the Hurricane Sally impacted area.

Table 24: LMI Population Counts for Hurricane Sally Impacted Counties⁷⁰

County	Total LMI Disaster Applicant Household Composition	Total Population (of Disaster Applicants)	Percentage LMI	Possible Additional LMI Persons	Possible Additional Percentage LMI
Escambia	33089	54650	60.55%	12438	22.76%
Bay	1694	2144	79.01%	223	10.40%
Okaloosa	1746	2545	68.61%	271	10.65%
Santa Rosa	3264	8248	39.57%	1821	22.08%
Walton	806	1212	66.50%	192	15.84%

⁶⁹<https://www.HUDexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-block-groups-places/>

⁷⁰<https://www.HUDexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-block-groups-places/>

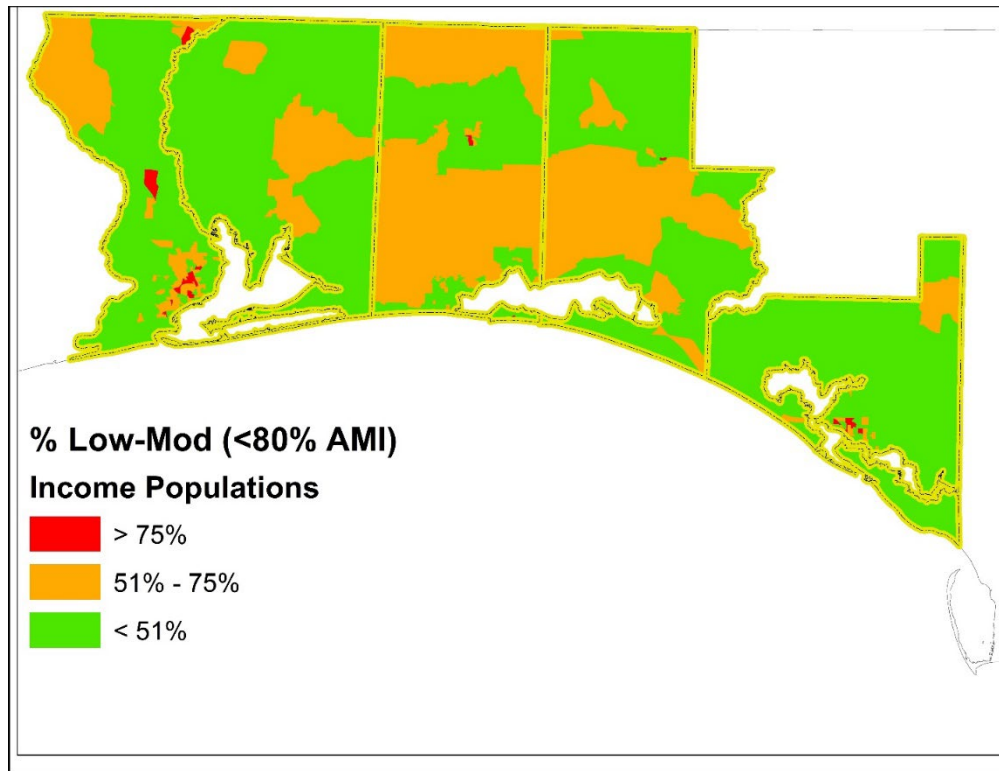


Figure 20: LMI Map for Hurricane Sally Impacted Counties

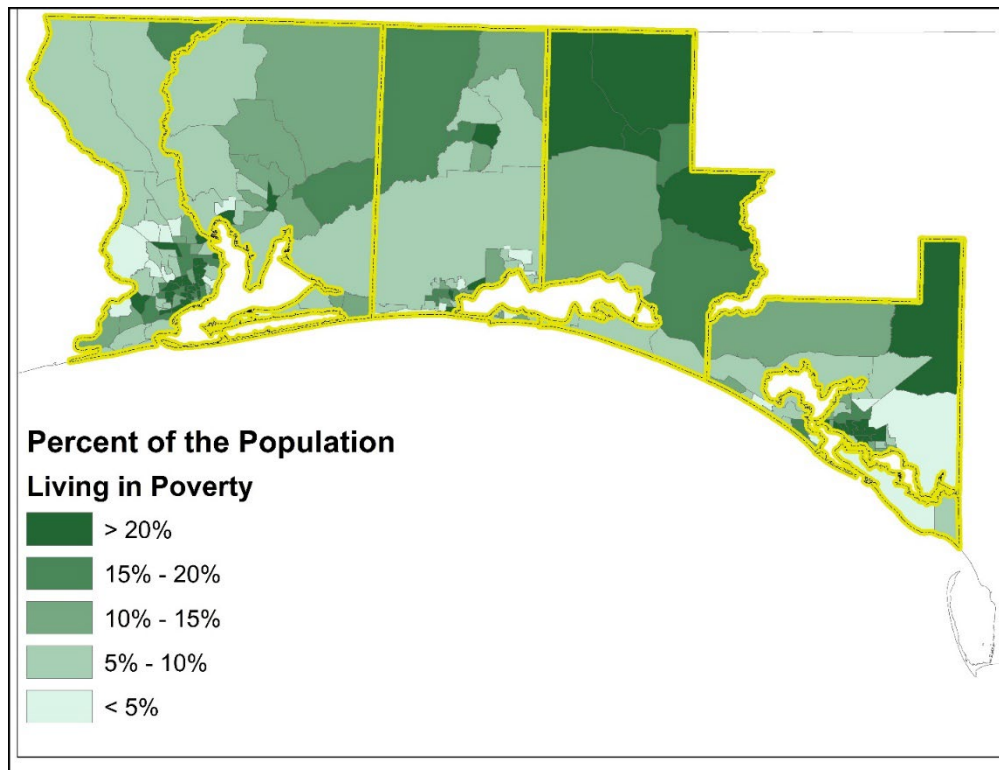


Figure 21: Percent of population living below poverty line by tract

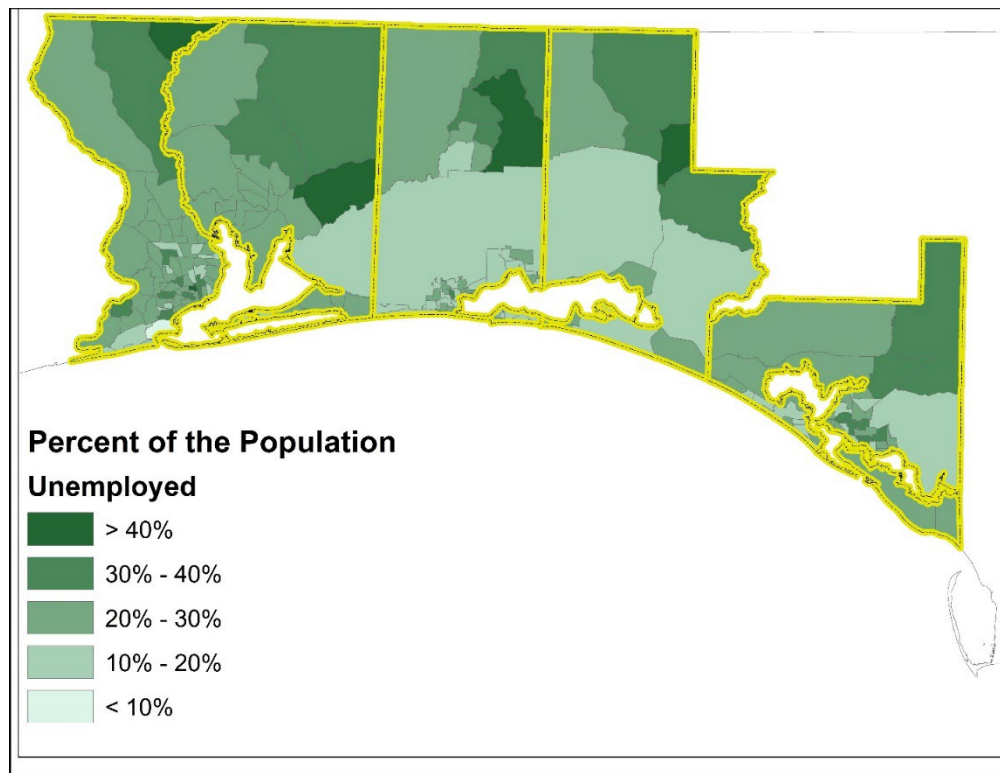


Figure 22: Percent unemployment by tract

Table 25: Mobile Housing Units Impacted by Disaster provides an estimate of the number of mobile housing units impacted by Hurricane Sally in the FEMA IA counties. Figure 23: Percent mobile home populations by tract provides a spatial distribution of the percentage of homes that are mobile homes in the FEMA IA-declared counties impacted by Hurricane Sally. Whereas in prior tables that showed a distribution of higher value homes nearest the coastline, the distribution of mobile homes appears highest in the inland areas of the impacted counties. Notably, 75 percent of mobile housing units in Escambia County were impacted by Hurricane Sally, leading to a significant decrease in the availability of affordable housing and making the rental crisis worse.

Table 25: Mobile Housing Units Impacted by Disaster⁷¹

County	Number of Units	% of Total Units in County
Bay	141	4%
Escambia	2451	75%
Okaloosa	124	12%
Santa Rosa	670	27%
Walton	90	4%

⁷¹ Source: <https://www.FEMA.gov/openfema-data-page/individuals-and-households-program-valid-registrations-v1>

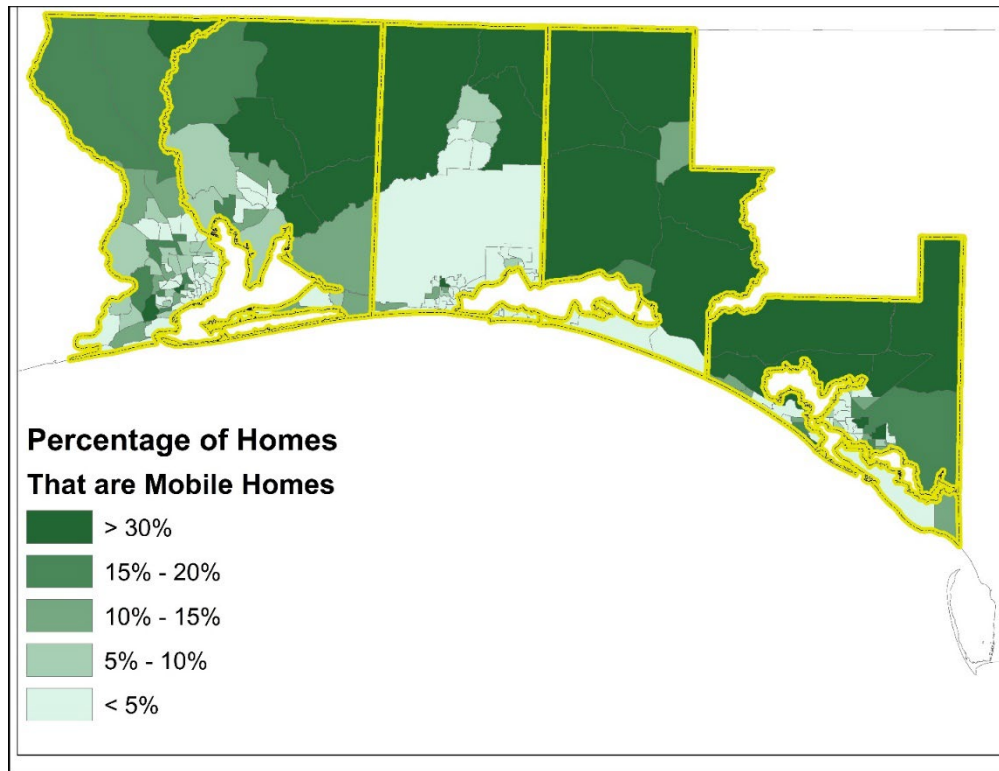


Figure 23: Percent mobile home populations by tract

In the aftermath of Hurricane Michael (2018), many thousands of people were left homeless due to the damage caused to affordable housing and mobile homes, forcing many residents to either leave the area or move into temporary FEMA mobile homes for months; furthermore, the limited availability of FEMA mobile homes has placed many residents without an ability to afford the high rents caused by the lack of housing supply in the area, demonstrating a true need for assistance to many residents.⁷² The slow recovery following Hurricane Michael demonstrates the true need for assistance to many residents of this area.

Hurricanes affect housing options for homeless populations particularly hard. In Table 26: Affected Continuum of Care Entities and Table 27: Point-In-Time Count - Type of Shelter data from Florida’s homeless survey, collected at Continuum of Care (CoC) areas consisting of multiple counties, shows that homelessness in the affected areas is significant and these vulnerable individuals remain a potential unmet needs population, requiring recovery support in order to halt the downward spiral. Although homelessness across the region has declined in recent years, those remaining in a homeless status are particularly susceptible to future disaster impacts and may require additional assistance to recover from Hurricane Sally’s impacts. Table 26: Affected Continuum of Care Entities provides an estimated count of homeless population by State CoC Areas. Escambia and Santa Rosa Counties had the highest homelessness, with 746 people counted in the most recent reporting.

As shown in Table 26: Affected Continuum of Care Entities, Escambia and Santa Rosa Counties have the highest homelessness rates of the Hurricane Sally impacted area, with approximately 746 people experiencing homelessness according to 2020 Point-in-Time (PIT) reporting. Immediately following Hurricane Sally, some homeless shelters in Escambia County were closed,⁷³ resulting in increased homelessness in the county as impacted families waited for various forms of housing assistance. The 2021 PIT count shows an increase in overall homelessness, from 746 to 905 individuals experiencing homelessness in the MID areas. Although it is difficult to definitively determine whether this increase was a result of damage sustained during Hurricane Sally⁷⁴, mitigating

⁷² <https://www.npr.org/2019/10/10/768722573/recovery-is-slow-in-the-florida-panhandle-a-year-after-hurricane-michael>

⁷³ <https://weartv.com/news/local/hurricane-sally-leaves-homes-destroyed-without-many-options-for-displaced-families>

⁷⁴ <https://www.HUDuser.gov/portal/sites/default/files/xls/2007-2021-PIT-Counts-by-CoC.xlsx>

storm risk and building housing that is more resilient to future disasters will serve to prevent a possible influx in homelessness following future disasters.

Table 26: Affected Continuum of Care Entities^{75,76}

CoC Number	CoC Entity	Impacted County	Homeless Count
FL-505	Fort Walton Beach/Okaloosa, Walton Counties CoC	Okaloosa and Walton	351
FL-511	Pensacola/Escambia, Santa Rosa Counties CoC	Escambia and Santa Rosa	746
FL-515	Panama City/Bay, Jackson Counties CoC	Bay	385

Table 27: Point-In-Time Count - Type of Shelter also reveals the estimated counts of homelessness by shelter type in the disaster-impacted areas. With 1,482 total known homeless in the FEMA declared counties, there is an urgent housing need that must be addressed with funding and other support in the disaster-affected areas.

Table 27: Point-In-Time Count - Type of Shelter⁷⁷

Scale of Data	Emergency Shelter	Transitional Housing	Unsheltered Homeless	Total Known Homeless
Statewide	9,899	4,739	12,672	27,487
FEMA Declared	338	266	822	1,482
MID Areas	203	169	332	746

2.4 Infrastructure Unmet Need

To meet the requirements of the HUD CDBG-DR program, the following paragraphs describe the losses and unmet needs related to Hurricane Sally’s impacts to infrastructure on Florida’s gulf coast. Specific references are made to infrastructure damage and challenges to recovery, building upon the introductory damage and impact characterizations in prior sections, with particular emphasis on PA program costs represented by FEMA data.

2.4.1 Disaster Damage and Impacts

Completed in 2019 at an estimated cost of \$430 million dollars, the Three Mile Bridge over Pensacola Bay was structurally damaged, and the roadway surface failed as a result of barges unmooring and crashing into the bridge during the high waters and winds unleashed by Hurricane Sally slowly moving through the area, causing enduring impacts to local economies through months of repairs (Figure 24: Three Mile Bridge over Pensacola Bay collapsed during Hurricane Sally).⁷⁸ Damage was also significant to the Bob Sikes Toll Bridge, which suffered heavy erosion impacts as floodwaters destabilized support beams that took weeks to restore; other area bridges were also damaged by barges or storm surge, leading to, for example, a reduction in the useful design life of the State Road 281 Garcon Point Bridge.⁷⁹ Though the losses to local businesses are difficult to estimate, local economic activity is generally expected to slow—and in some cases completely halt—following a bridge closure because consumers become disconnected from goods and services provided by local marketplaces; moreover, the effect of bridge closures tends to increase commuting time for many local residents,⁸⁰ which also thereby increases traffic volumes

⁷⁵ <https://www.HUDexchange.info/programs/coc/gis-tools/>

⁷⁶ <https://www.HUDexchange.info/programs/coc/coc-housing-inventory-count-reports/>

⁷⁷ <https://www.HUDexchange.info/resource/6291/2020-ahar-part-1-pit-estimates-of-homelessness-in-the-us/>

⁷⁸ <https://www.cnn.com/2020/09/16/us/three-mile-bridge-fl-hurricane-sally-trnd/index.html>

⁷⁹ <https://www.850businessmagazine.com/pensacola-recovery-hurricane-sally/>

⁸⁰ <https://www.pnj.com/story/news/2022/01/26/pensacola-bay-bridge-lawsuit-skanska-files-appeal-after-judges-decision/9215510002/>

on peripheral streets and roads not designed for extra vehicles, some that carry weights in excess of design standards. Residents traveling between Gulf Breeze and Pensacola were accustomed to 10-minute commutes; however, bridge closures meant that some residents commuted longer than an hour.⁸¹ Likewise, municipal and other local governments lose revenues from sales taxes and tolls, further exacerbating budget constraints and jeopardizing bond payments—for example, Garcon Point Bridge usually generates hundreds of thousands of dollars in tolls each month.⁸¹ In the case of the Three Mile Bridge, thousands of local businesses, commuters, and government entities experienced financial losses during the nine-month bridge closure (the bridge partially reopened in late May 2021⁸² and all lanes fully opened on June 17, 2021⁸³). In summary, significant impacts occurred to critical infrastructure, natural infrastructure, and first responder efforts, causing substantial costs to local, county, and state resources.



Figure 24: Three Mile Bridge over Pensacola Bay collapsed during Hurricane Sally⁸⁴

Hurricane Sally also caused significant damage and impacts to other infrastructure in the Florida panhandle counties designated for federal disaster declarations and assistance. Restoration of power after damage at Gulf Power's service area in the Florida panhandle cost an estimated \$206 million.⁸⁵ Prior to and during the storm, roads and bridges were closed throughout the Florida panhandle as Hurricane Sally's winds made bridges unsafe for passage and flooding closed both coastal and inland roadways.⁸⁶ Damage was also observed at Naval Air Station Pensacola, from where the Florida National Guard dispatched high-water trucks and other rescue equipment to assist residents of Escambia and Okaloosa Counties (Figure 25: High-water trucks performing rescues and assists to residents of Escambia County during flooding caused by Hurricane Sally).⁸⁷

⁸¹ <https://www.wkrg.com/local-news/fdot-seeks-lost-garcon-point-bridge-toll-revenue-from-skanska-usa/>

⁸² https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/info/co/news/newsreleases/05282021-reopenspbb.pdf?sfvrsn=bb8c7775_2

⁸³ <https://weartv.com/news/local/all-lanes-on-three-mile-bridge-reopen>

⁸⁴ <https://www.pnj.com/picture-gallery/news/2020/09/18/hurricane-sally-photos-3-mile-bridge-damage-after-hurricane-sally/5827270002/>

⁸⁵ <http://www.psc.state.fl.us/Home/NewsLink?id=11912>

⁸⁶ <https://www.santarosa.fl.gov/CivicSend/ViewMessage/message/123094>

⁸⁷ <https://www.militarytimes.com/news/your-military/2020/09/18/hurricane-sally-inflicts-wind-water-damage-at-nas-pensacola-florida-guard-aiding-aftermath/>



Figure 25: High-water trucks performing rescues and assists to residents of Escambia County during flooding caused by Hurricane Sally.⁸⁸

Many roads experienced over-wash and scouring conditions, causing both road surface damage and sand removal needs.⁸⁹ Coastal beach erosion from Hurricane Sally's storm surge caused extensive natural infrastructure losses, damage to hundreds of feet of structure flood protection systems, significant deposits of sand on roadways, scour damage to road surfaces, and significant needs for beach and dune renourishment throughout the Florida panhandle counties (Figure 26: Escambia County beach and dune erosion conditions from Hurricane Sally, Figure 27: Santa Rosa County beach and dune erosion from Hurricane Sally, Figure 28: Okaloosa County beach and dune erosion from Hurricane Sally, Figure 29: Walton County beach and dune erosion conditions from Hurricane Sally, Figure 30: Bay County beach and dune erosion conditions from Hurricane Sally, Figure 31: Gulf County beach and dune erosion conditions from Hurricane Sally).⁹⁰ FEMA's PA program reports more than 754,345 cubic yards of debris removed, and some reports estimate that more than 76,868 truckloads of debris were removed totaling approximately 3,933,057 cubic yards of downed signs, tree limbs, and building materials.⁹¹ Emergency measures that included swiftwater rescues led to thousands of rescues and substantial costs to responders.⁹²

⁸⁸<https://www.militarytimes.com/news/your-military/2020/09/18/hurricane-sally-inflicts-wind-water-damage-at-nas-pensacola-florida-guard-aiding-aftermath/>

⁸⁹<https://www.nps.gov/guis/learn/news/gulf-islands-to-begin-permanent-repairs-to-roadways-damaged-by-hurricane-sally.htm>

⁹⁰https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf

⁹¹<https://www.850businessmagazine.com/pensacola-recovery-hurricane-sally/>

⁹²<https://www.850businessmagazine.com/pensacola-recovery-hurricane-sally/>

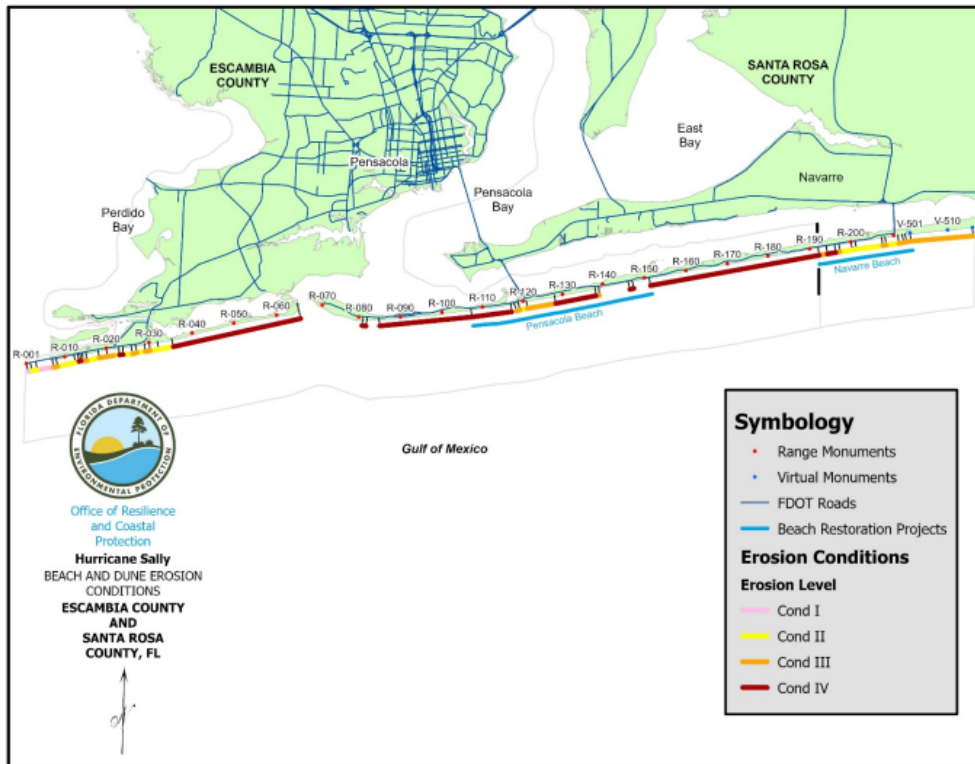


Figure 26: Escambia County beach and dune erosion conditions from Hurricane Sally⁹³

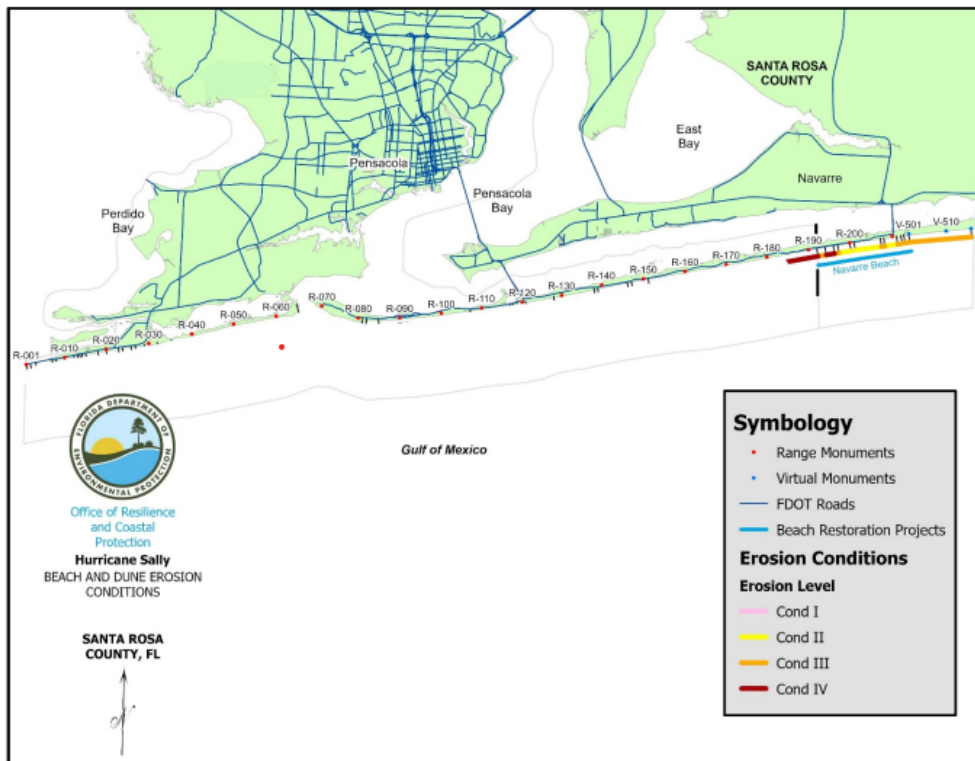


Figure 27: Santa Rosa County beach and dune erosion from Hurricane Sally⁹⁴

⁹³ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf (page 15)

⁹⁴ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf (page 28)

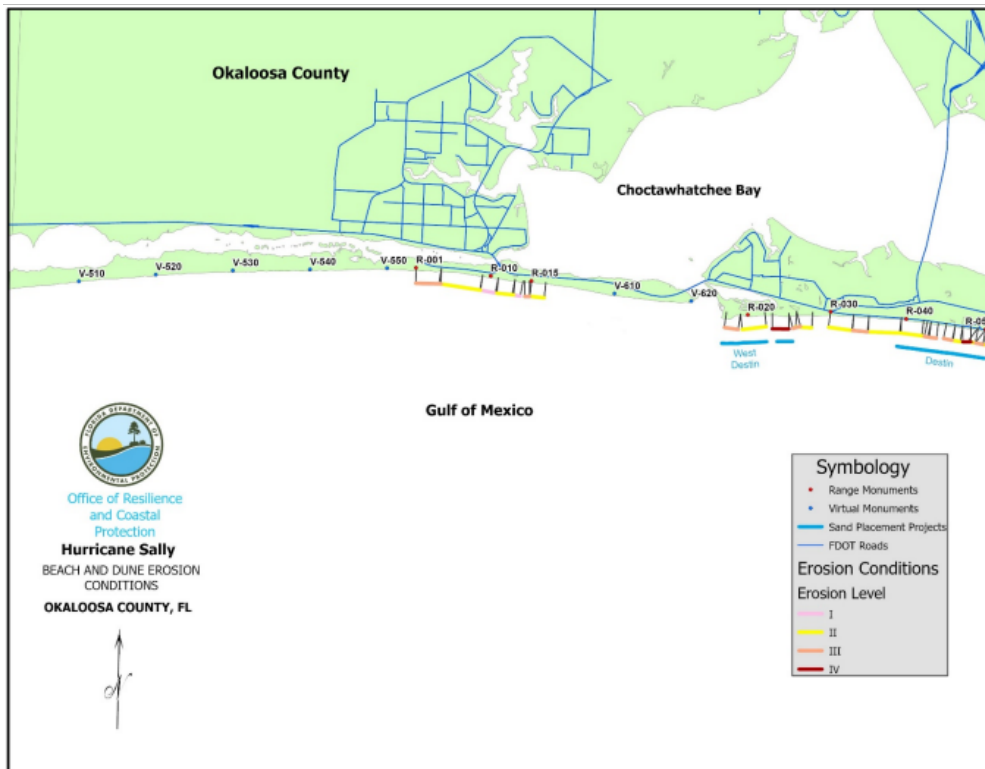


Figure 28: Okaloosa County beach and dune erosion from Hurricane Sally⁹⁵

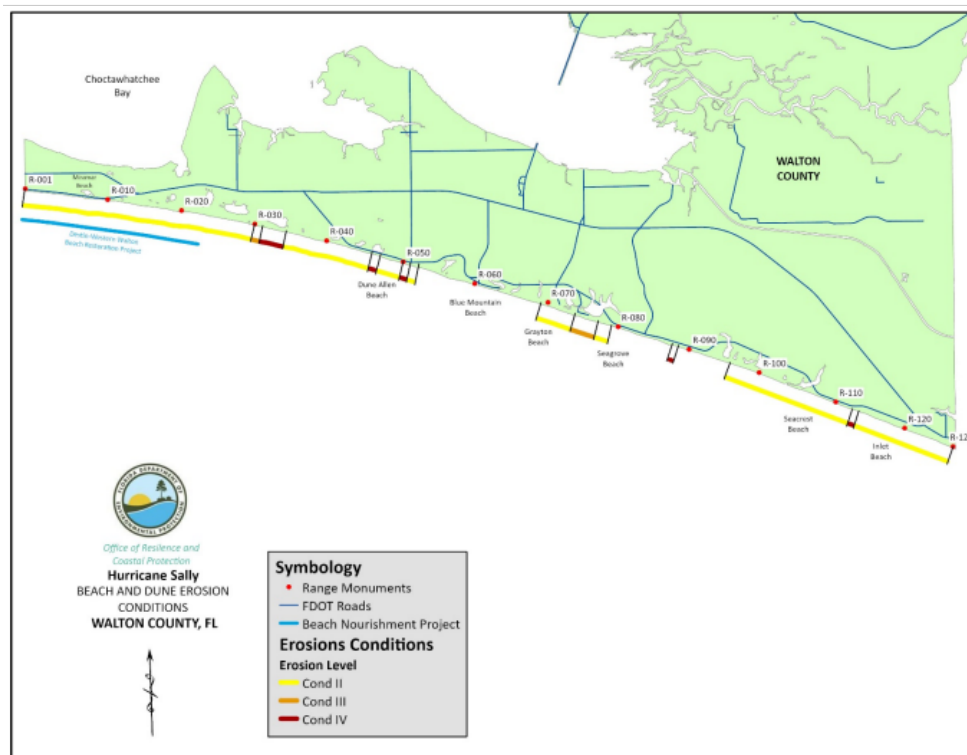


Figure 29: Walton County beach and dune erosion conditions from Hurricane Sally⁹⁶

⁹⁵ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf (page 34)

⁹⁶ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf (page 39)

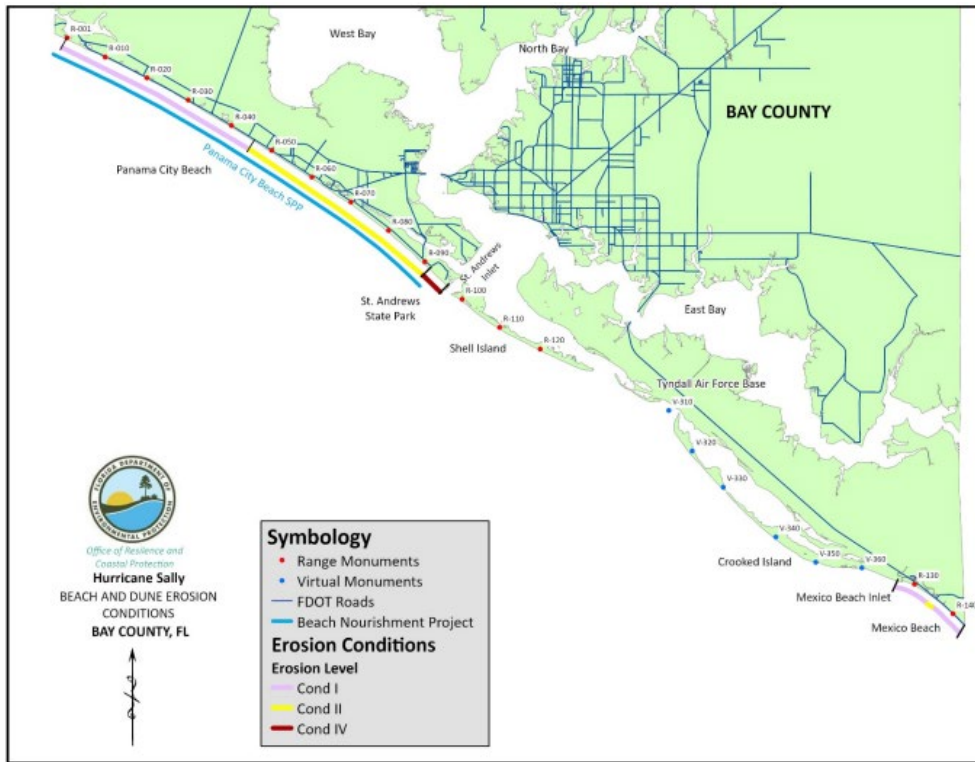


Figure 30: Bay County beach and dune erosion conditions from Hurricane Sally⁹⁷

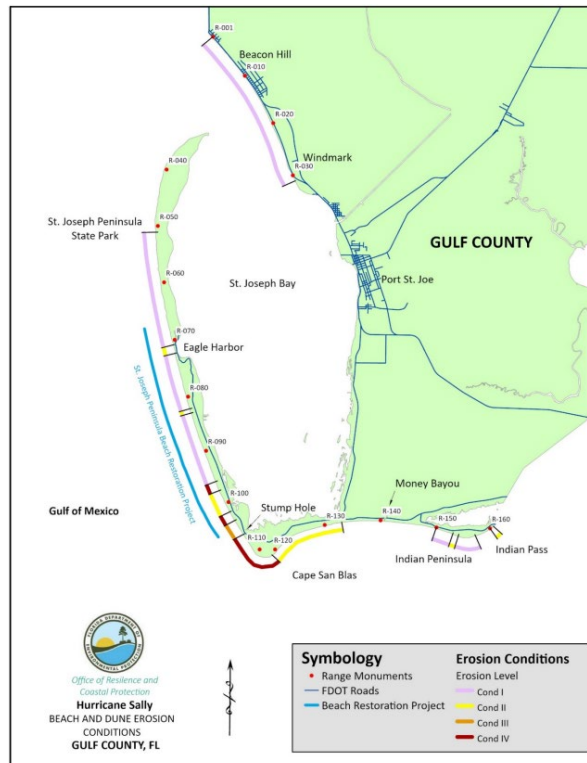


Figure 31: Gulf County beach and dune erosion conditions from Hurricane Sally⁹⁸

⁹⁷ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf (page 45)

⁹⁸ https://floridadep.gov/sites/default/files/Hurricane-Sally-Report_11-2020.pdf (page 51)

During and after emergency responses to hurricanes, FEMA issues a variety of declarations about the types of federal assistance available to individuals and local-to-state governments. Hurricane Sally was unusual in that it occurred during the ongoing COVID-19 pandemic response, which further exacerbated planning, response, and recovery activities. Prior to the COVID-19 pandemic, FEMA’s PA programs generally covered up to 75 percent of eligible costs to state and lower-level governments; however, retroactively, the president signed H.R. 2471, the Consolidated Appropriations Act of 2022, on March 15, 2022, which adjusted cost sharing between the federal government and local-to-state governments that experienced major disasters in 2020 and 2021.⁹⁹ During the early phase of Hurricane Sally recovery, FEMA issued an initial notice that cost sharing for the FEMA PA program would limit federal cost share at 75 percent of eligible costs.¹⁰⁰ Given that Hurricane Sally occurred during the COVID-19 pandemic and in light of H.R. 2471, FEMA issued an amended notice that adjusted the federal cost share to up to 90 percent of eligible costs.¹⁰¹

Table 28: FEMA Public Assistance Program is a breakdown of FEMA PA sites and costs distributed among the declared counties impacted by Hurricane Sally. Debris removal under Category A includes the highest cost total of more than \$37.3 million disbursed followed by Emergency Measures under Category B. FEMA estimates that more than 754,345 cubic yards of debris was cleared from the Florida panhandle.¹⁰² The total PA disbursement, excluding Categories A and B, is approximately \$49.8 million and includes assistance for roads and bridges, water control facilities, public buildings and equipment, and other public assistance needs. The standard 75-25 cost share initially applied for Hurricane Sally, resulted in a significant cost burden to the State of Florida; however, legislation passed on March 15, 2022, revised the federal cost share to 90-10 for disasters occurring during the COVID-19 pandemic in 2020 and 2021.¹⁰³

Table 28: FEMA Public Assistance Program¹⁰⁴

PA Category	# Damaged Sites	Sum of Approx. Cost	Sum of Federal Share	Sum of Non-Federal Share
A - Debris	43	\$37,300,141.04	\$27,975,105.86	\$9,325,035.18
B - Emergency Measures	104	\$33,534,149.60	\$25,140,698.48	\$8,393,451.12
C - Roads and Bridges	99	\$8,815,682.20	\$6,611,761.80	\$2,203,920.40
D - Water Control Facilities	23	\$2,989,000.50	\$2,241,750.38	\$747,250.12
E - Building and Equipment	156	\$13,136,771.09	\$9,852,578.42	\$3,284,192.67
F - Utilities	36	\$3,382,083.40	\$2,536,562.57	\$845,520.83
G - Other	90	\$14,147,768.32	\$10,610,826.32	\$3,536,942.00
All Categories	47	\$7,303,946.74	\$7,302,724.24	\$1,222.50
TOTAL - without A and B:	451	\$49,775,252.25	\$39,156,203.73	\$10,619,048.52

⁹⁹ <https://www.FEMA.gov/press-release/20220318/fema-announces-9010-cost-share-adjustment>

¹⁰⁰ <https://www.FEMA.gov/disaster-federal-register-notice/em-3546-fl-initial-notice>

¹⁰¹ <https://www.FEMA.gov/disaster-federal-register-notice/3546-em-fl-amendment-003>

¹⁰² <https://www.FEMA.gov/press-release/20210917/hurricane-sally-one-year-later-more-3265-million-federal-aid-floridas#:~:text=PENSACOLA%2C%20Fla.,flooding%20along%20the%20Gulf%20Coast.>

¹⁰³ <https://www.FEMA.gov/press-release/20220318/fema-announces-9010-cost-share-adjustment>

¹⁰⁴ Source: <https://www.FEMA.gov/openfema-data-page/public-assistance-funded-projects-details-v1>

Table 29: Estimated Total Cost and Need by PA Category provides a breakdown of disbursements of FEMA PA by category and cost share provisions. Notably, for Categories A and B, representing debris removal and emergency measures, respectively, there are no local matches. However, for Categories C through G, the State of Florida and the counties impacted by Hurricane Sally were required to match costs with FEMA. Overall, the total cost of PA support for the Hurricane Sally impacted counties was \$113,305,596.

Table 29: Estimated Total Cost and Need by PA Category

PA Category	Estimated PA Cost	25% Local Match	30% Resiliency	Total Need (Match + Resiliency)
A - Debris	\$37,300,141	No Match	No resiliency	\$0
B - Emergency Measures	\$33,534,150	No Match	No resiliency	\$0
C - Roads and Bridges	\$8,815,682	\$2,203,921	\$2,644,705	\$4,848,625
D - Water Control Facilities	\$2,989,001	\$747,250	\$896,700	\$1,643,950
E - Building and Equipment	\$13,136,771	\$3,284,193	\$3,941,031	\$7,225,224
F - Utilities	\$3,382,083	\$845,521	\$1,014,625	\$1,860,146
G - Other	\$14,147,768	\$3,536,942	\$4,244,330	\$7,781,273
Total	\$113,305,596	\$10,617,826	\$12,741,392	\$23,359,218

FloridaCommerce requires all rebuilding activities to integrate preparedness and mitigation measures into the project design. For all activities to construct, reconstruct, or rehabilitate residential or non-residential structures with CDBG-DR funds, FloridaCommerce will develop program guidelines that integrate quantifiable mitigation measures. Unlike standard CDBG-DR funded activities, activities funded by the CDBG-DR mitigation set-aside do not require a “tie- back” to an impact of Hurricane Sally. Instead, all activities funded by the CDBG-DR mitigation set-aside must:

1. Meet the definition of mitigation activities as defined in Federal Register Vol.87, No. 23 (6370);
2. Address the current and future risks as identified in FloridaCommerce’s mitigation needs assessment in the MID areas;
3. Be CDBG-eligible activities under Title I of the HCDA or otherwise eligible pursuant to a waiver or alternative requirement; and
4. Meet a national objective.

To meet the mitigation set-aside requirements, FloridaCommerce will:

- Document how those activities and the incorporated mitigation measures will meet the definition of mitigation; and
- Report those activities as a “MIT” activity type in DRGR.

Mitigation activities are defined as those activities that increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters.

To ensure that mitigation and resiliency measures are promoted across the impacted communities, FloridaCommerce will leverage the Florida Community Planning Act for Adaptation Action Areas,¹⁰⁵ adopted in 2011. Adaptation Action Areas provide a flexible and optional framework that can be applied to the entire state through individual local action. At the request of coastal communities, FloridaCommerce created this guidance to assist communities understand how they can use Adaptation Action Areas to adapt to coastal flooding. Florida requires each local government authority to create, adopt, and maintain a comprehensive land use plan.¹⁰⁶ The local comprehensive plan is a key driver of development and redevelopment because it outlines legally enforceable guidelines and strategies, directly influencing the decision-making process. Comprehensive plans can be amended to create strategies for merging growth with resilience.

Coordination and collaboration during Action Plan and Substantial Amendment development is critical to align planned CDBG-DR and mitigation activities with other federal, state, and local mitigation projects, planning processes, and capital improvement efforts. For this reason, FloridaCommerce conducts specific coordination efforts with various agencies to ensure all data, planning resources, and programs are considered for the unmet needs assessment. In addition, FloridaCommerce coordinates with partners who manage other funding sources, such as FEMA and U.S. Army Corps of Engineers (USACE), for the Action Plan and Substantial Amendment process. To maintain engagement and coordination efforts with statewide partners through the life of the allocations, FloridaCommerce also participates in quarterly meetings held by Mitigate Florida and events like the annual Governor's Hurricane Conference.

Mitigate Florida is a statewide interagency mitigation workgroup that includes federal, state, and local voices, including but not limited to, Florida Division of Emergency Management (FDEM), DEP, Department of Revenue, Department of State, Department of Education, Agency for Persons with Disabilities, Department of Business and Professional Regulation, county-specific representatives, Water Management Districts, Florida Ports Council, The Nature Conservancy, Florida Atlantic University, FEMA, and USACE. The workgroup meets quarterly to discuss ongoing mitigation and resilience projects, new opportunities, funding sources, and other issues. FloridaCommerce will continue to coordinate with mitigation funding partners through the quarterly Mitigate Florida meetings.

Most notably, FloridaCommerce maintains a strong relationship with FDEM, engaging FDEM in several components of the mitigation planning process. FDEM's 2018 Enhanced State Hazard Mitigation Plan and FEMA PA program data were a key source of information for the Mitigation Needs assessment.

FloridaCommerce and FDEM also collaborate regularly to leverage FEMA and HUD disaster recovery and mitigation dollars throughout the state. CDBG-DR dollars are eligible to be used as local match for FEMA Hazard Mitigation Grant Program funds.

Through its Infrastructure Repair Program, FloridaCommerce will address not only the rehabilitation of disaster-related systems critical to protection for one or more of FEMA's community lifelines, such as water and sewer facilities, but will also encourage subrecipients to consider new systems that will mitigate current and future risks, especially those utilizing natural and nature-based features.

Among the eligible activities anticipated under this program, FloridaCommerce will invite communities to restore infrastructure damaged by Hurricane Sally, such as storm water management systems. Repairs and improvements to sewer, drainage, and flood mitigation systems represent a critical investment as they protect not just one of the seven community lifelines, but often all of them, and tend to be among the most cost-effective solutions for community resilience, especially in coastal areas.

¹⁰⁵ Title XI. County Organizations and Intergovernmental Relations; Chapter 163 Intergovernmental Programs; Part II Growth Policy, County and Municipal Planning, Land Development Regulation; http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0100-0199/0163/0163PartIIContentsIndex.html&StatuteYear=2021&Title=%2D%3E2021%2D%3EChapter%20163%2D%3EPart%20II

¹⁰⁶ Chapter 163, Florida Statutes.

FloridaCommerce also expects to undertake repair and restoration of streets and bridges, renourishment of coastal dune systems and state beaches that act as a buffer against storm surge and flooding associated with hurricanes and tropical storms, and repair of damaged buildings that are essential to the protection of one or more community lifelines, such as police stations, fire stations, parks and recreational centers, community and senior centers, hospitals, clinics, homeless shelters, schools and educational facilities, and other public properties, including properties serving as emergency shelters.

FloridaCommerce will ensure that mitigation measures undertaken using CDBG-DR funds will address problems that are either repetitive or pose significant risk to public health and safety. Mitigation measures will be implemented after being determined the most cost-effective option to mitigate against future disasters and will have a cost that is lower than the anticipated cost of repairing potential damage, and its subsequent negative impacts, that may result from future disasters.

2.5 Economic Revitalization Unmet Need

2.5.1 Disaster Damage and Impacts.

2.5.1.1 Pre-Impact Business Composition

Although not one of the most populous regions in Florida, the Hurricane Sally impacted area of interest (AOI) is home to more than 170,000 businesses with a majority classified as small, both in terms of revenue (98 percent make less than \$1,000,000 annually) (Table 30: Count of Businesses by Business Size) and number of employees (96 percent have 10 or fewer) (Table 31: Count of Businesses by Number of Employees). While each county has more than 25,000 businesses, Escambia and Santa Rosa combine to represent nearly half of all businesses in the Hurricane Sally AOI. Most of these businesses (74 percent) are single location establishments, which means that these business owners do not have corporate support to prepare for, respond to, or rebound from disasters (Table 32: Count of Businesses by Location Type for Hurricane Sally Impacted Counties).

Table 30: Count of Businesses by Business Size

County	Total	< 1 \$million	1 - 5 million	5-10 million	10 - 50 million	50 - 500 million	> \$500 million
Escambia	54,663	53,181	1,133	167	159	21	1
Santa Rosa	26,860	26,418	370	42	22	8	
Bay	32,658	31,845	638	79	81	14	1
Okaloosa	39,665	38,803	675	88	88	11	
Walton	16,622	16,275	286	33	21	7	
Total	170,468	166,522	3,102	409	371	61	2

Source: Hoovers business database.¹⁰⁷

Table 31: Count of Businesses by Number of Employees

County	Total	< 4	5-10	11-49	50-99	100-499	500-999	> 1,000
Escambia	54,663	39,551	12,969	1,875	167	79	10	8
Santa Rosa	26,860	20,601	5,475	718	43	19		12
Bay	32,658	24,145	7,151	1,197	100	49	8	3

¹⁰⁷ <https://www.mergentintellect.com/index.php/search/index>

Okaloosa	39,665	29,641	8,481	1,367	96	68	9	4
Walton	16,622	12,067	3,894	609	34	12	4	2
Total	170,468	126,005	37,970	5,766	440	227	31	29

Table 32: Count of Businesses by Location Type for Hurricane Sally Impacted Counties

County	Total	Single Location	Branch	Headquarters
Escambia	54,663	51,881	2,351	431
Santa Rosa	26,860	25,929	810	121
Bay	32,658	30,873	1,534	251
Okaloosa	39,665	37,518	1,806	341
Walton	16,622	15,890	608	124
Total	170,468	162,091	7,109	1,268

Furthermore, damage to a single location resulting in closures has a ripple effect on employees and future business success. Single location store closures (for any reason) can lead to loss of revenue and significant impacts to future business prospects. This can be further exacerbated by lack of insurance or underinsurance. Minority business owners can have additional difficulty preparing for and rebounding from disasters.¹⁰⁸ Among the many businesses across the AOI, there were nearly 4,000 woman-owned and nearly 1,000 minority-owned businesses operating prior to Hurricane Sally’s impact with a significant number located in Escambia and Santa Rosa counties (Table 33: Count of Businesses by Minority and Woman Owned Status). Gender has also been shown to influence disaster/business recovery.¹⁰⁹ When combining race and gender, the number of businesses shrink to 450 across the AOI with more than 50 percent of these located in Escambia or Santa Rosa counties. Most of these women- and minority-owned businesses are in Pensacola (Escambia), Navarre (Santa Rosa), Destin (Okaloosa), Fort Walton (Walton), and Panama City/Panama City Beach (Bay) (Figure 48: 100-Year Flood Zone Hazard Areas).

Table 33: Count of Businesses by Minority and Woman Owned Status

County	Total	Minority Owned	Woman Owned	Minority Woman Owned
Escambia	54,663	352	1,204	169
Santa Rosa	26,860	138	637	68
Bay	32,658	142	744	67
Okaloosa	39,665	256	945	123
Walton	16,622	48	332	23
Total	170,468	936	3,862	450

¹⁰⁸ <https://link.springer.com/article/10.1007/s11069-015-1845-0>

¹⁰⁹ <https://genderandsecurity.org/sites/default/files/Fothergill - G Risk Disaster.pdf>

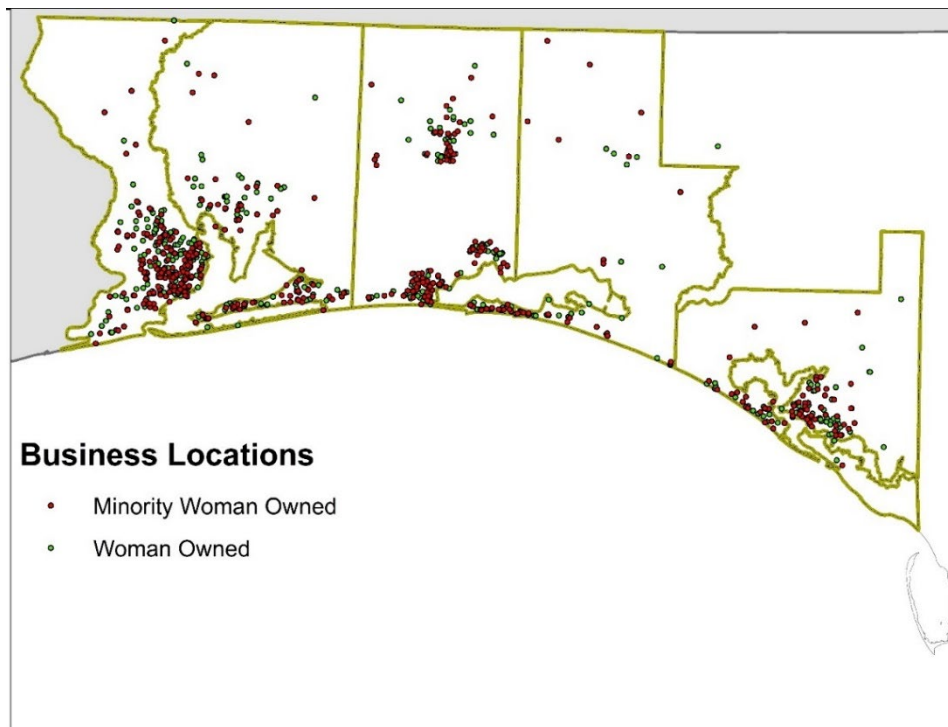


Figure 32: Minority- and Woman-Owned Business Location

2.5.1.2 Business Impacts and Potential Unmet Needs

Business losses following Hurricane Sally seem to be relatively low compared to infrastructure and housing losses. The SBA, who implements a business recovery loan program following disasters¹¹⁰, reported just short of \$7 million in total losses with about \$6.5 million in property losses to businesses in the wake of Hurricane Sally (Table 34: Summarized SBA Losses to Businesses). In addition, the Florida Office of Insurance Regulation (FOIR) has indicated¹¹¹ that more than 3,500 commercial property claims were submitted for Hurricane Sally—nearly 3,000 still open or closed without payment¹¹². An additional 50 business interruption claims were filled with all but 34 still open or closed without payment. Finally, more than 10,000 “other lines of business” claims were filed with FOIR with only 4,671 closed with payment as of October 26, 2020. In terms of support for businesses following Hurricane Sally, data available from SBA¹¹³ does not provide the number of business applicants. Rather, it summarizes loss and home loan approval data at zip code, county, and city levels.

Table 34: Summarized SBA Losses to Businesses

County	Total SBA Verified Losses	Total SBA Verified Property Losses	Total SBA Verified Contents Losses
Escambia	\$5,573,795	\$5,233,666	\$340,129
Okaloosa	\$575,961	\$563,614	\$12,347
Santa Rosa	\$623,683	\$597,147	\$26,536
Walton	\$78,062	\$78,062	\$0
Total	\$6,851,501	\$6,472,489	\$379,012

Source: SBA Disaster Loan Database¹¹⁴

¹¹⁰ <https://crsreports.congress.gov/product/pdf/IN/IN11433>

¹¹¹ As of Oct 26, 2020 – the latest available data

¹¹² <https://www.flair.com/Office/HurricaneSeason/HurricaneSallyClaimsData.aspx>.

¹¹³ <https://www.sba.gov/document/report-sba-disaster-loan-data>

¹¹⁴ <https://www.sba.gov/document/report-sba-disaster-loan-data>

The amount of loans approved by SBA for Hurricane Sally exceeds the amount of verified losses assessed by SBA, making it appear that business unmet need is negative (Table 35: Summarized SBA Support to Businesses). However, there is often a difference between the loan amount an applicant is eligible for, and the loan funds used (known as the current amount). Unfortunately, available SBA data does not provide this “current loan” amount, thus making it impossible to ascertain current unmet business needs. However, it is presumed that once detailed business loan data from SBA becomes available, the amount of damage and unmet need will increase – especially in places with more vulnerable populations and places with higher numbers of minority- and women-owned businesses. As soon as this data becomes available, this unmet needs assessment will be updated to include the most current information possible.

Table 35: Summarized SBA Support to Businesses

County	Total SBA Approved Loan Amount	Total SBA Real Property Loan Amount	Total SBA Contents Loan Amount	Total SBA EIDL Loan Amount
Escambia	\$7,969,600	\$6,819,800	\$422,000	\$729,700
Okaloosa	\$593,000	\$576,600	\$12,400	\$4,000
Santa Rosa	\$1,118,000	\$639,900	\$185,400	\$292,700
Walton	\$54,000	\$50,000	\$0	\$4,000
Total	\$9,734,600	\$8,086,300	\$619,800	\$1,030,400

2.6 Mitigation Only Activities

2.6.1 Risk-Based Assessment Methodology

2.6.1.1 Conducting a Risk Assessment

This section provides definitions of frequently used terms, describes data sources and hazards analyzed, and outlines the analytical steps of the risk assessment. A risk assessment forms the empirical basis for the identification and justification of mitigation actions by highlighting the most significant risks and overall vulnerability of an area (i.e., its capabilities to mitigate, prepare for, respond to, and recover from events).

A risk assessment includes:

- A description of past, and future, hazards affecting a county;
- Identification of community assets (e.g., population, community lifelines, critical infrastructure);
- Determination of exposure (e.g., at risk infrastructure and population); and
- Estimation of possible adverse impacts and consequences.



Figure 33: Elements of a risk assessment (FEMA 2013)

In this Assessment, Risk is calculated for each hazard as a product of the Hazard Threat (THR), Vulnerability (VUL), and Severity of Consequence (CON). All calculations are completed at the unit of analysis which, in this Plan, is a 0.25-mile hexagon.

Equation 1: Hazard Risk Equation Utilized in this Assessment

$$RISK_{HAZ} = (THR_{HAZ})(VUL)(CON_{HAZ})$$

THR, the areal representation of areas exposed to each of 18 hazard types, will be discussed in detail below. However, it is important to note that risk is derived from the combination of a hazard, assets, and people exposed to that hazard, and high enough severity of consequences that there is a realized impact to lives and livelihoods. Places where each of these three is not present will not have a risk or will have a very low risk.

2.6.2 Hazard Threat Areal/Frequency Assessment

2.6.2.1 Building on the Existing Research

The analysis in this assessment considers hazards with the potential to occur across any of the Hurricane Sally impacted counties. Additionally, updated data reflecting hazards currently assessed by the FDEM 2018 Mitigation Plan Update¹¹⁵ and Local Mitigation Strategies for each of the Hurricane Sally IA counties¹¹⁶ is included to ensure comprehensiveness. Historically, Florida’s panhandle has been exposed to a variety of hazard events. The most impactful of these event types has been the effects of hurricane winds and storm surge, including Hurricane Ivan (2004), which was a Category 3 hurricane just before making landfall and Hurricane Michael (2018), which was a Category 5 hurricane at landfall.

The hazard frequency assessment implements cutting edge hazard threat assessment techniques,¹¹⁷ which broaden the perspective on hazard threat, vulnerability, and consequence modeling for Florida’s panhandle by analyzing a total of 18 hazard events common in U.S. risk assessments and likely in the sub-tropical climate of the

¹¹⁵ <https://www.floridadisaster.org/dem/mitigation/statemitigationstrategy/state-hazard-mitigation-plan/>

¹¹⁶ Bay County – <https://www.baycountyfl.gov/DocumentCenter/View/7236/BAY-COUNTY-LMS-Plan-Master-08-17-2020-Board-Final-Version>, Escambia County – https://myescambia.com/docs/default-source/sharepoint-developmental-services/planning-zoning/local-mitigation-strategy-plan.pdf?sfvrsn=990687c2_12 Okaloosa County (unavailable as of this time of this draft) – Santa Rosa County – <https://www.santarosa.fl.gov/165/Local-Mitigation-Plan>, Walton County - <https://www.co.walton.fl.us/569/Local-Mitigation-Strategy-LMS#:~:text=Overview,technological%2C%20and%20human%20caused%20disasters.>

¹¹⁷ <https://www.mdpi.com/2071-1050/14/5/2685>

Florida panhandle. The results provide a more robust understanding of potential risks and an increased understanding of the types of hazards that may pose threat to the area's communities and citizens.

2.6.2.2 Employing an Empirically Driven Risk-Based Hazard Frequency Assessment

A complete risk assessment requires four basic steps: hazard identification, profiling of hazard events, inventory of assets, and an estimate of potential human and economic losses based on exposure and vulnerability of people, buildings, and infrastructure.¹¹⁸

This Hurricane Sally impact area risk assessment utilizes the Department of Homeland Security (DHS) extended risk definition.¹¹⁹ In this definition, risk is the potential for an adverse outcome assessed as a function of threats, vulnerabilities, and consequences associated with an incident, event, or occurrence. The Hazard Analysis and coupled Risk Assessment portion of this document are partitioned into four distinct sections strictly following DHS guidance: Threat Assessment, Vulnerability Assessment, Severity of Consequences Assessment, and the combination of these three resulting in Risk Assessment. A focus first on Severity of Consequences introduces the hazards being identified and enables a straightforward transition into hazard identification/frequency analysis, and the combination of SOC and hazard threats to ascertain hazard risks for the Hurricane Sally impacted area.

An emphasis on utilizing the most appropriate data, methods, and analytic tools to meet rapid turn-around mitigation timelines, provides the basis from which sound planning and mitigation decisions can be made. This Plan is intended for mitigation risk-based assessment informational and planning purposes only. A rigorous geospatial approach and a deep understanding of hazards geography are utilized in the following analytics and associated results. Connecting empirically based hazard assessments with vulnerability, community lifelines information, and severity of consequences data, provides a more holistic view of risks across the Hurricane Sally impacted area.

2.6.2.3 Methodology

Hazard Threat Analysis

Many hazard analysis techniques and spatial-analytic processes utilized in this assessment are adapted from previous risk assessment procedures in several federal,¹²⁰ state,¹²¹⁻¹²² and regional¹²³ mitigation planning documents. Data specific to Hurricane Sally's impacted area for each hazard analyzed herein (Table 36: Hazards Included in this Risk Assessment) has been carefully reviewed to ensure data quality in several respects. These include:

- Spatial – does the data adequately reflect the entire Hurricane Sally impacted area?
- Temporal – does the data provide an appropriate timeframe for understanding current and future risks?; and
- Numerical – Is the data free from incomplete or inconsistent records?

¹¹⁸ United States. FEMA. Hazard Mitigation Planning. Accessed at: <https://www.FEMA.gov/hazard-identification-and-risk-assessment>.

¹¹⁹ Department of Homeland Security. DHS Risk Lexicon. September 2008. Accessed at: https://www.dhs.gov/xlibrary/assets/dhs_risk_lexicon.pdf.

¹²⁰ Creating a Nationwide Composite Hazard Index Using Empirically Based Threat Assessment Approaches Applied to Open Geospatial Data <https://www.mdpi.com/2071-1050/14/5/2685>

¹²¹ State of South Carolina. *South Carolina Hazard Mitigation Plan*. October 2018 Update. Accessed at: <https://www.scemd.org/media/1391/sc-hazard-mitigation-plan-2018-update.pdf>

¹²² State of Florida. *Enhanced State Hazard Mitigation Plan*. 2018. Accessed at: https://www.floridadisaster.org/globalassets/dem/mitigation/mitigate-fl--shmp/shmp-2018-full_final_approved.6.11.2018.pdf

¹²³ State of South Carolina. *An All Natural Hazard Risk Assessment and Hazard Mitigation Plan for the Central Midlands Region of South Carolina*. 2010 Update. Accessed at: <https://centralmidlands.org/freedocs/HMPforadoption-WithRevisions.pdf>

The results of this analysis have been mapped using geographic information system (GIS) tools that allow for visualization of complex spatial data as one of the following data types:

- Point data – a defined point on a map;
- Grid data – a network of evenly spaced horizontal and vertical lines used to identify locations on a map; and
- Polygon data – the depiction of data by drawing an outline shape for a spatial feature.

Table 36: Hazards Included in this Risk Assessment

Hazards Analyzed in This Risk Assessment, in Order of Priority of Analysis ¹²⁴					
Hazard	Data Type	Time Period Accessed	Temporal/ Spatial Resolution	Methods	Dataset and/or Source*
Flood (100 year)	Polygon	-	Time independent	Modeled inundation of 100-year flood	FEMA
Flash Flood	Polygon	2002-2021	Yearly	Average number of times per year an area can expect to be under a flash flood warning	Iowa State University’s Environmental Mesonet
Hurricane Winds	Point	1851-2021	6-hourly	Average times per year an area can expect to experience hurricane-force winds (34 kt.)	HURDAT, CIRA, CSU
Storm Surge	Grid	-	Time independent/ 30 m	Modeled inundation of storm surge from a Category-1 hurricane	SLOSH, NOAA
Severe Storm	Polygon	2002-2021	Yearly	Average number of times per year an area can expect to be under a severe thunderstorm warning	Iowa State University’s Environmental Mesonet
Wind	Point	1991-2019	Daily	Average number of days per year with winds above 30 knots	GHCN, NCEI, NOAA
Fog	Point	1991-2021	Daily	Average number of fog days per year using weather station interpolation	GHCN, NCEI, NOAA
Hail	Point	1996-2019	Yearly	Average number of reported hail events per year	SPC, NOAA

¹²⁴ Priority of analysis determined by The Hurricane Sally AOI Hazard Mitigation Plan - <https://recovery.pr/en/document-library>

High Temperature	Point	1991-2021	Daily	Average number of days where the daily maximum is above 100°F	GHCN, NCEI, NOAA
Low Temperature	Point	1991-2021	Daily	Average annual frequency of days where the daily minimum is below 32 ° F	GHCN, NCEI, NOAA
Winter Weather	Point	1991-2021	Daily	Average annual frequency of days an area can expect to experience winter weather	GHCN, NCEI, NOAA
Tornado	Polygon	2002-2021	Yearly	Average number of times per year an area can expect to be under a tornado warning	Iowa State University's Environmental Mesonet
Sinkholes	Point	Early 1960's - Present	Time independent	Sinkhole Occurrence Dataset	Florida Department of Environmental Protection
Earthquake	Polygon	-	Time independent	Peak ground acceleration with a 2% probability of exceedance in 50 years	USGS
Drought	Polygon	2000-2021	Weekly	Average number of weeks in drought per year	USDM
Wildfires	Polygon	1994-2020	Yearly	Probability of an acre or more burning, if ignited	Florida Fish and Wildlife Conservation Commission
Lightning	Grid	1991-2021	Yearly/4 km	Average number of cloud-to-ground lightning flashes per year	NCEI, NOAA
Sea-Level Rise	Grid		Time independent	Water depth above ground for 4 ft Sea-Level Rise	NOAA

*CIRA, CSU = Cooperative Institute for Research in the Atmosphere - Colorado State University; GHCN = Global Historical Climatology Network; HURDAT = The Hurricane Database; NCEI = National Centers for Environmental Information; NOAA = National Oceanic and Atmospheric Administration; SLOSH = Sea Lake and Overland Surge from Hurricanes; SPC = Storm Prediction Center; USDM = U. S. Drought Monitor; USGS = U. S. Geological Survey

Hazard Threat Representation

The hazard source data identified above is available in a variety of different geospatial formats, including GIS Vector (points, lines, and polygons) types and GIS Raster (grid) data types. Assessing hazard threats using these native GIS data types, without first standardizing the data to a common spatial scale and reference would result in a set of outputs with very low utility to planners and decision makers. Overcoming the complexities inherent in this massive quantity of input and analytic data requires several steps be taken for results to be locally relevant

and understandable to the general public. Each dataset was converted to a common geography (hex grid) with an appropriate scale to assess each hazard at a level suitable to meet HUD mitigation requirements, namely “Description of the impacts geographically by type at the lowest level practicable (e.g., county level or lower if available, and neighborhood or census tract level for cities).”¹²⁵

A 0.25-square-mile hexagonal grid is used in this assessment because it provides the best coverage for small spatial areas while providing an ability to visualize spatial differences across the Hurricane Sally AOI. Summarizing underlying spatial data to the 0.25-square-mile grid cell provides a grid-specific set of information that is fine enough to see patterns at a sub-county level and coarse enough to study each hazard threat across the entire Hurricane Sally AOI.

Hexagonal (hex) grids represent a simplified method to display complex geospatial information¹²⁶ in an approachable way that also allows for aggregation of the data.¹²⁷ Using regular spatial bins (hexagons) serves three primary goals. First, visual binning with hex grids simplifies data sets and aids in visual communication of complex data. If done correctly, visual binning can enable readers to make reasonable count or density estimates that would otherwise be impossible because of the complexity of underlying data. Second, spatial binning shows a smooth surface of aggregated values across larger areas. Finally, a standardized regular gridded framework, such as the hexagonal grids used here, enables analysis and evaluation within and between datasets that would normally be difficult (or impossible) to compare visually, statistically, or spatially. An example of the difference between complex geography and the simplicity provided by aggregating to the hex grid can be seen in part A of Figure 34: Example Transformation of Complex Data to Hexagonal Grid where the complex road network across the Hurricane Sally AOI does not lend itself well to summarizing in meaningful ways and understanding where “more” roads are located. However, once summarized at the hex grid level (part B of Figure 34: Example Transformation of Complex Data to Hexagonal Grid) the formerly complex and confusing geography gives way to a standardized representation across the AOI. This process was repeated for every dataset in this assessment. Doing so enables a streamlined and understandable way to combine the vast amount of data used in this assessment in a meaningful way.

¹²⁵ Federal Register for CDBG-DR related to Florida’s Hurricane Sally. Accessed at: <https://www.federalregister.gov/documents/2022/02/03/2022-02209/allocations-for-community-development-block-grant-disaster-recovery-and-implementation-of-the>

¹²⁶ Tableau. *Data Map Discovery: How to use spatial binning for complex point distribution maps*. Accessed at: <https://www.tableau.com/about/blog/2017/11/data-map-discovery-78603>

¹²⁷ ResearchGate. *Shapes on a plane: evaluating the impact of projection distortion on spatial binning*. Accessed at: https://www.researchgate.net/publication/303290602_Shapes_on_a_plane_evaluating_the_impact_of_projection_distortion_on_spatial_binning

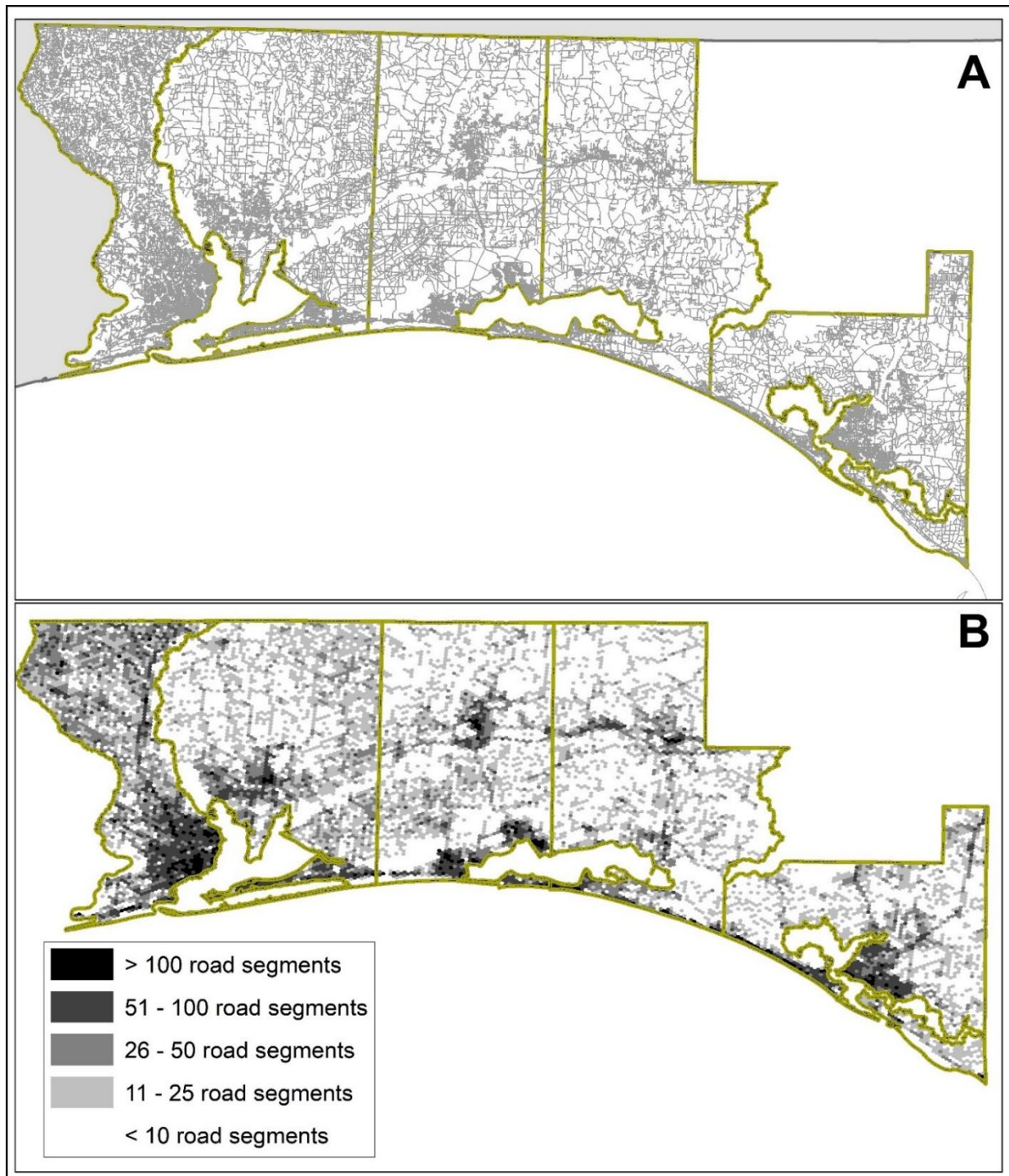


Figure 34: Example Transformation of Complex Data to Hexagonal Grid

Vulnerability Analysis

Vulnerability (i.e., a locality’s pre-existing characteristics) remains static for each hazard and is calculated as the average min/max standardized ($X_{sc} = \frac{X - X_{min}}{X_{max} - X_{min}}$) sum of *population density*, *social vulnerability*, and *lifeline density* scaled (Low 1 – to High 5).

Equation 2: Vulnerability portion of the Hazard Risk Equation Utilized in this Assessment

$$VUL = \text{MinMax standardized } \sum \begin{matrix} \text{Population Density Vulnerability Class,} \\ \text{Social Vulnerability Class,} \\ \text{Lifeline Density Class} \end{matrix}$$

Lifeline density vulnerability was determined by developing a GIS inventory of FEMA’s community lifelines,¹²⁸ a census block group representation of population density, and an area (tract) measure of social vulnerability. Community lifelines and critical infrastructure assets include transportation facilities, communication facilities, water and wastewater facilities, and power facilities among others described in Section 2.6.2.4 Vulnerability Data and Analysis. Socially vulnerable populations were identified by applying the Social Vulnerability Index first developed by Cutter (2003)¹²⁹ and later refined by scholars at the University of Central Florida.¹³⁰ Population density vulnerability was calculated using HUD data on Low Income Populations at the census block level¹³¹ at the block group level. Each vulnerability variable was then transformed into classes zero (0) to five (5). The variable classes were then summed and divided by three to develop a composite vulnerability score from zero (0) to five (5) (Equation 2: Vulnerability portion of the Hazard Risk Equation Utilized in this Assessment).

2.6.2.4 Vulnerability Data and Analysis

Population Density

The map below (Figure 35: The Hurricane Sally AOI’s Population Distribution) is based on the population data collected from the American Community Survey products developed for HUD’s LMISD block group dataset at the block group level.¹³² This population data was geo-processed with the ESRI ArcGIS Pro Create Random Points tool to randomly distribute the population (Low- Moderate Universe). Like critical infrastructure, this population data was geo-processed with the ESRI ArcGIS Pro-Summarize Within tool, to generate a count of points within each 0.25-square-mile hex grid. The population per hex grid was classified on a quasi-exponential classification scale, showing areas with higher populations across the Hurricane Sally AOI (Figure 35: The Hurricane Sally AOI’s Population Distribution).

Population data at the block group level originate from the American Community Survey products developed for HUD’s LMI block group dataset.¹³³ To spatially apportion population data to the hexagonal grids required that the count of population for each block group be randomly distributed across the applicable block group geographic area. Like other vulnerability indicators, population data was summed to generate a count of points within each 0.25-mile hex grid. Population per hex grid was classified on a quasi-exponential classification scale showing areas with higher populations across the AOI (Figure 35: The Hurricane Sally AOI’s Population Distribution). Here we see pockets of higher population in each county with the highest numbers of people located in Escambia, Okaloosa, and Bay counties and areas with medium-low to medium in the more rural areas of Walton and Santa Rosa counties. Although all populations (large or small) can be adversely affected by disasters, we often see the worst outcomes in places where high populations intersect high hazard areas. Escambia has the most people in the high population category with a little less than four percent of its hex grid area classified as high population and another six percent classified as medium high.

¹²⁸ FEMA Community Lifeline Data. Accessed at: <https://www.FEMA.gov/lifelines>

¹²⁹ Social Vulnerability Index publication. Accessed at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/1540-6237.8402002>

¹³⁰ UCF’s Vulnerability Mapping and Analysis Platform. Accessed at: www.vulnerabilitymap.org

¹³¹ United States. HUD. *LMISD- All Block Groups, Based on 2011-2015 ACS*. Accessed at: <https://www.HUDexchange.info/programs/census/low-mod-income-summary-data/>

¹³² United States. HUD. *LMISD- All Block Groups, Based on 2011-2015 ACS*. Accessed at: <https://www.HUDexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-block-groups-places/>

¹³³ <https://www.HUDexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-block-groups-places/>

Box 1: Population Vulnerability Mitigation Takeaway

Mitigation Takeaway: From a Utilitarian equity approach, areas with higher populations would see a higher overall benefit from mitigation efforts. In this regard, the following areas stand to see the most benefit from mitigation projects aimed at reducing disaster impacts: Pensacola and surrounding areas in Escambia County; Pace to Milton and the Navarre areas of Santa Rosa County; Fort Walton Beach to Niceville and Crestview in Okaloosa; Destin and Defuniak Springs in Walton County; and the greater Panama City area in Bay County. Specifically, these areas would benefit from mitigation measures aimed at ensuring community lifelines are protected and continue to function in the face of uncertain future disaster impacts.

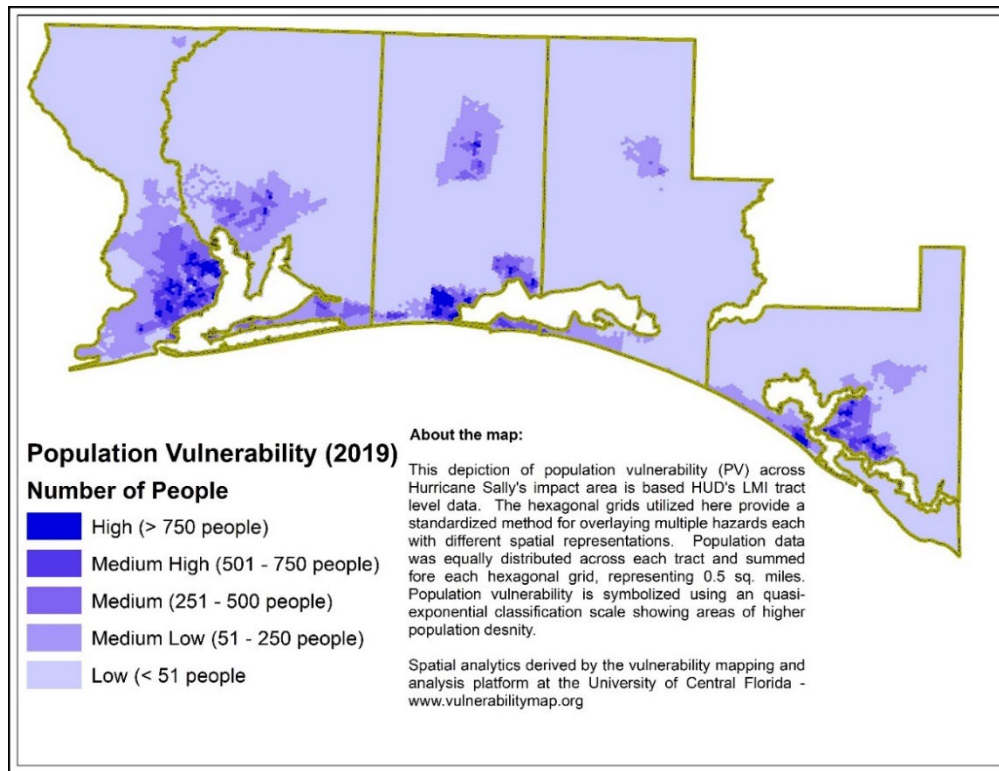


Figure 35: The Hurricane Sally AOI's Population Distribution

Table 37: Population Density Vulnerability Hex Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Population Vulnerability Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	17,750	79.21%	2,739	12.22%	1,113	4.97%	498	2.22%	310	1.38%
Bay	4,091	3,253	79.52%	474	11.59%	199	4.86%	115	2.81%	50	1.22%
Escambia	3,977	2,373	59.67%	806	20.27%	387	9.73%	258	6.49%	153	3.85%
Okaloosa	4,842	3,790	78.27%	561	11.59%	279	5.76%	112	2.31%	100	2.07%
Santa Rosa	5,220	4,250	81.42%	710	13.60%	241	4.62%	12	0.23%	7	0.13%
Walton	5,030	4,776	94.95%	241	4.79%	9	0.18%	4	0.08%	-	0.00%

Social Vulnerability

Social vulnerability describes an area’s capacity to prepare for, respond to, and rebound from disaster events,¹³⁴ and has a long conceptual and theoretical history in social and disaster science fields.¹³⁵ Socially vulnerable populations have fewer resources to aid in preparation for disasters, and often bear the brunt of disaster impacts and take longer to bounce back from disaster events. Empirical measures of social vulnerability enable decision makers and emergency managers to understand where vulnerable populations reside and how that vulnerability manifests across a landscape. The 29 criteria utilized for this analysis are described in Table 38: Social Vulnerability Index Input Variables.¹³⁶

Table 38: Social Vulnerability Index Input Variables

Variable	Description	Pillar
1	Percent Civilian Unemployment	Employment Structure
2	Percent Employment in Extractive Industries	Employment Structure
3	Percent Employment in Service Industry	Employment Structure
4	Percent Female Participation in Labor Force	Employment Structure
5	Percent Renters	Housing
6	Percent Mobile Homes	Housing
7	Percent Unoccupied Housing Units	Housing
8	Percent Population under 5 years or 65 and over*	Population structure
9	Percent of Children Living in 2-parent families	Population structure
10	Median Age	Population structure
11	Percent Female*	Population structure
12	Percent Female Headed Households*	Population structure
13	People per Unit	Population structure
14	Percent Asian*	Race/Ethnicity
15	Percent Black*	Race/Ethnicity
16	Percent Hispanic*	Race/Ethnicity
17	Percent Native American*	Race/Ethnicity
18	Percent Poverty	Socioeconomic Status
19	Percent Households Earning over \$200,000 annually	Socioeconomic Status

¹³⁴ Cutter, Susan L., Emrich, Christopher T. *Moral Hazard, Social Catastrophe: The Changing Face of Vulnerability along the Hurricane Coasts*. The ANNALS of the American Academy of Political and Social Science. March 1, 2006. Accessed at: <https://doi.org/10.1177/0002716205285515>

¹³⁵ Birkmann, Jörn. *Measuring Vulnerability to Natural Hazards: Towards Disaster Resilient Societies Second Edition*. United National University Press. December 2013. Accessed at: <https://unu.edu/publications/books/measuring-vulnerability-to-natural-hazards-towards-disaster-resilient-societies-second-edition.html#overview>

¹³⁶ Additional information about SoVI criteria can be found at www.vulnerabilitymap.org

20	Per Capita Income	Socioeconomic Status
21	Percent with Less than 12th Grade Education	Socioeconomic Status
22	Median Housing Value	Socioeconomic Status
23	Median Gross Rent	Socioeconomic Status
24	Percent of households spending more than 40 percent of their income on rent or mortgage	Socioeconomic Status
25	Percent Households Receiving Social Security Benefits*	Special Needs
26	Percent Speaking English as a Second Language with Limited English Proficiency	Special Needs
27	Nursing Home Residents Per Capita	Special Needs
28	Percent of population without health insurance	Special Needs
29	Percent of Housing Units with No Car	Special Needs

*Indicates a characteristic tied to a protected class under The Civil Rights Act of 1991 (Pub. L. 102-166)¹³⁷

These indicators of social vulnerability were used to create a Social Vulnerability Index (SoVI) for the Hurricane Sally AOI. The 29 input variables were processed using SoVI methods originally established at the University of South Carolina’s Hazards & Vulnerability Research Institute (HVRI) by Dr. Susan Cutter.¹³⁸ Outputs of the social vulnerability process produced eight main components representing the main drivers of social vulnerability across the Hurricane Sally AOI – each representing a different set of baseline conditions leading to lower individual and community capacity to prepare for, respond to, and rebound from shocks and stresses like Hurricane Sally. Here, social vulnerability is mainly derived from combinations of variables described in Figure 36: Social Vulnerability Index Factors including poverty populations, racial minorities, those with lack of access to automobile (Factor 1); special needs populations including the aging and government beneficiaries (Factor 2); Lack of Wealth (Factor 3); Ethnic minorities, those who do not speak English well, and those without health insurance (Factor 4); mobile home residents, Native Americans, and those employed in the farming, fishing, and other extractive industries (Factor 5); those living in high occupancy housing and unemployed persons (Factor 6); working families/mothers with no spouse present (Factor 7); and special needs populations (nursing home residents and unemployed persons (Factor 8). It is important to note that social vulnerability manifests itself dynamically in every census tract and that what makes one place socially vulnerable may not be the same thing that makes another place, community, family, or individual vulnerable to adverse disaster outcomes.

¹³⁷ In addition to considering protected class individuals in the SoVI analysis, PRDOH will also consider during implementation how assistance impacts beneficiaries that are classified as a protected class and shall consider HUD resources on racially and ethnically concentrated areas of poverty as published here: https://HUDgis-HUD.opendata.arcgis.com/datasets/56de4edea8264fe5a344da9811ef5d6e_0?geometry=-68.905%2C17.630%2C-64.845%2C18.544

¹³⁸ <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1002.1623&rep=rep1&type=pdf>

Factor	Vulnerability Influence	Description	% Variance Explained	Dominant Variables	Component Loading
1	↑	Poverty and Household Structure	23.1286	Poverty (QPOVTY)	0.8618
				Low % Children in 2 parent families (QFAM)	-0.8364
				No Auto Access (QNOAUTO)	0.8193
				Race (Black) (QBLACK)	0.7971
				Female Headed Households (QFHH)	0.7717
Educational Attainment (QED12LES)	0.7291				
2	↑	Dependence and Age	11.6518	Social Security Beneficiaries (QSSBEN)	0.8750
				Median Age (MEDAGE)	0.7999
				Age Dependent Populations (QAGEDEP)	0.7160
3	↓	Housing Availability and Wealth	9.9032	Vacant Homes (QUNOCCHU)	0.7606
				House Value (MDHSEVAL)	0.7318
				Wealth (QRICH200K)	0.6513
4	↑	Access Barrier and Ethnicity	7.4122	English Language Proficiency (QESL)	0.8743
				Ethnicity (Hispanic) (QHISP)	0.6282
				Populations without Health Insurance (QUNINSURED)	0.5909
5	↑	Housing Type and Race	6.9011	Housing Type (Mobile Homes) (QMOHO)	0.7175
				Race (Native American) (QNATAM)	0.7014
				Employment (Primary Sector) (QEXTRCT)	0.4671
6	↑	Household Size and Employment	6.5217	High Occupancy Housing (PPUNIT)	0.8241
				Unemployment (QCVLUN)	0.4922
				Low % Age Dependent Populations (QAGEDEP)	-0.3786
7	↑	Gendered Employment and Gender	5.9373	Gendered (Female) Employment (QFEMLBR)	0.8531
				Gender (Female) (QFEMALE)	0.8101
				Working Families (QCVLUN)	-0.2484
8	↑	Dependence and Access Barrier	4.0504	Nursing Home Residents (QNRRES)	0.8842
				Populations with Health Insurance (QUNINSURED)	-0.2037
				Unemployment (QCVLUN)	0.1887
Total Variance Explained			75.506		

Figure 36: Social Vulnerability Index Factors

SoVI scores, derived from a combination of the components in Figure 36: Social Vulnerability Index Factors, were categorized (0 – no data to 5 – high social vulnerability) using a standard deviation classification scheme and mapped for all areas of the Hurricane Sally AOI (Figure 37: The Hurricane Sally AOI’s Social Vulnerability Index). Here, one can easily see the broad swaths of high and medium-high social vulnerability in the more rural portions of the AOI in each county. However, Escambia County tops the other counties in terms of amount of area characterized by medium-high to high social vulnerability with nearly 60 percent (Figure 38: FEMA Community Lifelines utilized in this assessment).

Box 2: Social Vulnerability Mitigation Takeaway

Mitigation Takeaway: Socially vulnerable people often have less ability to prepare for, respond to, and rebound from disasters. People living in these medium-high to high social vulnerability areas would benefit from any mitigation measures that decrease community vulnerability, protect lifelines, or decrease the severity of impacts from the many hazards threatening the area. Focusing mitigation efforts on areas with higher social vulnerability is one way to ensure that mitigation targets the most marginalized and distressed in these communities.

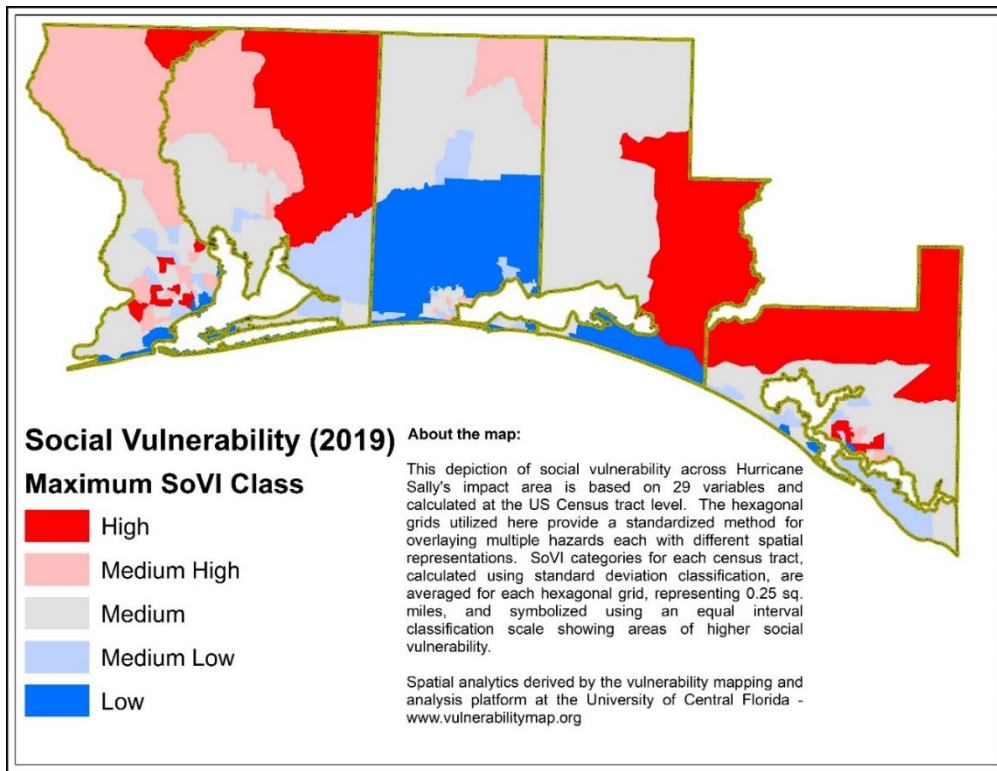


Figure 37: The Hurricane Sally AOI's Social Vulnerability Index¹³⁹

Table 39: Social Vulnerability Hex Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Social Vulnerability Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	2,650	11.83%	1,794	8.01%	8,820	39.36%	3,536	15.78%	5,610	25.03%
Bay	4,091	65	1.59%	541	13.22%	1,645	40.21%	74	1.81%	1,766	43.17%
Escambia	3,977	286	7.19%	224	5.63%	1,139	28.64%	1,961	49.31%	367	9.23%
Okaloosa	4,842	1,890	39.03%	350	7.23%	2,084	43.04%	453	9.36%	65	1.34%
Santa Rosa	5,220	85	1.63%	724	13.87%	1,320	25.29%	1,191	22.82%	1,900	36.40%
Walton	5,030	435	8.65%	4	0.08%	2,911	57.87%	35	0.70%	1,645	32.70%

Community Lifelines and Critical Infrastructure

Following the 2017 Hurricane Season, FEMA produced an After-Action Report¹⁴⁰ utilizing a relatively new construct for disaster planning and response that centers on the stability of critical infrastructure lifelines enabling the continuous operation of critical government and business functions essential to human health and safety or economic security.

¹³⁹ Created from www.vulnerabilitymap.org

¹⁴⁰ FEMA. 2017 Hurricane Season FEMA After-Action Report. July 12, 2018. Accessed at: https://www.FEMA.gov/sites/default/files/2020-08/fema_hurricane-season-after-action-report_2017.pdf

Here, FEMA sees lifelines as the integrated network of assets, services, and capabilities used day-to-day to support the recurring needs of the community. FEMA's community lifelines construct establishes a national standard for disaster response, recovery, and preparedness, including mitigation. The lifelines construct recognizes that communities depend on a network of interdependent systems that involve public and private entities including everything from utilities to hospitals to supermarkets. At any point along the lifeline, a failure can result in a cascading set of negative outcomes (or failures) in other directions.



Figure 38: FEMA Community Lifelines utilized in this assessment

These concepts are considered in this assessment with specific emphasis on links between community lifelines as part of the vulnerability equation. Stabilizing and protecting community lifelines in catastrophic incidents is vital and requires improved coordination and response structures, reinforced through long-term permanent solutions that mitigate the impact of disaster events.

Data on community lifelines and critical infrastructure assets (Table 40: Data sources for community lifelines and critical assets) were collected based on FEMA's Community Lifelines¹⁴¹ with the understanding that:

- Lifelines enable the continuous operation of critical government and business functions and are essential to human health and safety or economic security.
- Lifelines are the most fundamental services in the community that, when stabilized, enable all other aspects of society to function.
- FEMA has developed a construct for objectives-based response that prioritizes the rapid stabilization of Community Lifelines after a disaster.

¹⁴¹ <https://www.FEMA.gov/lifelines>

- The integrated network of assets, services, and capabilities that provide lifeline services are used day-to-day to support the recurring needs of the community and enable all other aspects of society to function.
- When disrupted, decisive intervention (e.g., rapid re-establishment or employment of contingency response solutions) is required to stabilize the incident.

Data originated from the state and federal sources identified in Table 40: Data sources for community lifelines and critical assets and are depicted—for the Hurricane Sally AOI—in Figure 39: Safety and Security Community Lifelines utilized in this assessment- Figure 45: Hazardous Materials Community Lifelines utilized in this assessment for each of the seven main categories of lifelines.

Table 40: Data sources for community lifelines and critical assets

FEMA Lifeline	Variable	Data Source	Critical
Safety and Security (Figure 39)	Law Enforcement	https://www.arcgis.com/home/item.html?id=0d79b978d71b4654bddb6ca0f4b7f830	Yes
	Prisons	https://www.arcgis.com/home/item.html?id=2d6109d4127d458eaf0958e4c5296b67	
	Fire/EMS	Data provided by FDEM ¹⁴²	Yes
	Govt Services - Courthouses	https://www.arcgis.com/home/item.html?id=7d121358b28042fe863d10a0c3c46709	
	Local EOCs	https://www.arcgis.com/home/item.html?id=874798faedc74358bac9bbe1867af3c7	Yes
	Community Safety - Convention Centers/ Fairgrounds	https://www.arcgis.com/home/item.html?id=86c323b5d44748228ef10bc8b452d9f7	
	Public Schools	https://www.arcgis.com/home/item.html?id=87376bdb0cb3490cbda39935626f6604	
	Private Schools	https://www.arcgis.com/home/item.html?id=0dfe37d2a68545a699b999804354dacf	
	Colleges and Universities	https://www.arcgis.com/home/item.html?id=0d7bedf9d582472e9ff7a6874589b545	
	Mobile Home Parks	https://www.arcgis.com/home/item.html?id=4cdbccc5c538452aa91ceee277c460f9	
	Places of Worship	https://www.arcgis.com/home/item.html?id=97603afcff00443f874acbe03c9e794a	
Nursing Homes	https://www.arcgis.com/home/item.html?id=78c58035fb3942ba82af991bb4476f13		
Food, Water, Shelter (Figure 40)	Food Stores	https://www.arcgis.com/home/item.html?id=6c8c635b1ea94001a52bf28179d1e32b	
	Nutrition Sites	https://www.arcgis.com/home/item.html?id=4c347ec17803406d86d101811a81e2aa	

¹⁴² Personal communication with Jason Ray, FDEM GIS Coordinator

	Water Treatment and Water Supply	Data provided by FDEM ¹⁴³	Yes
	Shelter	https://www.arcgis.com/home/item.html?id=bcaf5fdb3db24c78afee52d4c8a02748	
Health & Medical (Figure 41)	Medical Care	https://www.arcgis.com/home/item.html?id=6c8c635b1ea94001a52bf28179d1e32b	Yes
Energy (Figure 42)	Substations	Data provided by FDEM ¹⁴⁴	Yes
	Gas Stations	https://www.arcgis.com/home/item.html?id=6c8c635b1ea94001a52bf28179d1e32b	
Communications & Finance (Figure 43)	Infrastructure	Cell Towers - https://www.arcgis.com/home/item.html?id=15dabb4108254481b591018be2598f3c	
	Banks and Finance	https://www.arcgis.com/home/item.html?id=6c8c635b1ea94001a52bf28179d1e32b	
Transportation (Figure 44)	Roadways	https://ucfonline.maps.arcgis.com/home/item.html?id=ef89ed40fe6d46b19301391bfb99ceca	
	Railway	https://www.arcgis.com/home/item.html?id=d209f26edc86485a9c631311e50d9940	
	Aviation	https://www.arcgis.com/home/item.html?id=e747ab91a11045e8b3f8a3efd093d3b5	Yes
Hazardous Materials (Figure 45)	Toxic Release Inventory Sites	https://ucfonline.maps.arcgis.com/home/item.html?id=76e9a521bc4245388c0d734be62bfb51	
	Superfund Sites	https://www.arcgis.com/home/item.html?id=c2b7cdf579c41bbba4898400aa38815	
	Solid Waste	https://www.arcgis.com/home/item.html?id=155761d340764921ab7fb2e88257bd97	Yes

¹⁴³ Personal communication with Jason Ray, FDEM GIS Coordinator

¹⁴⁴ Personal communication with Jason Ray, FDEM GIS Coordinator

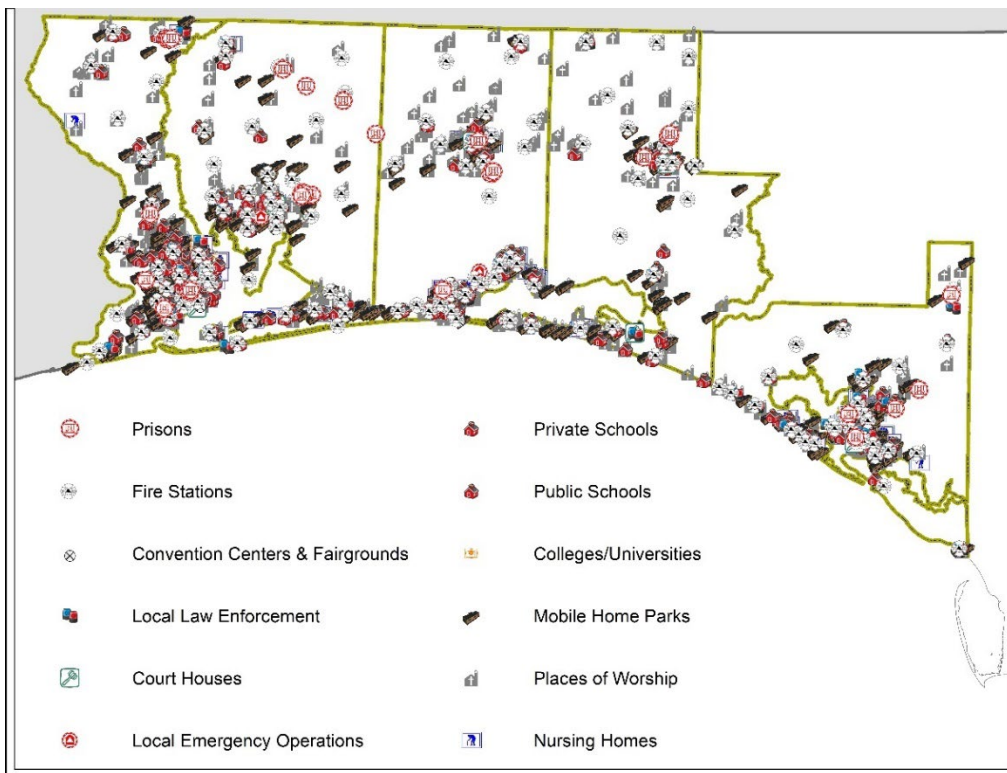


Figure 39: Safety and Security Community Lifelines utilized in this assessment

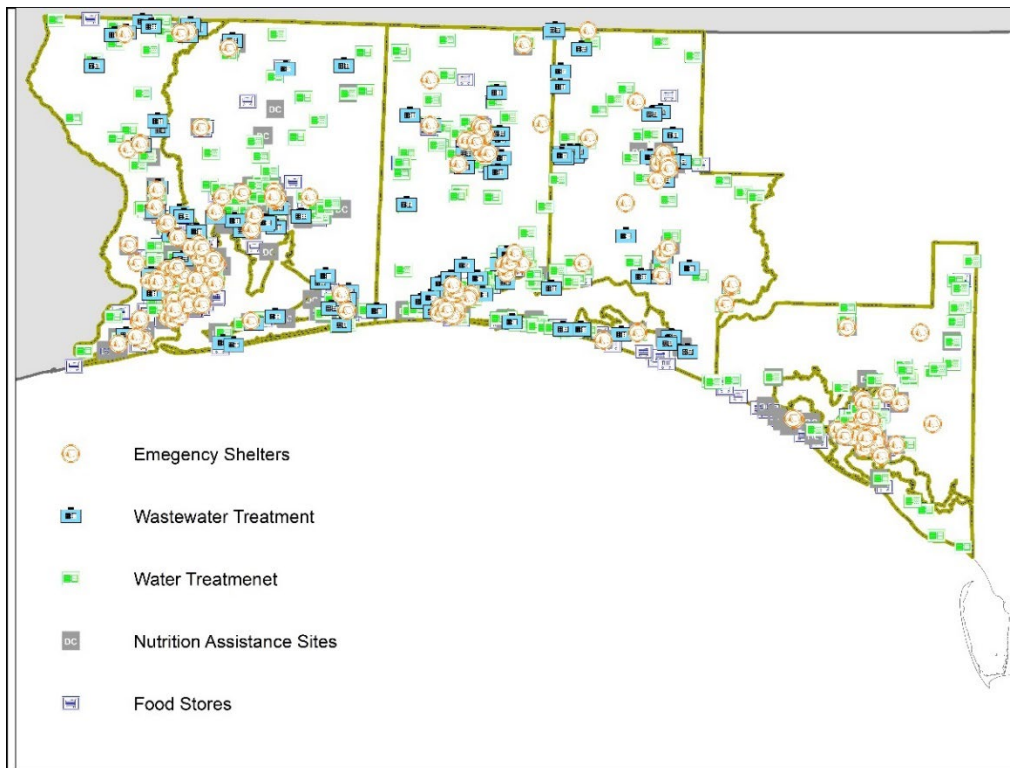


Figure 40: Food, Water, and Shelter Community Lifelines utilized in this assessment

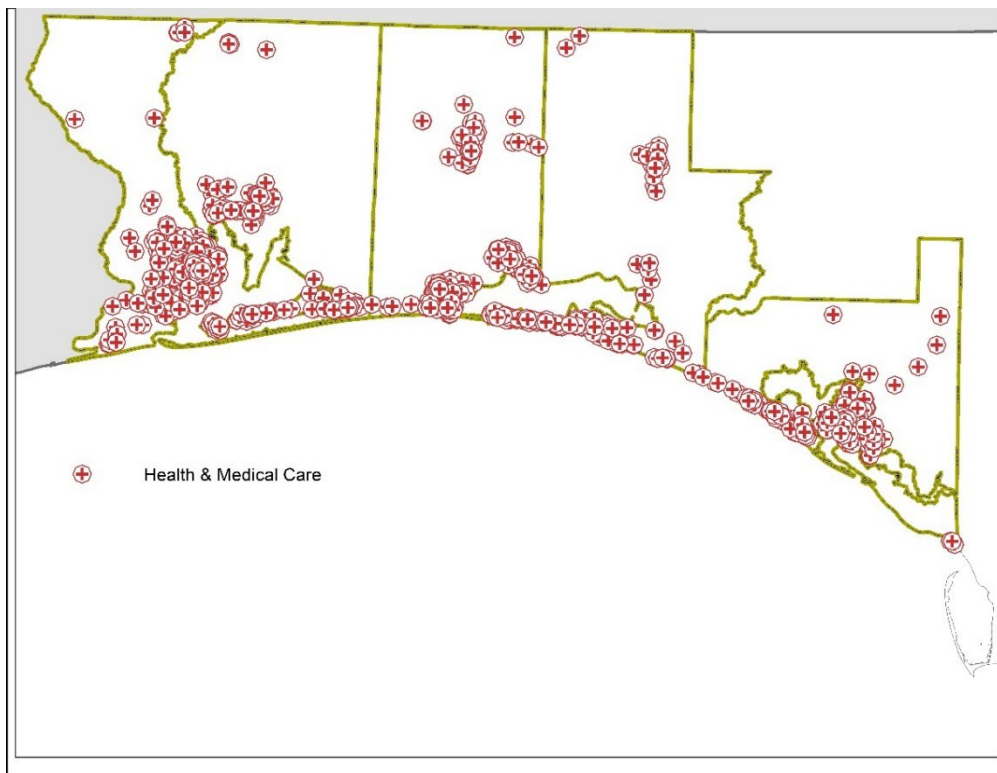


Figure 41: Health and Medical Community Lifelines utilized in this assessment

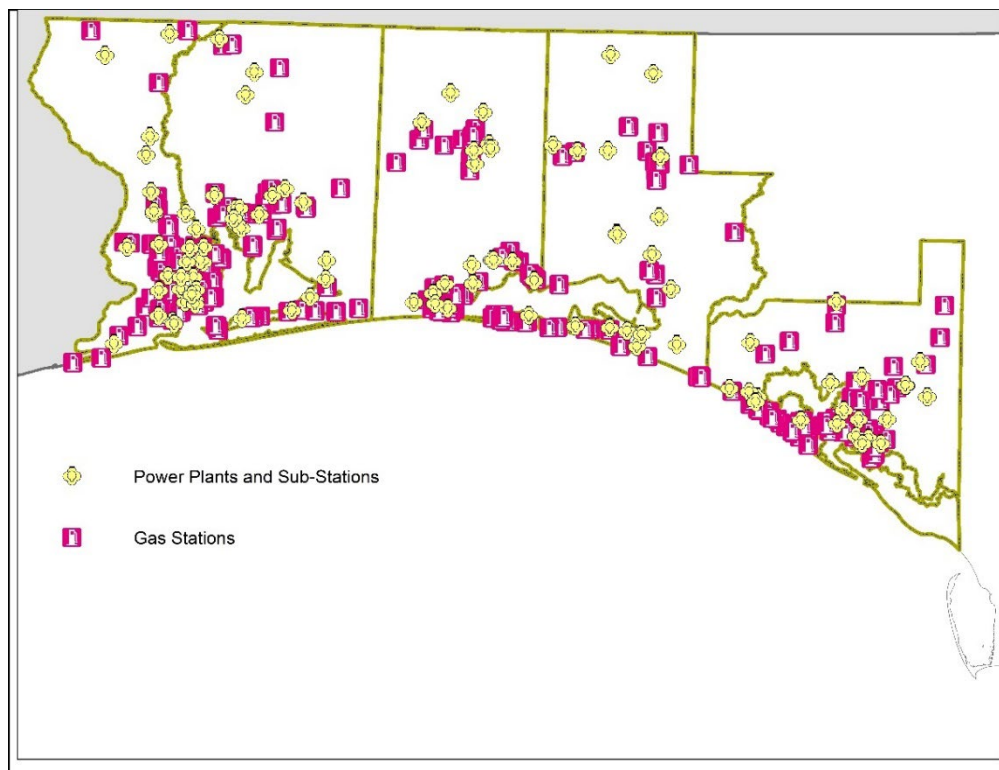


Figure 42: Energy and Fuel Community Lifelines utilized in this assessment

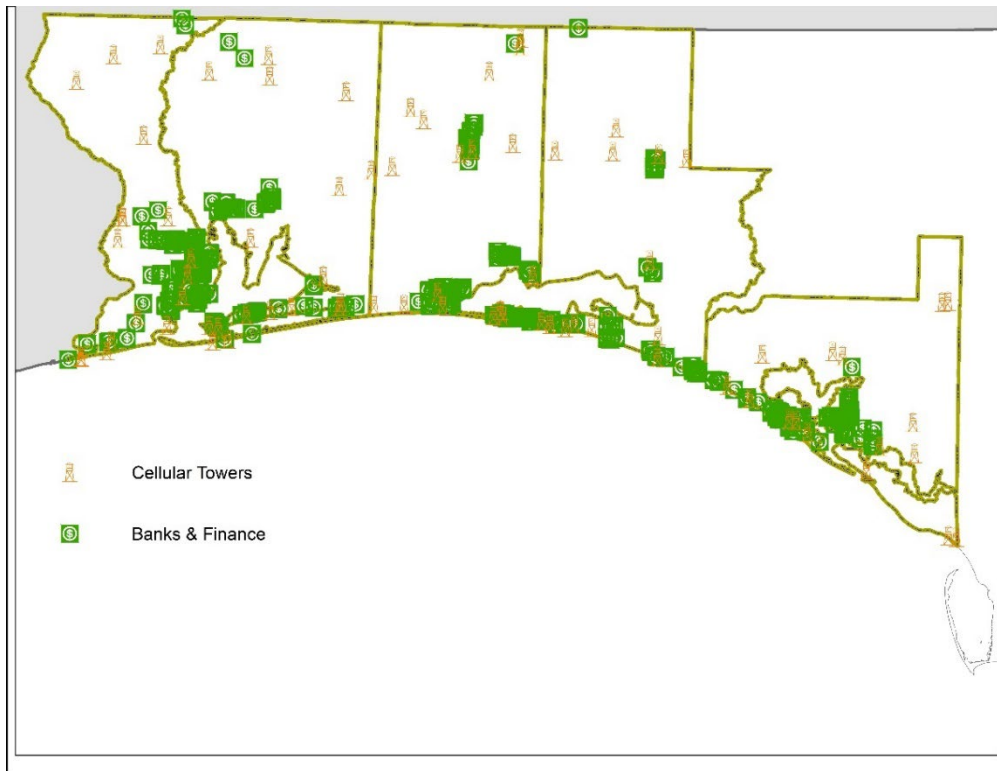


Figure 43: Communication and Finance Community Lifelines utilized in this assessment

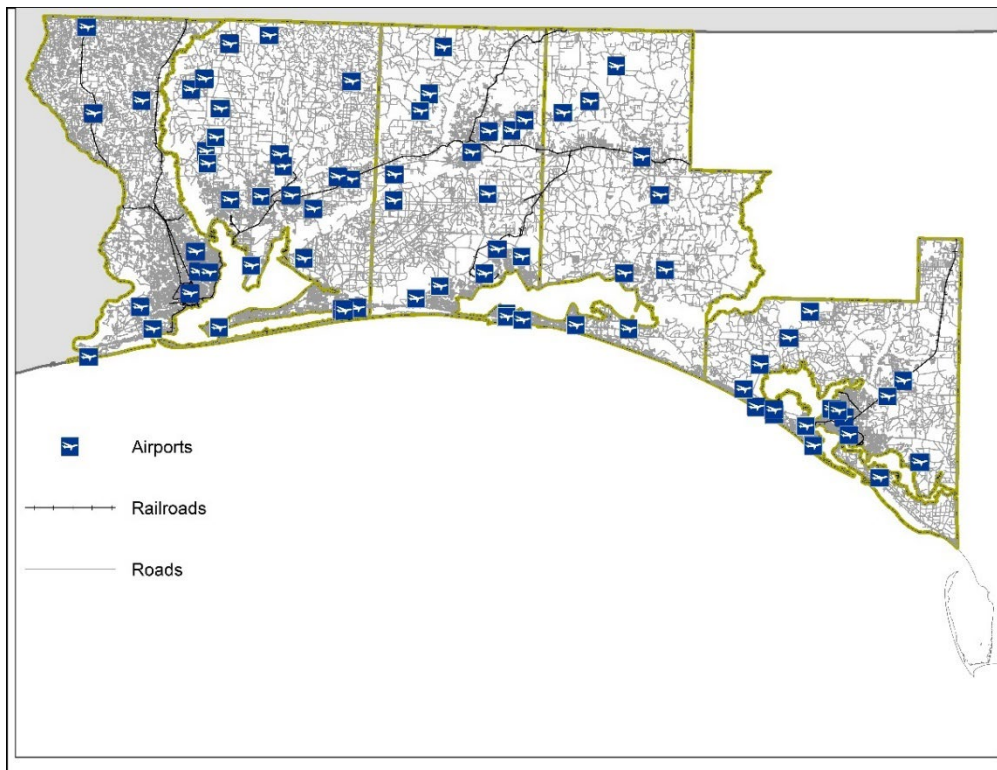


Figure 44: Transportation Community Lifelines utilized in this assessment

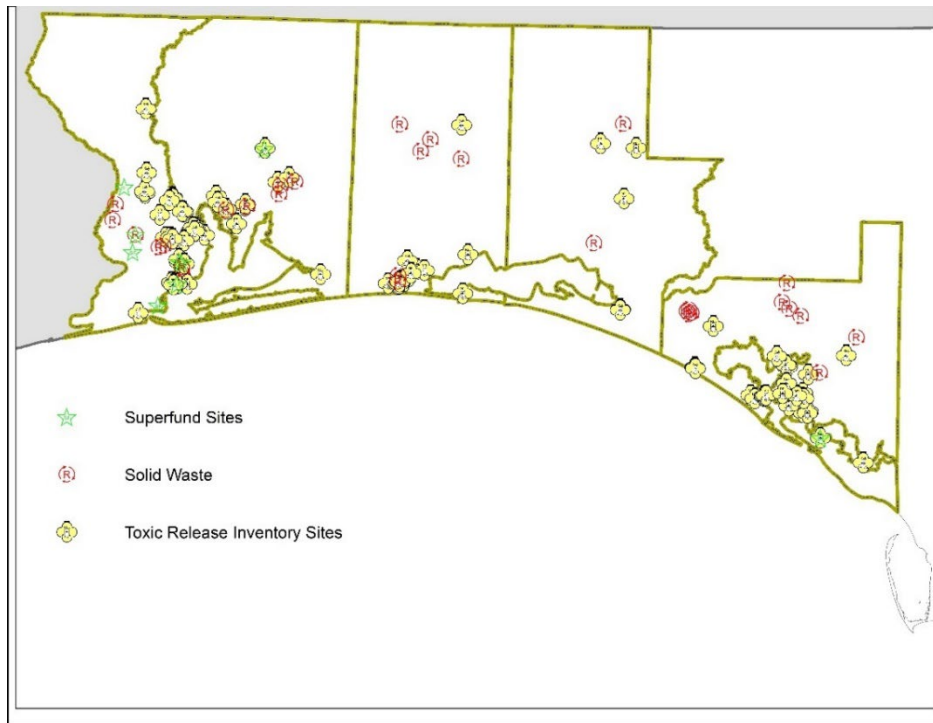


Figure 45: Hazardous Materials Community Lifelines utilized in this assessment

Community Lifeline locations are captured and mapped using either point features (individual locations) or line features (sets of point features) depending on the infrastructure asset. For example, electric generation facilities are represented by a point, while electrical transmission lines are represented as line features inside a GIS system. For this assessment, line feature classes representing critical infrastructure were converted to point feature classes using the ESRI ArcGIS Pro Generate Points Along Lines tool generating a point at each end point and every 0.1 mile (528 feet) along the line feature. Critical infrastructure point data and point data generated from the line features was then merged to create one complete point feature representation of community lifelines across the Hurricane Sally impacted areas and summarized to generate a count of points within each 0.25-mile hex grid. Here, critical lifelines (Table 40: Data sources for community lifelines and critical assets) representing assets that are either lacking redundancy [Emergency Operations Centers (EOC), substations, wastewater, airports) or those that are essential for response and recovery from disasters (hospitals, police/fire/emergency medical services (EMS)) were weighted three times more heavily in the community lifeline vulnerability portion of this assessment than other community lifelines in order to reflect their critical importance across the area. Community lifeline counts were then classified using an equal interval classifications scheme and mapped using the same output hex grid as the hazard threat maps.

Figure 44: Transportation Community Lifelines utilized in this assessment displays the transportation lifelines in the Hurricane Sally AOI (i.e., airports, railroads, and roads). Transportation is key to economic recovery and rebuilding following a major disaster. Damage and closure of key roads and bridges following Hurricane Sally, as noted in 2.4.1 Disaster Damage and Impacts, caused subsequent damage to businesses and the local economy in the months following the storm. Improving the resiliency of key roads and bridges—like those with notable damage mentioned in 2.4.1 Disaster Damage and Impacts—to mitigate against future storm damage will speed recovery efforts following future disasters.

Critical Lifeline Infrastructure Density

As described above, critical lifeline infrastructure locations are captured and mapped using either point features (individual locations) or line features (sets of point features) depending on the infrastructure asset. For this assessment, line feature classes representing critical infrastructure were converted to point feature classes using the ESRI ArcGIS Pro Generate Points Along Lines tool generating a point at each endpoint and every 200 meters

along the line feature. Critical infrastructure point data and point data generated from the line features were then merged to create one complete point feature representation of critical infrastructure. This point data was then geo-processed with the ESRI ArcGIS Pro Summarize Within tool to generate a count of points within each 0.25-square-mile hex grid. Critical lifeline infrastructure counts were then classified using an equal interval classifications scheme and mapped using the same output hex grid as the hazard threat maps (Figure 46: The Hurricane Sally AOI’s Critical Infrastructure Elements gathered using FEMA’s lifeline guidance).

Box 3: Lifeline Vulnerability Mitigation Takeaway

Mitigation Takeaway: Community Lifelines identify the core pillars for supporting community resilience in a way that is common to all phases of the emergency management cycle. Although every county has areas with increased lifeline density vulnerability, Escambia County exhibits the highest density. Prioritizing areas like Pensacola with higher community lifeline density for hazard mitigation projects will enable the entire area to become more resilient to hazards. Like population density vulnerability, these areas tend to have higher amounts of community lifelines because they have higher populations. However, Escambia County has higher lifeline density across the entire county, where other Hurricane Sally AOI counties tend to have lower lifeline vulnerabilities in the more rural areas. Integrating community lifeline resiliency measures into mitigation activities will help ensure that communities impacted by future disasters are better equipped to recover.

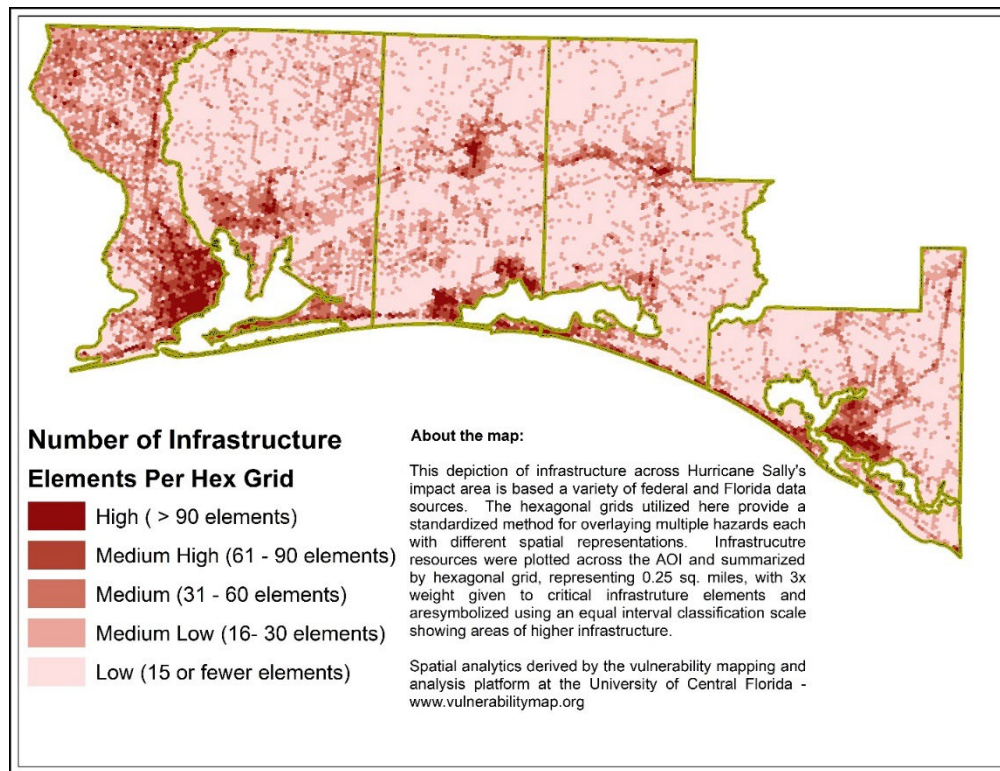


Figure 46: The Hurricane Sally AOI’s Critical Infrastructure Elements gathered using FEMA’s lifeline guidance

Table 41: Lifeline Vulnerability Hex Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Lifeline Vulnerability Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	13,161	58.73%	4,505	20.10%	2,714	12.11%	1,106	4.94%	924	4.12%

Bay	4,091	2,597	63.48%	711	17.38%	373	9.12%	245	5.99%	165	4.03%
Escambia	3,977	1,258	31.63%	891	22.40%	961	24.16%	403	10.13%	464	11.67%
Okaloosa	4,842	3,122	64.48%	876	18.09%	469	9.69%	200	4.13%	175	3.61%
Santa Rosa	5,220	3,090	59.20%	1,321	25.31%	563	10.79%	176	3.37%	70	1.34%
Walton	5,030	3,643	72.43%	846	16.82%	390	7.75%	94	1.87%	57	1.13%

2.6.2.5 Composite Hazard Vulnerability

Each vulnerability variable (Critical Infrastructure Density, Social Vulnerability, and Population Density) was classified from zero (0) to five (5). The variables were then summed and min/max standardized to develop a composite vulnerability score from zero (0) to five (5). Here, more populated areas, like those in Pensacola in Escambia County; Fort Walton Beach, Destin, and Crestview in Okaloosa County; Panama City in Bay County; Milton in Santa Rosa County; and Defuniak Springs in Walton County have higher composite vulnerability than other places across the Hurricane Sally AOI (Figure 47: The Hurricane Sally AOI’s Composite Hazard Vulnerability).

Box 4: Composite Vulnerability Mitigation Takeaway

Mitigation Takeaway: When coupling population, social vulnerability, and lifeline vulnerability for the Hurricane Sally AOI, a clear pattern emerges where Pensacola (Escambia County) has the most vulnerable areas with nearly 20 percent of its land characterized by medium-high to high vulnerability. Focusing mitigation efforts on these areas of increased vulnerability can lead to greater overall resilience against future disasters. Additionally, small pockets of medium-high to high composite vulnerability can be found in Okaloosa and Bay Counties. Where possible, mitigation in these areas could have a positive impact in reducing future hazard impacts and losses.

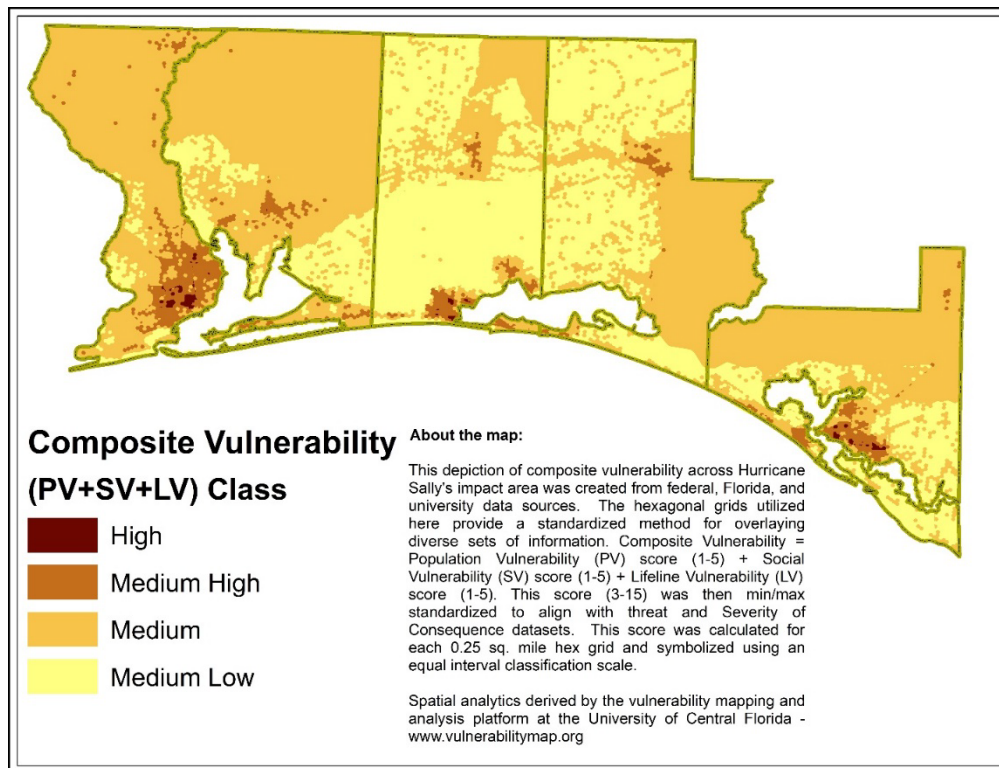


Figure 47: The Hurricane Sally AOI’s Composite Hazard Vulnerability

Table 42: Lifeline Vulnerability Hex Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Composite Vulnerability Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	-	0.00%	8,093	36.11%	12,740	56.85%	1,477	6.59%	100	0.45%
Bay	4,091	-	0.00%	1,301	31.80%	2,450	59.89%	315	7.70%	25	0.61%
Escambia	3,977	-	0.00%	440	11.06%	2,791	70.18%	684	17.20%	62	1.56%
Okaloosa	4,842	-	0.00%	3,103	64.09%	1,479	30.55%	248	5.12%	12	0.25%
Santa Rosa	5,220	-	0.00%	1,062	20.34%	3,994	76.51%	163	3.12%	1	0.02%
Walton	5,030	-	0.00%	2,518	50.06%	2,439	48.49%	73	1.45%	-	0.00%

2.6.3 Severity of Consequences

Each single hazard event and event type (flooding, hurricane, etc.) has a different severity of consequence. Creating a universal understanding of hazard risk for the Hurricane Sally AOI required a robust accounting of consequences from historical losses as well as the ability to project future scenarios. To assess the risk, this Plan had to address possible climate sensitivities, current high priority hazards, and those likely to cause continued losses if not mitigated. Consequently, this assessment calculates Severity of Consequences (Equation 3: Severity of Consequences Calculation) using equal parts Historical Consequence, Climate Sensitivity, a measure of probability versus consequence, and a measure of future impacts (or high priority hazards for the Hurricane Sally AOI) derived from the current Hazard Mitigation Plans from AOI counties.¹⁴⁵

Equation 3: Severity of Consequences Calculation

$$CON_{HAZ_n} = CON_{HAZ} = (HISTCON_{HAZ}) + (CLIMSENS_{HAZ}) + \left(\frac{FREQUENCY_{HAZ}}{SEVERITY_{HAZ}}\right) + (PRIORITY_{HAZ})$$

HAZ= 18 hazard types identified in Table 36: Hazards Included in this Risk Assessment.

2.6.3.1 Historic Consequence

A hazard’s historical consequence score is the sum of historical frequency, economic impacts, fatalities, and injuries from past disaster events (as outlined in Equation 4: Historical Consequence Calculation).

Equation 4: Historical Consequence Calculation

$$HISTCON_{HAZ} = \text{Historical Frequency Score} + \text{Historical Economic Impacts Score} + \text{Historical Fatality Score} + \text{Historical Injury Score}$$

¹⁴⁵ Bay County – <https://www.baycountyfl.gov/DocumentCenter/View/7236/BAY-COUNTY-LMS-Plan-Master-08-17-2020-Board-Final-Version>, Escambia County – https://myescambia.com/docs/default-source/sharepoint-developmental-services/planning-zoning/local-mitigation-strategy-plan.pdf?sfvrsn=990687c2_12 Okaloosa County (unavailable as of this time of this draft) – Santa Rosa County – <https://www.santarosa.fl.gov/165/Local-Mitigation-Plan>, Walton County - <https://www.co.walton.fl.us/569/Local-Mitigation-Strategy-LMS#:~:text=Overview,technological%2C%20and%20human%20caused%20disasters.>

Where:

- Historical Frequency Score: A Min/Max standardized (1-5) indicator of recorded¹⁴⁶ frequency of occurrence for past loss causing Hazard (HAZ) events.
- Historical Economic Impacts Score: A Min/Max standardized (1-5) indicator of recorded damage from past loss causing Hazard (HAZ) events.
- Historical Fatality Score: A Min/Max standardized (1-5) indicator of recorded fatalities from past loss causing Hazard (HAZ) events.
- Historical Injury Score: A Min/Max standardized (1-5) indicator of recorded injuries from past loss causing Hazard (HAZ) events.
- Table 43: Bay County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 49) through Table 47: Walton County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 53) provide county-specific Historical Consequence scores by hazard threat and highlight the hazards with the highest overall Hazard Threat.

Table 43: Bay County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 49)

Historical Consequence Scores by Hazard					
Hazard	Historical Frequency Score (1-5)	Historical Economic Impact Score (1-5)	Historical Fatality Score (1-5)	Historical Injury Score (1-5)	Historical Score (1-5)
Hurricane/ Tropical Storm/Storm Surge	2.1	5	1.42	1.52	1.52
Flooding	1.58	2.76	1.43	1	1
Flash Flood	1.55	2.76	1	1	1
Tornado	3.03	1.17	1.3	5	5
Coastal Flooding and SLR	2.81	1.03	5	1.66	1.66
Severe Storm/ Thunderstorm	4.77	1.07	1.01	1.04	1.04
Wildfire	1.06	1.02	1	1.11	1.11
Lightning	2.32	1.01	1.72	2.64	2.64
Wind	5	1.06	1.05	1.14	1.14
Drought	1	1	1	1	1
Heat	1	1	1	1	1
Sinkholes	1.3	1	1	1	1
Hail	1.16	1.03	1.01	1	1
Earthquake (within 50 miles)	1	1	1	1	1

¹⁴⁶ <https://www.ncdc.noaa.gov/stormevents/>

Winter Weather	1.23	1.05	1.03	1	1
Extreme Cold	1	1	1	1	1
Fog	1	1	1	1	1

Table 44: Escambia County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 50)

Historical Consequence Scores by Hazard					
Hazard	Historical Frequency Score (1-5)	Historical Economic Impact Score (1-5)	Historical Fatality Score (1-5)	Historical Injury Score (1-5)	Historical Score (1-5)
Hurricane/ Tropical Storm/Storm Surge	1.57	5	2.13	1.04	4.66
Coastal Flooding and SLR	2.03	1	5	2.24	5
Severe Storm/ Thunderstorm	5	1.01	1.05	1.14	3.68
Wind	4.76	1	1.04	1.12	3.5
Lightning	2.41	1	2.18	1.84	3.19
Flooding	1.4	1.04	1.31	1	1.48
Flash Flood	1.37	1.04	1	1	1.26
Tornado	2.78	1.02	1.15	5	4.8
Heat	1.02	1	1.1	1	1.08
Wildfire	1.04	1	1	1.05	1.06
Drought	1	1	1	1	1
Hail	1.22	1	1.01	1	1.15
Earthquake (within 50 miles)	1.13	1	1	1	1.08
Winter Weather	1.11	1.01	1.04	1	1.1
Extreme Cold	1	1	1	1	1
Fog	1	1	1	1	1
Sinkholes	1	1	1	1	1

Table 45: Okaloosa County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 51)

Historical Consequence Scores by Hazard					
Hazard	Historical Frequency Score	Historical Economic Impact Score	Historical Fatality Score	Historical Injury Score	Historical Score (1-5)

	(1-5)	(1-5)	(1-5)	(1-5)	
Hurricane/ Tropical Storm/Storm Surge	1.5	5	1.43	1.06	3.28
Severe Storm/ Thunderstorm	5	1.06	1.1	1.1	2.94
Lightning	3.23	1.01	4.37	4.16	5
Tornado	3.33	1.1	2	5	4.39
Flooding	1.45	1.02	1.24	1	1.32
Flash Flood	1.42	1.02	1	1	1.2
Coastal Flooding and SLR	1.58	1.02	5	1.67	3.4
Wildfire	1.03	1.01	1	1.07	1.05
Wind	4.89	1.04	1.22	1.17	2.97
Drought	1	1	1	1	1
Heat	1	1	1	1	1
Hail	1.19	1.02	1.03	1	1.11
Earthquake (within 50 miles)	1.13	1	1	1	1.06
Winter Weather	1.13	1.03	1.09	1	1.11
Extreme Cold	1	1	1	1	1
Sinkholes	1.16	1	1	1	1.07
Fog	1	1	1	1	1

Table 46: Santa Rosa County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 52)

Historical Consequence Scores by Hazard					
Hazard	Historical Frequency Score (1-5)	Historical Economic Impact Score (1-5)	Historical Fatality Score (1-5)	Historical Injury Score (1-5)	Historical Score (1-5)
Hurricane/ Tropical Storm/Storm Surge	1.42	5	1.65	1.06	3.19
Tornado	2.34	1.04	5	5	5
Flash Flood	1.42	1.02	1	1	1.19
Flooding	1.42	1.04	1	1	1.2

Severe Storm/ Thunderstorm	5	1.05	1.04	1.08	2.78
Wildfire	1.02	1.01	1	1.08	1.05
Coastal Flooding and SLR	1.45	1.02	4.64	2.52	3.4
Lightning	3.73	1.01	2.63	2.39	3.46
Wind	4.73	1.02	1.39	1.04	2.78
Drought	1	1	1	1	1
Heat	1	1	1	1	1
Hail	1.18	1.03	1.03	1	1.1
Earthquake (within 50 miles)	1.12	1	1	1	1.05
Winter Weather	1.11	1.03	1.08	1	1.09
Extreme Cold	1	1	1	1	1
Fog	1	1	1	1	1
Sinkholes	1	1	1	1	1.09

Table 47: Walton County Historical Consequence Scores by Hazard Threat (Sorted by Highest SOC Score from Table 53)

Historical Consequence Scores by Hazard					
Hazard	Historical Frequency Score (1-5)	Historical Economic Impact Score (1-5)	Historical Fatality Score (1-5)	Historical Injury Score (1-5)	Historical Score (1-5)
Hurricane/ Tropical Storm/Storm Surge	2.06	5	1.1	2.62	5
Severe Storm/ Thunderstorm	4.81	1.2	1.06	2.82	4.47
Flooding	1.48	1.83	1.13	1.01	1.86
Flash Flood	1.48	1.83	1	1	1.77
Wind	5	1.15	1.05	2.74	4.5
Tornado	2.14	1.22	1.02	5	4.17
Wildfire	1.08	1.08	1	2.79	2.15
Lightning	1.82	1.04	1.9	2.66	3.02
Coastal Flooding and SLR	1.74	1.12	5	2.66	4.85
Hail	1.16	1.12	1.02	1	1.18
Drought	1	1	1	1	1

Heat	1	1	1	1	1
Winter Weather	1.21	1.2	1.05	1	1.27
Earthquake (within 50 miles)	1.05	1	1	1	1.03
Extreme Cold	1	1	1	1	1
Sinkholes	1.31	1	1	1	1.18
Fog	1	1	1	1	1

Climate Sensitivity

A hazards climate sensitivity score provides a means of accounting for the influence of climate on a hazard’s future occurrence. Hazards such as flooding and hurricanes are considered highly climate sensitive because they will occur more frequently and will be more impactful in a future climate that is warmer than our current condition. Each hazard in this assessment was appraised for its climate sensitivity through a literature review, for which the sources and respective climate sensitivity scores are listed in (Table 48: Climate Sensitivity by Hazard Type). Each hazard was classified on a scale of 1 to 5 based on its climate sensitivity, or its connection to current and future weather. If a hazard’s root cause is meteorological (floods, hurricanes, heat, hail, etc.) it is climate sensitive and is scored between a two (2) and five (5). Hazards that are less climate sensitive (tsunami, extreme cold, sinkholes) in this AOI are scored with a one (1).

Table 48: Climate Sensitivity by Hazard Type

Hazard	Climate Sensitivity Score (1-5)	Reference
Coastal Flood/ Sea Level Rise	5	https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter13_FINAL.pdf
Drought	5	Abatzoglou, J.T. and A.P. Williams, 2016: Impact of anthropogenic climate change on wildfire across western US forests. Proceedings of the National Academy of Sciences of the United States of America, 113 (42), 11770-11775. http://dx.doi.org/10.1073/pnas.1607171113
Earthquake	3	https://climate.nasa.gov/news/2926/can-climate-affect-earthquakes-or-are-the-connections-shaky/
Extreme Cold	1	IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex, and P.M. Midgley, Eds. Cambridge University Press, Cambridge, UK and New York, NY, 1535 pp. http://www.climatechange2013.org/report/
Flash Flood	5	Mitsch, W.J. and J.G. Gosselink, 2007: Wetlands, 4 th ed. Wiley, New York, 600 pp.
Flooding	5	Sweet, W.V. and J.J. Marra, 2016: 2015 State of U.S. Nuisance Tidal Flooding. Supplement to State of the Climate: National Overview for May 2016. National Oceanic and Atmospheric Administration, National Centers for Environmental Information, 5 pp. http://www.ncdc.noaa.gov/monitoring-content/sotc/national/2016/may/sweet-marra-nuisanceflooding-2015.pdf

Fog	1	https://aaqr.org/articles/aaqr-15-05-0a-0353
Hail	3	Mitsch, W.J. and J.G. Gosselink, 2007: Wetlands, 4 th ed. Wiley, New York, 600 pp.
Heat	5	Allen, C.D., D.D. Breshears, and N.G. McDowell, 2015: On underestimation of global vulnerability to tree mortality and forest die-off from hotter drought in the Anthropocene. Ecosphere, 6 (8), 1-55. http://dx.doi.org/10.1890/ES15-00203.1
Hurricane/ Tropical Storm	5	Smith, T. J., Robblee, M. B., Wanless, H. R., & Doyle, T. W. (1994). Mangroves, hurricanes, and lightning strikes. BioScience, 44(4), 256-262. http://dx.doi.org/10.2307/1312230 . Doyle, T. W., Smith III, T. J., & Robblee, M. B. (1995). Wind damage effects of Hurricane Andrew on mangrove communities along the southwest coast of Florida, USA. Journal of Coastal Research, 159-168. http://www.jstor.org/stable/25736006
Lightning	3	Mitsch, W.J. and J.G. Gosselink, 2007: Wetlands, 4 th ed. Wiley, New York, 600 pp.
Severe Storm/ Thunder Storm	5	Mitsch, W.J. and J.G. Gosselink, 2007: Wetlands, 4 th ed. Wiley, New York, 600 pp.
Sinkholes	1	https://nhess.copernicus.org/preprints/nhess-2018-18/nhess-2018-18-SC1-supplement.pdf
Tornado	3	Mitsch, W.J. and J.G. Gosselink, 2007: Wetlands, 4 th ed. Wiley, New York, 600 pp.
Wildfire	5	Abatzoglou, J.T. and A.P. Williams, 2016: Impact of anthropogenic climate change on wildfire across western US forests. Proceedings of the National Academy of Sciences of the United States of America, 113 (42), 11770-11775. http://dx.doi.org/10.1073/pnas.1607171113
Wind	3	Dale, V. H., Joyce, L. A., McNulty, S., Neilson, R. P., Ayres, M. P., Flannigan, M. D., ... & Wotton, B. M. (2001). Climate change and forest disturbances: climate change can affect forests by altering the frequency, intensity, duration, and timing of fire, drought, introduced species, insect and pathogen outbreaks, hurricanes, windstorms, ice storms, or landslides. BioScience, 51(9), 723-734. http://dx.doi.org/10.1641/0006-3568(2001)051[0723:ccafd]2.0.co;2
Winter Weather	1	IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex, and P.M. Midgley, Eds. Cambridge University Press, Cambridge, UK and New York, NY, 1535 pp. http://www.climatechange2013.org/report/

Frequency/Severity

Generally, hazards fall into two specific types in terms of their frequency versus their severity. Low probability/high consequence disasters (earthquakes, hurricanes) generally occur less frequently and have a much higher consequence when they do occur. Conversely, high probability/low consequence events (lightning, heat, hail) occur more often but cause less damage and impact on society. Each hazard event type was appraised on its frequency/severity by dividing the total loss by the total number of events and then standardizing/normalizing the resulting values on a (1-5) scale where 1 indicates hazard threats with less loss per hazard incidence and 5 indicates hazard threats with more loss per hazard incidence.

Future Consequence

Each hazard included in this assessment has either impacted the Hurricane Sally AOI in the past or has the potential to cause future impacts. Previous county hazard mitigation plans¹⁴⁷ have prioritized hazards for mitigation funding and planning based on their own assessment of each hazard. Including individual county prioritization of hazards provides a connection between this plan and previous planning efforts and moves these assessments towards becoming living documents that have impact/influence on the current assessment. Like the historical score, climate sensitivity, and severity/frequency scores, the hazard priority score ranges from low to high (1-5) for each hazard threat.

2.6.3.2 Resulting Severity of Consequences (SOC) Score

Applying Severity of Consequences (Equation 3: Severity of Consequences Calculation) to historical consequences, climate sensitivity, probability/consequence, and future consequences results in a standardized value for the severity of consequences (SOC) for each hazard analyzed in this assessment. In this case, hurricane winds and storm surges, and flooding hazards pose the highest overall severity of consequences across most counties assessed. However, because each SOC score is built from county specific information, the scores vary from county to county across the Hurricane Sally AOI. Each county’s SOC scores are sorted highest to lowest in Table 49: Bay County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)-Table 53: Walton County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score).

Box 5: Severity of Consequence Mitigation Takeaway

Mitigation Takeaway: A variety of hazards with high SOC scores were found across the five counties in this assessment, with several hazards (hurricane wind and storm surge, riverine flooding, and severe storms) identified as high consequence across all counties. Each of these hazards were in the top six when SOC scores were sorted high to low. Other hazards were among the highest in four of five counties, including flash flooding and tornadoes; and 3 (three) hazards (coastal/sea level rise, wind, and lightning) were top rated in terms of severity of consequences in two counties.

Table 49: Bay County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)

Hazard	Historical Score (1-5)	Climate Sensitive (1-5)	Frequency/Severity (1-5)	Priority/Future Consequence Planning (1-5)	Composite SOC Score (5-20)	Severity of Consequences Score (0-5)
Hurricane/Tropical Storm/Storm Surge	5	5	5	19.72	5	5
Flooding	5	4.32	4.29	16.31	4.13	4.32
Flash Flood	5	4.52	4.29	16.23	4.11	4.52
Tornado	3	1.09	5	14.09	3.57	1.09
Coastal Flooding and SLR	5	1.02	1.35	12.37	3.13	1.02

¹⁴⁷ Bay County – <https://www.baycountyfl.gov/DocumentCenter/View/7236/BAY-COUNTY-LMS-Plan-Master-08-17-2020-Board-Final-Version>, Escambia County – https://myescambia.com/docs/default-source/sharepoint-developmental-services/planning-zoning/local-mitigation-strategy-plan.pdf?sfvrsn=990687c2_12 Okaloosa County (unavailable as of this time of this draft) – Santa Rosa County – <https://www.santarosa.fl.gov/165/Local-Mitigation-Plan>, Walton County – <https://www.co.walton.fl.us/569/Local-Mitigation-Strategy-LMS#:~:text=Overview,technological%2C%20and%20human%20caused%20disasters.>

Severe Storm/ Thunderstorm	5	1.02	2.65	12.06	3.05	1.02
Wildfire	5	1.34	3.12	10.58	2.67	1.34
Lightning	3	1	3	10.27	2.6	1
Wind	3	1.02	1	8.64	2.18	1.02
Drought	5	1	1	8	2.02	1
Heat	5	1	1	8	2.02	1
Sinkholes	1	1	3.24	6.42	1.62	1
Hail	3	1.21	1	6.33	1.59	1.21
Earthquake (within 50 miles)	3	1	1	6	1.51	1
Winter Weather	1	1.26	1	4.45	1.11	1.26
Extreme Cold	1	1	1	4	1	1
Fog	1	1	1	4	1	1

Table 50: Escambia County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)

Hazard	Historical Score (1-5)	Climate Sensitive (1-5)	Frequency/Severity (1-5)	Priority/Future Consequence Planning (1-5)	Composite SOC Score (5-20)	Severity of Consequences Score (0-5)
Hurricane/ Tropical Storm/Storm Surge	4.66	5	5	5	19.66	5
Coastal Flooding and SLR	5	5	1	3.67	14.67	3.73
Severe Storm/ Thunderstorm	3.68	5	1	5	14.68	3.73
Wind	3.5	3	1	5	12.5	3.17
Lightning	3.19	3	1	5	12.19	3.09
Flooding	1.48	5	1.06	3.67	11.21	2.84
Flash Flood	1.26	5	1.06	3.67	10.99	2.79
Tornado	4.8	3	1.01	1.44	10.25	2.6

Heat	1.08	5	1	2.78	9.86	2.5
Wildfire	1.06	5	1.03	2.78	9.87	2.5
Drought	1	5	1	2.78	9.78	2.48
Hail	1.15	3	1.01	3.67	8.83	2.23
Earthquake (within 50 miles)	1.08	3	1	1.44	6.52	1.64
Winter Weather	1.1	1	1.03	2.78	5.91	1.49
Extreme Cold	1	1	1	2.78	5.78	1.45
Fog	1	1	1	1	4	1
Sinkholes	1	1	1	1	4	1

Table 51: Okaloosa County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)

Hazard	Historical Score (1-5)	Climate Sensitive (1-5)	Frequency/Severity (1-5)	Priority/Future Consequence Planning (1-5)	Composite SOC Score (5-20)	Severity of Consequences Score (0-5)
Hurricane/ Tropical Storm/Storm Surge	3.28	5	5	5	18.28	5
Severe Storm/ Thunderstorm	2.94	5	1.01	3.89	12.84	3.48
Lightning	5	3	1	3.83	12.83	3.47
Tornado	4.39	3	1.02	3.78	12.19	3.29
Flooding	1.32	5	1.02	4.32	11.66	3.15
Flash Flood	1.2	5	1.02	4.32	11.54	3.11
Coastal Flooding and SLR	3.4	5	1.02	1.87	11.29	3.04
Wildfire	1.05	5	1.23	3.31	10.59	2.85
Wind	2.97	3	1	3.33	10.3	2.76
Drought	1	5	1	1.89	8.89	2.37
Heat	1	5	1	1.89	8.89	2.37

Hail	1.11	3	1.05	3	8.16	2.17
Earthquake (within 50 miles)	1.06	3	1	1.22	6.28	1.64
Winter Weather	1.11	1	1.12	1.89	5.12	1.31
Extreme Cold	1	1	1	1.89	4.89	1.25
Sinkholes	1.07		1	2.11	4.18	1.05
Winter Weather	1.11	1	1.12	1.89	5.12	1.42

Table 52: Santa Rosa County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)

Hazard	Historical Score (1-5)	Climate Sensitive (1-5)	Frequency/Severity (1-5)	Priority/Future Consequence Planning (1-5)	Composite SOC Score (5-20)	Severity of Consequences Score (0-5)
Hurricane/ Tropical Storm/Storm Surge	3.19	5	5	5	18.19	5
Tornado	5	3	1.01	3.67	12.68	3.45
Flash Flood	1.19	5	1.02	4.33	11.54	3.13
Flooding	1.2	5	1.04	4.33	11.57	3.13
Severe Storm/ Thunderstorm	2.78	5	1.01	2.33	11.12	3.01
Wildfire	1.05	5	1.21	3.67	10.93	2.95
Coastal Flooding and SLR	3.4	5	1.02	1.44	10.86	2.93
Lightning	3.46	3	1	2.33	9.79	2.63
Wind	2.78	3	1	2.33	9.11	2.44
Drought	1	5	1	1.44	8.44	2.25
Heat	1	5	1	1.44	8.44	2.25
Hail	1.1	3	1.06	2.33	7.49	1.98
Earthquake (within 50 miles)	1.05	3	1	1	6.05	1.58
Winter Weather	1.09	1	1.11	1.44	4.64	1.18

Extreme Cold	1	1	1	1.44	4.44	1.12
Fog	1	1	1	1	4	1
Sinkholes	1	1	1	1	4	1

Table 53: Walton County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)

Hazard	Historical Score (1-5)	Climate Sensitive (1-5)	Frequency/Severity (1-5)	Priority/Future Consequence Planning (1-5)	Composite SOC Score (5-20)	Severity of Consequences Score (0-5)
Hurricane/ Tropical Storm/Storm Surge	5	5	5	5	20	5
Severe Storm/ Thunderstorm	4.47	5	1.05	5	15.52	3.88
Flooding	1.86	5	2.83	5	14.69	3.67
Flash Flood	1.77	5	2.83	5	14.6	3.65
Wind	4.5	3	1.04	5	13.54	3.39
Tornado	4.17	3	1.21	5	13.38	3.35
Wildfire	2.15	5	2.09	3.67	12.91	3.23
Lightning	3.02	3	1.05	5	12.07	3.02
Coastal Flooding and SLR	4.85	5	1.17	1	12.02	3.01
Hail	1.18	3	1.82	5	11	2.75
Drought	1	5	1	2.33	9.33	2.33
Heat	1	5	1	2.33	9.33	2.33
Winter Weather	1.27	1	2.01	2.33	6.61	1.65
Earthquake (within 50 miles)	1.03	3	1	1.44	6.47	1.62
Extreme Cold	1	1	1	2.33	5.33	1.33
Sinkholes	1.18	1	1	1.44	4.62	1.16
Fog	1	1	1	1	4	1

Assessment Report Format

The analysis and associated outputs of this assessment are not intended to replace more detailed, multi-year risk assessment processes such as updating FEMA-required risk assessments and mitigation plans. A geospatial analytics focus on hazard geographies forms the basis of the current assessment. As such, each hazard section provides the following standardized information:

1. **Overview of Hazard.** Where applicable, background material on hazards is adapted from Hurricane Sally impacted county current Hazard Mitigation Plans. A brief background is provided if a hazard has not been cataloged in applicable regional and county plans.
2. **Data and Methods.** General descriptions of data and methods are provided for reference.
3. **Hazard Frequency Analysis Results.** An overview of hazard frequency across Hurricane Sally impacted area including:
 - A. Maps of hazard zones. Hazard categories for each hazard type are provided showing frequency of occurrence or other hazard zone/category information for each county.
 - B. Tables and other associated charts/graphs summarizing threat exposures across the AOI.

2.6.4 Hazard Threat and Risk Assessment

2.6.4.1 Greatest Severity of Consequence Hazard Threats

Based on the Severity of Consequence analysis performed in Section 2.6.3 Severity of Consequences of this assessment, eight hazards pose the greatest threat to Floridians' lives and property. Hurricanes, 100-year (riverine) floods, and severe storms are identified in the top six hazards for each Hurricane Sally AOI county, with hurricanes topping each county's SOC list. Flash flooding and tornadoes were among top six hazard threats in four counties in terms of severity of consequences. Finally, coastal flooding/sea-level rise, wind events, and lightning events were highlighted in at least two of the Hurricane Sally AOI counties (Table 49: Bay County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)-Table 53: Walton County Severity of Consequence Scoring by Hazard (Sorted by Highest SOC Score)). These eight hazard threat types are recognized as high SOC based on their past frequency, historical impact to lives and property, climate sensitivity, frequency/severity ration, and current priority within county hazard risk assessments and will be highlighted throughout this section to ascertain their overall pattern of risk across the AOI.

This section addresses quantitative and qualitative descriptions of these hazards and their projected current and future risk across the Hurricane Sally AOI with particular focus on the HUD MID-identified counties of Escambia and Santa Rosa. Each hazard profile includes a description of the hazard and a discussion of the extent of the hazard threat across the AOI. Quantitatively combining threat with vulnerability (Vulnerability Analysis) and severity of consequences (2.6.3 Severity of Consequences) produces a visual and tabular representation of risk for each hazard threat.

Because floods, tropical cyclones, severe storms, flash floods, and tornadoes present high severity of consequence across the Hurricane Sally AOI, inflicting deaths and causing great damage to physical assets, they are prioritized in Sections 2.6.4.2 100-year Flooding and Flash Flooding-2.6.4.6 Tornado of this assessment. All other hazard threats, SOCs and resulting risks are provided in Section 2.6.4.7 Lower Severity of Consequence Hazard Threats.

2.6.4.2 100-year Flooding and Flash Flooding

Hazard Overview

Flooding is the most frequent and costly natural hazard in the United States. Floods are generally the result of excessive precipitation and can be classified under two categories: (1) flash floods, the product of heavy localized precipitation in a short period over a given location; and (2) general floods, caused by precipitation over a longer period and over a given river basin. The severity of a flooding event is determined by a combination of stream and

river basin topography and physiography, precipitation and weather patterns, recent soil moisture conditions, and the degree of vegetative clearing.

Flash flooding events usually occur within minutes or hours of heavy amounts of rainfall or from a dam or levee failure. Most flash flooding is caused by slow-moving thunderstorms in a local area or by heavy rains associated with hurricanes and tropical storms. Although flash flooding is often associated with mountain streams—which are not present in Florida—it is also common in urbanized areas where much of the ground is covered by impervious surfaces.

General floods are usually longer-term events and may last for several days. The primary types of general flooding include riverine flooding, coastal flooding, and urban flooding. Riverine flooding is a function of excessive precipitation levels and water runoff volumes within the watershed of a stream or river. Coastal flooding is typically a result of storm surge, wind-driven waves, and heavy rainfall produced by hurricanes, tropical storms, and other large coastal storms. Urban flooding occurs where man-made development has obstructed the natural flow of water and/or decreased the ability of natural groundcover to absorb and retain surface water runoff.

Table 54: Historical Frequency of Occurrence for Loss Causing Flooding and Flash Flooding Hazards provides statistics on flood events in the Hurricane Sally AOI from 1960 to 2020.

Table 54: Historical Frequency of Occurrence for Loss Causing Flooding and Flash Flooding Hazards

County	Number of Events (1960-2020)	Property Loss (2019 USD)	Fatalities	Injuries
Bay	35	\$811,699,386	6	1
Escambia	35	\$182,436,143	3	1
Okaloosa	33	\$14,661,596	1	1
Santa Rosa	38	\$24,193,962	0	1
Walton	36	\$101,619,253	1	1

Source: www.sheldus.org, summarized from Section 2.6.3 (severity of consequences)

Data and Methods

100-Year Flood Hazard Areas

FEMA provides a national flood hazard dataset for the U.S. through an online Map Service Center (MSC). Accordingly, this assessment utilized FEMA’s Special Flood Hazard Area (SFHA) dataset, representing flood hazards with a 0.01 probability of occurrence in any given year, commonly referred to as a 100-year flood zone, or the one percent annual chance of flooding. Though additional flood zones exist for many locations in the U.S., depicting the 0.002 chance (500-year) of flooding or areas that may experience high velocity floodwater flows, this assessment utilized only the 100-year SFHA data in our composite hazard analysis as the 100-year flood zone is recognized as regulatory whereas the 500-year flood zone is non-regulatory. In the case of Hurricane Sally impacted area, current effective 100-year Flood Zones accessed from FEMA’s map service center were spatially intersected with a 0.25-square-mile hexagonal grid for the Hurricane Sally impacted area to produce a spatial representation of flood hazard across the AOI.

Flash Flooding

Flash flood warnings are issued by the NOAA’s National Severe Storm’s Laboratory (NSSL)¹⁴⁸ which aggregates National Weather Service Flash Flood Warning Polygons Flash Flood Warnings including where the storm modeled to produce flooding is located and what towns will be affected by the flash flood. Across the Hurricane Sally AOI, there have been between 1-4 flash flood warnings (per year) issued between 2002 and 2021 (Figure 48: 100-Year Flood Zone Hazard Areas). Each hexagonal grid was appraised based on the average number of flash flood warning

¹⁴⁸ <https://inside.nssl.noaa.gov/flash/database/>

polygons intersecting (touching it) over the period of record. This summation was then divided by the number of years in the record (n=19) to develop an average annual number of severe storms and mapped.

Flood Hazard Frequency Analysis Results

100-Year Flood hazard threat potential is present in every county but is significantly more pronounced along the tributaries to several major rivers in Escambia, Santa Rosa, and Okaloosa counties and more broadly across low-lying areas of Bay and Walton counties. The following 100-Year Flood Zone map (Figure 48: 100-Year Flood Zone Hazard Areas) categorizes each 0.25-square-mile hex grid based on the amount of land area inside the FEMA Preliminary 100-Year Flood Zone using equal interval classification. Unlike simply using the flood zone perimeter, this map allows for areal comparison across the AOI. Counties to the east, especially Bay, appear to have relatively more land area in flood prone areas than most of the other counties across the AOI. Table 55: 100-Year Flood Zone Hazard Threat Area Summary shows the number of hex grids across the AOI by county and flood threat class (low to high). More than 14 percent of Santa Rosa's land area is in a flood zone while both Bay and Escambia find more than 13 percent of their land area in 100-year flood zones.

Escambia has historically had the most flash flood warnings with some areas seeing more than four per year over the period of record (Figure 49: Flash Flood Hazard Areas). This high flash flood threat stems from Escambia county's relatively higher levels of impervious surface than other counties in the AOI. However, Santa Rosa County has more than 70 percent of its land area in a medium high flash flood threat zone (Table 56: Flash Flood Hazard Threat Area Summary). Both Walton and Bay counties have a lower level of flash flood risk with most of their land area in medium-low and low flash flood areas.

Flood Hazard Risk Analysis Results

100-Year flood risk accounting for vulnerabilities (social, population, and lifelines) and severity of consequences provides a more nuanced appreciation of flooding threat for the AOI. In this regard, Bay and Walton counties both have areas in the medium-high risk category while the remainder of the AOI has low to medium 100-year flood risk (Figure 50: 100-Year Flood Zone Composite Risk). With 5.3 percent and 4.8 percent of their respective land area in medium-high 100-year flood risk (Table 57: 100-Year Flood Zone Hazard Risk Area Summary), Bay and Walton counties could reduce risk by mitigating floods in very specific areas of impact. Conversely, Escambia, Santa Rosa, and Okaloosa counties have more land area with higher flash flood risks than Bay or Walton counties (Figure 51: Flash Flood Composite Risk), although no county has more than a medium flash flood risk (Table 58: Flash Flood Zone Hazard Risk Area Summary).

Box 6: Flood Hazard Mitigation Takeaway

Mitigation Takeaway: Riverine and flash flood hazards have different spatial patterns across the AOI where flash flood threats are more prevalent in urbanized areas that overlap population and lifeline vulnerability. Critical lifelines supporting community resilience located in high threat areas should be prioritized for mitigation – especially considering possibly higher risk into the future. The dual threat of riverine and flash flood threats for Escambia and Santa Rosa makes these counties high priority for mitigation activities aimed at protecting lifelines and populations.

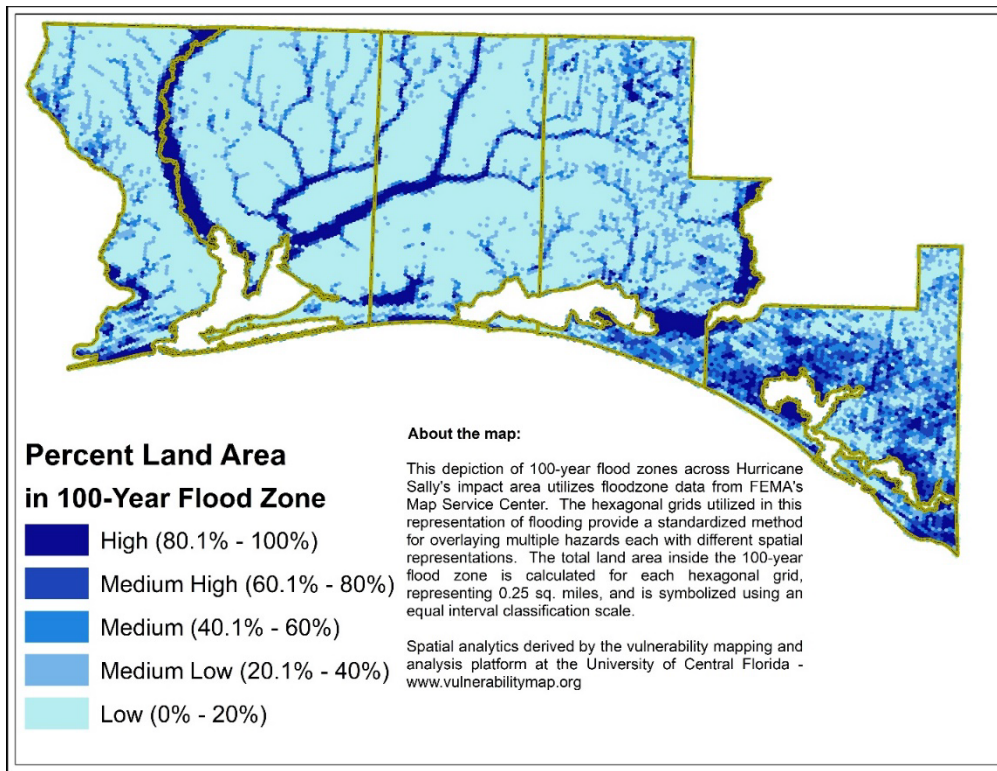


Figure 48: 100-Year Flood Zone Hazard Areas

Table 55: 100-Year Flood Zone Hazard Threat Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Threat Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	13,045	58.21%	3,468	15.48%	2,187	9.76%	1,447	6.46%	2,263	10.10%
Bay	4,091	1,122	27.43%	970	23.71%	808	19.75%	626	15.30%	565	13.81%
Escambia	3,977	2,378	59.79%	548	13.78%	333	8.37%	199	5.00%	519	13.05%
Okaloosa	4,842	3,558	73.48%	481	9.93%	248	5.12%	170	3.51%	385	7.95%
Santa Rosa	5,220	3,512	67.28%	488	9.35%	281	5.38%	208	3.98%	731	14.00%
Walton	5,030	2,814	55.94%	1,038	20.64%	564	11.21%	275	5.47%	339	6.74%

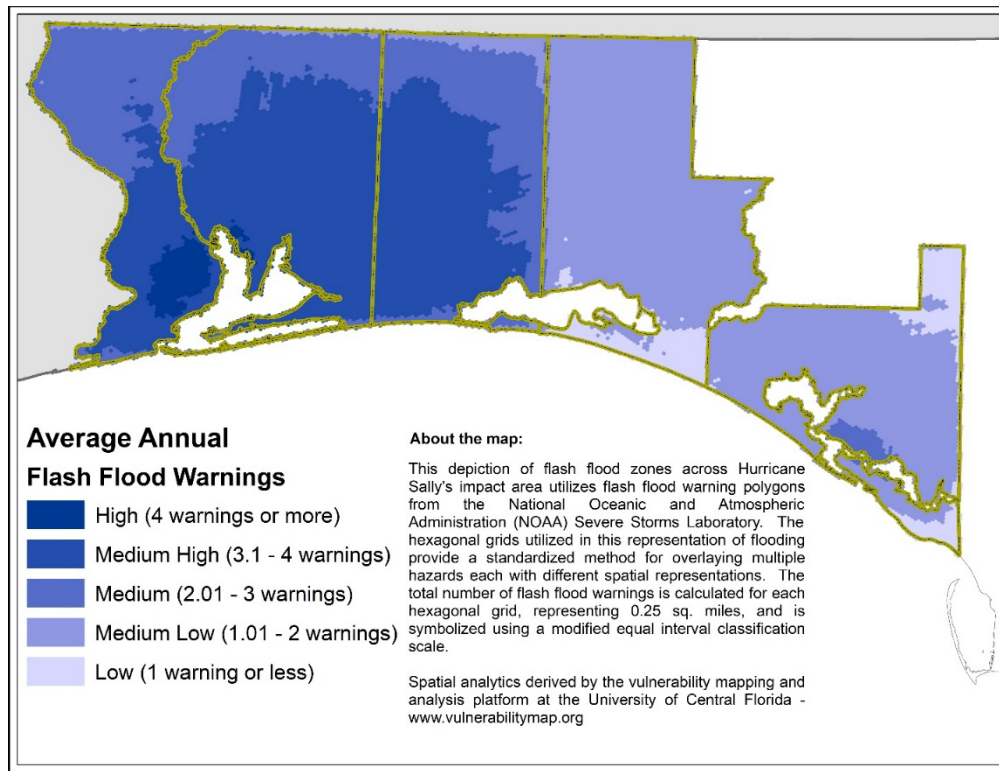


Figure 49: Flash Flood Hazard Areas

Table 56: Flash Flood Hazard Threat Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Threat Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	1,162	5.19%	7,892	35.22%	4,973	22.19%	7,791	34.77%	592	2.64%
Bay	4,091	601	14.69%	3,215	78.59%	275	6.72%	-	0.00%	-	0.00%
Escambia	3,977	-	0.00%	113	2.84%	1,693	42.57%	1,623	40.81%	548	13.78%
Okaloosa	4,842	6	0.12%	295	6.09%	1,823	37.65%	2,718	56.13%	-	0.00%
Santa Rosa	5,220	-	0.00%	80	1.53%	1,358	26.02%	3,738	71.61%	44	0.84%
Walton	5,030	569	11.31%	4,254	84.57%	187	3.72%	20	0.40%	-	0.00%

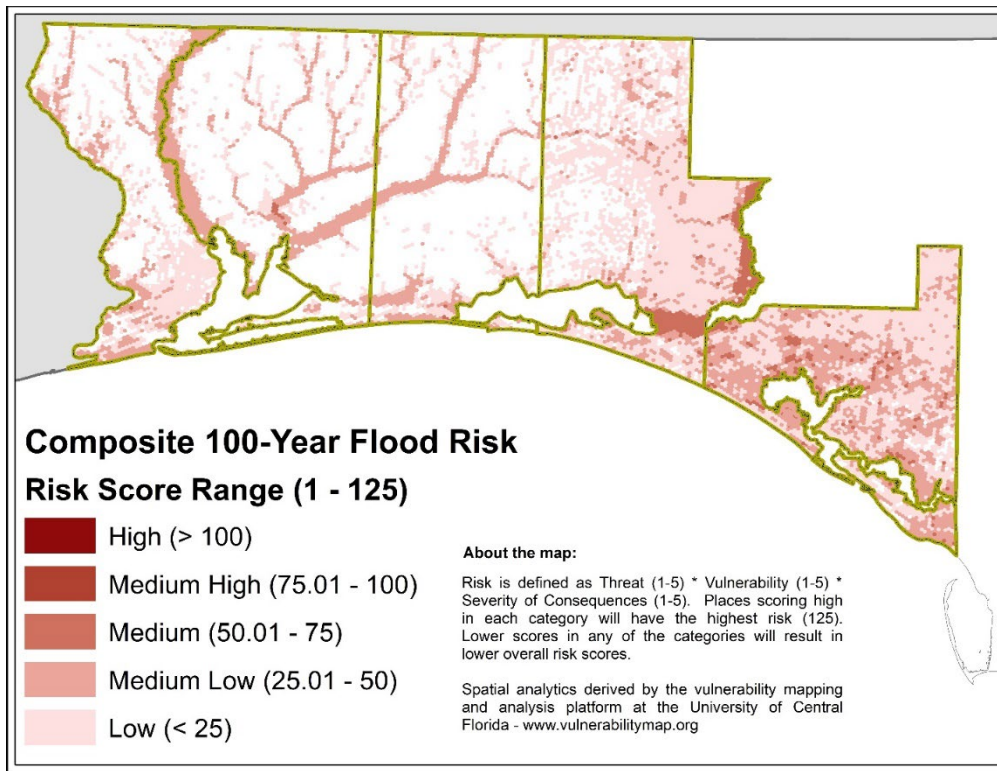


Figure 50: 100-Year Flood Zone Composite Risk

Table 57: 100-Year Flood Zone Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	17,239	76.93%	4,682	20.89%	487	2.17%	2	0.01%	-	0.00%
Bay	4,091	2,255	55.12%	1,617	39.53%	217	5.30%	2	0.05%	-	0.00%
Escambia	3,977	3,041	76.46%	933	23.46%	3	0.08%	-	0.00%	-	0.00%
Okaloosa	4,842	4,151	85.73%	682	14.09%	9	0.19%	-	0.00%	-	0.00%
Santa Rosa	5,220	4,050	77.59%	1,154	22.11%	16	0.31%	-	0.00%	-	0.00%
Walton	5,030	4,163	82.76%	616	12.25%	251	4.99%	-	0.00%	-	0.00%

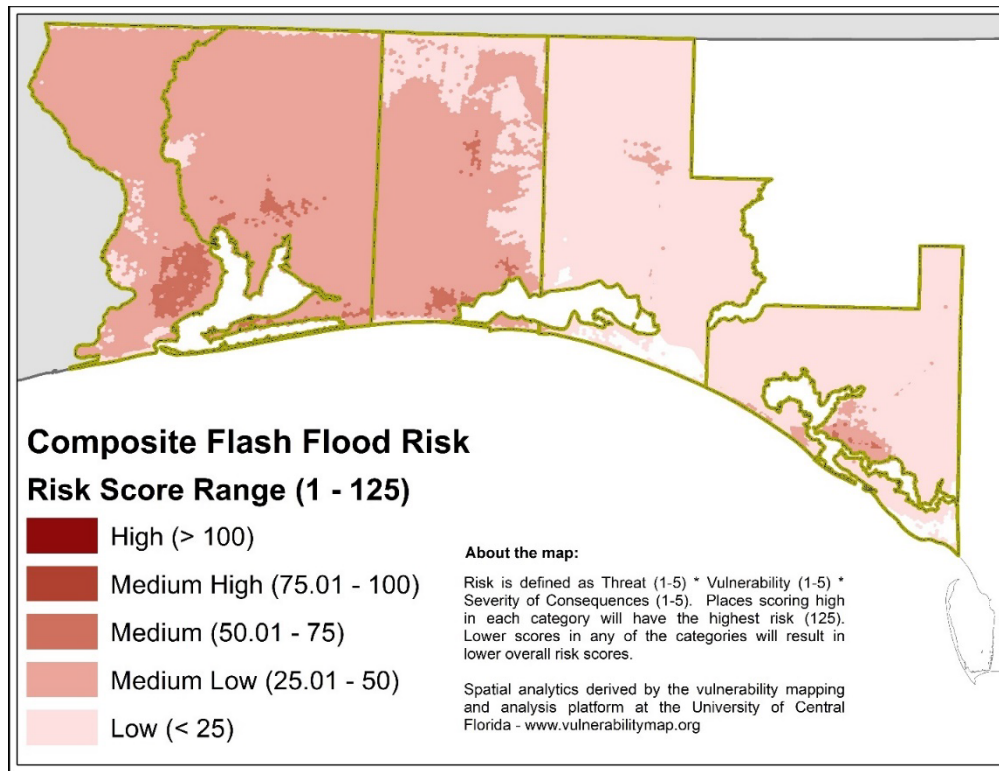


Figure 51: Flash Flood Composite Risk

Table 58: Flash Flood Zone Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	10,406	46.43%	11,179	49.88%	825	3.68%	-	0.00%	-	0.00%
Bay	4,091	3,699	90.42%	368	9.00%	24	0.59%	-	0.00%	-	0.00%
Escambia	3,977	525	13.20%	2,979	74.91%	473	11.89%	-	0.00%	-	0.00%
Okaloosa	4,842	1,364	28.17%	3,313	68.42%	165	3.41%	-	0.00%	-	0.00%
Santa Rosa	5,220	188	3.60%	4,869	93.28%	163	3.12%	-	0.00%	-	0.00%
Walton	5,030	4,888	97.18%	142	2.82%	-	0.00%	-	0.00%	-	0.00%

2.6.4.3 Hurricane Force Winds

Hazard Overview

Hurricanes and tropical storms are the most common natural hazard in the Hurricane Sally impacted area, causing extensive damage and loss. Table 59: Historical Frequency of Occurrence for Hurricane Hazards (Wind and Storm Surge), along with information from 2.6.3 Severity of Consequences, summarizes the number of and damage from hurricanes across the AOI. Hurricanes are tropical weather systems with a higher intensity of sustained winds at 74 MPH or higher. They develop over warm waters and are caused by the instability created by the collision of

warm and cool air. A hurricane is a type of tropical cyclone. Tropical cyclones are classified according to the intensity of their sustained winds, namely:

1. Tropical Depression: An organized system of clouds with a defined circulation and maximum sustained winds which are less than 39 MPH. These types of storms are considered a tropical cyclone in the formative stage.
2. Tropical Storm: An organized system of clouds with a defined circulation and maximum sustained winds that range between 39 and 73 MPH.
3. Hurricane: A maximum intensity tropical cyclone at which the maximum sustained winds reach or exceed 74 MPH. Hurricanes have a definitive center with a very low barometric pressure in it. Hurricanes are classified into categories ranging from one to five, with winds in Category 5 hurricanes exceeding 155 MPH.

Hurricanes are dangerous because of their potential for destruction, their ability to affect large areas, and their unpredictable movement. Hurricanes are often accompanied by high tides, storm surges, and heavy rains that can cause landslides and flooding by swollen rivers.

As an emerging hurricane develops, barometric pressure at its center falls and winds increase. If the atmospheric and oceanic conditions are favorable, it can intensify into a tropical depression. When maximum sustained winds reach or exceed 39 MPH, the system is designated a tropical storm, given a name, and closely monitored by the National Hurricane Center (NHC) in Miami, Florida. When sustained winds reach or exceed 74 MPH, the storm is deemed a hurricane. Hurricane intensity is further classified by the Saffir-Simpson Scale, which rates hurricane intensity on a scale of one (1) to five (5), with five (5) being the most intense. The Saffir-Simpson hurricane wind scale¹⁴⁹ categorizes hurricane intensity linearly based upon maximum sustained winds, barometric pressure, and storm surge potential, which are combined to estimate potential damage.

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95 mph 64-82 kt 119-153 km/h	Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110 mph 83-95 kt 154-177 km/h	Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3 (major)	111-129 mph 96-112 kt 178-208 km/h	Devastating damage will occur: Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4 (major)	130-156 mph 113-136 kt 209-251 km/h	Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5 (major)	157 mph or higher 137 kt or higher 252 km/h or higher	Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

Figure 52: Saffir-Simpson Hurricane Wind Scale. Source: NOAA

Hurricanes designated Category 3-5 are considered “major hurricanes.” While hurricanes within this range comprise only 20 percent of U.S. total tropical cyclone landfalls, they account for more than 70 percent of U.S. hurricane damage. Since 1926, 18 notable Category 3-5 hurricanes have impacted Florida.¹⁵⁰ Additional hurricane damage may also result from the secondary spawning of tornadoes and inland flooding caused by the heavy rainfall that usually accompanies hurricanes.

¹⁴⁹ United States, NOAA. *National Hurricane Center and Central Pacific Hurricane Center*. Accessed at: <https://www.nhc.noaa.gov/aboutsshws.php>.

¹⁵⁰ <https://climatecenter.fsu.edu/topics/hurricanes>

Table 59: Historical Frequency of Occurrence for Hurricane Hazards (Wind and Storm Surge)

County	Number of Events (1960-2020)	Property Loss (2019 USD)	Fatalities	Injuries
Bay	34	\$922,861,821	6	10
Escambia	26	\$8,261,879,741	11	2
Okaloosa	19	\$1,533,135,042	2	2
Santa Rosa	19	\$1,636,879,386	3	2
Walton	40	\$246,234,725	1	3

Sources: www.sheldus.org, summarized from Section 2.6.3.1 *Historic Consequence*; National Centers for Environmental Information Severe Storms Database <https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA#>

Data and Methods

Gaining perspective on historical frequencies of sustained hurricane-force wind speeds across the AOI required a multi-step geospatial process. First, the Extended Best Track (EBT) data was downloaded for all Atlantic tropical cyclones from the NHC.¹⁵¹ The NHC has maintained a climatology of all Atlantic tropical cyclones since 1851, called HURDAT.¹⁵² For each storm, HURDAT contains estimates of the latitude, longitude, one-minute maximum sustained surface winds, minimum sea-level pressure, and an indicator of whether the system was purely tropical, subtropical, or extra-tropical,¹⁵³ at six-hour intervals. However, HURDAT lacks any information about storm structure. By supplementing HURDAT with additional storm parameters determined by NHC, the “extended” best track file (EBT) was created. This EBT data was subset for the AOI, resulting in a set of specific storms between the years 1851 – 2021 that came close enough to impact the AOI with winds. A buffer of 50 miles was added to each hurricane near the AOI to establish the potential area of impact. Each of the wind fields is then summarized to recreate a specific wind zone polygon for each hurricane event so that each storm is only counted once in the analytic process. Finally, a sum of the number of hurricanes that impacted the AOI between 1851 – 2021 is generated for each hex grid and summarized by municipalities (see lower right quadrant of Figure 53: Hurricane Wind Hazard Areas).

Hurricane Hazard Frequency Analysis Results

Most of the AOI is in the highest category of hurricane wind hazards experiencing more than 50 instances of hurricane force wind events since 1851. Hurricane wind frequency decreases from the center of the AOI (Okaloosa) both east and west with Bay County and Northwest Escambia County experiencing the least number of events (< 35) (Figure 53: Hurricane Wind Hazard Areas). Each county in the AOI has more than 70 percent of its land area in medium-high to high hurricane threat zones (Table 60: Hurricane Wind Hazard Threat Area Summary).

¹⁵¹ United States. Department of Commerce. Extended Best Track Dataset. Accessed at http://rammb.cira.colostate.edu/research/tropical_cyclones/tc_extended_best_track_dataset/

¹⁵² HURDAT is a commonly used acronym that stands for the North Atlantic Hurricane Dataset

¹⁵³ https://www.weather.gov/source/zhu/ZHU_Training_Page/tropical_stuff/sub_extra_tropical/subtropical.htm

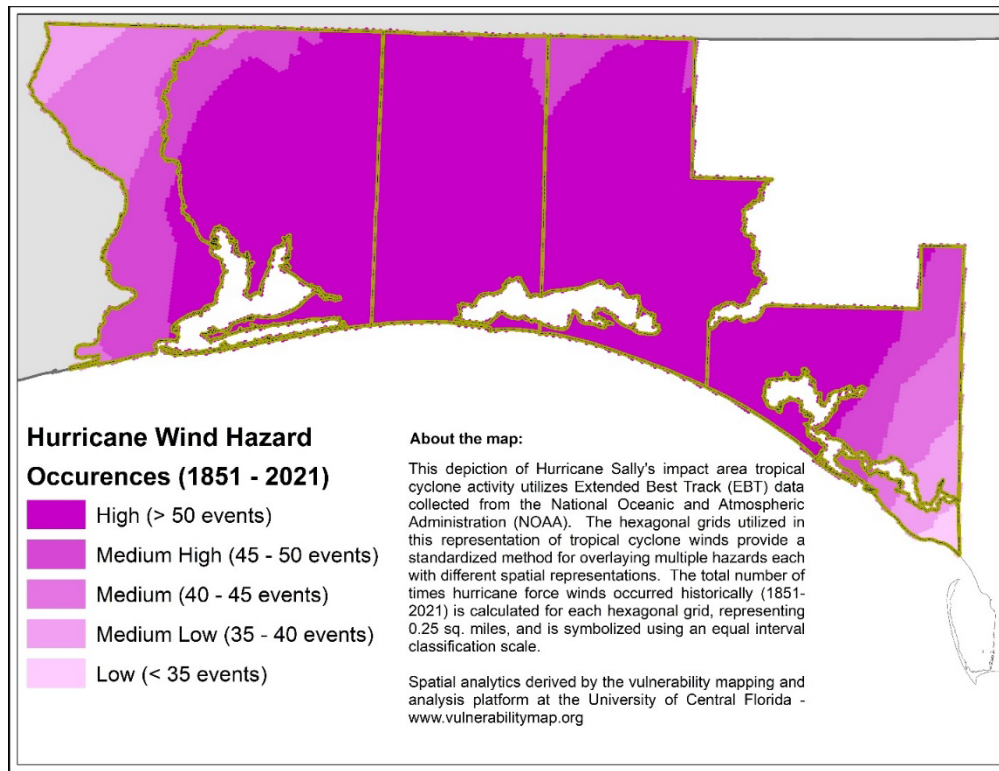


Figure 53: Hurricane Wind Hazard Areas

Table 60: Hurricane Wind Hazard Threat Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Threat Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	109	0.49%	750	3.35%	1,990	8.88%	3,559	15.88%	16,002	71.41%
Bay	4,091	109	2.66%	389	9.51%	699	17.09%	1,054	25.76%	1,840	44.98%
Escambia	3,977	-	0.00%	361	9.08%	1,250	31.43%	1,490	37.47%	876	22.03%
Okaloosa	4,842	-	0.00%	-	0.00%	-	0.00%	149	3.08%	4,693	96.92%
Santa Rosa	5,220	-	0.00%	-	0.00%	65	1.25%	692	13.26%	4,463	85.50%
Walton	5,030	-	0.00%	-	0.00%	-	0.00%	376	7.48%	4,654	92.52%

Hurricane Hazard Risk Analysis Results

Accounting for vulnerability and severity of consequences in the creation of a composite hurricane wind risk measure provides a more complete view of how hurricane winds can impact the AOI. Here, each county except Walton has areas characterized by high hurricane risk (Figure 54: Hurricane Wind Composite Risk). Although each county but Walton contains areas of high hurricane risk, these high hurricane risk areas are minimal, containing less than two percent respectively. However, most of these counties have more than 50 percent of their land area in medium to medium-high hurricane wind risk (Table 61: Hurricane Wind Zone Hazard Risk Area Summary).

Box 7: Hurricane Wind Hazard Mitigation Takeaway

Mitigation Takeaway: Hurricane winds have the potential to reach far inland. When hurricane wind threat is coupled with underlying vulnerabilities (social, population, and community lifelines), key areas of Pensacola, Fort Walton, and Destin have higher risk that other areas. Mitigation efforts in these places will have the highest direct impact on creating future hazard resilience. Beyond these highest priority areas, remaining mitigation funds might have the highest direct benefit in urbanized areas of the Hurricane Sally AOI, such as Milton, Defuniak Springs, and Crestview.

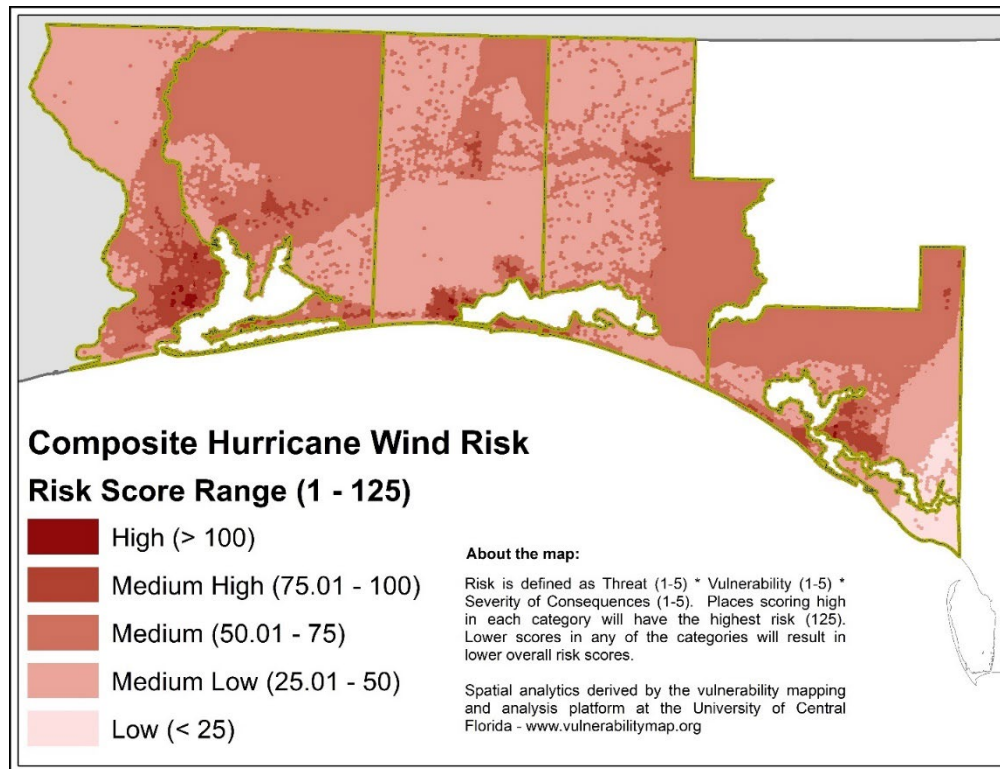


Figure 54: Hurricane Wind Composite Risk

Table 61: Hurricane Wind Zone Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	451	2.01%	9,650	43.06%	10,793	48.16%	1,443	6.44%	73	0.33%
Bay	4,091	438	10.71%	1,320	32.27%	2,020	49.38%	307	7.50%	6	0.15%
Escambia	3,977	13	0.33%	1,937	48.71%	1,315	33.07%	658	16.55%	54	1.36%
Okaloosa	4,842	-	0.00%	3,103	64.09%	1,479	30.55%	248	5.12%	12	0.25%
Santa Rosa	5,220	-	0.00%	1,127	21.59%	3,929	75.27%	163	3.12%	1	0.02%
Walton	5,030	-	0.00%	2,518	50.06%	2,439	48.49%	73	1.45%	-	0.00%

2.6.4.4 Hurricane Storm Surges

Hazard Overview

A storm surge is an elevated water level that is pushed towards the shore by the force of strong winds that result in the piling up of water along the shoreline. The advancing surge combines with the normal tides, which in extreme cases can increase the normal water height over 20 feet. Storm surge arrives ahead of a storm's actual landfall—the more intense the hurricane is, the sooner the surge arrives. Water rise can occur rapidly and move far inland, posing a serious threat to those who have not yet evacuated flood-prone areas. Debris carried by the waves can also contribute to the devastation. As the storm approaches the shore, the greatest storm surge will be to the northeast of the hurricane eye, in the right-front quadrant of the direction in which the hurricane is moving. A surge of high water topped by waves driven by hurricane force winds can be devastating to coastal regions, causing severe beach erosion and property damage along the immediate coast. Storm surge heights, and associated waves, are impacted by the shape of the continental shelf (narrow or wide) and the depth of the ocean bottom (bathymetry). A narrow shelf, or one that drops steeply from the shoreline and subsequently produces deep water close to the shoreline, tends to produce a lower surge, but higher and more powerful storm waves. While disassociated with the Saffir-Simpson Scale, storm surge remains the leading cause of mortality (or loss of life) of residents along the immediate coastal areas.¹⁵⁴ Table 62: Historical Frequency of Occurrence for Hurricane Hazards (Wind and Storm Surge) contains data on the historical frequency of wind and storm surge, as hurricane hazards, within the Hurricane Sally AOI.

Table 62: Historical Frequency of Occurrence for Hurricane Hazards (Wind and Storm Surge)

County	Number of Events (1960-2020)	Property Loss (2019 USD)	Fatalities	Injuries
Bay	34	\$922,861,821	6	10
Escambia	26	\$8,261,879,741	11	2
Okaloosa	19	\$1,533,135,042	2	2
Santa Rosa	19	\$1,636,879,386	3	2
Walton	40	\$246,234,725	1	3

Source: www.sheldus.org, summarized from Section 2.6.3 Severity of Consequences

Data and Methods

This assessment utilized Sea, Lake and Overland Surges from Hurricanes (SLOSH) datasets to map storm surge inundation for the conterminous U.S. provided by NOAA National Storm Surge Hazard Maps.¹⁵⁵ SLOSH is a computerized model that estimates storm surge heights from tropical cyclones using pressure, size, forward speed, and track data to create a model of the wind field which pushes water. In each SLOSH basin or grid, tens of thousands of hypothetical tropical cyclones are simulated, and the potential storm surges are calculated. The model is best used for defining the potential flooding from storm surge for a location from a threatening hurricane, rather than as a predictor of the specific areas that will be inundated during a particular event. In some coastal and island regions, such as Florida, NOAA has coupled the SLOSH model and the Simulating Waves Nearshore (SWAN) third-generation wave model, developed at Delft University of Technology, to model storm surge and create Maximum of the Maximum Envelope of High Water (referred to as MEOH or MOM) products. For this assessment, average Water MOM provides a worst-case snapshot for a particular storm category under "perfect"

¹⁵⁴ Adapted from *South Carolina Hazard Mitigation Plan*. Accessed at: <https://www.scemd.org/media/1391/sc-hazard-mitigation-plan-2018-update.pdf>

¹⁵⁵ United States. NOAA. *National Storm Surge Hazard Maps – Version 2*. Accessed at: <https://www.nhc.noaa.gov/nationalsurge>

storm conditions.¹⁵⁶ Each MOM considers combinations of forward speed, trajectory, and initial tide level. These products are compiled when a SLOSH basin is developed or updated. It should be noted that no single hurricane will produce the regional flooding depicted in the MOMs. Instead, MOMs are intended to capture the worst-case high-water value at a particular location for hurricane evacuation planning. For this assessment, MOM water depth associated with each hurricane category was calculated for each hex-grid.

Hurricane Storm Surge Hazard Frequency Analysis Results

Hurricane storm surges, a uniquely coastal phenomena, show differential hazardousness across the Hurricane Sally AOI. All counties in this assessment have storm surge hazard threat potential – especially in areas adjacent to bay and inland waterways connected to the open ocean (Figure 55: Hurricane Category 5 Storm Surge Hazard Areas). No coastline in the Hurricane Sally AOI is immune from the possibility of hurricane storm surges, although the water associated with each surge will vary in depth and spatial extent. Bay and Escambia counties have the most land area in high hurricane storm surge zones, with 32 percent and 22 percent respectively (Table 63: Hurricane Storm Surge Hazard Threat Area Summary).

Hurricane Storm Surge Hazard Risk Analysis Results

Accounting for vulnerabilities and severity of consequences from hurricane storm surges helps to pinpoint areas along the coast where people and community lifelines intersect with surge hazard threats (Figure 58: Severe Storm Hazard Composite Risk). From the risk perspective, both Bay and Okaloosa have high storm surge risk areas, albeit small in total area (Table 64: Hurricane Storm Surge Hazard Risk Area Summary). Fortunately, because storm surge threats are a coastal phenomenon and each of these counties extend north to the state border with Alabama, the overall land area at risk from this threat mainly falls into the low to medium categories.

Box 8: Hurricane Storm Surge Hazard Mitigation Takeaway

Mitigation Takeaway: Mitigating the effects of storm surges, especially in reference to critical infrastructure, should be focused on areas outlying Pensacola to the south and west, the Fort Walton area, and southern/western parts of Destin. Given limited available funds, Escambia, Bay, and Santa Rosa Counties face the highest storm surge threat and should be prioritized over Okaloosa County. Lifelines supporting community preparedness, response, and recovery that are in surge zones may represent the highest priority for storm surge mitigation activities including hardening and wet floodproofing.

¹⁵⁶ United States. NOAA. *Storm Surge Maximum of the Maximum (MOM)*. Accessed at: <https://www.nhc.noaa.gov/surge/momOverview.php>

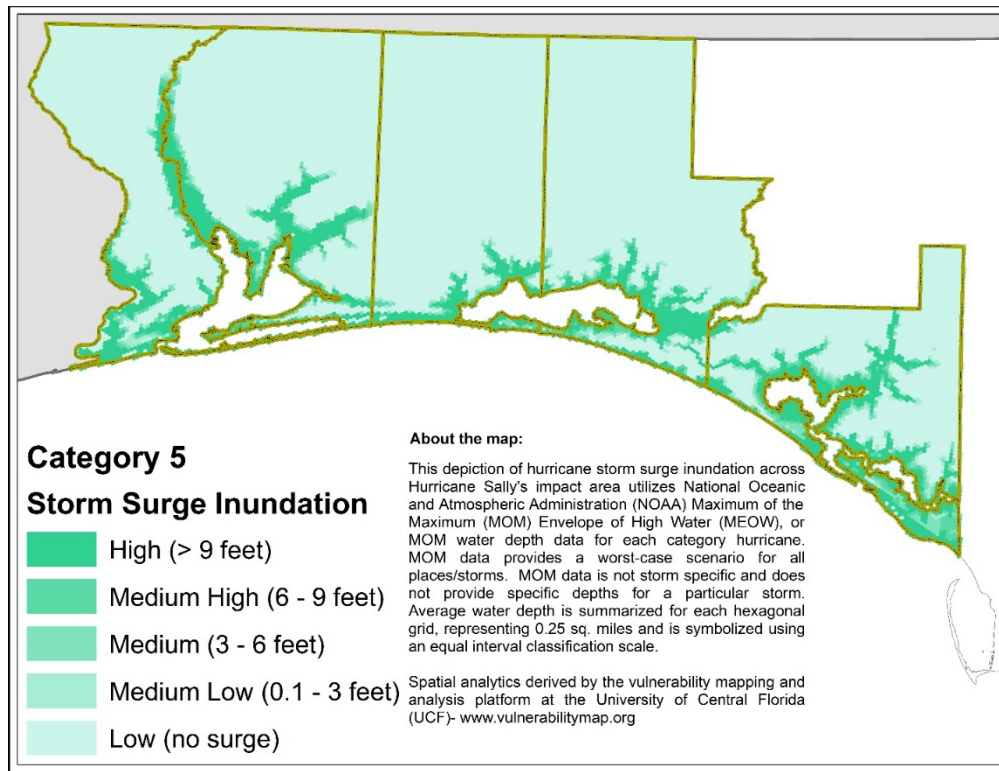


Figure 55: Hurricane Category 5 Storm Surge Hazard Areas

Table 63: Hurricane Storm Surge Hazard Threat Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Threat Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	16,694	74.49%	410	1.83%	588	2.62%	584	2.61%	4,134	18.45%
Bay	4,091	2,214	54.12%	143	3.50%	231	5.65%	177	4.33%	1,326	32.41%
Escambia	3,977	2,793	70.23%	78	1.96%	85	2.14%	112	2.82%	909	22.86%
Okaloosa	4,842	4,156	85.83%	47	0.97%	71	1.47%	69	1.43%	499	10.31%
Santa Rosa	5,220	3,858	73.91%	83	1.59%	126	2.41%	152	2.91%	1,001	19.18%
Walton	5,030	4,141	82.33%	78	1.55%	99	1.97%	110	2.19%	602	11.97%

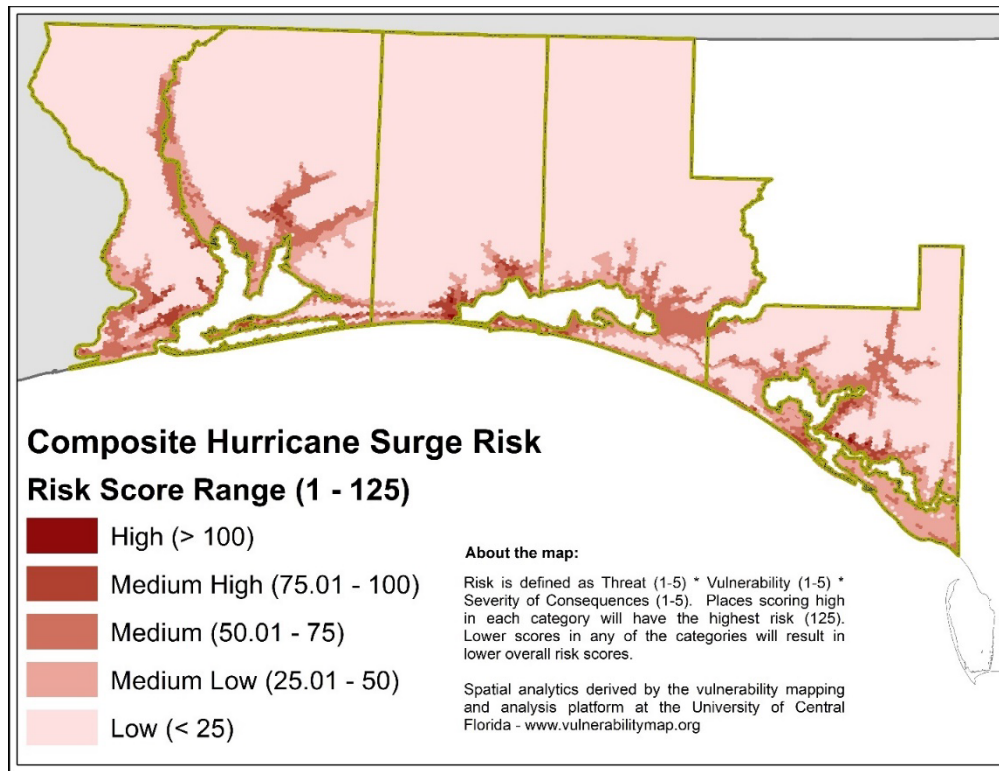


Figure 56: Hurricane Category 5 Storm Surge Composite Risk

Table 64: Hurricane Storm Surge Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	16,820	75.06%	2,678	11.95%	2,418	10.79%	478	2.13%	16	0.07%
Bay	4,091	2,259	55.22%	1,006	24.59%	678	16.57%	138	3.37%	10	0.24%
Escambia	3,977	2,801	70.43%	453	11.39%	576	14.48%	147	3.70%	-	0.00%
Okaloosa	4,842	4,183	86.39%	277	5.72%	249	5.14%	127	2.62%	6	0.12%
Santa Rosa	5,220	3,884	74.41%	620	11.88%	658	12.61%	58	1.11%	-	0.00%
Walton	5,030	4,170	82.90%	430	8.55%	416	8.27%	14	0.28%	-	0.00%

2.6.4.5 Severe Storms

Hazard Overview

Severe thunderstorms are defined by NWS as storms that have wind speeds at 58 MPH or higher, produce hail at least 0.75-inch in diameter, or produce tornadoes. Thunderstorms simply require moisture to form clouds and rain, coupled with an unstable mass of warm air that can rise rapidly. Thunderstorms affect relatively small areas when compared with hurricanes and winter storms, as the average storm is 15 miles in diameter and lasts an average of 30 minutes. Nearly 1,800 thunderstorms are occurring at any moment around the world. However, of the estimated 100,000 thunderstorms that occur each year in the U.S., only about 10 percent are classified as

severe. Thunderstorms are most likely to happen in the spring and summer months and during the afternoon and evening hours but can occur year-round and at all hours. Despite their generally small size compared to hurricanes, all thunderstorms are dangerous and capable of threatening life and property in localized areas. Every thunderstorm produces lightning, which results from the buildup and discharge of electrical energy between positively and negatively charged areas. Each year across the U.S., lightning causes more deaths than tornadoes. Each year lightning is responsible for an average of 93 deaths, 300 injuries, and several hundred million dollars in damage to property and forests. Across the Hurricane Sally AOI, lightning has caused more than \$13 million in damage, has killed nearly 50 people, and injured more than 200.¹⁵⁷

Thunderstorms can also produce large, damaging hail, which causes nearly \$1 billion in damage to property and crops annually. Straight-line winds, which in extreme cases have the potential to exceed 100 MPH, are responsible for most thunderstorm wind damage. One type of straight-line wind, the downburst, can cause damage equivalent to a strong tornado and can be extremely dangerous to aviation. Thunderstorms are also capable of producing tornados and heavy rain that can lead to flash flooding.

Table 65: Historical Frequency of Occurrence for Severe Storm Hazards, below, provides statistics on the historical frequency of severe storm hazards in the Hurricane Sally AOI.

Table 65: Historical Frequency of Occurrence for Severe Storm Hazards

County	Number of Events (1960-2020)	Property Loss (2019 USD)	Fatalities	Injuries
Bay	117	\$16,132,165	1	1
Escambia	183	\$19,951,089	1	6
Okaloosa	151	\$21,851,481	1	3
Santa Rosa	179	\$19,299,685	1	2
Walton	144	\$12,084,060	1	3

Source: www.sheldus.org, summarized from Section 2.6.3 Severity of Consequences

Data and Methods

Severe storm warnings are issued by NWS Forecast Offices within and near the Hurricane Sally AOI. Severe thunderstorm warnings include where the storm is located, what towns will be affected by the severe thunderstorm, and the primary threat associated with the severe thunderstorm warning.¹⁵⁸ Severe storm warnings are collected and archived by Iowa State University's Environmental [Mesonet](https://mesonet.agron.iastate.edu/).¹⁵⁹ Across the Hurricane Sally AOI, there have been more than 3 severe storm warnings issued annually between 2002 and 2021 (Figure 57: Severe Storm Hazard Frequency Areas). Each hexagonal grid was appraised based on the average number of severe storm warnings touching it over the period of record. This summation was then divided by the number of years in the record to develop an average annual number of severe storms and mapped.

Severe Storm Hazard Frequency Analysis Results

The Florida panhandle is a very active area in terms of severe storm occurrences. However, the western and eastern portions of the AOI have seen fewer severe storms warnings than Okaloosa and Walton counties in the central portion of the AOI (Figure 57: Severe Storm Hazard Frequency Areas). Any severe storm can have dire consequences, thus understanding where higher threat areas are located is important for building disaster resilience through mitigation. A majority of all AOI county land area falls into the medium severe storm threat category with nearly all of Santa Rosa County exhibiting medium severe storm threat (Table 66: Severe Storm

¹⁵⁷ Summarized from Section 2.6.3 Severity of Consequences.

¹⁵⁸ United States. NOAA. *Severe Weather Definitions*. Accessed at: <https://www.weather.gov/bgm/severedefinitions>

¹⁵⁹ Iowa State University. *Iowa Environmental Mesonet*. Accessed at: <https://mesonet.agron.iastate.edu/>

Hazard Threat Area Summary). In this regard, only Bay and Walton counties have any land area in the low threat category for severe storms.

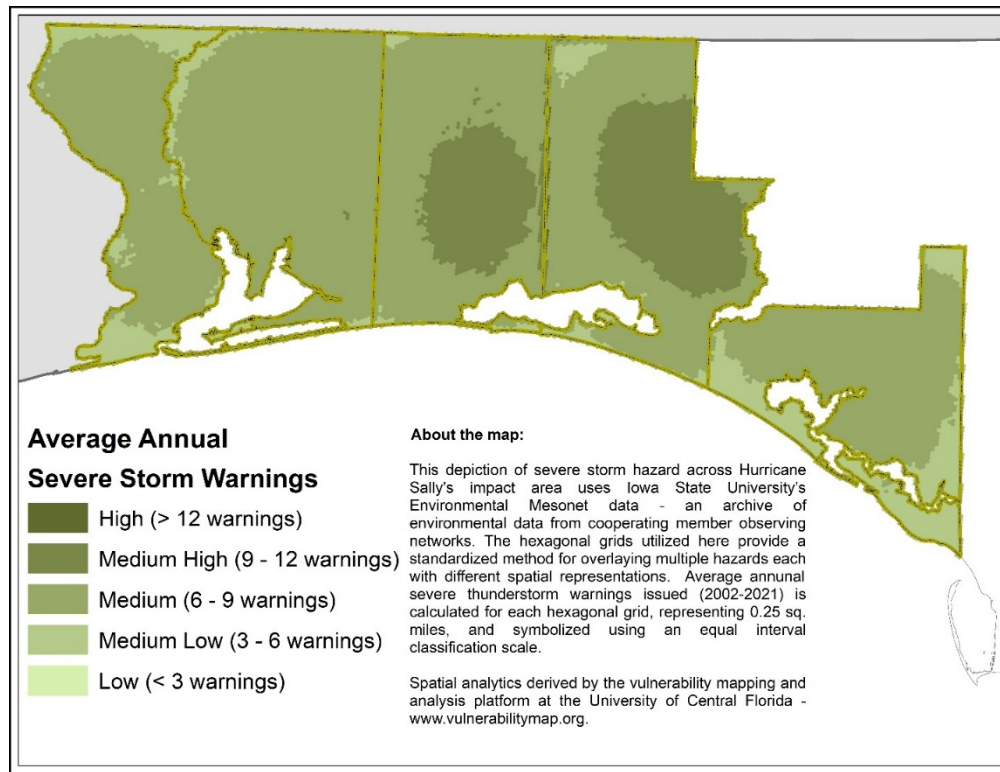


Figure 57: Severe Storm Hazard Frequency Areas

Table 66: Severe Storm Hazard Threat Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Threat Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	9	0.04%	3,017	13.46%	16,079	71.75%	3,181	14.19%	124	0.55%
Bay	4,091	1	0.02%	1,385	33.85%	2,705	66.12%	-	0.00%	-	0.00%
Escambia	3,977	-	0.00%	910	22.88%	3,067	77.12%	-	0.00%	-	0.00%
Okaloosa	4,842	-	0.00%	160	3.30%	3,217	66.44%	1,349	27.86%	116	2.40%
Santa Rosa	5,220	-	0.00%	362	6.93%	4,849	92.89%	9	0.17%	-	0.00%
Walton	5,030	8	0.16%	324	6.44%	2,676	53.20%	1,898	37.73%	124	2.47%

Severe Storm Hazard Risk Analysis Results

Accounting for the severity of consequences and vulnerabilities across the AOI produces a different perspective for severe storm risk (Figure 58: Severe Storm Hazard Composite Risk). Here, no county in the AOI has high or medium-high risk and Escambia, Okaloosa, and Walton have only limited land area in the medium severe storm risk category (Table 67: Severe Storm Hazard Risk Area Summary). Every county in the AOI has the most land area (> 50 percent) in the medium-low category.

Box 9: Severe Storm Hazard Mitigation Takeaway

Mitigation Takeaway: Severe storms were classified with a higher severity of consequence than many other hazards, yet the spatial representation of risk zones for this threat highlight only medium or lower risk to lives and livelihoods. Sill, Pensacola (Escambia County), Crestview (Okaloosa County), and Defuniak Springs (Walton County) have pockets of higher risk. People, especially socially vulnerable populations in these areas, along with lifelines supporting preparedness appear to be high priority for mitigation in these areas.

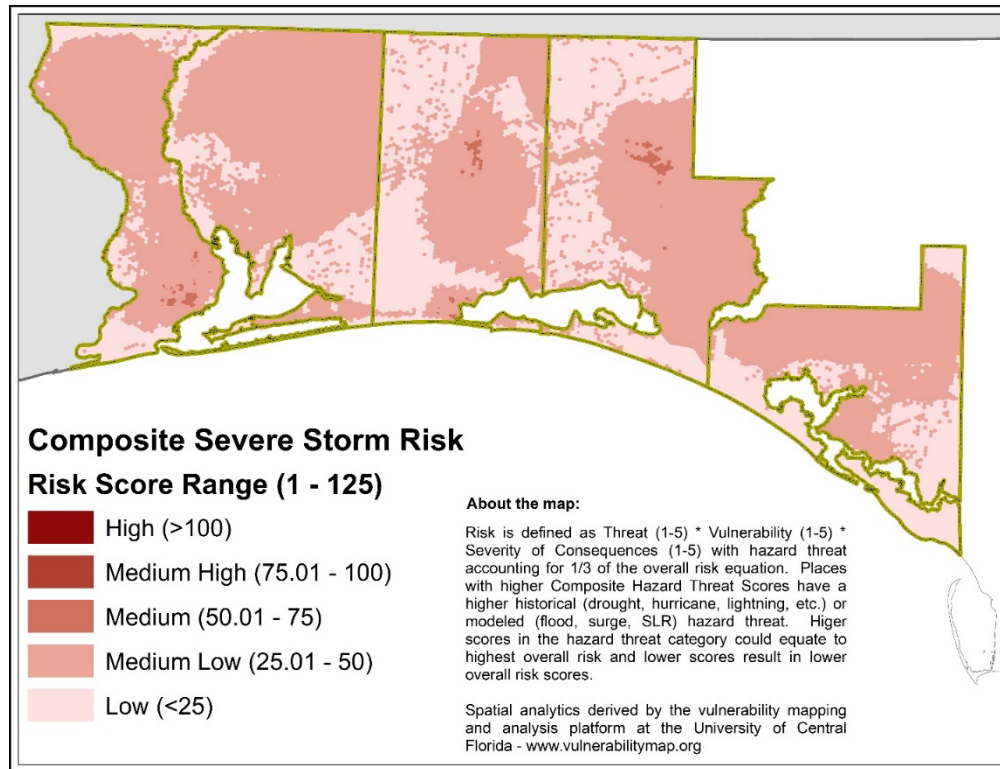


Figure 58: Severe Storm Hazard Composite Risk

Table 67: Severe Storm Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	7,958	35.51%	14,259	63.63%	193	0.86%	-	0.00%	-	0.00%
Bay	4,091	1,853	45.29%	2,238	54.71%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	1,036	26.05%	2,879	72.39%	62	1.56%	-	0.00%	-	0.00%
Okaloosa	4,842	2,068	42.71%	2,699	55.74%	75	1.55%	-	0.00%	-	0.00%
Santa Rosa	5,220	1,335	25.57%	3,885	74.43%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	1,949	38.75%	3,000	59.64%	81	1.61%	-	0.00%	-	0.00%

2.6.4.6 Tornado

Hazard Overview

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud extending to the ground. Tornadoes are most often generated by severe thunderstorms and occur when cool, dry air intersects and overrides a layer of warm, moist air, forcing the warm air to rise rapidly. Tornado damage is a result of high wind velocity and wind-blown debris, although they can be accompanied by large hail. Although relatively infrequent across Florida, tornadoes can cause serious damage when they do occur.

Because real time tornado wind speeds are very difficult to measure, tornadoes intensity is determined post-event by surveying disaster damage. Since 2007, tornado intensity has been measured by the Enhanced Fujita-Pearson Scale. The most violent tornadoes have rotating winds at 200 MPH or higher and can cause extreme destruction, including uprooting trees and well-made structures, and turning normally harmless objects into deadly missiles.

Table 68: Historical Frequency of Occurrence for Tornado Hazards displays data regarding the historical frequency of tornado hazards in the Hurricane Sally AOI.

Table 68: Historical Frequency of Occurrence for Tornado Hazards

County	Number of Events (1960-2020)	Property Loss (2019 USD)	Fatalities	Injuries
Bay	63	\$38,411,837	4	78
Escambia	81	\$45,148,405	2	177
Okaloosa	88	\$39,829,380	4	126
Santa Rosa	60	\$17,043,462	17	118
Walton	43	\$13,688,871	1	7

Source: www.sheldus.org, summarized from Section 2.6.3 Severity of Consequences

Data and Methods

Pinpointing past tornado occurrence provides a very limited understanding of tornado frequency and likely underestimates tornado threats. Utilizing tornado watch boxes, those areas where conditions were favorable for tornado development, provides a more nuanced understanding of historical hazard zones. For this assessment, tornado warning polygons spanning 19 years, from 2002-2021, were obtained from National Weather Service Watches and Warnings through the Iowa Environmental Mesonet. A total frequency is calculated for each hexagonal grid as the number of tornado warning polygons that intersect each hexagon. Average annual frequency is then calculated by dividing the total frequency by the number of years in record.

Tornado Hazard Frequency Analysis Results

Okaloosa and Escambia counties have the highest tornado hazard threat across the AOI (Figure 59: Tornado Hazard Areas) with Okaloosa County having nearly 21 percent of its land area in a high tornado threat area (Table 69: Tornado Hazard Threat Area Summary). Every county in the AOI, except Walton County, has more than 50 percent of its land area in medium or greater tornado threat areas and Walton County has 65 percent of its land area classified as medium low threat while less than five percent is in medium-high to high tornado threat zones.

Tornado Hazard Risk Analysis Results

Because tornadoes have a higher SOC score than many other hazards across the AOI counties, the risk associated with tornadoes is more pronounced, especially in southern and central Okaloosa County and parts of Santa Rosa, Escambia, and Bay Counties (Figure 60: Tornado Hazard Composite Risk). Here, although not extensive, Okaloosa County has a small area with medium high tornado risk and every county has areas in the medium risk category (Table 70: Tornado Hazard Risk Area Summary).

Box 10: Tornado Hazard Mitigation Takeaway

Mitigation Takeaway: Unlike many other hazards, tornado risk is higher in Okaloosa County than other Hurricane Sally AOI counties, however, portions of Santa Rosa County also have higher risk. Tornado mitigation should focus on any area where threat is medium-high to high and infrastructure and populations, especially those that are vulnerable, reside. Mitigating tornado threats is a simple, yet expensive endeavor requiring new multi-purpose tornado/severe storm shelter buildings.

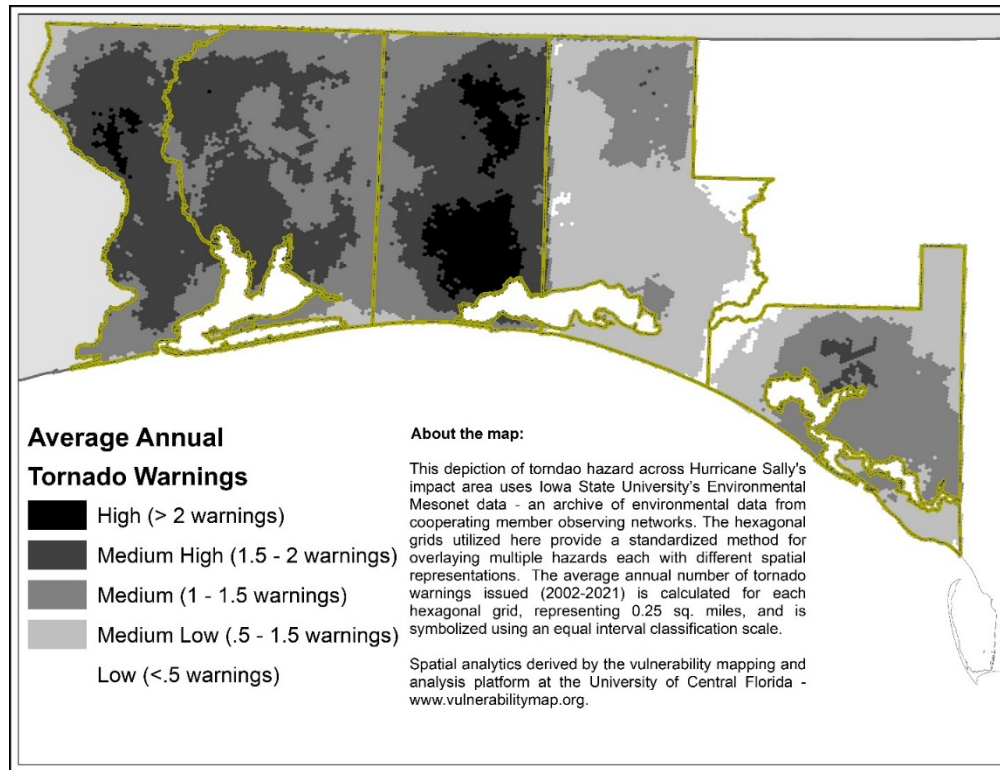


Figure 59: Tornado Hazard Areas

Table 69: Tornado Hazard Threat Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Threat Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	613	2.74%	5,417	24.17%	8,364	37.32%	6,903	30.80%	1,113	4.97%
Bay	4,091	224	5.48%	1,551	37.91%	2,190	53.53%	126	3.08%	-	0.00%
Escambia	3,977	13	0.33%	279	7.02%	1,366	34.35%	2,223	55.90%	96	2.41%
Okaloosa	4,842	4	0.08%	131	2.71%	1,341	27.70%	2,350	48.53%	1,016	20.98%
Santa Rosa	5,220	10	0.19%	181	3.47%	2,672	51.19%	2,356	45.13%	1	0.02%
Walton	5,030	414	8.23%	3,296	65.53%	1,116	22.19%	198	3.94%	6	0.12%

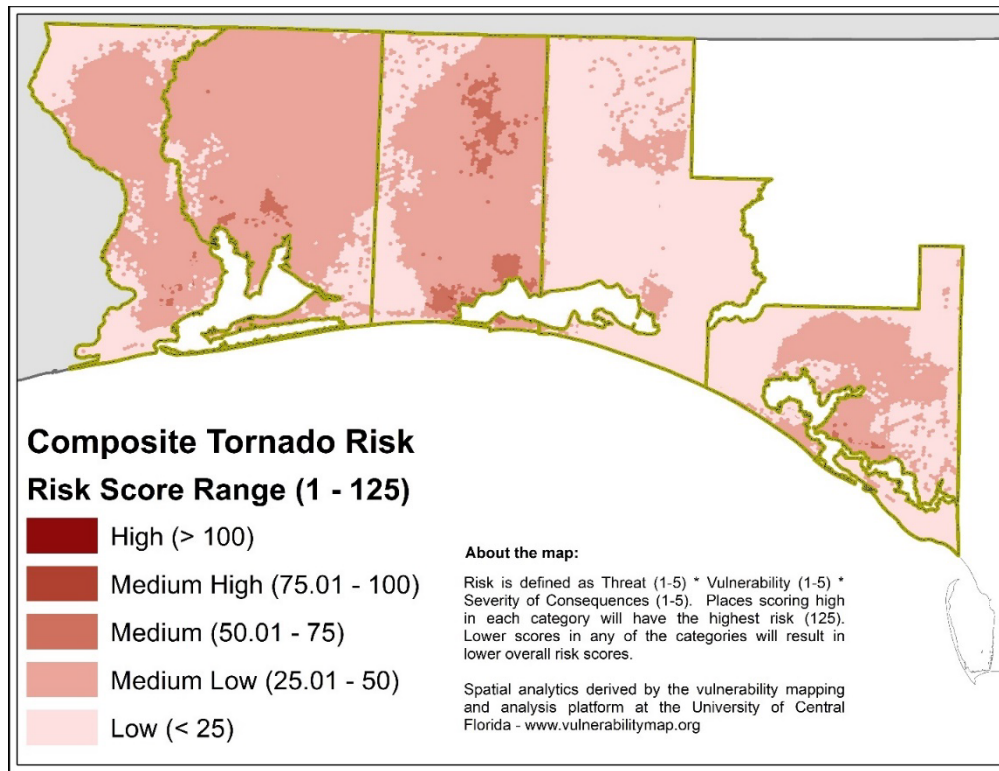


Figure 60: Tornado Hazard Composite Risk

Table 70: Tornado Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	9,842	43.92%	11,920	53.19%	646	2.88%	2	0.01%	-	0.00%
Bay	4,091	2,480	60.62%	1,586	38.77%	25	0.61%	-	0.00%	-	0.00%
Escambia	3,977	1,544	38.82%	2,407	60.52%	26	0.65%	-	0.00%	-	0.00%
Okaloosa	4,842	1,078	22.26%	3,264	67.41%	498	10.29%	2	0.04%	-	0.00%
Santa Rosa	5,220	695	13.31%	4,428	84.83%	97	1.86%	-	0.00%	-	0.00%
Walton	5,030	4,361	86.70%	667	13.26%	2	0.04%	-	0.00%	-	0.00%

2.6.4.7 Lower Severity of Consequence Hazard Threats

Additional information on the risks contained within this section, 2.6.4.7 Lower Severity of Consequence Hazard Threats, are included in a separate attachment titled “Threat Assessment for Less Severe Hazards,” which is posted to the Hurricane Sally webpage at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally. Figures and tables referenced in this section which include “attachment” can be found in this separate attachment.

Wind Hazard Risk Analysis Results

Coupling wind hazard threats with underlying social, population, and lifeline vulnerability and a fairly low severity of consequences, produces an unremarkable composite wind risk map (Attachment Figure 2). Escambia and

Walton are the only counties with any land area in a medium or greater risk class, with Escambia County containing a very small medium-high wind risk area (Attachment Table 2).

Table 71: Wind Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	22,332	99.65%	71	0.32%	6	0.03%	1	0.00%	-	0.00%
Bay	4,091	4,089	99.95%	2	0.05%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,919	98.54%	54	1.36%	3	0.08%	1	0.03%	-	0.00%
Okaloosa	4,842	4,838	99.92%	4	0.08%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	5,215	99.90%	5	0.10%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	5,021	99.82%	6	0.12%	3	0.06%	-	0.00%	-	0.00%

Fog Hazard Risk Analysis Results

Fog has the lowest severity of consequences score (1 out of 5) across the AOI. Consequently, fog risk is unremarkable with every county categorized as low fog risk (Attachment Figure 4) and (Attachment Table 4). If fog caused more damage, fatalities, injuries, or was a higher priority, its risk would increase significantly.

Table 72: Fog Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	22,410	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	4,091	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,977	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	4,842	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	5,220	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	5,030	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%

Hail Hazard Risk Analysis Results

Like other low consequence and low frequency hazard threats, hail hazard risk across the AOI is minimal (Attachment Figure 6). Only two counties have any land area outside of the low hail risks classification (Attachment Table 6).

Table 73: Hail Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	22,406	99.98%	4	0.02%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	4,091	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,973	99.90%	4	0.10%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	4,842	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	5,220	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	5,030	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%

High Temperatures Hazard Risk Analysis Results

Because heat hazard does not cause property damage and is not a high priority hazard for emergency management in the AOI communities, it has a lower severity of consequences. Overlaying this low SOC with high temp risk areas does produce differential risk across the AOI (Attachment Figure 8), however, this risk falls into the low to medium-low categories (Attachment Table 8). Santa Rosa and Walton, followed by Okaloosa, have the most land area in at risk to high temperature hazards – although this risk tops out at a medium low classification.

Table 74: Heat Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	17,219	76.84%	5,191	23.16%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	3,692	90.25%	399	9.75%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,965	99.70%	12	0.30%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	3,453	71.31%	1,389	28.69%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	3,342	64.02%	1,878	35.98%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	3,369	66.98%	1,661	33.02%	-	0.00%	-	0.00%	-	0.00%

Low Temperatures Hazard Risk Analysis Results

Like high temperature risk, the severity of consequences from cold hazards are not as extensive as other hazards in this assessment. As a result, most of the AOI is characterized by low risk in relation to low temperature hazard (Attachment Figure 10) with only two counties (Escambia and Walton) containing land in the medium-low risk category (Attachment Table 10).

Table 75: Low Temperature Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	21,687	96.77%	723	3.23%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	4,091	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,267	82.15%	710	17.85%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	4,842	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	5,220	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	5,017	99.74%	13	0.26%	-	0.00%	-	0.00%	-	0.00%

Winter Hazard Risk Analysis Results

Like fog, high and low temperatures, the consequences associated with winter weather have infrequently been realized across the AOI. As such, only a few very small pockets of medium-low exists across the AOI (Attachment Figure 12 and Attachment Table 12).

Table 76: Winter Weather Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	22,337	99.67%	73	0.33%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	4,091	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,912	98.37%	65	1.63%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	4,842	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	5,220	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	5,022	99.84%	8	0.16%	-	0.00%	-	0.00%	-	0.00%

Sinkhole Hazard Risk Analysis Results

Like other hazards with low threat and low severity of consequences, the risks associated with sinkholes do not rise to the same level as other threats such as hurricanes. Here, both the spatial risk representation (Attachment Figure 14) and tabular areal risk statistics (Attachment Table 14) show only low risk to sinkholes across the AOI.

Table 77: Sinkhole Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	22,410	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	4,091	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,977	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	4,842	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	5,220	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	5,030	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%

Earthquake Hazard Risk Analysis Results

The low frequency of this hazard coupled with lack of historical losses from earthquakes leads to a low overall risk for the AOI. The resulting risk map (Attachment Figure 16) and associated areal summary (Attachment Table 16) show a lack of risk for these counties when compared to other hazards.

Table 78: Earthquake Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	22,410	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	4,091	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,977	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	4,842	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	5,220	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	5,030	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%

Drought Hazard Risk Analysis Results

Drought’s general low number of property losses, injuries, and fatalities coupled with its lower priority in local mitigation plans result in lower overall risk across the AOI (Attachment Figure 18) with scattered areas of medium-low risk in most counties. Although most counties are dominated by low risk, Bay County has nearly all its land area in a low drought risk zone (Attachment Table 18).

Table 79: Drought Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	15,377	68.62%	7,033	31.38%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	4,054	99.10%	37	0.90%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	1,623	40.81%	2,354	59.19%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	4,088	84.43%	754	15.57%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	2,562	49.08%	2,658	50.92%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	3,580	71.17%	1,450	28.83%	-	0.00%	-	0.00%	-	0.00%

Wildfire Hazard Risk Analysis Results

Wildfire has a moderate SOC score across all counties in the AOI, ranging from a low of 2.5 in Escambia to over 3 in Walton (on a scale of 1-5) resulting in lower risks for Escambia and only medium-low wildfire risk in Santa Rosa (Attachment Figure 20). Here, no county has any land area with a wildfire risk of medium or higher (Attachment Table 20).

Table 80: Wildfire Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	21,417	95.57%	993	4.43%	-	0.00%	-	0.00%	-	0.00%
Bay	4,091	4,083	99.80%	8	0.20%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	3,974	99.92%	3	0.08%	-	0.00%	-	0.00%	-	0.00%
Okaloosa	4,842	4,737	97.83%	105	2.17%	-	0.00%	-	0.00%	-	0.00%
Santa Rosa	5,220	4,480	85.82%	740	14.18%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	4,834	96.10%	196	3.90%	-	0.00%	-	0.00%	-	0.00%

Lightning Hazard Risk Analysis Results

Accounting for vulnerabilities (social, population, and lifeline) and severity of consequences for lightning hazard provides a different representation of lightning risk where Escambia and central Okaloosa have the highest risk areas (Attachment Figure 22). Because of the generally lower SOC scores for lightning, most AOI land area is in low to medium low lightning risk areas (Attachment Table 22).

Table 81: Lightning Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	8,712	38.88%	13,340	59.53%	350	1.56%	8	0.04%	-	0.00%
Bay	4,091	2,568	62.77%	1,523	37.23%	-	0.00%	-	0.00%	-	0.00%
Escambia	3,977	505	12.70%	3,270	82.22%	194	4.88%	8	0.20%	-	0.00%
Okaloosa	4,842	1,929	39.84%	2,785	57.52%	128	2.64%	-	0.00%	-	0.00%
Santa Rosa	5,220	1,489	28.52%	3,702	70.92%	29	0.56%	-	0.00%	-	0.00%
Walton	5,030	2,626	52.21%	2,404	47.79%	-	0.00%	-	0.00%	-	0.00%

Sea Level Rise Hazard Risk Analysis Results

Notably, southeastern Escambia appears to have the most land area in elevated sea-level rise risk zones (Attachment Table 24). Although the percentage of land area is relatively small, the fact that this sea level rise is a coastal phenomenon means that most parts of the county will have a lower risk, but these areas are suitable for additional scrutiny and mitigation planning.

Table 82: Sea-Level Rise Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	21,277	94.94%	1,016	4.53%	117	0.52%	-	0.00%	-	0.00%
Bay	4,091	3,798	92.84%	292	7.14%	1	0.02%	-	0.00%	-	0.00%
Escambia	3,977	3,666	92.18%	196	4.93%	115	2.89%	-	0.00%	-	0.00%
Okaloosa	4,842	4,716	97.40%	125	2.58%	1	0.02%	-	0.00%	-	0.00%
Santa Rosa	5,220	4,893	93.74%	327	6.26%	-	0.00%	-	0.00%	-	0.00%
Walton	5,030	4,880	97.02%	150	2.98%	-	0.00%	-	0.00%	-	0.00%

2.6.5 Composite Threats and Risks

Understanding individual risks (2.6.4 Hazard Threat and Risk Assessment) can provide necessary details when attempting to build specific programs aimed at mitigating individual threats. However, oftentimes, a wholistic representation of threats covering vulnerability of people and infrastructure (Section 2.6.2.4 Vulnerability Data and Analysis), severity of consequences (Section 2.6.3 Severity of Consequences), and area of potential impact (Section 2.6.4 Hazard Threat and Risk Assessment) can aid in broad planning and mitigation program development. Here, it is easy to see that the western parts of Hurricane Sally’s impact area carry a higher threat burden than the eastern areas with a few notable exceptions at the interface of water (Figure 62: The Hurricane

Sally AOI’s Aggregate Risk). Santa Rosa and Okaloosa Counties have 64 percent and 46 percent of their respective land area in medium high to high threat zones (Table 83: Composite Hazard Threat Area Summary) and every county has more than 50 percent of its land area in medium or greater hazard threat zones.

Box 11: Composite Threats Hazard Mitigation Takeaway

Mitigation Takeaway: A focus on threat-only mitigation, including building physical protective barriers (hardened roofs, shelters, and the like), would be most beneficial in and around the Pensacola area, across central Santa Rosa County, and in parts of Destin. However, focusing on the physical threat without accounting for vulnerabilities may result in mitigating threats that have no impact.

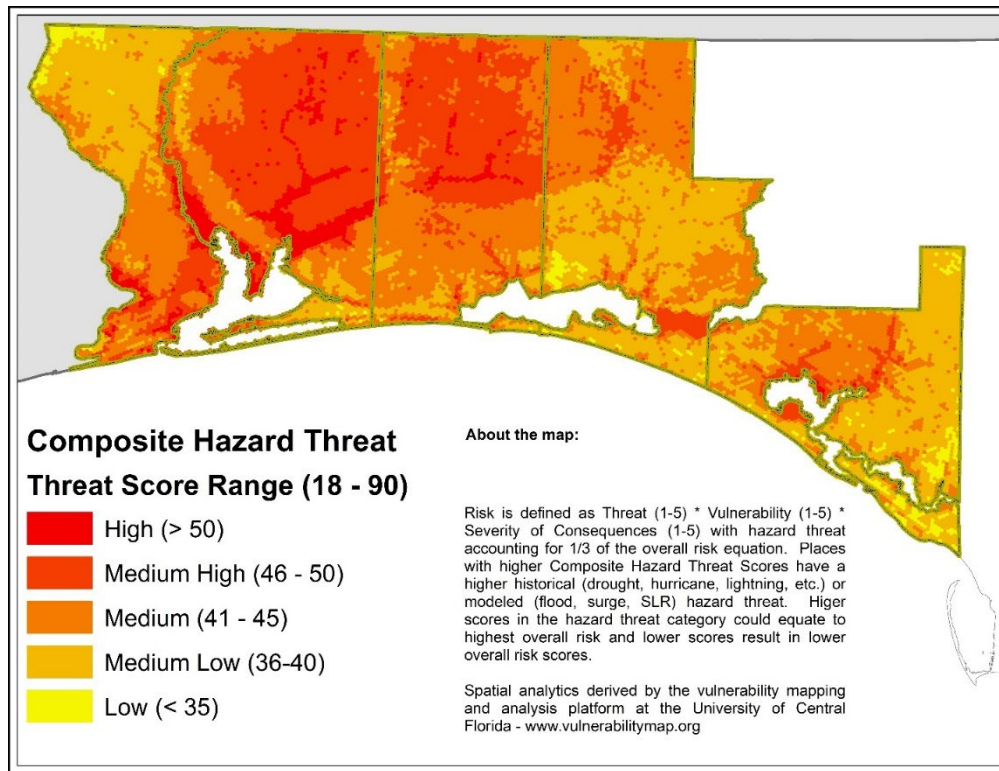


Figure 61: Composite Hazard Threat

Table 83: Composite Hazard Threat Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Threat Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	618	2.76%	6,571	29.32%	8,017	35.77%	6,090	27.18%	1,114	4.97%
Bay	4,091	340	8.31%	2,210	54.02%	1,201	29.36%	322	7.87%	18	0.44%
Escambia	3,977	157	3.95%	1,325	33.32%	1,408	35.40%	824	20.72%	263	6.61%
Okaloosa	4,842	15	0.31%	509	10.51%	2,054	42.42%	2,097	43.31%	167	3.45%
Santa Rosa	5,220	19	0.36%	381	7.30%	1,436	27.51%	2,640	50.57%	744	14.25%
Walton	5,030	92	1.83%	2,241	44.55%	2,206	43.86%	484	9.62%	7	0.14%

Moving from composite threat to composite risk provides perhaps the most comprehensive view of the intersection of threats, vulnerabilities, and severity of consequences. Here, the risk from each hazard was derived for each 0.25-square-mile hex grid by summing each hazard’s risk (Equation 5: Total Risk Calculation).

Equation 5: Total Risk Calculation

$$SUM\ RISK = \sum_{n=1}^{18} RISK_{HAZ_n}$$

Figure 62: The Hurricane Sally AOI’s Aggregate Risk shows the aggregate risk in the Hurricane Sally AOI at the hex grid level. Here, Escambia County stands as the county with the highest composite risk with nearly 30 percent of its land area in medium high to high-risk zones (

Table 84: Aggregate Hazard Risk Area Summary). Interestingly, the remaining counties each have roughly the same area in medium high to high-risk areas (Bay County 13 percent, Okaloosa County 13.5 percent, Santa Rosa County 14 percent) with only Walton County comprised of less than 10 percent land area in medium high to high risk areas.

Box 12: Composite Risk Hazard Mitigation Takeaway

Mitigation Takeaway: Accounting for all threats, vulnerabilities, and associated severity of consequences results in a clearer visual of where mitigation would have the most impact. Pensacola and the surrounding areas (Escambia County) have the highest overall risk, while portions of each county have places where limited mitigation funds can make a positive impact on community resilience. Like other threats, focusing on areas where higher populations, infrastructure, and socially vulnerable people live and interface with hazards will have the highest return on investment.

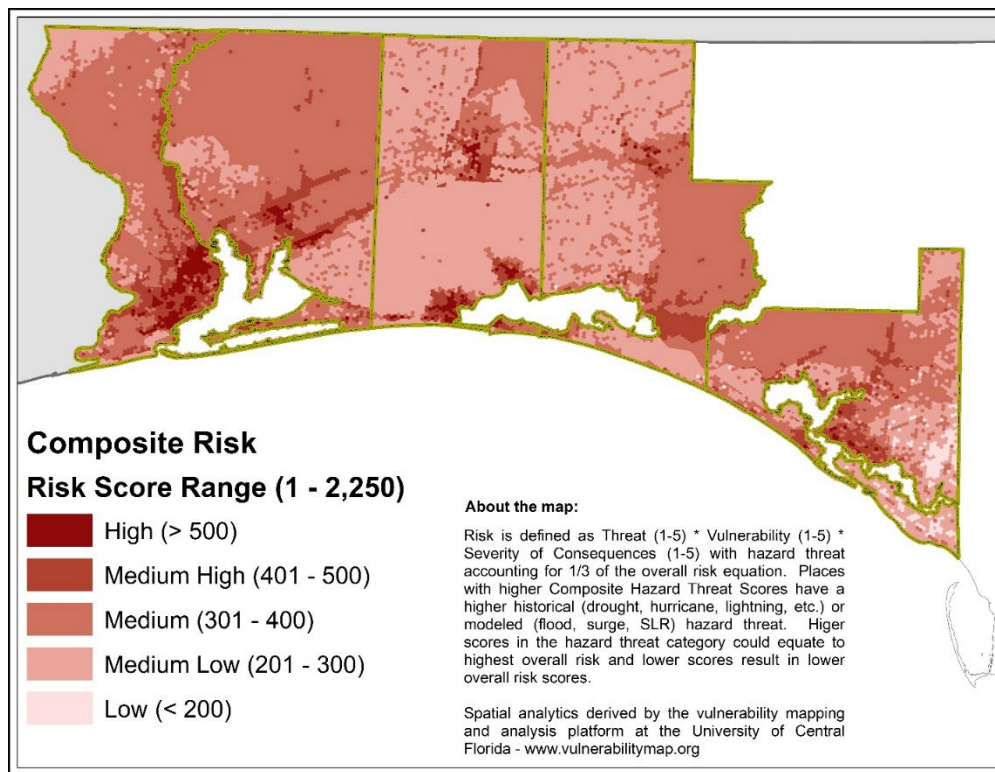


Figure 62: The Hurricane Sally AOI’s Aggregate Risk

Table 84: Aggregate Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category									
		Low		Medium Low		Medium		Medium High		High	
		Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids	Total Hex Grids	% of Hex Grids
All Counties	22,410	299	1.33%	8,362	37.31%	10,455	46.65%	2,618	11.68%	676	3.02%
Bay	4,091	255	6.23%	1,445	35.32%	1,855	45.34%	492	12.03%	44	1.08%
Escambia	3,977	24	0.60%	735	18.48%	2,040	51.29%	783	19.69%	395	9.93%
Okaloosa	4,842	4	0.08%	3,066	63.32%	1,116	23.05%	510	10.53%	146	3.02%
Santa Rosa	5,220	4	0.08%	912	17.47%	3,564	68.28%	627	12.01%	113	2.16%
Walton	5,030	14	0.28%	2,489	49.48%	2,145	42.64%	365	7.26%	17	0.34%

Identifying the highest risk for each 0.25 mile hex grid provides another useful perspective on AOI risks. Figure 63: Hurricane Sally’s Highest Risk Hazards by Hexagonal Grid pinpoints (for each hex grid) which threat culminates in the highest risk. Here, a majority of the AOI’s risk comes from hurricane threats. However, seven other hazard threats, including storm surge, lightning, flood, tornado, severe storm, sea-level rise, and high temperatures are also part of the risk profile for the AOI. Each risk has a varying spatial footprint and areal representation county-by-county (

Table 84: Aggregate Hazard Risk Area Summary). Graphics for each risk in terms of all other risks for the entire AOI (Figure 64: Hurricane Sally AOI’s Risk by Hazard Threat) and for each county (Figure 65: Bay County’s Risk by Hazard Threat-Figure 69: Walton County’s Risk by Hazard Threat) enables a rapid assessment of those risks most influential in each county (Figure 64: Hurricane Sally AOI’s Risk by Hazard Threat).

Box 13: Top Hazard Risk Mitigation Takeaway

Mitigation Takeaway: Mitigation in Escambia County focusing on hurricane wind, storm surge, lightning, severe storms, or sea-level rise will have the most positive impact (depending on area). A focus on mitigating hurricane winds would be the best use of funds for much of Santa Rosa, Okaloosa, and Walton Counties. Finally, Bay County mitigation efforts should prioritize hurricane winds, storm surges, flooding, and tornadoes (in select areas). Utilizing mitigation funds to combat other hazards than those identified as top risk may provide additional benefits but focusing on top threats/risks can provide the most protection to lives and livelihoods.

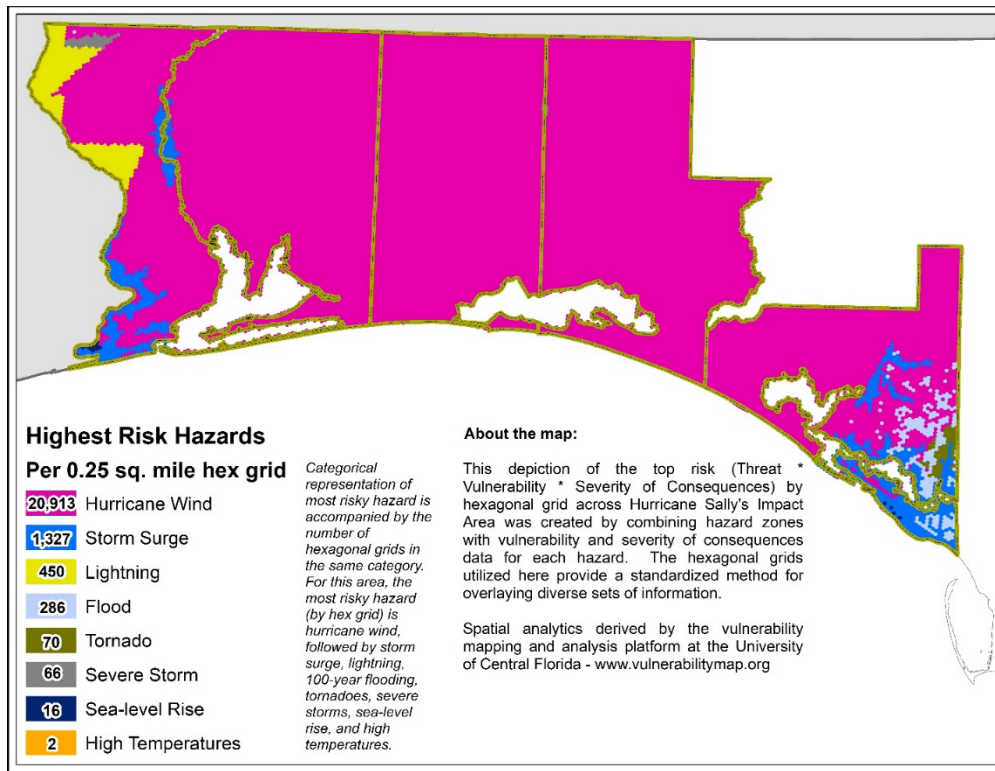


Figure 63: Hurricane Sally's Highest Risk Hazards by Hexagonal Grid

Table 85: Highest Hazard Risk Area Summary

Sally Area of Interest	Total (0.25 sq. mile) Hex Grids	Hazard Risk Category							
		Hurricane	Storm Surge	Lightning	100-Year Flooding	Tornado	Severe Storms	Sea-Level Rise	High Temperatures
All Counties	22,410	20,193	1327	450	286	70	66	16	2
Bay	4,091	2,987	759	4	264	70		5	2
Escambia	3,977	2,914	539	446	21		46	11	
Okaloosa	4,842	4,822	97				20		
Santa Rosa	5,220	5,102	97		21				
Walton	5,030	5,010					20		

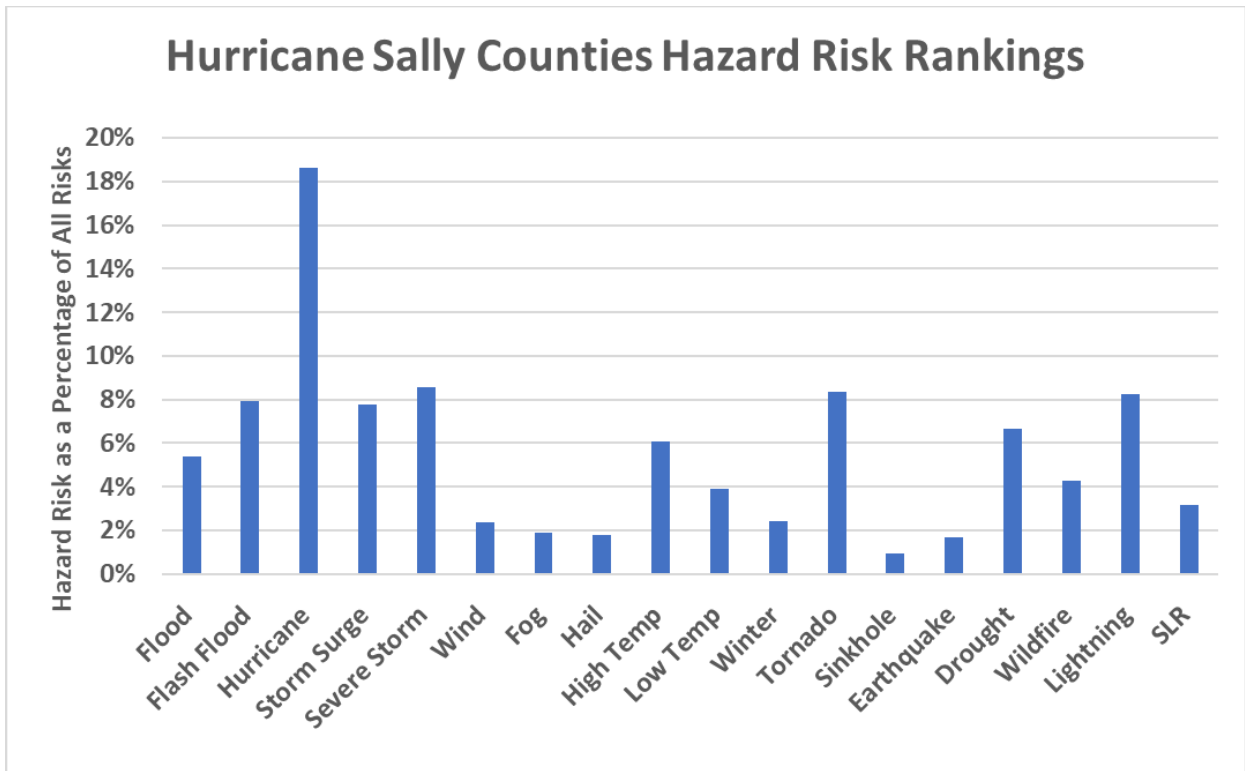


Figure 64: Hurricane Sally AOI's Risk by Hazard Threat

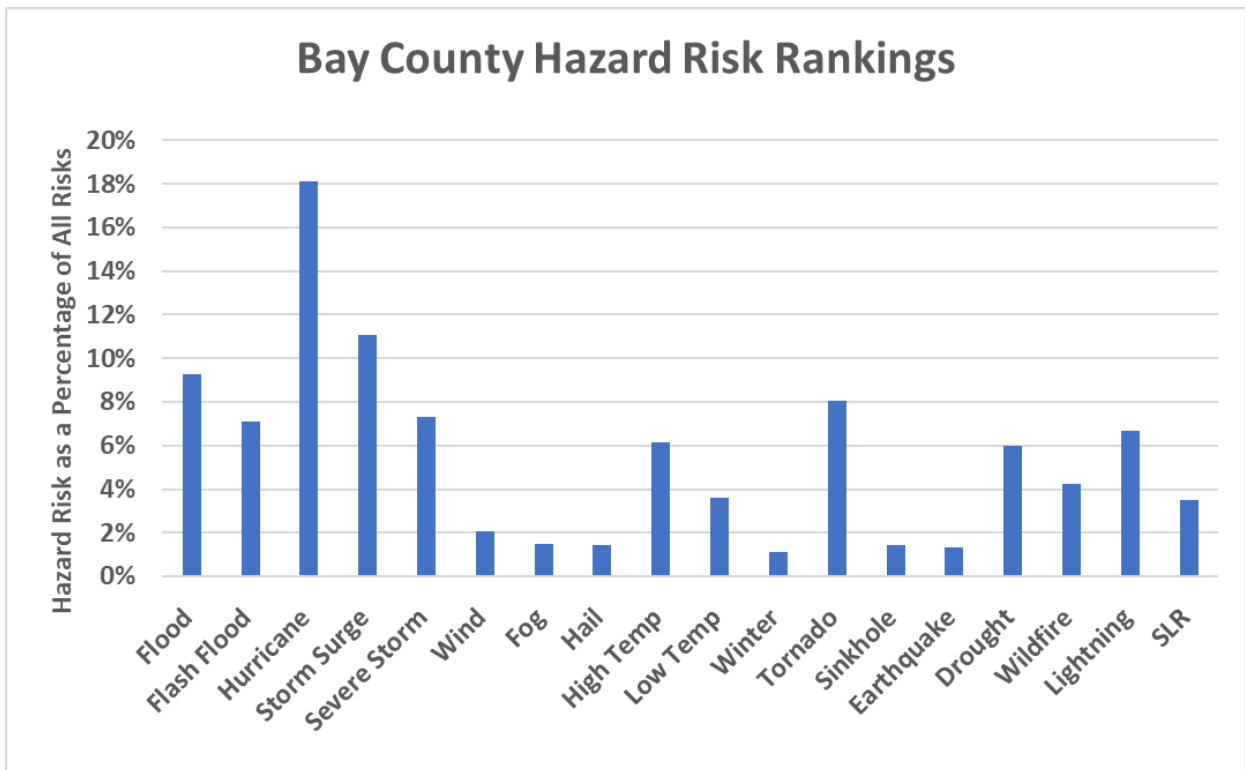


Figure 65: Bay County's Risk by Hazard Threat

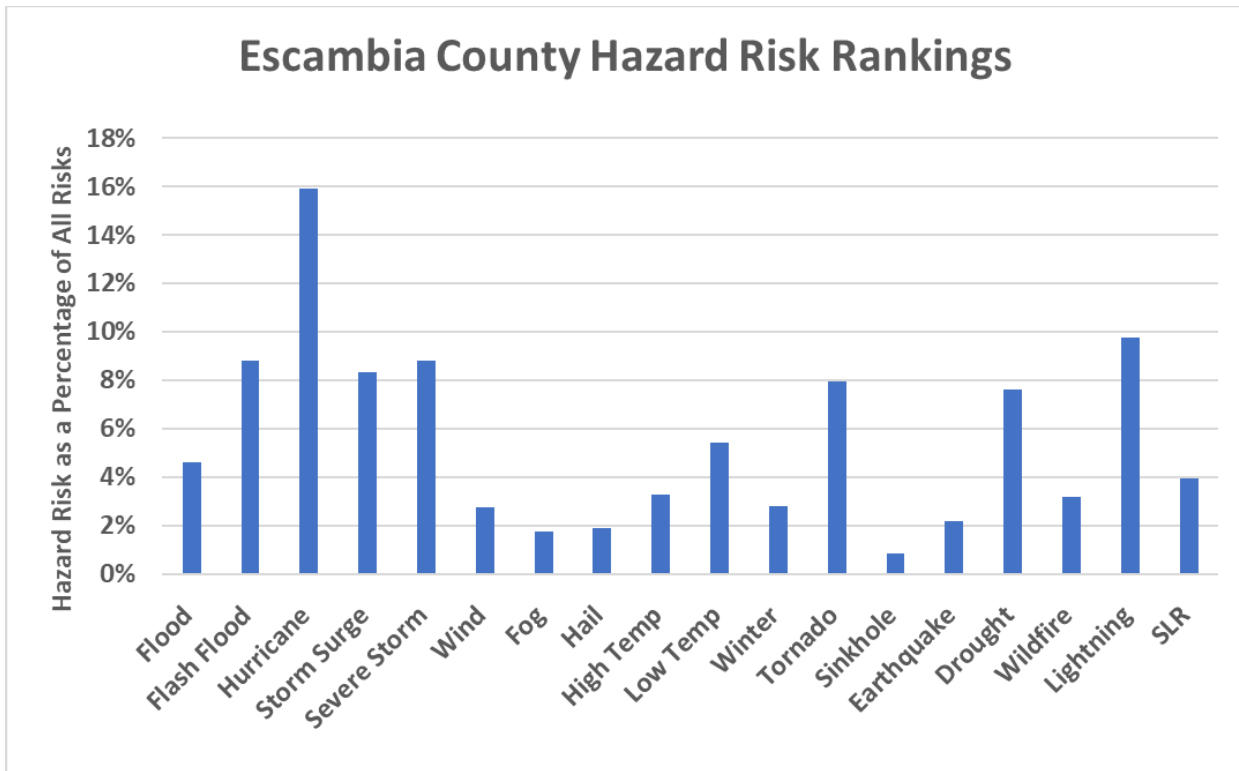


Figure 66: Escambia County's Risk by Hazard Threat

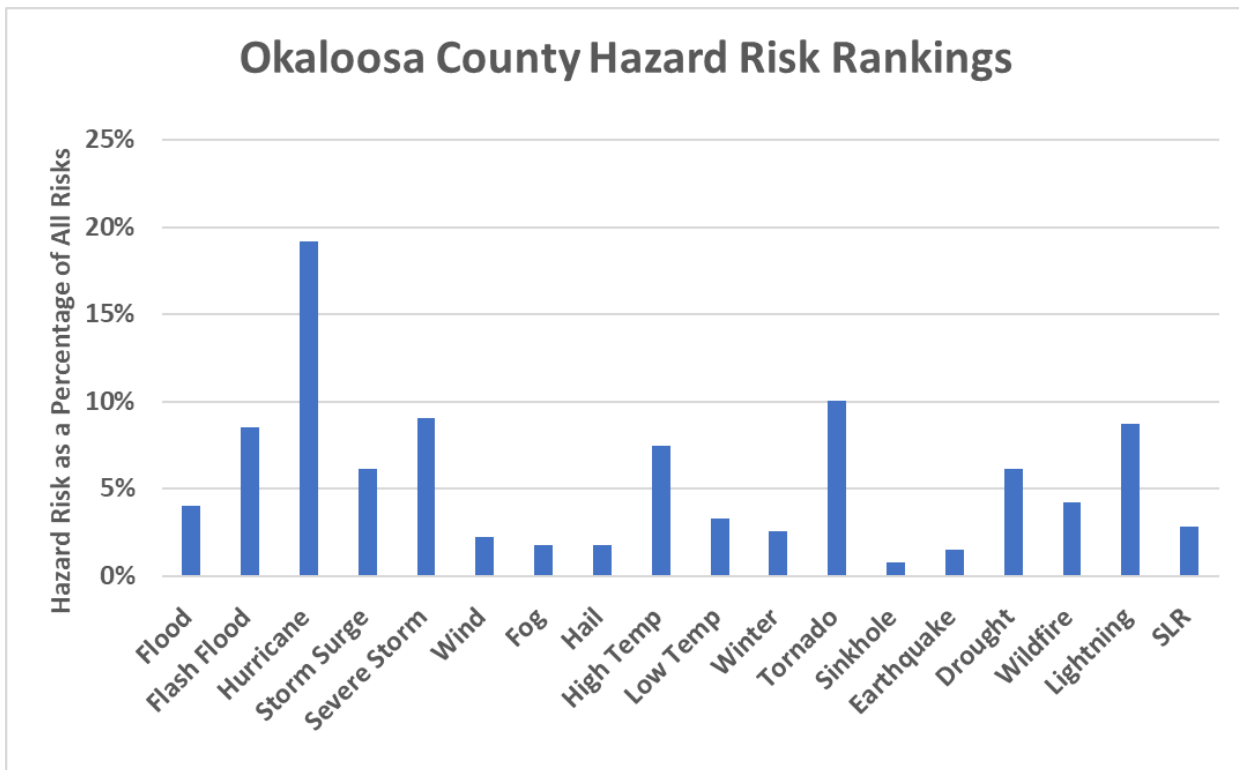


Figure 67: Okaloosa County's Risk by Hazard Threat

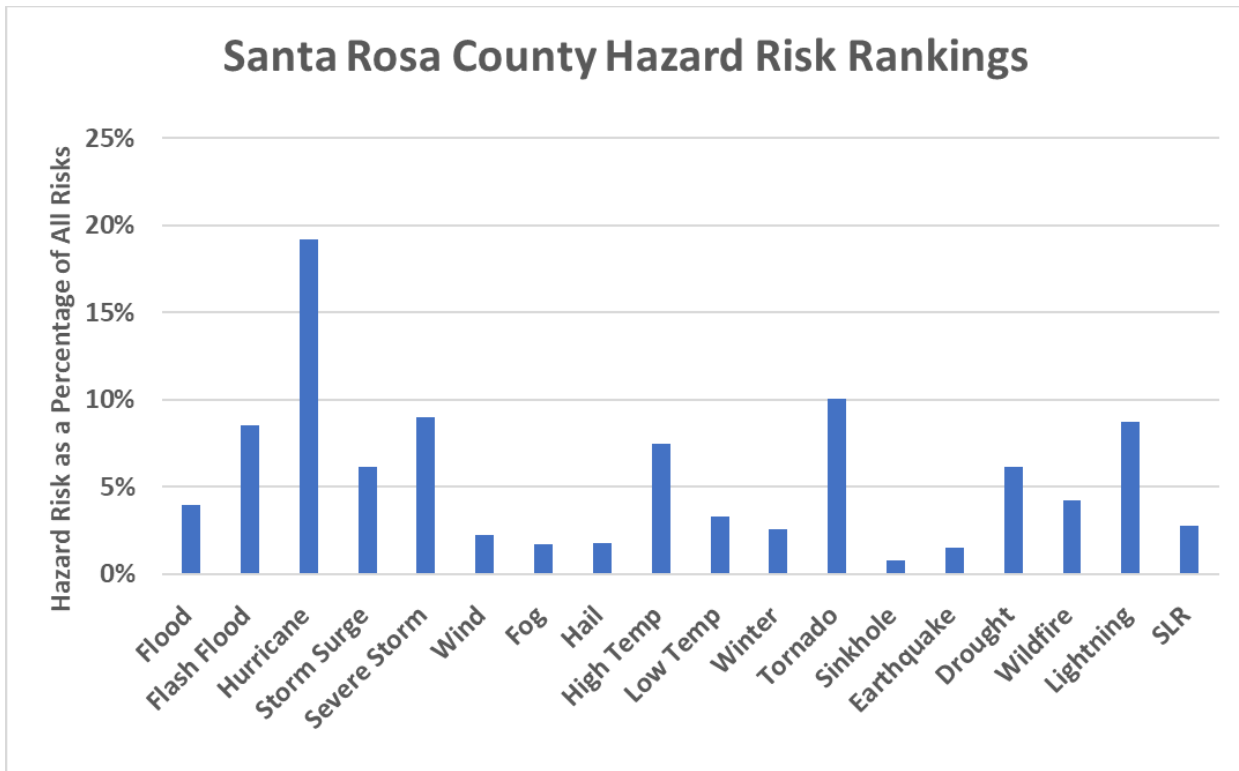


Figure 68: Santa Rosa County's Risk by Hazard Threat

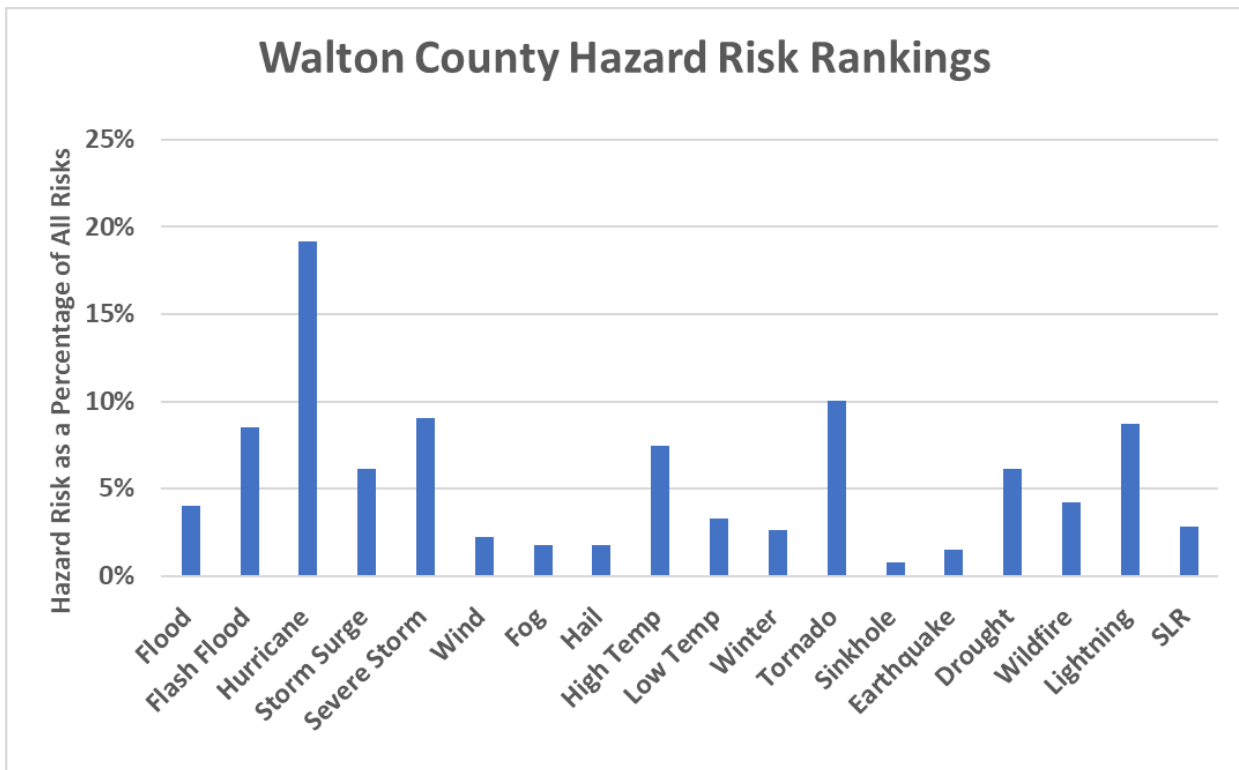


Figure 69: Walton County's Risk by Hazard Threat

2.6.6 Mitigation and Resilience Efforts aimed at Future Protection

Florida’s mitigation and resilience efforts have seen success of the past several years and the state regularly stands as one of the most active FEMA mitigation partners across the nation. Earlier programs such as Florida’s My Safe Florida Home Program¹⁶⁰, whose mission was to offer eligible homeowners free wind inspections from qualified hurricane mitigation inspectors to help Floridians learn how to harden their homes to better protect themselves and their families from windstorm damage, have paved the way for current programs aimed at reducing losses and protecting lives in the face of future hazards, including the recently inaugurated Resilient Florida Program.¹⁶¹

2.6.6.1 Hazard Mitigation Programs

Florida had to quickly come up to speed with mitigation implementation following the State’s most devastating set of hurricanes (Charley, Francis, Ivan, and Jeanne) in 2004. Florida turned the recovery from these events into an opportunity to mitigate properties and proceeded to complete more than 10,000 mitigation projects in 2004 alone with another 3,500 in 2005 and 2006 (Figure 72: Total FEMA Hazard Mitigated Properties for Florida (1992-2019)). Although Florida has been largely successful in FEMA’s Hazard Mitigation Grant Program (HMGP), it has also seen success in mitigation projects from FEMA’s Flood Mitigation Assistance (FMA) Program, the Legislative Pre-Disaster Mitigation Grant Program (LPDM), the Pre-Disaster Mitigation (PDM) Program, the Repetitive Flood Claims (RFC) Grant Program, and the Severe repetitive Loss (SRL) Grant Program (Figure 70: Total FEMA Hazard Mitigation Assistance Projects by Program for Florida (1992 – 2020)) – all part of the overarching set of FEMA’s Hazard Mitigation Assistance (HMA) program.

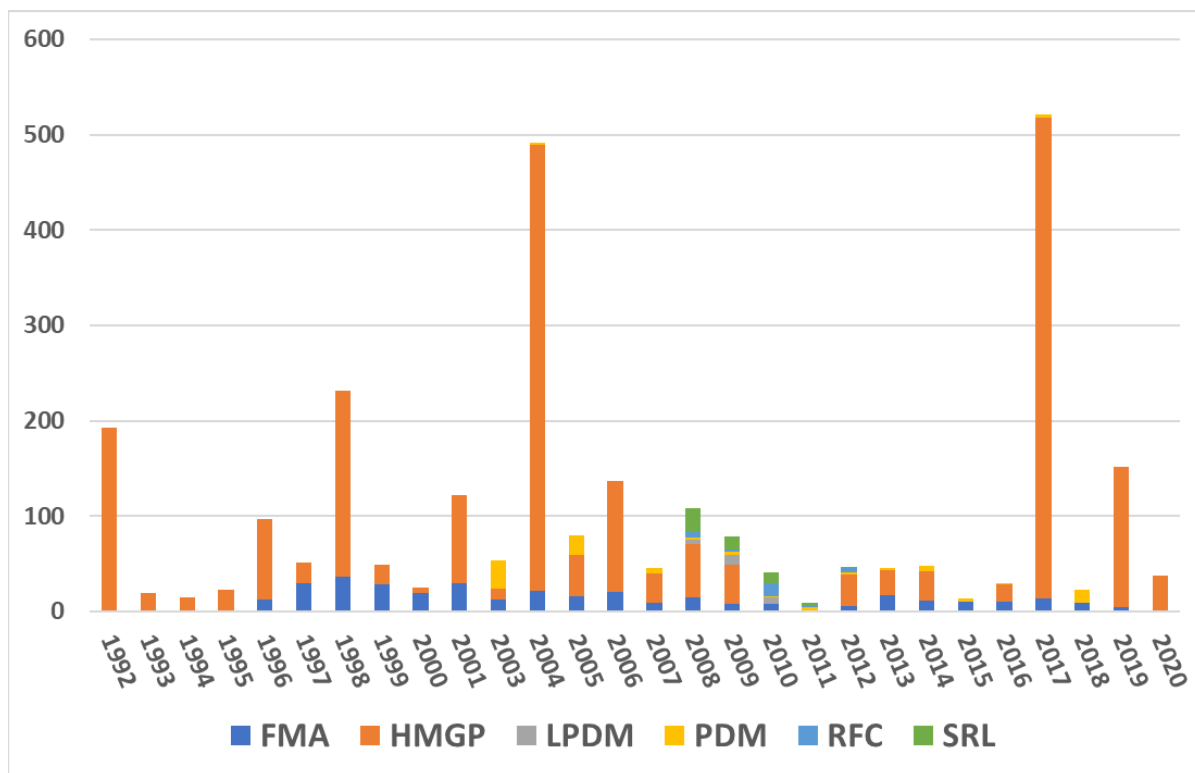


Figure 70: Total FEMA Hazard Mitigation Assistance Projects by Program for Florida (1992 – 2020)

This mitigation activity has resulted in distribution of more than \$2.4 billion in mitigation across Florida alone (Table 86: Summary of FEMA Hazard Mitigation Grant Program Activity for Florida) with \$441 million (18.3 percent) of this spending occurring across the Hurricane Sally AOI (Table 87: Summary of FEMA Hazard Mitigation Grant Program Activity for Hurricane Sally Counties). Among the Hurricane Sally AOI counties, Bay and Escambia

¹⁶⁰ http://www.floridabuilding.org/fbc/committees/product_approval/mysafefloridahome.pdf

¹⁶¹ <https://floridadep.gov/rcp/resilient-florida-program>

have seen a majority of FEMA mitigation spending with \$197 and \$155 million respectively, and Okaloosa County has had the lowest amount of mitigation spending (Table 88: Summary of FEMA Hazard Mitigation Grant Program Activity Spending for Hurricane Sally Counties and Figure 72: Total FEMA Hazard Mitigated Properties for Florida (1992-2019)). These current/previous successes in mitigation spending demonstrate both a capacity to implement and a willingness (at county and individual levels) to see mitigation as a suitable solution to the growing hazard risks facing the area.

Table 86: Summary of FEMA Hazard Mitigation Grant Program Activity for Florida

Hazard Mitigation Program Category	Total Properties	Percent of Total Properties (Nationwide)	Total Project Amount	Percent of Total (Nationwide)
FMA	412	5.71%	\$126,068,364	8.57%
HMGP	20,206	13.28%	\$2,233,450,672	9.65%
LPDM	22	3.50%	\$16,880,042	14.71%
PDM	93	1.59%	\$65,348,403	3.62%
RFC	33	17.01%	\$8,707,778	21.77%
SRL	64	3.70%	\$19,466,370	5.55%
Grand Total	20,830	12.42%	\$2,469,921,629	9.18%

Table 87: Summary of FEMA Hazard Mitigation Grant Program Activity for Hurricane Sally Counties

Hazard Mitigation Program Category	Total Properties	Percent of Total Properties (Statewide)	Total Project Amount	Percent of Total (Statewide)
FMA	76	18.45%	\$32,459,398	25.75%
HMGP	16,627	82.29%	\$402,726,117	18.03%
LPDM	0	0.00%	\$0	0.00%
PDM	0	0.00%	\$631,808	0.97%
RFC	3	9.09%	\$830,742	9.54%
SRL	19	29.69%	\$4,398,850	22.60%
Grand Total	16,725	80.29%	\$441,046,915	17.86%

Table 88: Summary of FEMA Hazard Mitigation Grant Program Activity Spending for Hurricane Sally Counties

County	FMA	HMGP	LPDM	PDM	RFC	SRL	Grand Total
Bay	\$1,971,310	\$194,977,425		\$80,477	\$830,742		\$197,859,955
Escambia	\$26,541,700	\$126,946,948				\$2,408,525	\$155,897,173
Okaloosa	\$442,273	\$8,137,240		\$498,868			\$9,078,381
Santa Rosa	\$2,981,118	\$57,512,041				\$1,990,325	\$62,483,484
Walton	\$522,996	\$15,152,463		\$52,463			\$15,727,923

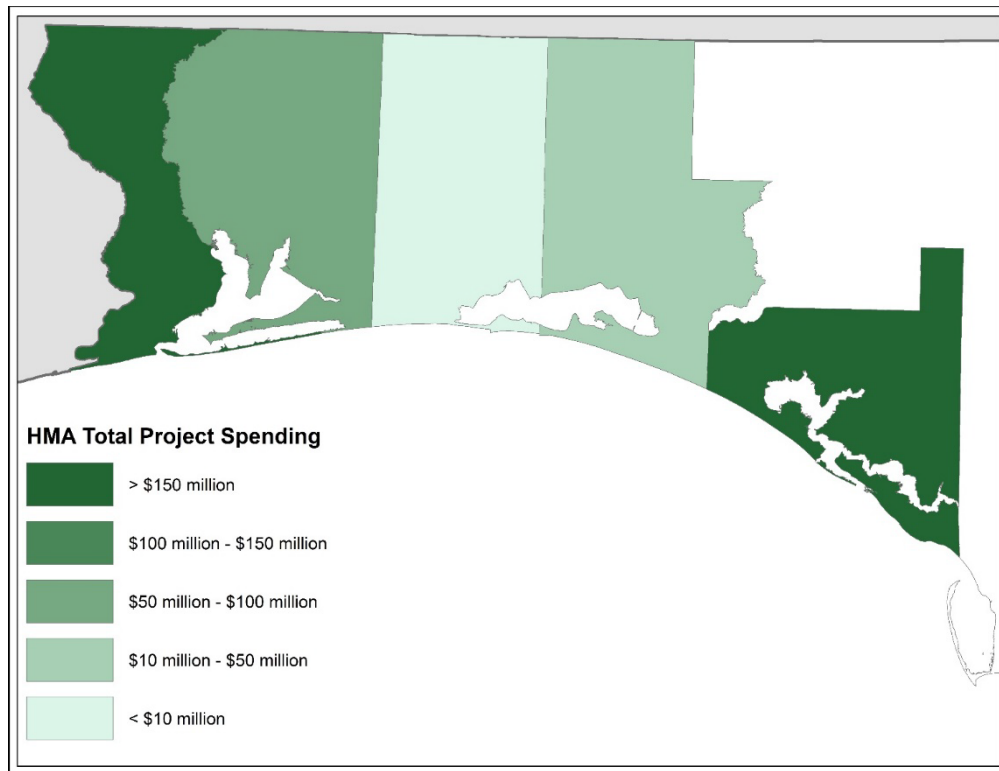


Figure 71: Total FEMA Hazard Mitigation Assistance Spending across the Hurricane Sally AOI

2.6.6.2 Mitigated Properties

Florida is one of the more active states in terms of its desire to mitigate properties and undertake larger Hazard Mitigation Grant Program projects aimed at decreasing future impacts. An assessment of available data from FEMA shows that Florida’s ability to mitigate properties hit a stride following 2004’s devastating set of hurricane impacts from Charley, Francis, Ivan, and Jeanne. Florida turned the recovery from these events into an opportunity to mitigate properties and proceeded to complete more than 10,000 mitigation projects in 2004 alone with another 3,500 in 2005, and 2006 (Figure 72: Total FEMA Hazard Mitigated Properties for Florida (1992-2019)).

To date, Florida has mitigated the most properties across the nation with 16,825 properties whereas Texas is the second highest with only 6,585.¹⁶² When focusing in on Florida counties alone (Figure 73: FEMA Hazard Mitigation Assistance Mitigated Property Summary for the Hurricane Sally AOI) a different pattern emerges, one in which Escambia shows a clear preponderance of mitigated properties (10,929) - nearly 65 percent of the state’s total. Santa Rosa County has mitigated 3,016 properties, an additional 17.9 percent of the state’s total. More than 82 percent of all mitigated properties (statewide) are in these two counties.

Some of the successful mitigation projects across Florida include enhanced wind resiliency on Miami Beach’s Mount Sinai Medical Center in 2005, and a drainage project in Oakland Park in 2015. Both projects’ increased resiliency was proven during Hurricane Irma (2017), when no significant wind or flooding damage occurred to the mitigated sites, though they were previously highly impacted by similar events.¹⁶³

As of April 2022, the Rebuild Florida Housing Repair and Replacement Program has completed 1,436 homes incorporating mitigation measures such as elevation and/or Resilient Home Construction Standards (including hurricane windows and doors, and hurricane clips).

¹⁶² <https://www.FEMA.gov/openfema-data-page/hazard-mitigation-assistance-mitigated-properties-v2>

¹⁶³ <https://www.FEMA.gov/press-release/20220302/florida-mitigation-projects-prove-successful>

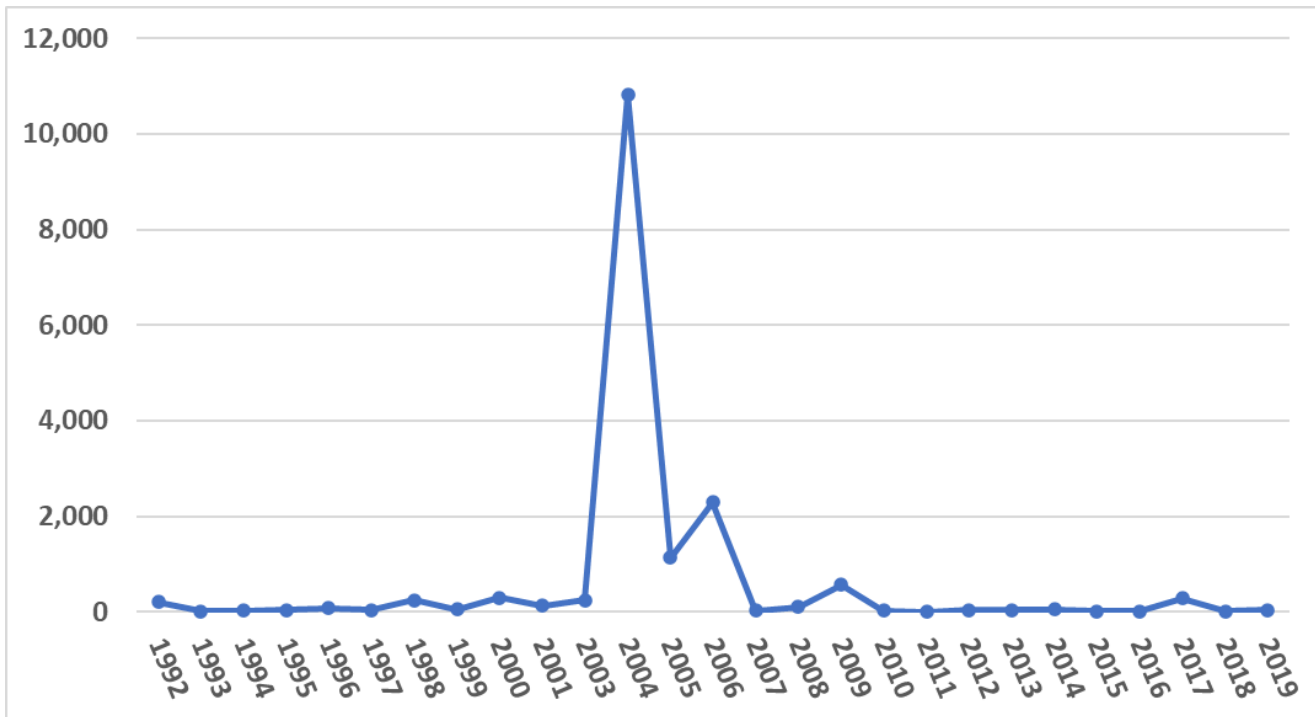


Figure 72: Total FEMA Hazard Mitigated Properties for Florida (1992-2019)

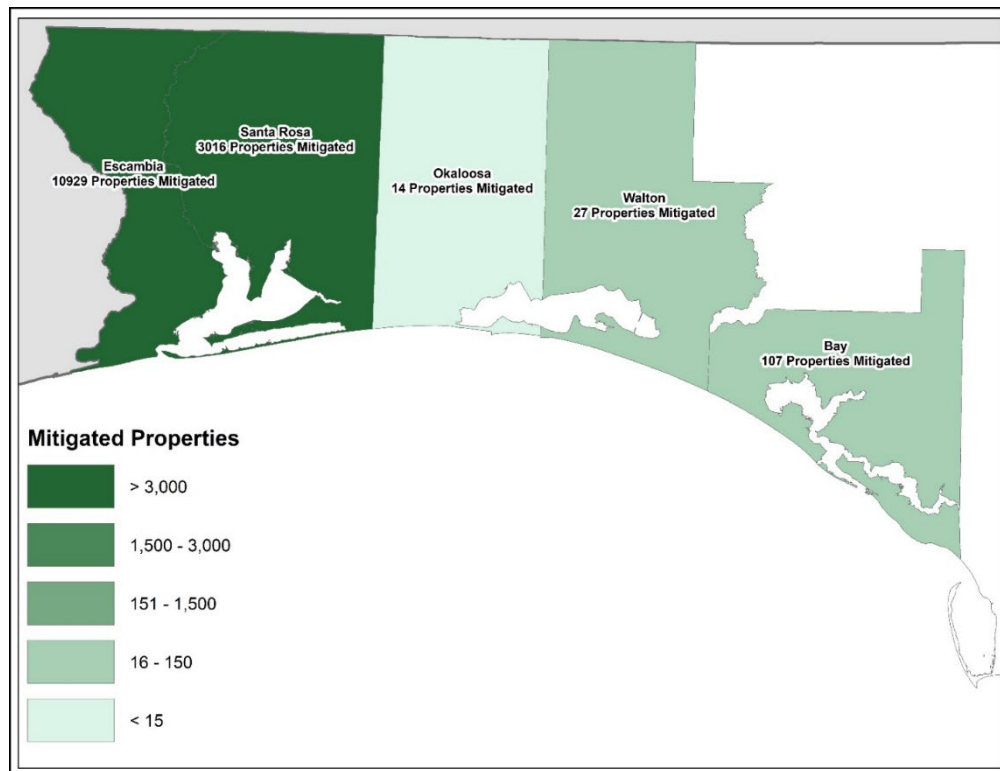


Figure 73: FEMA Hazard Mitigation Assistance Mitigated Property Summary for the Hurricane Sally AOI

3.0 General Requirements

3.1 Citizen Participation

The Citizen Participation Plan for the Hurricane Sally allocation will provide a reasonable opportunity of at least 30 days for citizen comment and ongoing citizen access to information about the use of grant funds. FloridaCommerce is committed to helping Florida's communities recover from the devastating impacts of Hurricane Sally. The primary goal of the Citizen Participation Plan is to provide Floridians with definitive opportunities to involve themselves in the recovery process as it pertains to CDBG-DR funds. Florida values citizen and stakeholder engagement and to facilitate citizen involvement, FloridaCommerce has laid out target actions to encourage citizen participation and allow equal access to information about the program. FloridaCommerce intends to focus outreach efforts to facilitate participation from individuals of low-and moderate-income, living in areas identified for recovery, and non-English speaking persons and other disadvantaged populations.

3.1.1 Outreach and Engagement

In the development of this disaster recovery action plan, FloridaCommerce consulted with disaster-affected citizens, stakeholders, local governments, public housing authorities, and other affected parties in the surrounding geographic area to ensure consistency of disaster impacts identified in the plan, and that the plan and planning process was comprehensive and inclusive. FloridaCommerce consulted with key stakeholders such as elected and appointed officials, including the Escambia County Community Action Program Committee Executive Director, Escambia County Manager, and the mayor of Pensacola; the Santa Rosa County Commissioner Chair; the Executive Director of Bay County Council on Aging; and other officials from Okaloosa and Walton Counties to understand unmet needs and to get feedback on how to craft programs that will best meet the needs of the impacted communities as efficiently and effectively as possible. Aside from gaining feedback, this helped local stakeholders understand what to expect from CDBG-DR program funding and allowed them to play a key role in shaping the outcomes of this plan. Additionally, outreach measures included non-profits, media outlets, and the private entities that serve underrepresented communities.

FloridaCommerce recognizes that affected stakeholders are the center of, and partners in, the development and implementation of this plan. Opportunities for citizen input were provided throughout the planning process through a survey, which was sent to stakeholders and community leaders to assist in determining the unmet needs in the affected areas as well as phone calls that were made to community leaders to ensure they were aware of the community stakeholder survey and to request feedback regarding unmet needs in their local communities.

In addition to the activities above, FloridaCommerce has published this action plan on www.FloridaJobs.org/CDBG-DR/Hurricane-Sally or a 30-day public comment period. In addition to the activities above, FloridaCommerce has published this action plan on www.FloridaJobs.org/CDBG-DR/Hurricane-Sally for a 30-day public comment period. Citizens were notified through electronic mailings, press releases, statements by public officials, media advertisements, public service announcements, newsletters, contacts with neighborhood organizations and/or through social media. FloridaCommerce will ensure that all citizens have equal access to information, including persons with disabilities (vision and hearing impaired) and limited English proficiency (LEP).

A summary of citizen comments on this action plan, along with FloridaCommerce's responses, is in Appendix c of this document.

For more information, citizens can refer to the OLTR Hurricane Sally Citizen Participation Plan that can be found at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

The Plan is made available in English and Spanish and is posted on FloridaCommerce's website at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally, which has embedded technology to provide accessibility to the visually impaired. Alternative translations of the Plan are available upon request.

FloridaCommerce consulted the “Final Guidance to Federal Financial Assistance Recipients Regarding Title VI, Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons,” published on January 22, 2007, in the Federal Register Vol. 72, No. 13 (p. 2732) and 24 CFR 8.6, to comply with citizen participation requirements.

3.1.1.1 Community Stakeholder Survey

The unmet need assessment summarizes Hurricane Sally impacts and the remaining recovery need for housing, infrastructure, and economic development by compiling, analyzing, and interpreting more than 20 state and federal government data sources. FloridaCommerce developed a survey to capture feedback from communities within the HUD- and State-identified MID areas and to allow for additional input from communities. In addition, interviews were conducted with stakeholders to provide them with information on the Hurricane Sally Plan, invite them to complete the community stakeholder survey, and to request feedback regarding their lingering unmet needs follow Hurricane Sally’s impact.

Furthermore, survey respondents were asked to rank from most important to least important the various program ideas that were listed in the stakeholder survey. They were also given an opportunity to rank additional and mitigation activities if additional, limited funding would become available. The survey was launched on March 16, 2022, and respondents were requested to provide initial feedback by March 23, 2022; the survey remained open through the initial development phase of the Plan. The community stakeholder survey results from the eleven respondents are displayed in Figure 74: Barriers to Implementing Hazard Mitigation Projects, Figure 75: General Activity Types, and Figure 76: Additional Mitigation Activities.

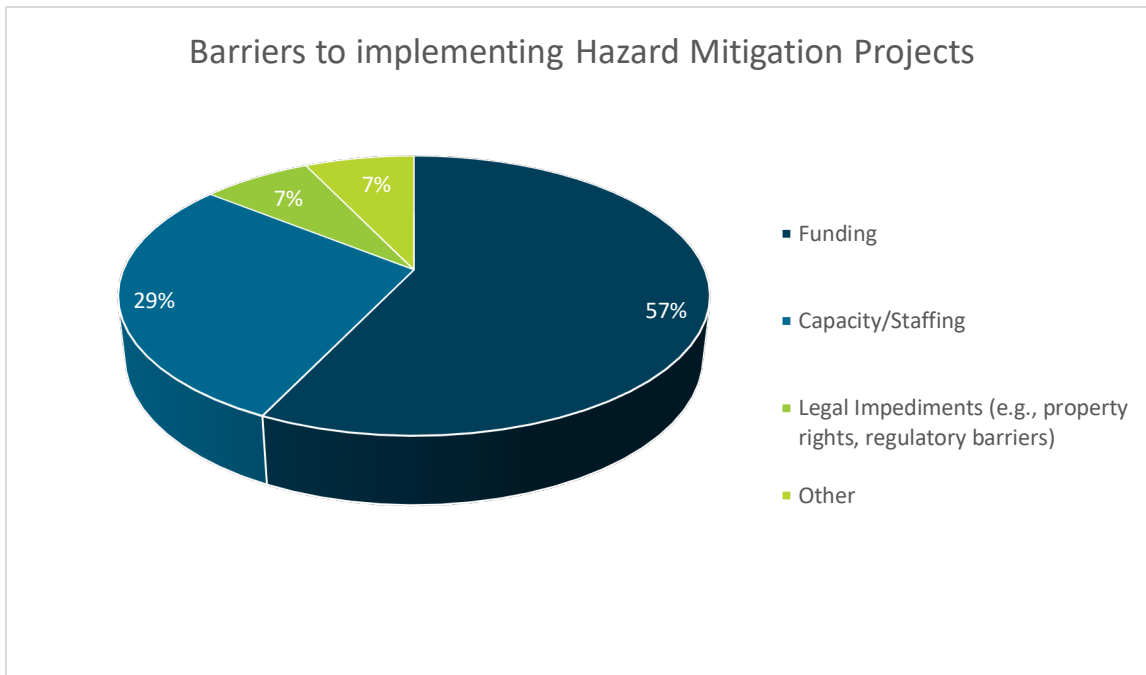


Figure 74: Barriers to Implementing Hazard Mitigation Projects

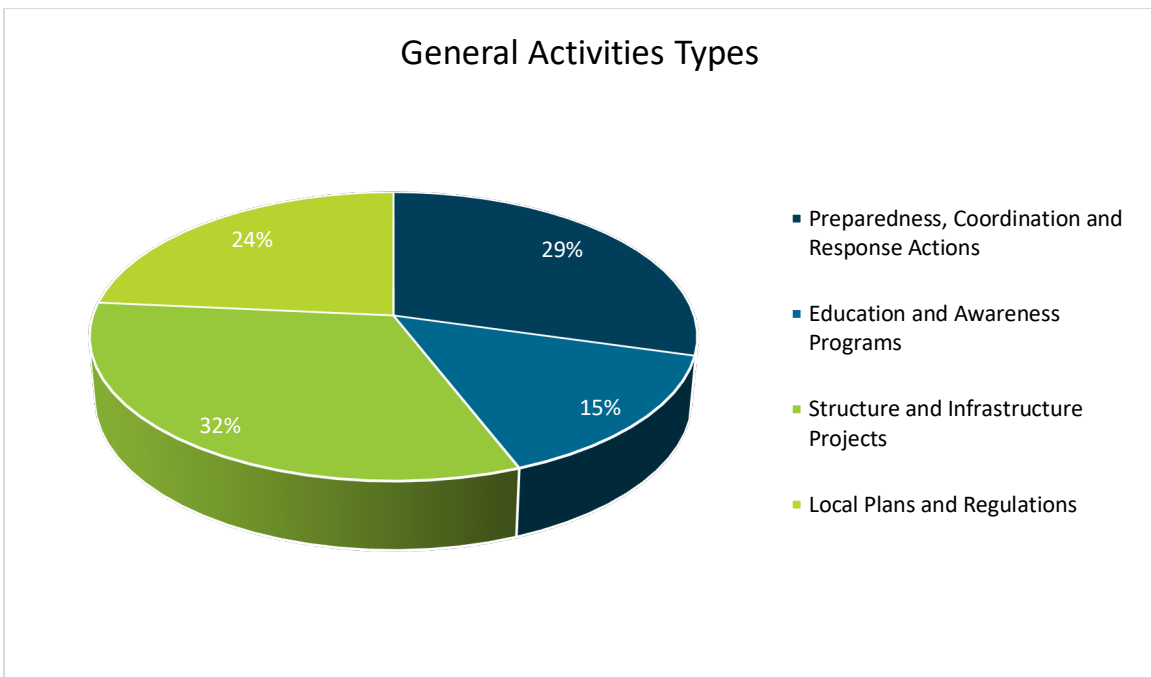


Figure 75: General Activity Types

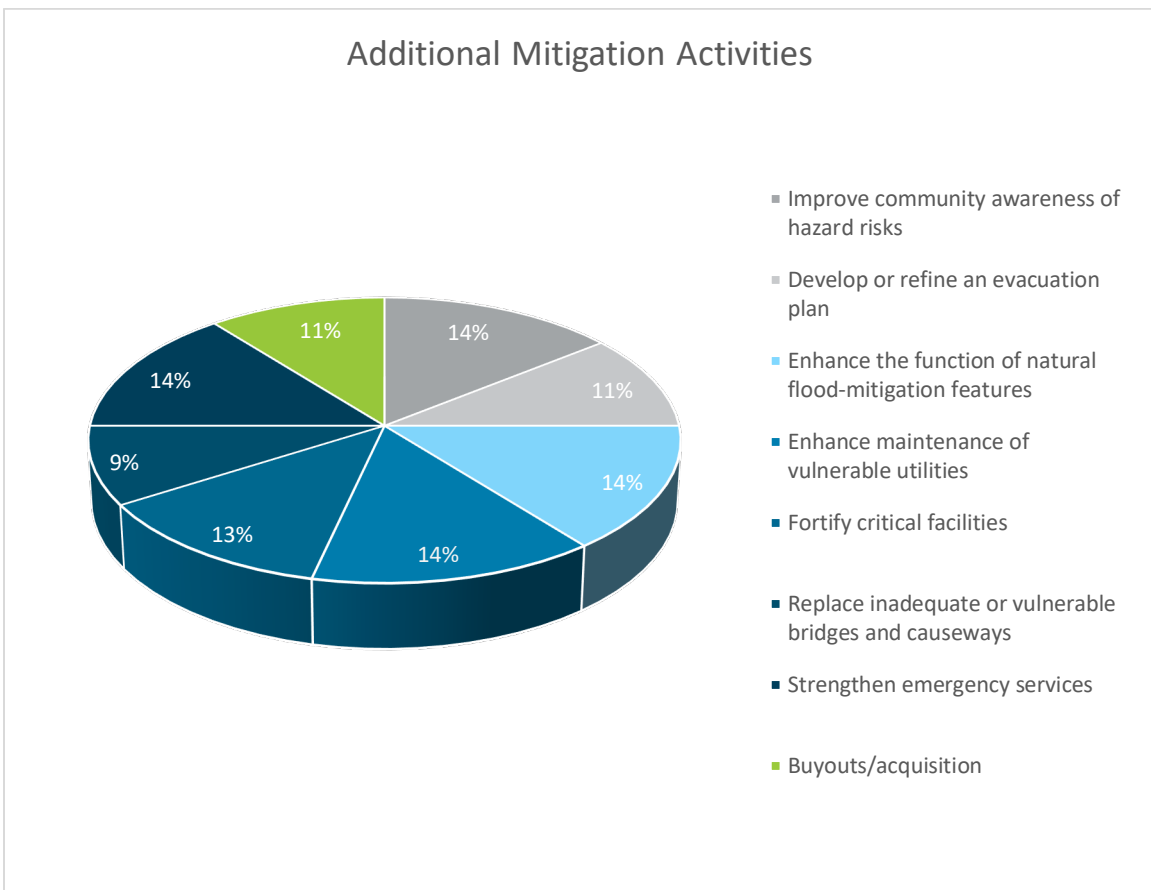


Figure 76: Additional Mitigation Activities

The results of the survey highlighted the overall sentiment by stakeholders that the biggest impediment to implementing hazard mitigation projects is the lack of funding needed to realize these projects (57 percent). Capacity and/or staffing issues (29 percent) were also identified through the survey results to be an ongoing, hindrance to the implementation of hazard mitigation projects needed in their communities. As displayed in the

preceding figures, stakeholders expressed their desire to pursue structure and infrastructure program activities (32 percent), along with preparedness, coordination, and response actions, (29 percent) including activities such as implementing or enhancing communication infrastructure such as radio and cell towers and/or maintenance of power and phone lines.

Another question posed in the survey was intended to prioritize which mitigation activities would be most important for potential economic recovery activities if additional, limited funding were to become available. Stakeholders overwhelmingly expressed the need for additional infrastructure activities, including the strengthening of emergency services, the enhancement of the function of natural flood-mitigation features, enhance maintenance of vulnerable utilities, and the replacement of inadequate or vulnerable bridges and causeways as shown in the shades of blue in Figure 76: Additional Mitigation Activities.

3.1.1.2 Additional Outreach

In addition to the outreach above, FloridaCommerce had many discussions with community members over the phone, sent out emails with reminders to complete the community outreach survey, to provide additional information regarding any unmet needs in their communities, and other events FloridaCommerce could participate and become involved in.

FloridaCommerce will continue to conduct outreach with communities throughout the implementation of this Plan to ensure that all stakeholders are aware of the opportunities that exist and can provide feedback along the way.

3.1.1.3 Receipt of Comments

FloridaCommerce provided a 30-day timeframe for receiving public comments to the Plan and obtain comments through an email address published on the disaster recovery website.

Upon subsequent publication of Substantial Amendments, FloridaCommerce will provide a reasonable opportunity of at least 30 days.

FloridaCommerce will receive comments via mail or email at:

Attention: Rebuild Florida Constituent Management Services

Florida Department of Economic Opportunity

Disaster Recovery Programs

107 East Madison Street

The Caldwell Building, MSC 420

Tallahassee, Florida 32399-2100

CDBG-DR@DEO.MyFlorida.com

3.1.2 Public Hearings

Federal Register Vol. 87, No. 23 (p. 6384) requires that FloridaCommerce convene at least one public hearing on the proposed Plan after it is published on FloridaCommerce's website at www.FloridaJobs.org/CDBG-DR to solicit public comments and before submittal of the action plan to HUD.

Seeking input from stakeholders and communities around the state is a very important part of the planning process. FloridaCommerce used a variety of methods to understand unmet needs and to get feedback on how to craft programs that will meet the needs of communities as quickly as possible. In addition to gaining feedback, this helped local stakeholders understand what to expect from CDBG-DR funding and allowed them to play a key role in shaping the outcomes of this Plan.

In accordance with HUD guidance provided in Federal Register Vol. 87, No. 23 (p. 6384), grantees may convene public hearings virtually and/or in person. Virtual public hearings may be used during the public comment period required for any substantial amendments of the Plan. In accordance with the guidance provided in Federal Register Vol. 87, No. 23 (p. 6384), FloridaCommerce's procedures for virtual hearings are as follows:

- FloridaCommerce will provide at least seven days' notice for any virtual public hearings, as practical.
- FloridaCommerce will post a public notice announcement on FloridaCommerce's website at: www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.
- FloridaCommerce will email the public notice announcement to the list of community members who have expressed interest in the program. The signup form for this list is publicly accessible on FloridaCommerce's website at: www.FloridaJobs.org/RebuildFlorida/Rebuild-Florida-newsletters.
- A registration link and instructions will be provided in all public notices for virtual public hearings.
- Hearings will be held at times convenient to potential and actual beneficiaries with accommodation for persons with disabilities and appropriate auxiliary aids and services to ensure effective communication.
- During all virtual public hearings, FloridaCommerce will provide participants an opportunity to ask questions in real time, with answers coming directly from the grantee representatives to all attendees.
- Transcripts for all virtual hearings will be translated into Spanish and will be made available on FloridaCommerce's public website. Transcripts will be made available in other languages upon request at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.
- All virtual public hearings will be recorded and a link to the recording will be published to the website. Subtitles will be included at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.
- Auxiliary aids and service are available upon request to Individuals with disabilities. All voice telephone numbers on this and all other Department documents may be reached by persons using TTY/TTD equipment via the Florida Relay Service at 711.
- All questions submitted during virtual public hearings will be collected and summarized along with responses and posted with the accompanying public hearing link on the website at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

FloridaCommerce held a public virtual hearing on May 24, 2022, and June 3, 2022, during the public comment period. The purpose of this virtual public hearing was to give participants a brief overview of the program and to provide them with the opportunity to ask to participate in a question-and-answer session about the program and the application process. In addition to serving as an outreach platform, this meeting provided FloridaCommerce with an opportunity to focus on regionally specific issues and challenges. In the interest of having greater participation from the public, FloridaCommerce published a notice of the virtual public hearing in three significant newspapers across the affected area in both English and Spanish prior to the public hearing date.

3.1.3 Complaints

Complaints alleging violation of fair housing laws will be directed to HUD for immediate review. Complaints regarding fraud, waste, or abuse of funds will be forwarded to the HUD OIG Fraud Hotline (phone: 1-800-347-3735 or email: hotline@HUDOIG.gov). FloridaCommerce will make available to HUD detailed Fraud, Waste, and Abuse Policies and Procedures on www.FloridaJobs.org/CDBG-DR to demonstrate adequate procedures are in place to prevent fraud, waste, and abuse. Fair Housing Complaints, Anti-Fraud, Waste, and Abuse, and FloridaCommerce's Complaint Process are further detailed below.

3.1.3.1 Fair Housing Complaints

FloridaCommerce is committed to affirmatively furthering fair housing by ensuring that eligible persons from protected classes under federal fair housing and nondiscrimination laws, and persons from historically distressed

and underserved communities, are provided with the opportunity to apply for assistance to rehabilitate their property that sustained damage due to Hurricane Sally and its aftereffects.

The Florida Disaster Recovery Program operates in accordance with The Fair Housing Amendments Act of 1988. Anyone who feels that he or she has been discriminated against may file a complaint of housing discrimination: 1-800-669-9777 (Toll Free) or www.HUD.gov/fairhousing.

3.1.3.2 Anti-Fraud, Waste, and Abuse (AFWA)

All suspected cases of fraud will be taken seriously, and complaints will be reported to FloridaCommerce's Office of Inspector General (OIG) at OIG@DEO.MyFlorida.com. If FloridaCommerce determines that it is appropriate, it will coordinate its investigation with agencies such as the Florida OIG, the Florida Office of the Attorney General, or the Florida Department of Business and Professional Regulation.

Complaints regarding fraud, waste, or abuse of government funds will be forwarded to HUD, OIG Fraud Hotline (phone: 1-800-347-3735 or email: hotline@HUDOIG.gov)

3.1.3.3 DEO Citizen Complaint Process

FloridaCommerce will handle citizen complaints received by the state, its subrecipients, vendors and/or other program sources by:

1. Conducting investigations as necessary;
2. Finding a resolution; or
3. Conducting follow-up actions.

The goal of the state is to provide an opportunity to resolve complaints in a timely manner, usually within 15 business days as expected by HUD, if practicable, and to provide the right to participate in the process and appeal a decision when there is reason for an applicant to believe its application was not handled according to program policies. All applications, guidelines, and websites will include details on the right to file a complaint or appeal, and the process for filing a complaint or beginning an appeal.

Applicants can appeal program decisions related to one of the following activities:

1. A program eligibility determination;
2. A program assistance award calculation; and
3. A program decision concerning housing unit damage and the resulting program outcome.

Citizens may file a formal complaint via the Rebuild Florida formal complaint form located at www.FloridaJobs.org/RebuildFlorida/Rebuild-Florida-homeowner-complaint-form.

Citizens may also file a written complaint or appeal through the Disaster Recovery email at CDBG-DR@DEO.MyFlorida.com or submit by postal mail to the following address:

Attention: Rebuild Florida Constituent Management Services

Florida Department of Economic Opportunity

Disaster Recovery Programs

107 East Madison Street

The Caldwell Building, MSC 420

Tallahassee, Florida 32399

If the complainant is not satisfied by the subrecipient determination or Department response, the complainant may file a written appeal by following the instructions issued in the letter of response. If after the appeals process the complainant has not been satisfied with the response, a formal complaint may then be addressed directly to the regional HUD office at:

Department of Housing & Urban Development

Charles E. Bennett Federal Building

400 West Bay Street, Suite 1015

Jacksonville, FL 32202

More information regarding citizen complaints and appeals can be found in the Hurricane Sally Citizen Participation Plan located at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

3.1.3.4 Recordkeeping of Complaints

Every complaint and inquiry will be included in a tracking system. Constituent Management Services staff will maintain electronic files that include:

- Name of the complainant and contact information;
- Date the complaint was received;
- Description of the complaint;
- Name of each person contacted in relation to the complaint;
- A summary of the result and the date of the response to complainant; and
- Explanation of the resolution of the file.

The Constituent Management Services staff will review these complaints and inquiries at least monthly to determine if there is a pattern developing and, if so, determine if the issue warrants a policy change or further training.

3.2 Public Website

FloridaCommerce will maintain a public website that provides information accounting for how all grant funds are used, managed, and administered, including links to all disaster recovery action plans, action plan amendments, program policies and procedures, performance reports, citizen participation requirements, and activity and program information described in this plan, and details of all contracts and ongoing procurement processes.

These items are made available through www.FloridaJobs.org/CDBG-DR/Hurricane-Sally. Specifically, FloridaCommerce will make the following items available: the action plan created using DRGR (including all amendments); each QPR (as created using the DRGR system); citizen participation plan; procurement policies and procedures; all executed contracts that will be paid with CDBG-DR funds as defined in 2 CFR 200.22 (including subrecipients' contracts); and a summary including the description and status of services or goods currently being procured by the grantee or the subrecipient (e.g., phase of the procurement, requirements for proposals, etc.). Contracts and procurement actions that do not exceed the micro-purchase threshold, as defined in 2 CFR 200.67, are not required to be posted to a grantee's website.

In addition, FloridaCommerce will maintain a comprehensive website regarding all disaster recovery activities assisted with these funds.

The website will be updated in a timely manner to reflect the most up-to date information about the use of funds and any changes in policies and procedures, as necessary. At a minimum, updates will be made monthly.

3.2.1 Rebuild Florida Website

FloridaCommerce posts important information regarding the CDBG-DR program on its website at www.FloridaJobs.org/CDBG-DR. This includes links to the Hurricane Sally webpage as well as OLTR policies and procedures such as OLTR's Anti-Fraud Waste and Abuse Policy, Language Access Plan, and Uniform Relocation Assistance Guide, as well as additional resources for subrecipients.

The Hurricane Sally program website can be located at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally. Links to the Plan and any additional amendments, Quarterly Performance Reports, projected expenditures, the Hurricane Sally Policy Manual, the Hurricane Sally Citizen Participation Plan, Purchasing and Contracting Guidelines, Purchasing Policy, Hurricane Sally Contracts, OLTR Active Procurements, applicable Federal Registers, and short summaries, overviews and webinar recordings for individuals who could not participate or may want a refresher on the program.

Subrecipient Policies and Procedures, Program Guidelines and other program specific documents can be found on the applicable Program page located at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

3.2.2 Accessibility

Florida is committed to providing all citizens with equal access to information about the disaster recovery program, including persons with disabilities or LEP. Florida follows HUD's regulation, 24 CFR Part 1, "Nondiscrimination in Federally Assisted Programs of the Department of Housing and Urban Development—Effectuation of Title VI of the Civil Rights Act of 1964," which requires all recipients of federal financial assistance from HUD to provide meaningful access to LEP persons and persons with disabilities.

FloridaCommerce will ensure that all citizens have equal access to information about the programs, including persons with disabilities (vision or hearing impaired) and LEP, and will ensure that program information is available in the appropriate languages for the geographic area served by the jurisdiction.

To ensure meaningful access for individuals with disabilities or LEP, FloridaCommerce developed and implemented a Rebuild Florida Language Access and Accessibility Plan, which details how Florida will address these needs. The Language Access and Accessibility Plan is available on the OLTR website at www.FloridaJobs.org/CDBG-DR.

Additional interpretive and translational services are available upon request.

The Plan, subsequent amendments, and other vital documents are made available in English and Spanish and are posted on FloridaCommerce's website, which has embedded technology to provide accessibility to the visually impaired. FloridaCommerce's website includes an Interpretive Translation Notice informing citizens in 15 different languages that translation services are available upon request.

For more detailed information regarding FloridaCommerce's LEP and accessibility policies and practices refer to OLTR's Hurricane Sally Citizen Participation Plan found at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

3.3 Amendments

Over time, recovery needs will change. Thus, FloridaCommerce will amend the disaster recovery action plan as often as necessary to best address our long-term recovery needs and goals. This plan describes proposed programs and activities. As programs and activities develop overtime an amendment may not be triggered if the program or activity is consistent with the descriptions provided in this plan.

All amendments will be noted in the consolidated Plan by an Amendment chart in the Review History section at the beginning of the document. This chart will note the previous page number, current page number, section the change is in, and a description of the changes made as well as the reason for the change. Amendments will also be posted individually to www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

All amendments will be numbered sequentially and posted to FloridaCommerce's website into one final, consolidated plan as well as individually at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

3.3.1 Substantial Amendment

A change to this action plan is considered to be a substantial amendment if it meets the following criteria:

- A change in program benefit or eligibility criteria,

- The addition or deletion of an activity,
- A proposed reduction in the overall benefit requirement, or
- The allocation or reallocation of more than 25 percent of the total allocation from HUD

When FloridaCommerce pursues the substantial amendment process, the amendment will be posted at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally or a 30-day public comment period. The amendment will be posted in adherence with ADA and LEP requirements. FloridaCommerce will review and respond to all public comments received and submit to HUD for approval.

3.3.2 Non-Substantial Amendment

A non-substantial amendment is an amendment to the plan that includes technical corrections and clarifications and budget changes that do not meet the monetary threshold for substantial amendments to the plan and does not require posting for public comment. FloridaCommerce will notify HUD five (5) business days before the change is effective.

3.4 Displacement of Persons and Other Entities

To minimize the displacement of persons and other entities that may be affected by the activities outlined in this action plan, FloridaCommerce will coordinate with Escambia, Santa Rosa, Walton, Okaloosa, and Bay Counties, as well as officials from various municipalities, including Pensacola, Gulf Breeze, Callaway, and Milton to minimize displacement. Should any proposed projects or activities cause the displacement of people, the following policy has been adopted to ensure the requirements of Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (URA), as amended are met.

3.4.1 Policy to Minimize Displacement

The state and its subrecipients plan to minimize displacement of persons or entities and assist persons or entities displaced as a result of implementing a project with CDBG-DR funds. FloridaCommerce and its funded activities will not seek to use the power of eminent domain. However, should any project cause displacement, FloridaCommerce will follow the Uniform Relocation Assistance (URA) and the Real Property Acquisition Policies Act to ensure tenants are relocated to safe and sanitary locations. The state's Uniform Relocation Assistance Guide and Residential Anti Displacement and Relocation Assistance Plan (RARAP) is located on the Office of Long-Term Resiliency page at www.FloridaJobs.org/CDBG-DR. This plan, which will be amended as needed to reflect Hurricane Sally activities, will ensure subrecipients minimize displacement. In the event of a voluntary buyout, when homeowners or tenants are in a flood plain to prevent future loss, FloridaCommerce will require subrecipients to develop policies and procedures to make sure this population is relocated into areas outside of floodplain and will receive full benefits as stated in the URA. The URA provides certain displaced persons with the right to benefits for moving expenses, housing counseling services, rental assistance payments, and/or housing replacement costs depending upon the nature of the circumstances requiring relocation.

FloridaCommerce's subrecipients will be required to develop appropriate budgets based on applicant needs.

If CDBG-DR is matched with any other HUD funding sources, it will be subject to standard URA or Section 104(d) of the Housing and Community Development Act requirements.

3.4.2 Policy on Relocation Assistance

As applicable, and in compliance with the URA and Departmental policies and procedures, all displaced persons and non-displaced tenants who are required to relocate temporarily will receive advisory services, reasonable and eligible moving expenses, and replacement housing assistance.

Additionally, as outlined in a waiver established in Federal Register Vol. 87, No. 23 (p. 6390), grantees receiving CDBG- DR funds may establish optional relocation policies or permit their subrecipients to establish separate

optional relocation policies. This waiver is intended to provide states with maximum flexibility in developing optional relocation policies with CDBG–DR funds.

3.4.3 Steps to Minimize Displacement

Consistent with the goals and objectives of activities assisted under the Housing and Community Development Act of 1974, FloridaCommerce will take the following steps to minimize the direct and indirect displacement of persons from their homes: FloridaCommerce will determine the full list of actions it will take based on local needs and priorities and will amend the Residential Anti-displacement and Relocation Assistance Plan (RARAP) in accordance with the [HUD Handbook 1378: Tenant Assistance, Relocation and Real Property Acquisition](#).) A list of possible steps can be found in section 7.4 “Steps to Minimize Displacement” in OLTR’s URA and RARAP Policy, which is available on the OLTR page at www.FloridaJobs.org/CDBG-DR. Applicability of items on this checklist is dependent upon the project objectives and related feasibility of each action.

3.4.4 Applicable Waivers

The relocation assistance requirements at section 104(d)(2)(A)(iii) and (B) of the HCDA and 24 CFR 42.350, are waived to the extent that an eligible displaced person, as defined under 24 CFR 42.305 of the section 104(d) implementing regulations, may choose to receive either assistance under the URA and implementing regulations at 49 CFR part 24, or assistance under section 104(d) and implementing regulations at 24 CFR 42.350. This waiver does not impact a person’s eligibility as a displaced person under section 104(d), it merely limits the amounts and types of relocation assistance that a section 104(d) eligible displaced person is eligible to receive. A section 104(d) eligible displaced person is eligible to receive the amounts and types of assistance for displaced persons under the URA, as may be modified by the waivers and alternative requirements in this notice for activities related to disaster recovery. Without this waiver, disparities exist in relocation assistance associated with activities typically funded by HUD and FEMA (e.g., buyouts and relocation). Both FEMA and CDBG funds are subject to the requirements of the URA; however, CDBG funds are subject to section 104(d), while FEMA funds are not. This limited waiver of the section 104(d) relocation assistance requirements assures uniform and equitable treatment for individuals eligible to receive benefits under Section 104(d) by establishing that all forms of relocation assistance to those individuals must be in the amounts and for the types of assistance provided to displaced persons under URA requirements.

3.5 Protection of People and Property

The primary focus of the housing recovery program is to provide relief for those affected by disasters while complying with all CDBG-DR requirements and addressing recognized impediments to fair housing choice as required under the Fair Housing Act. Assistance may be provided by subrecipients to eligible applicants under a variety of housing option activities including acquisition, rehabilitation, reconstruction, new construction, demolition, elevation, hazard mitigation, down payment assistance, reimbursement, and storm hardening of homeowner and rental housing units, as allowable. All subrecipient housing activities should consider the following objectives:

- Provide high quality, durable, resilient, mold resistant, energy efficient, decent, safe, and sanitary housing that meet Green Building Standards, and mitigates impact from future disasters.
 - Resilient measures may include elevating the first floor of habitable area; breakaway ground floor walls; reinforced roofs; and storm shutters, etc.
 - Rental units will also follow safe, decent, and sanitary requirements in the impacted areas identified in the HUD-approved Plan.
- Prioritize at risk and vulnerable populations with the greatest need while affirmatively furthering fair housing:

- Emphasize housing choices and designs to reduce maintenance and insurance costs, as well as provide the provision of independent living options.
- Improvements made to reduce the possibility of property damage, personal and commercial hardship, as well as long lasting monetary burdens.

Physically disabled homeowners or homeowners with a disabled household member may be entitled to additional construction considerations such as roll-in showers, lowered countertops, pedestal sinks, bathroom grab bars, widened doorways, accessible toilets, or other accessibility features that will assist with the individual's functional needs. Subrecipients will assess eligibility for these features on a case-by-case basis during the application intake period. Homeowners will be asked if they have any accessibility needs during their meetings with the case managers and those items may be documented and will be included in the Estimated Cost of Repair (ECR) or reconstruction plans/specifications.

FloridaCommerce will define "demonstrable hardship" as exceptions to program policies for applicants who demonstrate undue hardship. Subrecipients will be required to develop policies to review applicants in this situation on a case-by-case basis to determine whether assistance is required to alleviate such hardship. Demonstrable hardship may include, but is not limited to, excessive amounts of debt due to a natural disaster, disability, etc.

FloridaCommerce will encourage and support subrecipients' efforts to mitigate hazard risks due to sea level rise, high winds, storm surge, and flooding, where applicable. During project application, subrecipients will submit explanations of both current and future planned codes to mitigate hazard risks. FloridaCommerce will provide technical guidance on hazard mitigation code examples.

FloridaCommerce will require that subrecipients demonstrate that projects address problems that are either repetitive or pose significant risk to public health and safety. Projects must also cost less than the anticipated cost of repairing potential damage, and subsequent negative impacts, from future disasters. Subrecipients must determine that proposed projects are the most practical, effective, and environmentally sound option, after consideration of a range of options. Projects will contribute to a long-term solution to the problem the subrecipient intends to address, consider long-term changes to the areas and entities it protects, and have manageable future maintenance and modification requirements.

In addition, Adaptation Action Areas can provide a flexible and optional framework that can be applied to the entire state through individual local action. Coastal communities can use Adaptation Action Areas to adapt to coastal flooding.

Planning activities outlined in this Plan provide funds to create regional plans that will enable the state of Florida to withstand future disasters. Examples of projects include, but are not limited to land use, comprehensive and neighborhood planning, regional mitigation planning, and planning to reduce flood insurance premiums through the NFIP Voluntary Community Rating System Incentives Program.

This Plan details how this funding will be allocated to reduce the effects of natural disasters and eliminate long-term risks to Floridians. The goal of the CDBG-DR funded mitigation activities outlined in this Plan is to reduce risks and vulnerabilities of people in hazard-prone areas through current technology; reduce the potential impact of natural disasters on new and existing properties, infrastructure, and local economies; and promote education, outreach and research and development programs to improve the knowledge and awareness among citizens and local industries, about potential hazards and mitigation alternatives that can reduce vulnerabilities.

Subrecipients will ensure rehabilitation, reconstruction, and new construction work is designed to incorporate principles of sustainability, including water and energy efficiency, resilience, and mitigation against the impact of future disasters. FloridaCommerce will encourage its subrecipients to use rebuilding activities. The encouragement and incorporation of these activities will help to ensure that communities build back safer and stronger than before Hurricane Sally and reduce costs in recovering from future disasters.

3.5.1 Elevation Standards

For new construction, repair of substantially damaged, or substantial improvement structures principally for residential use and located in the 1 percent annual (or 100-year) floodplain must be elevated with the lowest flood, including the basement, at least two feet above the 1 percent annual floodplain elevation.

Mixed-use structures with no dwelling units and no residents must be elevated or floodproofed up to at least two feet above base flood elevation.

If a structure is located in a 500-year floodplain, the structure must be elevated three feet above the 100-year floodplain.

FloridaCommerce require its subrecipients to develop and implement resilient home construction standards, including design standards for all structures designed principally for residential use and located in the 100-year (or one percent annual chance) floodplain that receive assistance for new construction, reconstruction, and rehabilitation of substantial damage, or rehabilitation resulting in substantial improvement, as defined at 24 CFR 55.2(b)(10). FloridaCommerce will require elevation of these structures such that the lowest floor, including the basement, is at least two feet above the base flood elevation which is the minimum height requirements set forth in the February 3, 2022, Federal Register Notice. FloridaCommerce will require it's subrecipients to comply with local building codes where higher elevation standards are required. Subrecipients may elevate up to three feet above the base flood elevation for the subject property so that it qualifies for NFIP flood insurance premium discounts when it is cost reasonable for the subrecipient to do so and when it does not create other conflicts.

Nationally, the average cost to elevate a home is between \$30,000 and \$100,000. The average cost to elevate a home is dependent upon several factors including, but not limited to the size of the home, the number of feet it must be elevated, type of foundation, and the location of the home. Based on preliminary research, the average cost to elevate a home in Florida is anywhere between \$35,000 and \$115,000. However, the cost to elevate can be more or less depending on the value of the home and the factors mentioned above. The cost to elevate a home should not exceed 49 percent of the home's pre-storm value. Any building that has a total cost of repairs more than 50 percent is considered substantially damaged and will require the entire home to be brought into code compliance. Subrecipients will be required to develop policies for properties with repair and/or elevation cost estimates that meet or exceed a comparable reconstruction or replacement house.

3.5.2 Flood Insurance Requirements

Assisted property owners must comply with all flood insurance requirements. HUD-assisted homeowners for a property located in a Special Flood Hazard Area must obtain and maintain flood insurance in the amount and duration prescribed by FEMA's National Flood Insurance Program (NFIP). FloridaCommerce may not provide disaster assistance for the repair, replacement, or restoration of a property to a person who has received Federal flood disaster assistance that was conditioned on obtaining flood insurance and then that person failed to obtain or allowed their flood insurance to lapse for the property. FloridaCommerce is prohibited by HUD from providing CDBG-DR assistance for the rehabilitation or reconstruction of a house if:

- The combined household income is greater than 120% AMI or the national median,
- The property was located in a floodplain at the time of the disaster, and
- The property owner did not maintain flood insurance on the damaged property.

To ensure adequate recovery resources are available to LMI homeowners who reside in a floodplain but who are unlikely to be able to afford flood insurance may receive CDBG-DR assistance if:

- The homeowner had flood insurance at the time of the qualifying disaster and still has unmet recovery needs, or
- The household earns less than 120% AMI or the national median and has unmet recovery needs.

Property owners assisted through the recovery program will be required to acquire and maintain flood insurance in perpetuity if their properties are located in a FEMA designated floodplain. This requirement is mandated to protect the safety of residents and their property and the investment of federal dollars. Florida will ensure adherence to Section 582 of the National Flood Insurance Reform Act regarding the responsibility to inform property owners receiving disaster assistance that triggers the flood insurance purchase requirement that they have a statutory responsibility to notify any transferee of the requirement to obtain and maintain flood insurance, and that the transferring owner may be liable if he or she fails to do so. Additional Florida State Building Code requirements may apply in addition to local codes, as applicable.

3.5.3 Construction Standards

FloridaCommerce will require quality inspections and code compliance inspections on all projects and places an emphasis on high-quality, durable, sustainable, and energy efficient construction methods and materials. Site inspections will be required on all projects to ensure quality and compliance with building codes.

All rehabilitation, reconstruction, or new construction must meet an industry-recognized standard that has achieved certification under at least one of the following programs:

- Energy STAR (Certified Homes or Multifamily High Risk)
- Enterprise Green Communities
- LEED (New Construction, Homes, Midrise, Existing Building Operations and Maintenance or Neighborhood Development)
- ICC- 700 National Green Building Standards
- EPA Indoor AirPlus
- Any other equivalent comprehensive green building standard program acceptable to HUD

FloridaCommerce will use Florida Building Code for the proposed programs or activities.

For rehabilitation of non-substantially damaged residential buildings, FloridaCommerce will follow the guidelines to the extent applicable as specified in the [HUD CPD Green Building Retrofit Checklist](#). When older or obsolete products are replaced as part of rehabilitation work, the rehabilitation is required to use ENERGY STAR-labeled, WaterSense-labeled, or Federal Energy Management Program (FEMP)-designed products and appliances.

For infrastructure projects, FloridaCommerce will encourage, to the extent practicable, implementation of Florida Building Code.

FloridaCommerce will require subrecipients to implement construction methods that emphasize high quality, durability, energy efficiency, sustainability, and mold resistance, as required in Federal Register Vol. 87, No. 23 (p. 6364), February 3, 2022. All rehabilitation, reconstruction, and new construction should be designed to incorporate principles of sustainability, including water and energy efficiency, resilience, and mitigation against the impact of future disasters. Subrecipients will implement and monitor construction results to ensure the safety of residents and the quality of homes assisted through the program. All housing units repaired or replaced must comply with program standards. These include the following minimum standards:

1. Construction standards will be based on the Florida Building Code (FBC) and must meet or exceed applicable requirements.
2. A Mobile/Manufactured Housing Unit (MHU) is built to the specifications required in the Manufactured Home Construction and Safety Standards Act of 1974, 42 U.S.C. 70 § 5401 et seq. MHUs display a red certification label on the exterior of each transportable section. Manufactured homes are built in the controlled environment of a manufacturing plant and are transported in one or more sections on a permanent chassis.

3. A Modular Housing home is built in sections in a factory to meet Federal, state, and/or local building codes. Once assembled, the modular unit becomes permanently fixed to one site. The program will treat modular homes as traditional, site, or stick-built construction.
4. Construction will comply with the Florida Green Building Standard for all new construction of residential buildings and for all replacement of substantially damaged residential buildings. (Any building that has a total cost of repairs more than 50 percent of replacement costs is considered substantially damaged as determined by local jurisdiction.)
5. For rehabilitation construction, the subrecipient will follow the Green Building Retrofit Checklist to the extent applicable to the rehabilitation work undertaken, including the use of mold resistant products when replacing surfaces such as drywall. When older or obsolete products are replaced as part of the rehabilitation work, rehabilitation is required to use ENERGY STAR-labeled, WaterSense-labeled, or FEMP-designated products and appliances, or other equivalent.
6. Housing units assisted with CDBG-DR funds must meet all applicable federal, local, and state codes, repair standards, ordinances, and zoning ordinances at the time of project completion. All deficiencies identified in the final inspection must be corrected before final payment is released.

Subrecipients will be required to adhere to, at minimum, the procurement laws at 2 CFR 200, in addition, subrecipients are required to follow all applicable federal, state, and local procurement laws. FloridaCommerce also has instituted a max-allowable CDBG-DR award for housing assistance - \$350,000.00 - which may be increased by way of policy exception in the event that the additional cost is justifiable and necessary.

As stated in the Federal Register, CDBG-DR funds are prohibited from being used to enlarge a dam or levee beyond the original footprint of the structure that existed prior to the disaster event, without obtaining pre-approval from HUD and any Federal agencies that HUD determines are necessary based on their involvement or potential involvement with the levee or dam. FloridaCommerce will ensure that if subrecipients use CDBG-DR funds for levees and dams, the subrecipient will follow the following guidance, as outlined by HUD at Federal Register Vol. 87, No. 23 (p. 6375): (1) register and maintain entries regarding such structures with the USACE National Levee Database or National Inventory of Dams; (2) ensure that the structure is admitted in the USACE PL 84–99 Program (Levee Rehabilitation and Inspection Program); (3) ensure the structure is accredited under the FEMA National Flood Insurance Program. FloridaCommerce will upload into the DRGR system the exact location of the structure and the area served and protected by the structure and maintain file documentation demonstrating that the grantee has conducted a risk assessment prior to funding the flood control structure and document that the investment includes risk reduction measures.

3.5.3.1 Resilient Homes Construction Standards

Subrecipients are encouraged to incorporate a Resilient Home Construction Standards for substantially damaged residential buildings or new construction that incorporate a Resilient Home Construction Standard recognized such as those set by the FORTIFIED Home™ Gold Level for new construction or single family, detached homes; and FORTIFIED Home™ Bronze level for repair or reconstruction of the roof; or any other equivalent comprehensive resilient or disaster resistant building program. Resilient standards when incorporated will increase a home's resilience to natural hazards, including high wind, hail, and tropical storms.

3.5.4 Contractors Standards

Contractors selected under FloridaCommerce will make every effort to provide opportunities to low and very-low income persons by providing resources and information to notify Section 3 individuals and businesses of opportunities in the community. FloridaCommerce will report Section 3 accomplishments in the Disaster Recovery Grant Reporting (DRGR) system.

Contractors will comply with Section 3 of the Housing and Urban Development Act of 1968 (12. U.S.C. 1700lu) and implementing regulations at 24 CFR part 75. Contractors selected by FloridaCommerce or its subrecipient will ensure, to the greatest extent feasible, that employment and other economic opportunities are directed to low-

and very low-income persons, particularly local residents and businesses that meet the qualifications of the project. Contractors will make every effort to recruit, target, and direct opportunities to Section 3 residents and businesses as well as notifying Section 3 residents about training opportunities. FloridaCommerce or its subrecipient will provide Contractors with helpful resources to maximize these efforts including, but not limited to, a Section 3 Business Registry, and examples of training and employment opportunities. Contractor procurement procedures will be monitored by FloridaCommerce.

Information about the right and how to file a reconsideration request and complaints will be printed in all guidelines and posted on the Rebuild Florida website, www.RebuildFlorida.gov, in all local languages, as appropriate and reasonable.

FloridaCommerce's Purchasing Guidelines contain a section on Equity in Contracting; this section contains language on promoting the participation of, and outreach to businesses, including minority-, women-, and veteran-owned businesses. The long-term focus of FloridaCommerce is to encourage business with all minorities and women owned businesses.¹⁶⁴

FloridaCommerce or its subrecipient will require a warranty period post-construction for housing work performed by the contractor to be guaranteed for a period of one year. In addition to this 1-year general warranty for repairs to the home, the following warranties on construction are in place, as applicable:

- 2 years – electrical, plumbing, and mechanical warranty (if such work is performed)
- 10 years – structural warranty (if structural work is performed)

Contractors must provide all warranties prior to signing a final inspection form at the final inspection. During this inspection, photographs will be taken for documentation purposes and the homeowner will be provided with applicable instruction booklets and warranty information.

Complaints of contractor fraud, such as abandoning a job, will be reported to the OIG. In addition, FloridaCommerce will coordinate with FloridaCommerce of Business and Professional Regulation to address such claims. To safeguard FloridaCommerce or its subrecipient, contractors are also required to submit proof of liability insurance and provide performance and payment bonds against the project.

Complaints of poor-quality work and associated issues can be reported to the program either directly to the subrecipient, or through OLTR's Constituent Management Services. Complaints will be received and investigated by FloridaCommerce and addressed with the subrecipient responsible for that project.

All complaints and claims of fraud will be logged in the program's system of record.

3.5.5 Preparedness, Mitigation and Resiliency

Resilience is defined as a community's ability to minimize damage and recover quickly from extreme events and changing conditions, including natural hazard risks.

Florida intends to promote high quality, durable, sustainable, mold-resistant, and energy-efficient construction methods for all CDBG-DR funded activities, as applicable. Construction standards will be based on the Florida Building Code and must meet or exceed applicable requirements.

For rehabilitation construction, the state and its subrecipients will follow the Green Building Retrofit Checklist to the extent applicable to the rehabilitation work undertaken, including the use of mold resistant products when replacing surfaces such as drywall. When older or obsolete products are replaced as part of the rehabilitation work, rehabilitation is required to use ENERGY STAR-labeled, WaterSense-labeled, or FEMP-designated products and appliances or other equivalent.

¹⁶⁴https://FloridaJobs.org/docs/default-source/office-of-disaster-recovery/purchasing/deo-purchasing-and-contracting-guidelines-july-2019.pdf?sfvrsn=7bbb7fb0_4

FloridaCommerce and its subrecipients will require both quality inspections and code compliance inspections on all projects. Site inspections will be required on all projects to ensure quality and compliance with building codes. FloridaCommerce will encourage and support subrecipients' efforts to update and strengthen local compliance codes to mitigate hazard risks due to sea level rise, high winds, storm surge, and flooding where applicable. In the project application, subrecipients will submit an explanation of both current and future planned codes to mitigate hazard risks. FloridaCommerce will provide technical guidance on hazard mitigation code examples.

FloridaCommerce will require that subrecipients demonstrate that projects:

- Address a problem that has been repetitive, or a problem that poses a significant risk to public health and safety if left unsolved;
- Cost less than the anticipated monetary reduction in both direct damage and subsequent negative impacts to the area if future disasters were to occur;
- Have been determined to be the most practical, effective, and environmentally sound alternative after consideration of a range of options;
- Contribute, to the extent practicable, to a long-term solution to the problem it is intended to address; and/or
- Consider long-term changes to the areas and entities it protects and have manageable future maintenance and modification requirements.

Adopted into Florida Law in 2011, through the Community Planning Act,¹⁶⁵ Adaptation Action Areas provide a flexible and optional framework that can be applied to the entire state through individual local action. At the request of coastal communities, FloridaCommerce created this guidance to assist communities in understanding how they can use Adaptation Action Areas to adapt to coastal flooding. Chapter 163, Florida Statutes, requires each local government authority to create, adopt, and maintain a comprehensive land use plan. The local comprehensive plan is a key driver of development and redevelopment because it outlines legally enforceable guidelines and strategies, directly influencing the decision-making process. Comprehensive plans can be amended to create strategies for merging growth with resilience.

FloridaCommerce provides rarely available funds to create regional plans that will enable Florida to withstand future disasters. Examples of projects include, but are not limited to: land use, comprehensive and neighborhood planning, regional mitigation planning, and planning to reduce flood insurance premiums through the NFIP Voluntary Community Rating System Incentives Program.

Seeking input from stakeholders and communities around the state is an important component of the planning process. FloridaCommerce used a variety of methods to inform local officials and the public on the purpose and goals of disaster recovery and mitigation, understanding risks, threats, and hazards in the MID areas and gathering feedback on how to craft programs that will meet the needs of communities as quickly as possible. In addition to gaining feedback, this process helped local stakeholders and members of the public understand what to expect from CDBG-DR funding and allowed them to play a key role in shaping the outcomes of this Plan. The outreach methods, along with the feedback obtained, include webinars, a Community Stakeholder Survey, and Regional Stakeholder Meetings.

FloridaCommerce is committed to ensuring environmental justice in minority populations and low-income populations. FloridaCommerce encourages members of these populations to participate in outreach efforts to provide valuable input on the needs and priorities of their communities. To ensure adequate public participation and access to information as required by Executive Order 12898, FloridaCommerce will solicit public

¹⁶⁵ Title XI. County Organizations and Intergovernmental Relations; Chapter 163 Intergovernmental Programs; Part II Growth Policy, County and Municipal Planning, Land Development Regulation; http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0100-0199/0163/0163PartIIContentsIndex.html&StatuteYear=2021&Title=%2D%3E2021%2D%3EChapter%20163%2D%3EPart%20II

recommendations in developing and implementing environmental justice strategies, use public documents that are concise and understandable, and translate appropriate public documents for LEP populations.

FloridaCommerce will also provide meaningful opportunities for public participation throughout the environmental review process as required by guidance from the Council on Environmental Quality.

This Plan details how this funding will be allocated to reduce the effects of natural disasters and eliminate long-term risks to Floridians. The purpose of the mitigation activities outlined in this Plan is to detail a strategy that reduces risks and vulnerabilities of people in hazard-prone areas through current technology, reduces the potential impact of natural disasters on new and existing properties, infrastructure, and local economies, and promotes education, outreach and research and development programs to improve the knowledge and awareness among the citizens—particularly vulnerable populations and historically underserved communities—and industry about hazards they may face and mitigation alternatives that can reduce vulnerabilities.

FloridaCommerce completed a risk-based mitigation needs assessment (2.6 Mitigation Only Activities) to identify and analyze all significant current and future disaster risks that provide a substantive basis for the activities proposed in 4.0 Grantee Proposed Use of Funds. The assessment utilizes the findings of Florida’s Enhanced State Hazard Mitigation Plan (ESHMP), data and research acquired from essential data resources, and consultation with public, private, and non-profit stakeholders to arrive at a thorough assessment of the hazards which pose substantial risk of loss of life, injury, damage, and loss of property, along with suffering and hardship.

One of the most significant challenges faced by Florida communities is the threat of repetitive flooding. Maintaining current levels of flood risk in Florida is unsustainable and threatens the state’s ability to provide critical services, preserve critical service areas, and maintain long-term community and ecosystem viability and resilience. Flooding has been identified as one of the most destructive hazards in terms of loss of human life, injury, and property damage. Enhancing the function of natural flood mitigation features such as streams and wetlands to ensure that conveyed water makes it to rivers and other water bodies is increasingly important. Storm water management is also a major issue for inland communities. Funding for implementing flooding mitigation projects is critical to achieving the state’s lifeline objectives.

Florida’s 2018 Enhanced State Hazard Mitigation Plan (ESHMP) is the most recent risk assessment completed through the FEMA hazard mitigation planning process. The ESHMP was completed by FDEM’s Mitigation Bureau and serves as the FEMA-approved ESHMP. It provides the factual basis for developing a mitigation strategy for Florida. The purpose of the ESHMP is to reduce death, injuries, and property losses caused by natural hazards in Florida. The 2018 Plan identifies hazards based on the history of disasters within Florida and lists goals, objectives, strategies, and actions for reducing future losses.

This assessment utilizes the findings of Florida’s Enhanced State Hazard Mitigation Plan (ESHMP), data and research acquired from essential data resources, and consultation with public, private, and non-profit stakeholders to arrive at a thorough assessment of the hazards which pose substantial risk of loss of life, injury, damage, and loss of property, along with suffering and hardship.

All rehabilitation, reconstruction, and new construction work will be designed to incorporate principles of sustainability, including water and energy efficiency, resilience, and mitigation against the impact of future disasters. FloridaCommerce will—and will encourage its subrecipients to—incorporate preparedness and mitigation measures for rebuilding activities. The encouragement and incorporation of these activities will help to ensure that communities build back safer and stronger than before Hurricane Sally and will reduce costs in recovering from future disasters. Mitigation measures that are not incorporated into those rebuilding activities must be a necessary expense related to disaster relief, long-term recovery, and restoration of infrastructure.

CDBG-DR funding will not be allocated for the development of disaster recovery and response planning. FDEM is the state entity responsible for coordinating the state’s overall long-term mitigation strategy, including pre- and post-disaster hazard mitigation.

3.5.6 Broadband Infrastructure in Housing

Any substantial rehabilitation or new construction of a building with more than four (4) rental units will include installation of broadband infrastructure, except when:

- The location of the new construction or substantial rehabilitation makes the broadband infrastructure infeasible,
- The cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden, or
- The structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.

3.5.7 Cost-Effectiveness

FloridaCommerce's standard contracting procedures include a cost analysis process that includes a review of each cost element to determine allowability, reasonableness, and necessity. Maximum assistance available to housing beneficiaries, as well as cost-effectiveness relative to other means of assistance, will be outlined in the Hurricane Sally Rebuild Florida Program Subrecipient Policies and Procedures. Maximum assistance per beneficiary for infrastructure will be set by the applicant jurisdictions as part of the project submittal to FloridaCommerce and will be considered by FloridaCommerce upon review.

Additionally, the Florida State Housing Initiatives Partnership (SHIP) program, provides funds to local governments as an incentive to develop partnerships that produce and preserve affordable homeownership and multifamily housing. Many local governments have participated in the program and have established local housing assistance plans, which include items such as housing incentive strategies, local policies to implement the incentive strategies, and partnerships to reduce housing costs.

To ensure that housing assistance amounts are cost reasonable, the maximum amount of CDBG-DR assistance available for any single housing unit under Hurricane Sally recovery programs is \$350,000. In cases of demonstrable hardship or where local housing markets warrant an increase of the cap, beneficiaries may propose an alternative cap to FloridaCommerce for review and approval. An increased cap may also be used to provide funding for difficult or unexpected repairs above and beyond the housing caps. FloridaCommerce will establish methods of cost reasonableness by conducting research on the services sought and procured. FloridaCommerce will consult industry accepted trade organizations, past programs, and other regional grantees for input on costs for services being procured.

FloridaCommerce will define "demonstrable hardship" as exceptions to program policies for applicants who demonstrate undue hardship. Subrecipients will review applicants in this situation will be reviewed on a case-by-case basis to determine whether assistance is required to alleviate such hardship. Demonstrable hardship may include, but is not limited to, excessive amounts of debt due to a natural disaster, disability, etc. With documentation, the subrecipient may allow for persons with disabilities to exceed the \$350,000 cap on a case-by-case basis and if cost reasonable to ensure reasonable accommodation. Subrecipients should detail a policy exception process in their policies and procedures.

As a recipient of federal funds, FloridaCommerce is charged with ensuring that the costs of its activities are reasonable and necessary. Cost-effectiveness will be considered for all residential rehabilitation, reconstruction and/or new construction housing projects of eight units or more. FloridaCommerce and its subrecipients will establish policies and procedures to assess the cost-effectiveness of each proposed project undertaken to assist a household under any residential rehabilitation, reconstruction, or new construction program. The policies and procedures will address criteria for determining when the cost of rehabilitation, reconstruction or new construction of the unit will not be cost-effective relative to other means of assisting the property.

HUD requires FloridaCommerce to define what would constitute a housing unit "not suitable for rehabilitation." FloridaCommerce defines "not suitable for rehabilitation" as one of the two following definitions:

- Residential properties that have experienced repetitive losses under FEMA’s NFIP; or
- Dwellings that are considered substandard and do not meet the recovery program’s housing rehabilitation standards and/or federal, state, local code requirements shall not be deemed suitable for rehabilitation, as determined by the program and consistent with program guidelines. A structure is not suitable for rehabilitation if the cost of repair is unreasonable based on program standards as specified in the Hurricane Sally Rebuild Florida Program Subrecipient Policies and Procedures.

3.5.8 Duplication of Benefits

The Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (the “Stafford Act”) institutes a goal to achieve greater coordination and responsiveness of disaster preparedness and relief programs. Accordingly, Stafford Act duplication of benefits (DOB) requirements apply to all federal agencies administering a disaster recovery program that provides financial assistance for emergency response and long-term recovery. CDBG-DR grants are subject to these requirements.

Section 312(a) of the Stafford Act requires the Federal Government to assure that no person receiving Federal financial assistance receives funds for any part of a loss already paid by insurance or any other source. Section 312(c) makes any person receiving duplicative assistance liable to the Federal Government for the duplicative amount and states that “the agency which provided the duplicative assistance shall collect [it] from the recipient when the head of such agency considers it to be in the best interest of the Federal Government” (42 USC 5155(c)). Additionally, Section 312(b) of the Act permits the payment of assistance to someone who is or may be entitled to future payments from insurance or another source “if such person agrees to repay all duplicative assistance to the agency providing the Federal assistance” (42 USC 5155(b)).

DOB guidance for CDBG-DR grantees is outlined in Federal Register [Vol. 84, No. 119](#), June 20, 2019.

Additionally, the Appropriations Act, regulations, and cost principles within uniform administrative requirements applicable to all CDBG-DR grantees require that costs are necessary and reasonable (24 CFR part 570 and Uniform Requirements at 2 CFR part 200). “A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost” (2 CFR 200.404).

To prevent DOB, FloridaCommerce will require that all sources (federal, state, local, and private) and amounts of disaster assistance received or reasonably anticipated to be received are documented with submission of an application for CDBG-DR funding. DOB for CDBG-DR assistance will only consider other sources of funding pertaining to structural damage caused by Hurricane Sally. Prior to program-related construction, applicant awardees must submit any additional funds received for damage caused by the presidentially declared hurricane disaster to the subrecipient to avoid DOB. DOB are statutorily not allowed. Subrecipient policies and procedures will dictate the process to prevent duplication. CDBG-DR funding must be the funding of last resort. Any additional funds paid to applicant awardees for the same purpose as the assistance awarded after the state has completed the project must be returned to FloridaCommerce.

4.0 Grantee Proposed Use of Funds

4.1 Overview

FloridaCommerce is the lead agency and responsible entity for administering \$187,383,000 in CDBG-DR funds allocated for disaster recovery. These programs included the Subrecipient Housing Repair and Replacement Program (HRRP), Workforce Affordable Housing (WFAH) Construction Program, Voluntary Home Buyout (VHB), Infrastructure Repair Program (IRP), Hometown Revitalization Program (HRP) and Workforce Recovery Training Program (WRTP).

In accordance with the Federal Register Guidance, FloridaCommerce’s aggregate total for indirect costs and administrative and technical assistance expenditures will not exceed five percent of its total grant (\$9,369,150) plus program income. Planning costs are subject to the 15 percent cap (\$28,107,450) defined in 42 U.S.C. 5305(a)(12). State and local administration costs are capped at five percent in aggregate by federal regulations. FloridaCommerce will provide additional guidance to subrecipients regarding the amount of administrative funds available to them and will be included in the subrecipient agreements. Eligible project delivery costs are presumed included as a portion of the overall CDBG-DR grant funding allocation provided to each subrecipient. Subrecipients will be responsible for properly tracking and monitoring these expenses that may not be included as part of the overall grant award to each individual project or individual applicant as applicable.

In compliance with the use of funds required by the Federal Register and informed by the unmet needs assessment, the allocation of CDBG-DR funds is displayed below in Table 89: Program Budget.

Table 89: Program Budget

	Program	Budget	HUD Identified MID Budget	Grantee Identified MID Budget	% of Allocation	Maximum Award	National Objective	Estimated Outcome
Housing	Rehab	\$14,861,500	\$11,889,200	\$2,972,300	7.93%	\$9,000,000	LMI	0
	Buyout	\$8,170,114.80	\$6,536,091.84	\$1,634,022.96	4.36%	\$5,000,000	LMI, UN ¹⁶⁶	0
	New Construction	\$25,000,000	\$20,000,000	\$5,000,000	13.34%	\$25,000,000	LMI	0
	Other	\$0	\$0	\$0	0%	\$0	N/A	0
Economic Revitalization	Workforce Training	\$2,499,541.64	\$1,999,633.31	\$499,908.33	1.33%	\$2,000,000	LMI	0
	Business Grants	\$0	\$0	\$0	0%	\$0	N/A	0
	Other	\$15,992,308.74	\$12,793,846.99	\$3,198,461.75	8.53%	\$5,000,000	LMI, UN, ESB ¹⁶⁷	0
Infrastructure	Water/Sewer Improvements	\$0	\$0	\$0	0%	\$0	N/A	0
	Health Facilities	\$0	\$0	\$0	0%	\$0	N/A	0

¹⁶⁶ UN: Unmet Need national objective

¹⁶⁷ ESB: Elimination of Slums or Blight national objective

	Other	\$110,990,384.82	\$88,792,307.86	\$22,198,076.96	59.23%	\$67,000,000	LMI, UN	0
Public Services	Legal Services	\$0	\$0	\$0	0%	\$0	N/A	0
	Housing Counseling	\$0	\$0	\$0	0%	\$0	N/A	0
	Other	\$0	\$0	\$0	0%	\$0	N/A	0
Admin		\$9,369,150	\$7,495,320	\$1,873,830	5%	N/A		
Planning		\$500,000	\$400,000	\$100,000	.27%	N/A		
Total		\$187,383,000	\$149,906,400	\$37,476,600	99.99%	N/A	N/A	N/A

4.2 Connection to Unmet Needs

As required by the Federal Register Vol. 87, No. 23, FloridaCommerce will allocate at least 80 percent of the funds to address unmet needs with HUD-identified “most impacted and distressed” areas. The remaining 20 percent of the allocation may be used to address unmet needs that received a Hurricane Sally, FEMA 4564, presidential major disaster declaration. The areas to receive 20 percent of the allocation are designated as State MID areas.

This Plan primarily considers and addresses unmet housing and infrastructure needs due to the large proportion of need in these sectors reflected in the Unmet Needs Assessment. Due to anticipated unmet need not currently reflected in available data, a lesser portion of funding has also been obligated to economic revitalization through the Hometown Revitalization Program(as described in 2.5.1 Disaster Damage and Impacts.).

Federal Register Vol. 87, No. 23, February 3, 2022, Section II, Use of Funds, states: “The Appropriations Act requires that prior to the obligation of CDBG-DR funds ... a grantee shall submit a plan to HUD for approval detailing the use of funds. The plan must include the criteria for eligibility, and how the use of these funds will address long-term recovery and restoration of infrastructure and housing, economic revitalization, and mitigation in the Most Impacted and Distressed (MID) areas.”

The programs and funding outlined in this Plan were informed by the findings of the unmet needs assessment and mitigation needs assessment along with meetings and feedback from communities impacted by Hurricane Sally, as required by HUD. As outlined in the assessment, the largest portion of unmet needs resulting from Hurricane Sally are related to housing and infrastructure.

Fifty-Five percent of the remaining unmet needs resulting from Hurricane Sally are related to housing needs. This includes significant impacts from high winds, flooding, and storm surges. The Subrecipient HRRP, VHB, and WFAH programs will allow Hurricane Sally impacted communities the opportunity to meet their unmet housing needs by providing several program options through which to repair housing, increase housing stock, and reduce risk to existing housing. Subrecipients will provide rehabilitation and replacement programs for damaged homes through the Subrecipient Housing Program. VHB will provide a buyout option to vulnerable households who have experienced repetitive loss through flooding. Subrecipient will be required to convert acquired properties into green space. The WFAH, through subrecipient administration, will result in an increase in affordable housing units through new construction in areas impacted by Hurricane Sally.

Almost forty-five percent of all remaining unmet needs resulting from Hurricane Sally are related to infrastructure. Stakeholders from the impacted communities expressed a substantial need for infrastructure projects and activities. Mitigation activities combined with the IRP will allow these communities to prepare for and mitigate against future disasters while incorporating resiliency measures that allow for quicker recovery following future storms. FloridaCommerce will ensure that all infrastructure activities undertaken using CDBG-DR funds contribute to recovery and increased resiliency in the MID areas.

At least 70 percent of all program funds will benefit LMI persons or households. Throughout implementation of the programs identified in this Plan for Disaster Recovery, FloridaCommerce will track usage of funds to ensure

that the final aggregate benefit to LMI persons meets or exceeds the required 70 percent, as identified in the Federal Register. The housing programs identified in this Plan will serve LMI populations at a higher proportion than is expressly required by HUD (Table 90: Projected LMI Benefit by Program). FloridaCommerce anticipates that these programs with higher LMI benefit in tandem with the benefit to LMI persons achieved through infrastructure and economic revitalization projects, will meet or exceed the 70 percent required total LMI benefit.

Table 90: Projected LMI Benefit by Program

Sector	Program	Estimated LMI Benefit
Housing	Subrecipient Housing Program	90%
	Voluntary Home Buyout Program	80%
	Workforce Affordable Housing Construction Program	100%
Economic Revitalization	Hometown Revitalization Program	70%
	Workforce Recovery Training Program	70%
Infrastructure	Infrastructure Repair Program	60%

4.2.1 Reallocations of Funds

Table 91: Reallocations of Funds

Program Activity	Initial Program Budget	July ##, 2023 Amended Program Budget	Amount Adjusted
Subrecipient Housing Repair and Replacement Program	\$45,000,000	\$14,861,500	- \$30,138,500.00
Voluntary Home Buyout Program	\$22,000,000	\$8,170,114.80	- \$13,829,885.20
Workforce Affordable Housing Construction Program	\$25,000,000	\$25,000,000	-
Hometown Revitalization Program	\$13,513,850	\$15,992,308.74	+ \$2,478,458.74
Workforce Recovery Training Program	\$5,000,000	\$2,499,541.64	- \$2,500,458.36
Infrastructure Repair Program	\$67,000,000	\$110,990,384.82	+ \$43,990,384.82
Total	\$187,383,000	\$187,383,000	\$46,468,843.56

Following program application intake, FloridaCommerce found it necessary to reallocate program funds in order to best meet the needs indicated by subrecipients applying for CDBG-DR assistance. Non-Substantial Amendment 1 to the Hurricane Sally Action Plan for Disaster Recovery removes \$30,138,500 in funds from the Subrecipient HRRP, \$13,829,885.20 from the VHB, and \$2,500,458.36 from the WRTP and reallocated these funds (totaling \$46,468,843.56) to the IRP and HRP which both received applications summing to a higher dollar amount than initially anticipated. Through this amendment, the IRP receives an additional \$43,990,384.82 and the HRP receives an additional \$2,478,458.74 to be awarded to eligible subrecipient applicants.

4.2.2 Public Housing, Affordable Housing and Housing for Vulnerable Populations

Public housing is an integral piece of the state's housing resources for low- and moderate- income persons. FloridaCommerce or its subrecipients will identify and address the rehabilitation, reconstruction, and replacement of the following types of housing affected by the disaster:

- Committed Affordable LMI housing units,
- Public housing authority housing stock, including HUD-assisted housing,
- Private market units receiving project-based assistance or with tenants participating in the Section 8 Housing Choice Voucher Program, and
- Affordable housing, including housing for the homeless, emergency shelters, transitional, and permanent housing.

FloridaCommerce will coordinate with FDEM and local governments, including county emergency management officials, located in the MID areas to identify emergency shelters in those communities that are in need of rehabilitation, reconstruction, or replacement. FloridaCommerce's coordination with local MID communities will, at a minimum, include the use of a survey instrument to collect relevant data regarding the status, including damage estimates, of emergency shelters in the MID communities. Data gathered through these coordination efforts will inform FloridaCommerce's efforts to rehabilitate, reconstruct, or replace emergency shelters in the MID areas.

FloridaCommerce will identify and coordinate with service providers that work with the homeless, including the Florida's Department of Children and Families (DCF) Office of Homelessness Florida Coalition to End Homelessness, Florida's Council on Homelessness, and the homeless shelters located in the MID areas to determine the current needs of those served. FloridaCommerce's coordination will, at a minimum, include the use of survey instruments to collect relevant data regarding the needs of the homeless individuals served and potential services to those individuals that would benefit from the use of CDBG-DR funding. Data gathered through these coordination efforts will be used to formulate FloridaCommerce's approach to assisting homeless individuals impacted by Hurricane Sally.

FloridaCommerce and its subrecipients will ensure ongoing coordination with service providers that work with vulnerable populations to ensure that any remaining or ongoing storm-related impact is brought to FloridaCommerce's attention for a coordinated approach. In addition, any vulnerable populations brought to FloridaCommerce's attention who are not served under current Departmental programs may be referred to specialized service providers for assistance.

FloridaCommerce and grant subrecipients will develop policies and procedures for compliance with Affirmatively Furthering Fair Housing (AFFH) requirements during the implementation of this Plan. Such policies and procedures will involve a review that will include an assessment of the proposed housing project area's demography, socio-economic characteristics, environmental hazards or concerns, and other factors material to the AFFH determination. Applications should show that housing projects are likely to lessen area racial, ethnic, and low-income concentrations and/or promote affordable housing in low-poverty, non-minority areas in response to natural hazard-related impacts. The findings of this review will be used to inform the selection of projects for funding, in accordance with the Federal Register Notice requirements and the grantee's certification to AFFH. The state will remain highly agile throughout the planning and implementation phases of each program to ensure the process and program design is consistent with HUD's direction to AFFH.

Application and outreach materials will be made available in Spanish and other languages, upon request. FloridaCommerce acknowledges that persons with disabilities may have special needs and will make every effort to accommodate those needs as they arise.

4.3 Leveraging Funds

FloridaCommerce anticipates leveraging CDBG-DR funds with the following methods:

FloridaCommerce will encourage subrecipients to leverage CDBG-DR funds with funding provided by other federal, state, local, private, and nonprofit sources to utilize the limited CDBG-DR funds. This will be specifically encouraged for the homeowner buyout programs as well as infrastructure programs. By encouraging local governments to use CDBG-DR as match for the FEMA Hazard Mitigation Grant Program and PA Mitigation program, communities will be able to better utilize both funding sources. Often local governments cannot afford match for HMGP and PA mitigation programs, and CDBG-DR funding can go further if not funding a project fully. FloridaCommerce will report on leveraged funds in the DRGR system. When leveraging funds, in accordance with the Stafford Act, as amended, Florida will implement policies and procedures to ensure no individual receives DOB for the same purpose and/or effect to recover from Hurricane Sally.

4.4 Program Partners

FloridaCommerce does not currently have any Program Partners. This Plan will be amended as Program Partners become applicable.

4.5 Distribution of Funds

To prioritize limited funding in areas with highest damage, Departmental assistance outlined in this Plan will be limited to counties (and municipalities within those counties) that received FEMA IA declarations in addition to their PA declaration. Receiving an IA declaration in addition to a PA declaration indicates that the county had a significant amount of damage to housing in addition to public infrastructure. The following counties, displayed in Table 92: Florida IA and PA Declared Counties, received both FEMA IA and PA assistance:

Table 92: Florida IA and PA Declared Counties

Florida IA and PA Declared Counties	
Bay	Santa Rosa
Escambia	Walton
Okaloosa	

As required by [Federal Register, Vol. 87, No. 23, February 3, 2022](#), FloridaCommerce will use 80 percent of the allocation to address unmet needs within the HUD-identified MID areas. The communities to receive 80 percent of the funds include Escambia County and 32583 (Santa Rosa County) zip code per Federal Register Vol. 87, No. 23 (p. 6371), where HUD identified specific zip codes as MID communities, FloridaCommerce intends to expand program operations and eligibility to the whole county. The remaining 20 percent can be spent in state-identified MID communities, which include Bay, Okaloosa, and Walton Counties as shown in the map below. FloridaCommerce will ensure, as required and identified in the Federal Register, that at least 70 percent of the entire allocation of CDBG-DR funds will be used for activities benefiting LMI persons. All MID counties are identified in Figure 77: Hurricane Sally Most Impacted and Distressed (MID) Communities.

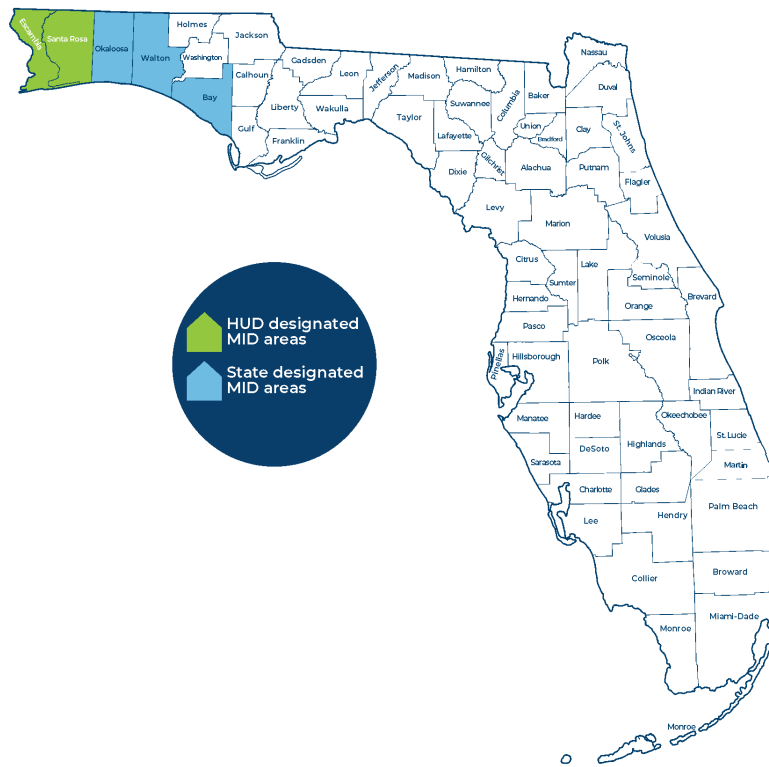


Figure 77: Hurricane Sally Most Impacted and Distressed (MID) Communities

4.5.1 Basis for Allocation

As outlined in the unmet needs assessment, the largest portion of unmet needs resulting from Hurricane Sally are related to housing and infrastructure recovery with the total amount of impact to Housing (\$54,591,317), Infrastructure (\$113,305,596), and the economy (\$6,851,501) within the identified MID communities, as well as the estimated remaining unmet needs in each sector—\$28,823,809, \$23,359,218, and \$0, respectively.

In consideration of the unmet needs assessment and HUD requirements, and to prioritize limited funding in areas with highest damage, Departmental assistance outlined in this Plan will be limited to homeowners, small rental property owners, and local governments within counties (and cities within those counties) identified as HUD or State MID areas. All projects and programs described in this Plan will primarily support LMI households.

For all activities, including infrastructure, economic revitalization, housing and buyout activities, jurisdictions from each of the MID areas (80 percent HUD MID or 20 percent State MID) will select projects to propose to FloridaCommerce for funding in accordance with FloridaCommerce’s thresholds and criteria.

Specific information regarding eligibility criterion, threshold factors, maximum award, maximum assistance caps, mitigation set-aside activities, and projected use of CDBG-DR funds is located in the applicable program descriptions below (4.7 Program Details).

HUD requires that 100 percent of CDBG-DR funding be expended within six years of the signing of the grant agreement which provides the grantee access to the federal funds. CDBG-DR programs must be carried out in a manner such that all grant close out and audit/verification activities are completed within the six-year period.

FloridaCommerce will implement program management, monitoring, and oversight standards necessary to ensure compliance with state and federal requirements.

4.5.2 Eligible and Ineligible Activities

4.5.2.1 Eligible Activities

As specified in Federal Register Vol. 87, No. 23 (p. 6370), CDBG-DR funds are provided for necessary expenses for activities authorized under Title I of the HCDA related to disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation of risk associated with activities carried out for these purposes, in the MID areas resulting from Hurricane Sally. All CDBG-DR funded activities must address an impact of Hurricane Sally. Accordingly, each activity must:

1. Address a direct or indirect impact from the disaster in a MID area;
2. Be a CDBG-eligible activity (or be eligible under a waiver or alternative requirement); and
3. Meet a national objective.

FloridaCommerce has received a CDBG-DR mitigation set aside for Hurricane Sally recovery efforts. Unlike recovery activities where FloridaCommerce must demonstrate activities “tie- back” to Hurricane Sally and address a specific unmet recovery need for which the CDBG-DR funds were appropriated, activities funded by the CDBG-DR mitigation set-aside do not require such a “tie-back” to an impact of Hurricane Sally. Instead, all activities funded by the CDBG-DR mitigation set-aside must:

1. Meet the definition of mitigation activities as defined in Federal Register Vol.87, No. 23 (6370);
2. Address the current and future risks as identified in FloridaCommerce’s mitigation needs assessment in the MID areas;
3. Be CDBG-eligible activities under Title I of the HCDA or otherwise eligible pursuant to a waiver or alternative requirement; and
4. Meet a national objective.

4.5.2.2 Ineligible Activities

Ineligible activities identified in the Federal Register, Vol. 87, No. 23, February 3, 2022, include the use of CDBG-DR for forced mortgage payoff; the use of CDBG-DR funds to provide compensation to beneficiaries for losses stemming from disaster-related impacts; construction of a dam/levee beyond original footprint without obtaining pre-approval from HUD; incentive payments to households that move to disaster-impacted floodplains; assistance to privately owned utilities; not prioritizing assistance to businesses that meet the definition of a small business; or assistance for second homes and activities identified in 24 CFR 570.207. Any activity that is not authorized under Section 105(a) of the HCDA is ineligible to be assisted with CDBG-DR funds, unless explicitly allowed by waiver and alternative requirement in the Consolidated Notice.

4.5.3 CDBG-DR Program National Objectives

FloridaCommerce has designed this CDBG-DR program in compliance with the national program objectives and will make every effort to ensure that assistance is prioritized toward the most disadvantaged populations. FloridaCommerce intends to spend no less than 70 percent of funds allocated for direct benefit to LMI populations. As stewards of federal CDBG funds, FloridaCommerce complies with HUD mission to develop viable communities by the provision of decent housing, a suitable living environment and expanding economic opportunities, principally for LMI persons.

To this end, all funded activities administered by FloridaCommerce will meet one of three named HUD national objectives:

1. Benefitting LMI Persons;
2. Preventing or Eliminating Slums or Blight; or

- Meeting Urgent Needs (will comply with expanded definition found in Federal Register 87, Vol 23 (p. 6386)—Use of Urgent Need National Objective).

Provisions of assistance will be made to eligible applicants in the impacted area, as funds are available, with priority given to applicants with verified household income at 80 percent or below the AMI for the region in which they reside. HUD directed Florida to spend at least 70 percent of the funds on LMI households. Rebuild Florida Programs will begin immediately upon execution of HUD funding agreement.

Table 93: Income Limits¹⁶⁸

IA & PA Declared County	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
Bay County								
30% Limit	\$15,800	\$18,310	\$23,030	\$27,750	\$32,470	\$37,190	\$41,910	\$46,630
50% Limit	\$26,300	\$30,050	\$33,800	\$37,550	\$40,600	\$43,600	\$46,600	\$49,600
80% Limit	\$42,100	\$48,100	\$54,100	\$60,100	\$64,950	\$69,750	\$74,550	\$79,350
Escambia County								
30% Limit	\$16,250	\$18,600	\$23,030	\$27,750	\$32,470	\$37,190	\$41,910	\$46,630
50% Limit	\$27,100	\$30,950	\$34,800	\$38,650	\$41,750	\$44,850	\$47,950	\$51,050
80% Limit	\$43,300	\$49,500	\$55,700	\$61,850	\$66,800	\$71,750	\$76,700	\$81,650
Okaloosa County								
30% Limit	\$18,450	\$21,100	\$23,750	\$27,750	\$32,470	\$37,190	\$41,910	\$46,630
50% Limit	\$30,800	\$35,200	\$39,600	\$43,950	\$47,500	\$51,000	\$54,500	\$58,050
80% Limit	\$49,250	\$56,250	\$63,300	\$70,300	\$75,950	\$81,550	\$87,200	\$92,800
Santa Rosa County								
30% Limit	\$16,250	\$18,600	\$23,030	\$27,750	\$32,470	\$37,190	\$41,910	\$46,630
50% Limit	\$27,100	\$30,950	\$34,800	\$38,650	\$41,750	\$44,850	\$47,950	\$51,050
80% Limit	\$43,300	\$49,500	\$55,700	\$61,850	\$66,800	\$71,750	\$76,700	\$81,650
Walton County								
30% Limit	\$16,350	\$18,700	\$23,030	\$27,750	\$32,470	\$37,190	\$41,910	\$46,630
50% Limit	\$27,250	\$31,150	\$35,050	\$38,900	\$42,050	\$45,150	\$48,250	\$51,350
80% Limit	\$43,600	\$49,800	\$56,050	\$62,250	\$67,250	\$72,250	\$77,200	\$82,200

4.6 Program Income

FloridaCommerce anticipates it may generate program income as part of the activities allowed under this allocation. Should any funds be generated, recovery of funds including program income, refunds, and rebates will be used before drawing down additional CDBG- DR funds. These amounts will be recorded and tracked in the state accounting systems and recorded in the DRGR system. The DRGR system requires grantees to use program income before drawing additional grant funds and to ensure that program income retained by one subrecipient will not affect grant draw requests for other subrecipients. Subrecipients will be required to report program income quarterly and will be subject to applicable rules, regulations, and HUD guidance. Retention of program income will comply with the sub-grant agreements.

¹⁶⁸ Income limits from <https://www.HUDuser.gov/portal/datasets/il.html#2022>.

If any program income remains at program closeout, FloridaCommerce will return these funds to HUD.

4.6.1 Resale or Recapture

An applicant may be required to repay all, or a portion of the funds received. The reasons for recapture include, but are not limited to, the following:

- An applicant is determined to have provided false or misleading information to FloridaCommerce or its subrecipient;
- An applicant withdraws from the program prior to completion of the project;
- An applicant does not complete construction;
- An applicant does not report the receipt of additional insurance, SBA, FEMA, non-profit assistance, and/or any other DOB received after calculation of the award; and / or
- An applicant voluntarily or involuntarily relinquishes ownership of the property prior to the successful completion of a final program inspection.

OLTR’s Recapture Policy, available on www.FloridaJobs.org/CDBG-DR, sets forth the policies that will guide FloridaCommerce’s Recapture Program in its efforts to recapture funds that have been overpaid to applicants for any reason.

In addition, all duplicative funding obtained by a property owner must be remitted to or accounted for by FloridaCommerce or its subrecipient, regardless of when the property owner received such assistance. If property owners receive additional funding for the same purpose(s) they are awarded CDBG-DR funding, even after the CDBG-DR award is executed or construction is completed, the property owner or subrecipient is required to report the additional funding to FloridaCommerce. FloridaCommerce is obligated to evaluate whether the assistance is duplicative of the CDBG-DR award. Upon receipt of a report that additional benefits have been received, FloridaCommerce will recalculate the applicant’s award and provide instructions whether the award will be reduced by such amount, whether the applicant must remit such amounts to the program as reimbursement (when additional assistance received after program disbursements), or assignment of payment. Each property owner and subrecipient will execute and be bound by a subrogation agreement that outlines these responsibilities.

4.7 Program Details

4.7.1 Housing Program(s)

4.7.1.1 Subrecipient Housing Repair and Replacement Program (HRRP)

Grant Number	Proposed Budget	Proposed MID Budget HUD Defined	Proposed MID Budget Grantee Defined
B-21-DZ-12-0001	\$14,861,500.00	\$11,889,200	\$2,972,300

Program Description

Housing activities allowed under CDBG-DR include, but are not limited to:

- Temporary Relocation;
- Demolition/Clearance;
- Single-Family Housing Rehabilitation/Repair;
- Multi-Family Housing Rehabilitation/Repair;
- Housing Construction;

- Public housing;
- Emergency Community Shelters (public facility);
- Homeless Shelter;
- Repair and replacement of manufactured housing units;
- Hazard mitigation;
- Elevation;
- Planning activities related to housing; and
- Other activities associated with the recovery of housing stock impacted.

For any residential rehabilitation or reconstruction program, FloridaCommerce will establish housing guidelines to set housing assistance caps. Subrecipients may establish housing assistance caps for their rehabilitation or reconstruction programs equal to or less than FloridaCommerce’s housing assistance caps. A waiver request must be submitted to FloridaCommerce if the subrecipient seeks to set housing assistance caps that exceed FloridaCommerce’s housing assistance caps. FloridaCommerce will evaluate each housing assistance waiver request for cost effectiveness.

Program Tieback to Disaster/Unmet Needs

All housing activities will address unmet housing needs in the Hurricane Sally impacted area and will ensure that all participants in the program can demonstrate that damage to the home can be tied by to damage from Hurricane Sally

How Program will Promote Housing for Vulnerable Populations

FloridaCommerce will meet the requirements to affirmatively further fair housing as outlined in the Federal Register, by requiring each project proposed to FloridaCommerce to undergo Affirmatively Furthering Fair Housing (AFFH) review before approval. Such review will include an assessment of the proposed project area’s demography, socio-economic characteristics, environmental hazards or concerns, and other factors material to the AFFH determination. Applications should show that projects are likely to lessen area racial, ethnic, and low-income concentrations, and/or promote affordable housing in low- poverty, non-minority areas in response to natural hazard-related impacts. All subrecipients will certify that they will affirmatively further fair housing in their grant agreements. Applications providing service to vulnerable populations will receive enhanced weighting.

Program Affordability Period (if Applicable)

FloridaCommerce will require subrecipients to implement the following requirements.

Affordability Period

Homeowners who receive assistance through FloridaCommerce’s subrecipient housing programs must maintain ownership and occupancy for a three-year occupancy period after construction is completed.

Rental property owners, including Public Housing Authorities (PHAs) seeking assistance through HRRP to repair or reconstruct rental housing units will be required to ensure the rental property is affordable for LMI tenants for a minimum period of time. The minimum required affordability time periods are:

Table 94: Subrecipient Housing Program Affordability Periods

Type of Project	Number of Units	Minimum Required Affordability
Multi-family	less than 8	5 years
	8 or more	15 years
Single Family	1 – 4	5 years

Affordability restrictions will be enforceable by deed restrictions, covenants, or other similar mechanisms and/or instruments.

Affordable Rent

Landlords served through FloridaCommerce’s subrecipients housing programs will control and provide affordable rent in accordance with HUD guidelines. The affordability requirement requires the property owner to lease the units to LMI households earning 80 percent or less of the AMI and to lease the units at an affordable rent. Rent must comply with the maximum HUD HOME rent limits. The maximum HUD HOME rent limits are the lesser of:

- The fair market rent for existing housing for comparable units in the area as established by HUD under 24 CFR 888.111; or
- A rent that does not exceed 30 percent of the adjusted income of a family whose annual income equals 65 percent of the AMI, as determined by HUD, with adjustments for number of bedrooms in the unit. The HUD HOME rent limits will include average occupancy per unit and adjusted income assumptions.

Program Definition of Second Home/Eligibility

Subrecipient will require applicants to be the primary resident homeowners or property owners of rental property at the time Hurricane Sally made landfall. HUD’s regulations, regarding the use of funding for Hurricane Sally recovery, state an alternative requirement for housing rehabilitation which prohibits housing rehabilitation assistance for second homes. HUD is instituting an alternative requirement to the rehabilitation provisions at 42 U.S.C. 5305(a)(4) as follows: Properties that served as second homes at the time of the disaster, or following the disaster, are not eligible for rehabilitation assistance or housing incentives.

A second home is defined in the Federal Register as a home that is not the primary residence of the owner, a tenant, or any occupant at the time of the disaster or at the time of application for CDBG–DR assistance.

Subrecipients can verify a primary residence using a variety of documentation including, but not limited to, voter registration cards, tax returns, homestead exemptions, driver’s licenses, and rental agreements. Additionally, seasonal, short-term, and vacation rental properties are not eligible for assistance.

Program National Objectives

Benefit to low- and moderate-income persons.

Program Eligibility

Units of General Local Government, referred to as jurisdictions throughout this Plan, will select projects or programs to propose to FloridaCommerce for funding in accordance with Departmental thresholds and objectives. These thresholds are:

- Projects must demonstrate “tie-back” to the hurricane event (Sally).
- Projects must not duplicate benefits.

FloridaCommerce will also consider to what extent proposed projects or programs support the following objectives:

- Projects must primarily address unmet housing needs.
- Projects must primarily serve LMI populations.

As with all proposed projects, communities will have to document that there will be no DOB. This is especially important in areas that may receive additional federal assistance to address Hurricane Michael-related impacts.

Jurisdictions may pursue a range of eligible activities as allowed under CDBG-DR regulations for this appropriation, so long as they are in accordance with FloridaCommerce’s threshold requirements and the requirements for the applicable activity as outlined elsewhere in this Plan and the Federal Register. Jurisdictions will be required to meet HUD regulations, such as environmental, duplication of benefits, fair housing, and others.

Program Responsible Entity

Jurisdictions from each of the budget areas (80 percent MID or 20 percent MID) will select projects to propose to FloridaCommerce for funding in accordance with FloridaCommerce’s thresholds and criteria. FloridaCommerce will execute contracts with awarded jurisdictions, including municipalities within counties that receive a separate award. In other words, municipalities may apply directly to FloridaCommerce and will be contracted with directly, if awarded.

Non-entitlement municipalities may choose to submit projects to FloridaCommerce through their county. In these instances, the partnering jurisdictions must submit an executed agreement to FloridaCommerce with their application. The county will be the awardee and no further pass-through will be allowed. FloridaCommerce may consider requests from entitlement jurisdictions to apply through their county for efficiency or capacity purposes; however, the county will be the awardee and no further pass-through will be allowed.

FloridaCommerce will implement program management, monitoring, and oversight standards necessary to ensure compliance with state and federal requirements.

Program Maximum Assistance

Each project approved for a subrecipient will be subject to the grant minimum and maximum amounts, subject to the extent of funds available. The \$750,000 minimum applies to subrecipients and projects. The county may submit a smaller project to FloridaCommerce for consideration as a special request but is encouraged to couple the project with a similar project (for beneficiary population and activity type) to ensure efficient use of grant funds. For projects located in the HUD MIDs (Escambia and Santa Rosa Counties), the minimum and maximum are applicable to each subrecipient so that FloridaCommerce may ensure that the funding is distributed throughout the impacted area. For projects located in the State MIDs (Okaloosa, Walton, and Bay Counties), the minimum and maximum cumulatively apply to one county.

- **Minimum Award:** \$750,000
- **Maximum Award:** \$9,000,000

FloridaCommerce follows total development cost limits as specified by the Florida Housing Finance Corporation. Please see: www.FloridaHousing.org/programs/special-programs/ship---state-housing-initiatives-partnership-program/purchase-price-limits.

Table 95: Purchase Price Limits

County	90% Average Area Purchase Price
Bay	\$311,980
Escambia	\$311,980
Okaloosa	\$386,601
Santa Rosa	\$311,980
Walton	\$386,601

FloridaCommerce expects average per unit total housing repair or reconstruction costs to be substantially lower. However, this cap provides flexibility for cases where a project may cost more than average market prices due to complexity of construction, resilience, and green building improvements. When reviewing project proposals, FloridaCommerce applies an evaluation of cost reasonableness to its scoring criteria for allocation decisions.

CDBG-DR funding limits for buyout proposals are calculated based on analysis of third-party appraisals and evidence of the need for an incentive to facilitate voluntary participation and are not subject to the above noted single-family project maximums.

Program Estimated Begin and End Dates

Begin Date: Anticipated within 90 days after execution of the HUD funding agreement.

End date: Anticipated to be no more than 36 months following program launch.

Program Competitive Application Overview

Projects proposed for funding to FloridaCommerce will be scored for funding in order of the following criteria. The maximum Scoring Criteria score is 200.

Table 96: Housing Activities Scoring Criteria

		Max. Points
1	Management Capacity: Jurisdictions program manager and/or developer presents depth of program or project, case, and compliance management capacity to deliver services on-time and on-budget. Citizen Complaint Policy is in place.	35
2	Readiness to Proceed and Viable Production Plan: Applicant must show evidence of how proposed program or project will mobilize and operate in a timely manner.	25
3	Proposes Cost Reasonable Budget: Proposal budgets reflect cost reasonableness and affirmative efforts to leverage CDBG-DR funds with additional funding to address unmet needs. Budget narrative reflects research, quotes, and/or contracted pricing.	25
4	Storm Resilience: In addition to addressing unmet needs, program, or project proposals need to show how they make investments that improve resilience to future storm-related damage.	15
5	Overall LMI benefit (Percent LMI benefit of the activity): Higher LMI benefit of the activity will receive a higher score. For example, a project with 100 percent LMI benefit would be scored higher than a project with 70 percent LMI benefit.	50
6	Vulnerable Populations: FloridaCommerce will utilize the applicant’s required AFFH assessment when calculating this scoring criteria. Applications which address the following vulnerable populations will receive higher scores. The transitional housing, permanent supportive housing, and permanent housing needs of individuals and families that are homeless or at-risk of homelessness; The prevention of low-income individuals and families with children under 18 (especially those with incomes below 30 percent of the area median) from becoming homeless; The special needs of persons who are not homeless but require supportive housing (e.g., elderly (62 or older), persons with disabilities, persons with alcohol or other drug addiction, persons with HIV/AIDS and their families, and public housing residents, as identified in 24 CFR 91.315(e)).	20
Total Maximum Score:		170

4.7.1.2 Workforce Affordable Housing Construction Program (WFAH)

Grant Number	Proposed Budget	Proposed MID Budget HUD Defined	Proposed MID Budget Grantee Defined
B-21-DZ-12-0001	\$25,000,000.00	\$20,000,000.00	\$5,000,000.00

Program Description

FloridaCommerce will work in partnership with FHFC to manage a program that will result in the construction of new affordable rental housing in areas impacted by Hurricane Sally.

CDBG-DR funds will be provided as zero-interest, non-amortizing loans (including forgivable loans) to qualified developers to leverage other sources of funds and as stand-alone financing to support development.

FloridaCommerce will work in partnership with FHFC to utilize stand-alone CDBG-DR funds to provide zero-interest loans to create new multi-family developments.

FloridaCommerce shall develop guidelines for affordability covenants, restricted use, etc. that are now more stringent, must generally conform to HOME requirements for development of both affordable ownership and rental that must be recorded and enforceable for non-compliance.

Program Tieback to Disaster/Unmet Needs

The Workforce Affordable Rental New Construction Program will provide funding to facilitate the creation of quality, affordable housing units to help Florida build resiliency and alleviate the rental stock shortage caused by the storms in the most impacted areas of the state.

How Program will Promote Housing for Vulnerable Populations

The term “workforce” under this program is defined to represent LMI individuals. This affordable housing is also intended to serve vulnerable populations and reduce the risk of homelessness by requiring certain funded developments to set aside at least 10 percent of units to serve extremely low income (ELI) households at area median incomes set by FHFC, and to set aside at least five percent of those ELI units to serve Homeless and Persons with Special Needs as defined in Florida Statutes.

Program Affordability Period (if Applicable)

Any new rental housing will have an affordability period of 20 years.

The units created under this program, at a minimum, will follow the established HOME Program Rent schedule or any other funding source used to finance the development with a more restrictive rent schedule and will be set aside for the required CDBG-DR affordability period plus an additional extended use period required by FHFC. In the event one program has less restrictive requirements, the more stringent program requirements will apply to ensure all requirements are met.

FloridaCommerce will use FHFC’s definition of affordable rents which are provided at this [website](#).

Program Definition of Second Home/Eligibility

A second home is defined in the Federal Register as a home that is not the primary residence of the owner, a tenant, or any occupant at the time of the disaster or at the time of application for CDBG–DR assistance.

FloridaCommerce can verify a primary residence using a variety of documentation including, but not limited to, voter registration cards, tax returns, homestead exemptions, driver’s licenses, and rental agreements. Additionally, seasonal, short-term, and vacation rental properties are not eligible for assistance.

Program National Objectives

The national objective of this program is LMI benefit.

Program Eligibility

Eligible Applicants: Eligible Applicants will include private for-profit and nonprofit housing developers and public housing authorities with experience developing and managing rental properties in size and scope of the proposed development. Local governments may apply for funds in partnership with these entities.

Eligibility Criteria: The proposed developments must help address the unmet need in the HUD-identified most-impacted and distressed areas, or other areas impacted by the storms and deemed as a priority by the State

All developments funded will be required to meet the following criteria:

- Green Building Standards
- Energy Efficiency Standards
- Accessibility and Visitability Standards
- Resiliency Standards

Applicants must meet the eligibility requirements as outlined in section 105(a)(4) of the HCDA.

Program Responsible Entity

Florida Housing Finance Corporation is the Responsible Entity for administering this program.

Program Maximum Assistance

\$25,000,000

Program Estimated Begin and End Dates

Begin Date: Anticipated within 90 days after execution of the HUD funding agreement.

End date: Anticipated to be no more than 60 months following program launch.

Other Program Details

FHFC refers to their applications as Requests for Applications (RFA). If funds remain after the funding selection process is complete in an RFA and there are no additional eligible applicants to select for funding in that identified RFA, then the remaining funds will be distributed to another RFA's total funding budget. For example, if all eligible applications are funded in the "Workforce Affordable Rental New Construction: Small Rental Development RFA", but \$7 Million remains in that budget unused, FHFC will re-distribute the remaining \$7 Million to fund an unfunded application in the "Workforce Affordable Rental New Construction: Leveraging CDBG-DR Funds with other Sources."

It is not feasible to finance new rental development with tax-exempt bond financing in some Florida areas impacted by the storm; this is particularly true for smaller, less populated counties identified by HUD as the most impacted and distressed areas. This is primarily due to the need for smaller properties where Tax-Exempt Bond financing is not cost effective. In these areas, CDBG-DR will be used to provide standalone or the primary source of funds needed to finance the development. CDBG-DR funds will be provided as zero-interest, forgivable loans.

Developments in this strategy will be 50 units or less to ensure project viability. Maximum subsidy limits will follow the applicable HOME Investment Partnership Program per-unit limits and will target low and moderate-income households¹⁶⁹.

To be considered for funding, eligible applicants will be required to show ability to proceed with construction and demonstrate experience in developing affordable housing in size and scope of the proposed development. To ensure feasibility, the proposed development will be underwritten in accordance with underwriting standards in place at FHFC.

Program Competitive Application Overview (if applicable)

CDBG-DR funds will be awarded to eligible applicants through a competitive application process.

FHFC will include the criteria for prioritizing proposed projects under this program within the Workforce Affordable Housing-New Construction RFAs. These guidelines will be available on FHFC's webpage and will demonstrate how the programs will promote affordable housing in HUD and State designated Most Impacted and Distressed Areas.

¹⁶⁹ **Note:** Florida Housing Finance Corporation may consider increasing the per unit limit amount. To do so, potential applicants must submit sufficient and specific information that justifies the need through public comment. Public comment can be submitted here: <http://apps.floridahousing.org/StandAlone/PublicInquiries/Inquiryform.aspx>

FHFC will serve as a subrecipient to FloridaCommerce, administering one or more competitive solicitations seeking applications from for-profit and not-for-profit developers and public housing authorities to build affordable housing in targeted areas of the state.

4.7.2 Buyout Program(s)

4.7.2.1 Voluntary Home Buyout (VHB)

Grant Number	Proposed Budget	Proposed MID Budget HUD Defined	Proposed MID Budget Grantee Defined
B-21-DZ-12-0001	\$8,170,114.80	\$6,536,091.84	\$1,634,022.96

Program Description

Reducing the risk of flooding in residential areas is a priority for the state of Florida. FDEM has recommended that all counties focus on acquisition of properties without flood insurance in Special Flood Hazard Areas. Recognizing this great need, FloridaCommerce will create a Voluntary Home Buyout program to encourage risk reduction through the acquisition of residential property in high flood risk areas.

FloridaCommerce will prioritize home buyout projects that focus on the acquisition of concentrations of residential areas that meet LMI area requirements.

Creative compatible reuse of the property

FloridaCommerce will create guidance and best practices for communities to consider on how property that is acquired through this program can be utilized for public benefit that meet HUD requirements for permanent green space. This may include creative storm water design, park space, and other examples. Communities that participate in this program will be encouraged to have a plan for how this property will be used in the future to further reduce flood risk and/or serve as a recreational space for the public.

Program Tieback to Disaster/Unmet Needs

Counties and municipalities within those counties that received a declaration of both FEMA IA and PA after Hurricane Sally.

Program Definition of Second Home/Eligibility

Federal Register Vol. 87, No. 23 (p. 6374), II.B.12 states that “A second home is defined for purposes of the Consolidated Notice as a home that is not the primary residence of the owner, a tenant, or any occupant at the time of the disaster or at the time of application for CDBG–DR assistance.”

HUD is instituting an alternative requirement to the rehabilitation provisions at 42 U.S.C. 5305(a)(4) as follows: properties that served as second homes at the time of the disaster, or following the disaster, are not eligible for rehabilitation assistance or safe housing incentives.

This prohibition does not apply to acquisitions that meet the definition of a buyout. Properties that served as second homes at the time of the disaster or following the disaster are eligible for acquisitions. Acquisition of second homes at post-disaster fair market value is not prohibited.

Program National Objectives

Benefit to low- and moderate-income persons (LMI) or Urgent Need (UN) (meeting a need having a particular urgency).

The CDBG-DR driven buyout program will meet or exceed its overall Low- and Moderate-Income National Objective by requiring all activities to meet all requirements of the Housing and Community Development Act of 1974, and one of the following national objective criteria as stated in Federal Register Vol. 87, No. 23 (p. 6374):

1. **Low- and Moderate-Income Area (LMA) Benefit:** properties acquired through buyouts will be used in a way that benefits a service area where at least 51 percent of the residents are LMI. Proposed buyout areas will undergo a review of eligibility to ensure that the end use of the properties results in a project service area where at least 51 percent of the residents are LMI.
2. **Low/Moderate Housing Incentive Criteria (LMHI):** buyout must be of a qualifying LMI household, and a housing incentive is used for the purpose of moving outside of the affected floodplain to an area of reduced flood risk.

Program Eligibility

Eligibility for the Voluntary Home Buyout Program is as follows:

- Eligible applicants include counties and municipalities within those counties that received a declaration of both FEMA IA and PA after Hurricane Sally.
- Applicants must meet the eligibility requirements as outlined in section 105(a)(1) of the HCDA.
- Buyout projects, except those which qualify as meeting an urgent need, must meet a national objective that benefits LMI persons through either LMA benefit or LMHI. To be considered eligible for LMA or LMHI national objective criteria, applicants must meet the eligibility requirements outlined in Federal Register Vol. 87, No. 23 (p. 6373).
 - **LMA Eligibility:** To meet LMA benefit criteria, grantees must document that the acquired properties will have a use that benefits all the residents in a particular area that is primarily residential, where at least 51 percent of the residents are LMI persons. Grantees covered by the “exception criteria” as described in section IV.C. of the Consolidated Notice may apply it to these activities. To satisfy LMA criteria, grantees must define the service area based on the end use of the buyout properties; or
 - **LMHI Eligibility:** To meet the LMHI national objective criteria, the incentive must be:
 - Tied to the voluntary acquisition of housing (including buyouts) owned by a qualifying LMI household and made to induce a move outside of the affected floodplain or disaster risk reduction area to a lower-risk area or structure; or
 - For providing or improving residential structures that, upon completion, will be occupied by a qualifying LMI household and will be in a lower risk area.

Properties that have received rehab or repairs through the HRRP will not be eligible for assistance under the Voluntary Home Buyout Program; however, on a case-by-case basis, housing units that have been demolished through the Voluntary Home Buyout Program may be eligible for new construction/replacement, in an area other than the buyout zone, through HRPP at FloridaCommerce’s discretion.

Program Responsible Entity

Selected Units of General Local Government (UGLG) are considered responsible for administering the Voluntary Home Buyout Program.

It is the responsibility of subrecipients interested in pursuing the buyout projects to support and provide:

- Appraisals;
- Title and legal services;
- Homeowner counseling services;
- Environmental review; and
- Related buyout processes.

Program Maximum Assistance

Minimum Award: \$750,000

Maximum Award: \$5,000,000

Program Estimated Begin and End Dates

Begin Date: Anticipated within 90 days after execution of the HUD funding agreement.

End date: Anticipated to be no more than 36 months following program launch.

Other Program Details

Counties that are interested in participating will have two potential funding options for pursuing home buyout.

- The first option is to leverage CDBG-DR funding as match for projects that are also eligible for the Hazard Mitigation Assistance (HMA) grant programs.
- The second option is to work directly with FloridaCommerce on projects located in LMI areas to buy out residential areas in support of permanent open space supporting green infrastructure or other floodplain management systems.

Cities and counties that are interested in this program will work with FloridaCommerce to determine feasibility of the project. Once a project is determined feasible, it will be eligible for funding in this program. Local governments are encouraged to leverage matching funds under this program and will also be eligible to include homeowner incentives to encourage relocation.

Additional criteria for both homeowner buyout program options, including a process map for coordination with FDEM, will be detailed in the Voluntary Home Buyout Program guidance to be released after the approval of this Plan. FloridaCommerce will manage subrecipient agreements directly with eligible local governments and coordinate with FDEM on project application evaluation, required environmental and cultural resource reviews, and program implementation, where applicable.

For all properties acquired by subrecipients through the Voluntary Home Buyout Program, a restrictive covenant, in perpetuity (i.e., running with the land), prohibiting all future redevelopment of the site must be recorded upon closing of the transaction. New development would be on an alternative site that is less at risk of flooding and would be built to building code, elevation standards, and meet requirements of CDBG-DR.

No specific site or property needs to be acquired, although FloridaCommerce may limit its search for alternative sites to a general geographic area. Where FloridaCommerce wishes to purchase more than one site within a general geographic area on this basis, all owners are to be treated similarly.

The property to be acquired is not part of an intended, planned, or designated project area where all or substantially all the property within the area is to be acquired within specific time limits. FloridaCommerce will not acquire the property if negotiations fail to result in an amicable agreement and the owner is so informed in writing. FloridaCommerce will inform the owner in writing of what it believes to be the market value of the property. Florida Licensed Real Estate Appraisers will be used to value property in the Voluntary Home Buyout program. FloridaCommerce will offer the homeowner the value of the home at the appraised current fair market value post storm.

Additionally, FloridaCommerce will establish policies on resettlement incentives. FloridaCommerce's policies will ensure that its resettlement incentives comply with applicable Civil Rights and Affirmatively Furthering Fair Housing (AFFH) requirements and that there is no discrimination against a protected class.

FloridaCommerce plans to minimize displacement of persons or entities and assist those displaced as a result of implementing a project with CDBG-DR funds. Should any projects cause displacement, FloridaCommerce will follow the Uniform Relocation Act (URA) and the Real Property Acquisition Policies Act to ensure tenants are relocated to safe and sanitary locations. FloridaCommerce's policies and procedures will ensure that subrecipients minimize displacement. In the event of a voluntary buyout, when homeowners or tenants are in a flood plain to prevent future loss, FloridaCommerce will require subrecipients to develop policies and procedures to make sure this population is relocated into areas outside of floodplain and will receive full benefits as stated in the URA. The

URA provides at 49 CFR 24.402(b) that a displaced person is eligible to receive a rental assistance payment that covers a period of 42 months.

Subrecipients will be required to develop, as part of their application submission for assistance, an appropriate budget that will sufficiently address the identified needs of any tenants who might be affected by a buyout. The subrecipient will not be able to advance to award if this component is missing from their application.

Further information on FloridaCommerce’s policies and requirements regarding URA can be found in Uniform Relocation Assistance Guide and Residential Anti Displacement and Relocation Assistance Plan (RARAP,) which is located at www.FloridaJobs.org/CDBG-DR.

HUD requires FloridaCommerce to define what would constitute a housing unit “not suitable for rehabilitation.” FloridaCommerce defines “not suitable for rehabilitation” as one of the two following definitions:

1. Residential properties that have experienced repetitive losses under FEMA’s NFIP; or
2. Dwellings that are considered substandard and do not meet the recovery program’s housing rehabilitation standards and/or federal, state, local code requirements shall not be deemed suitable for rehabilitation, as determined by FloridaCommerce and consistent with program guidelines. A structure is not suitable for rehabilitation if the cost of repair is unreasonable based on program standards as specified in the HRPP Guidelines for Single Family Housing and Rental Properties.

Program Competitive Application Overview (if applicable)

Competitive application Cycle Applicants will propose property acquisition projects to FloridaCommerce for funding in accordance with FloridaCommerce’s thresholds and objectives.

The following table contains the criteria and relative importance for the selection of applications.

Table 97: Voluntary Home Buyout Application Selection Criteria

Criteria	Relative Importance
Benefit to LMI households	High
Acquisition of properties in Special Flood Hazard Areas without flood insurance	High
Vulnerability of LMI population served	High
Concentration of LMI residential properties acquired	Medium
Leverage of additional resources	Medium
Benefit to target area	Medium
Cost reasonableness and effectiveness	Medium
Staffing experience and capacity	Low

How Mitigation Set-Aside Activities will Meet Definition of Mitigation? (if Applicable)

Buyout activities completed through VHB program remove homes and their occupants from high flood risk areas. In doing such, these activities will meet the HUD definition of mitigation and will be considered mitigation activities as the completion of qualifying buyouts will serve to “increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters,” as stated in Federal Register Vol. 87, No. 23 (p. 6367). In addition to meeting this definition of mitigation, VHB activities will meet the following requirements for mitigation activities:

- Address the current and future risks identified in the Mitigation Risk Assessment, located in Section 2.6.1

- Be considered CDBG-eligible under Title I of the HCDA or pursuant to a waiver or alternative requirement; and
- Meet a national objective.

How Mitigation Set-Aside Activities will Address Current and future Risks (if Applicable)

Through the VHB program, homes in high flood risk areas will be acquired and utilized for public benefit while meeting HUD requirements for permanent green space. These acquisitions and subsequent creation of green space will serve to remove homes and their occupants from harm’s way and will reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters.

4.7.3 Infrastructure Program(s)

4.7.3.1 Infrastructure Repair Program

Grant Number	Proposed Budget	Proposed MID Budget HUD Defined	Proposed MID Budget Grantee Defined
B-21-DZ-12-0001	\$110,990,384.82	\$88,792,307.86	\$22,198,076.96

Program Description

FloridaCommerce’s Infrastructure Repair Program (IRP) was launched with \$67,000,000 to fund infrastructure restoration and improvement projects in communities impacted by Hurricane Sally. Hurricane Sally affected many community’s infrastructure systems such as damaging roadways, bridges, and state beaches. Funding will be dispersed to communities impacted by Hurricane Sally through a competitive application cycle with priority given to projects that can demonstrate urgent need, readiness to proceed, and that benefit LMI. Where possible, FloridaCommerce will leverage other sources such as FEMA PA funding to first address remaining urgent and unmet needs in communities.

Prior to opening the competitive application cycle for the IRP, FloridaCommerce will send an announcement through its mailing list describing the details of this program as well as an announcement on FloridaCommerce’s webpage, which can be found on the infrastructure webpage at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

In the development of policies and procedures, cost benefit will be addressed. FloridaCommerce acknowledges infrastructure activities may have unintended risks that could potentially effect communities. With this understanding, FloridaCommerce will follow guidance provided in the Federal Register to avoid disproportionate impacts on vulnerable populations and environmental injustice. Additionally, FloridaCommerce recognizes the importance of resiliency against future storms and will employ adaptable and reliable technologies to guard against premature obsolescence of infrastructure. FloridaCommerce will describe the implementation of utilizing these technologies, when applicable, in its program policies and procedures manual.

Program Tieback to Disaster/Unmet Needs

Infrastructure Activities

Projects must demonstrate “tie-back” to Hurricane Sally.

Mitigation Activities

Unlike recovery activities where grantees must demonstrate that their activities “tie-back” to Hurricane Sally and address a specific unmet recovery need for which the CDBG–DR funds were appropriated, activities funded by the CDBG–DR mitigation set-aside do not require such a “tie-back” to the Hurricane Sally. Instead, grantees must demonstrate that activities funded by the CDBG–DR mitigation set-aside meet the provisions as detailed in “How Mitigation Set-Aside Activities will Meet Definition of Mitigation? (if Applicable).”

How will Program Advance Long-Term Resilience

FloridaCommerce recognizes the importance of resiliency against future storms and will employ adaptable and reliable technologies to guard against premature obsolescence of infrastructure. FloridaCommerce will describe the implementation of utilizing these technologies, when applicable, in its program policies and procedures manual.

How will Program Address Disaster-Related Storm Water Management/Other Systems

One of the most significant challenges faced by Florida communities is the threat of repetitive flooding. Maintaining current levels of flood risk in Florida is unsustainable and threatens the state's ability to provide critical services, preserve critical service areas, and maintain long-term community and ecosystem viability and resilience. Flooding has been identified as one of the most destructive hazards in terms of loss of human life, injury, and property damage. Enhancing the function of natural flood mitigation features such as streams and wetlands to ensure that conveyed water makes it to rivers and other water bodies is increasingly important. Storm water management is also a major issue for inland communities. Funding for implementing flooding mitigation projects is critical to achieving the state's lifeline objectives.

FloridaCommerce will encourage subrecipients to consider the costs and benefits of the project when selecting CDBG-DR eligible projects. This will be completed by requiring subrecipients to perform a self-assessment of each proposed project and selecting the project(s) that provide(s) the greatest impact within the confines of the budgeted grant amount. FloridaCommerce will encourage subrecipients to identify and select storm water infrastructure improvement projects that address remaining unmet needs.

FloridaCommerce will rely on professional engineers procured by the subrecipients to employ adaptable and reliable technologies to guard against premature obsolescence of infrastructure and ensure that the construction or rehabilitation of storm water management systems in flood areas will mitigate future flood risk.

Program National Objective(s)

Benefit to low- and moderate-income persons (LMI) or Urgent Need (UN) (meeting a need having a particular urgency).

DEO will first consider LMI as the national objective for infrastructure projects. The urgent need national objective will only be used if the project is not LMI but is needed to alleviate emergency conditions. When using urgent need as a national objective, DEO will obtain justification from the local government or municipality to certify the urgency of the condition.

Program Eligibility

To be considered eligible for the IRP, applicants must meet the requirements outlined in section 105(a)(2) of the HCDA.

Eligible Subrecipients:

Potentially eligible subrecipients for the IRP include UGLG, state agencies, and other applicants including, but not limited to, non-profits and non-governmental agencies that apply in partnership with their local UGLG or state agencies.

Eligible Activities:

Eligible activities within this program may include, but are not limited to the following:

- Restoration of infrastructure damaged by Hurricane Sally (such as water and sewer facilities, streets, removal of debris, drainage, bridges, etc.);
- Demolition and rehabilitation of publicly or privately owned commercial or industrial buildings;
- Renourishment of protective coastal dunes systems and state beaches;

- Repairs to damaged buildings that are essential to the health, safety, and welfare of a community when repairs to these buildings constitutes an urgent need (this can include police stations, fire stations, parks and recreational centers, community and senior centers, hospitals, clinics, homeless shelters, schools and educational facilities, and other public properties, including properties serving as emergency shelters); and
- Repairs to water lines and systems, sewer lines and systems, drainage, and flood mitigation systems.

All activities allowed under CDBG-DR, including, but not limited to, flood control and drainage improvements, such as the construction or rehabilitation of storm water management systems; infrastructure improvements (such as water and sewer facilities, streets, provision of generators, removal of debris, bridges, etc.); natural or green infrastructure; communications infrastructure; acquisition with or without relocation assistance, down payment assistance, housing incentives and demolition; and Hazard Mitigation Plan updates.

Program Responsible Entity

FloridaCommerce and its subrecipient(s) are the Responsible Entity for administering the Infrastructure Repair Program.

Program Maximum Assistance

Minimum Award: \$750,000

Maximum Award: \$110,990,384.82

Program Estimated Begin and End Dates

Begin Date: Anticipated within 90 days after execution of the HUD funding agreement.

End date: Anticipated to be no more than 48 months following program launch.

Other Program Details

Affirmatively Furthering Fair Housing (AFFH)

All projects proposed to FloridaCommerce will undergo an AFFH review before approval. Such review will include an assessment of the proposed project area's demography, socio-economic characteristics, environmental hazards or concerns, and other factors material to the AFFH determination. Applications should show that projects are likely to lessen area racial, ethnic, and low-income concentrations and/or promote affordable housing in low-poverty and/or non-minority areas in response to natural hazard-related impacts. FloridaCommerce will monitor each program during implementation phase and will perform additional analysis through program implementation to ensure all protected classes are adequately served. All subrecipients will certify that they will affirmatively further fair housing in their grant agreements.

Program Competitive Application Overview (if applicable)

Applicants will select projects or programs to propose to FloridaCommerce for funding in accordance with FloridaCommerce's thresholds and objectives. These thresholds are:

- Projects must demonstrate "tie-back" to Hurricane Sally.
- Projects must not duplicate benefits.

FloridaCommerce will also consider to what extent proposed projects or programs support the following objectives:

- Projects must support LMI housing needs in some way, or
- Projects must primarily serve LMI populations

FloridaCommerce will first consider LMI as the national objective for infrastructure projects. The urgent need national objective will only be used if the project is not LMI but is needed to alleviate emergency conditions. When

using urgent need as a national objective, FloridaCommerce will obtain justification from the local government or municipality to certify the urgency of the condition.

Applicants may pursue a range of eligible activities as allowed under CDBG-DR regulations for this appropriation, so long as they are in accordance with FloridaCommerce’s threshold requirements and the requirements for the applicable activity as outlined in the Plan and Federal Register. Applicants will be required to meet HUD regulations, such as those for environmental, supplication of benefits, fair housing, and others.

The following table contains the criteria and relative importance for the selection of applications.

Table 98: IRP Application Criteria

Criteria	Relative Importance
Demographic need (LMI, historically underserved areas)	High
Homeless shelters or facilities serving as emergency shelters	Medium
Stormwater infrastructure	Medium
Leverage of additional resources	Medium
Project impact	Medium
Management capacity	Medium
Readiness to proceed	Low
Special designation	Low

How Mitigation Set-Aside Activities will Meet Definition of Mitigation? (if Applicable)

To assess whether a given activity qualifies as mitigation and thus counts toward the 15 percent of the grant that must be spent on the same, in accordance with the Appropriations Act, FloridaCommerce will consider whether the activity fits the description outlined in section IV.A.2 of Federal Register Vol. 87, No. 23. HUD defines mitigation as “those activities that increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters.” For each activity outlined in this Plan, FloridaCommerce describes not only how the activity is eligible under Title I of the HCDA or otherwise and meets a national objective but also, where applicable, how it addresses the current and future risks as identified in the mitigation needs assessment and meets the foregoing definition of mitigation.

The IRP meets the definition of mitigation as it will increase the resilience of Florida’s infrastructure so that it will be able to withstand the impacts of future wind and flood events and reduce the long-term risk of damage to infrastructure such as roads and bridges.

Federal Register Vol. 87, No. 23 (p. 6367) defines mitigation activities as “activities that increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters.” Activities funded by HUD’s additional 15 percent allocation for mitigation must meet this definition and, in addition, must:

- Address the current and future risks identified in the Mitigation Risk Assessment, located in Section 2.6.1 Risk-Based Assessment Methodology;
- Be considered CDBG-eligible under Title I of the HCDA or pursuant to a waiver or alternative requirement; and
- Meet a national objective.

Pursuant to the Federal Register, FloridaCommerce will document how activities meet the definition of mitigation and will report such activities in DRGR so that they can be tracked.

FloridaCommerce and its subrecipients will implement programs that focus on risk reduction for the hazards identified as having the greatest severity in the state Plan's risk-based mitigation needs assessment (2.6 Mitigation Only Activities). These hazards include flooding, tropical cyclones (specifically hurricane force winds and storm surge), severe storms, and tornadoes.

How Mitigation Set-Aside Activities will Address Current and future Risks (if Applicable)

Not only will the IRP invite subrecipients to propose mitigation activities that address current risk, such as that of hurricanes and tropical storms, but FloridaCommerce's outreach and training will emphasize the importance of considering future risks when formulating projects, taking into account Florida's changing climate, geography, and demographics. To this end, FloridaCommerce will leverage the ESHMP and the Mitigation Risk-Based Needs Assessment undertaken as part of this Plan.

Each of FloridaCommerce's Infrastructure and Hazard Mitigation activities seeks to make human development and the natural environment safer and more resilient from the risks identified in the mitigation risk assessment (2.6.1 Risk-Based Assessment Methodology). The mitigation process generally involves enhancing the built environment to significantly reduce risks and vulnerability to hazards. Mitigation can also include removing the built environment from disaster prone areas and maintaining natural mitigating features, such as wetlands or floodplains. Hazard mitigation makes it easier and less expensive to respond to and recover from disasters by breaking the damage and repair cycle.

Examples of mitigation measures include, but are not limited to, the following:

- Development of mitigation standards, regulations, policies, and programs;
- Land use/zoning policies;
- Strong statewide building code and floodplain management regulations;
- Dam safety programs, seawalls, and levee systems;
- Acquisition of flood prone and environmentally-sensitive lands;
- Retrofitting/hardening/elevating structures and critical facilities;
- Relocation of structures, infrastructure, and facilities out of vulnerable areas;
- Permanent relocation of residential housing and businesses located in in high-risk areas through voluntary buyback programs, appropriate relocation assistance and rebuilding in low-risk areas within the neighborhood or areas of opportunity;
- Public awareness/education campaigns; and
- Improvement of warning and evacuation systems.

Quantifiable benefits of hazard mitigation include, but are not limited to, the following:

- Saving lives and protecting public health;
- Preventing or minimizing property damage;
- Minimizing social dislocation and stress;
- Reducing economic losses;
- Protecting and preserving infrastructure;
- Reducing legal liability of government and public officials; and
- Spending less on response and recovery efforts.

IRP projects contributing to the use of the 15 percent mitigation set-aside will allow local and regional units of government to address their most pressing hazard mitigation needs and will require subgrantee applicants to document how their proposed projects will meet or exceed hazard reduction needs of their most vulnerable citizens and identify which critical lifelines are protected by each proposed project. Other considerations such as

multi-use facilities and natural infrastructure developments will be encouraged through the subgrantee application process described herein.

In accordance with the HCDA, eligible activities for Infrastructure projects include the acquisition, construction, reconstruction, or installation (including design features and improvements with respect to such construction, reconstruction or installation that promote energy efficiency) of public works, facilities (except for buildings for the general conduct of government), and site or other improvements.¹⁷⁰

The IRP will allow units of general local government (UGLG) and state agencies to harden critical buildings that serve a public safety purpose for local communities. These activities will enable local police, fire, shelters, and local emergency management facilities and other designated critical facilities to better withstand the effects of the previously identified hazard risks. Examples of hardening against flood, fire, storms, and coastal erosion include, but are not limited to, dry proofing, wet proofing, anchoring roof-mounted heating, shelters, ventilation, and air-conditioning units, and retrofitting building exteriors with hazard-resistant materials in accordance with national safety standards.

Critical facility hardening activities will encompass energy resiliency that assists in ensuring that the most critical facilities in Florida communities have access to power throughout and following an emergency when local sources of power are down. Critical facilities include, but are not limited to, potable water facilities, wastewater facilities, police departments, fire departments, hospitals, emergency operation centers, and emergency shelters. Local units of government that apply for the IRP with intent to use funds for critical facilities will need to identify those critical facilities that have a need to update or replace existing power sources (such as generators or resiliency systems) to allow these facilities to safely maintain power during emergencies.

4.7.4 Economic Revitalization Program(s)

4.7.4.1 Hometown Revitalization Program

Grant Number	Proposed Budget	Proposed MID Budget HUD Defined	Proposed MID Budget Grantee Defined
B-21-DZ-12-0001	\$15,992,308.74	\$12,793,846.99	\$3,198,461.75

Program Description

Small businesses are the lifeblood of local economies throughout the state. This can include typical small shops and restaurants in communities’ commercial districts, often the central hub of small and rural communities. Wind and flood events can damage structures, destroying physical locations and causing significant financial loss. Impacts on specific businesses may filter throughout the commercial area, as a few businesses unable to reopen after the disaster may reduce visitors to the commercial district, which then impacts the viability of the remaining businesses. Supporting the recovery of commercial areas is essential to ensuring that commercial tenants, customers, and jobs are restored. Recognizing this impact, FloridaCommerce will create a program for eligible subrecipients to revitalize designated commercial districts damaged by Hurricane Sally.

By facilitating the return of commercial districts and businesses to profitability, jobs will be created or retained within the community and residents will continue to have access to the products and services they need within their local community.

Program Tieback to Disaster/Unmet Needs

Documentation of impacts from Hurricane Sally will be required to be considered eligible for assistance.

¹⁷⁰ U.S. Department of Housing and Urban Development (n.d.). State CDBG Program Guide to National Objectives and Eligible Activities for State CDBG Programs - Appendix A. Retrieved from The Housing and Community Development Act of 1974 (HCDA) Eligible Activities for States Section 105(a)(2): https://www.HUD.gov/sites/documents/DOC_16364.PDF

Program National Objective(s)

The National Objectives of the Hometown Revitalization Programs are:

- Benefit to low- and moderate-income persons (LMI);
- Aid in the prevention or elimination of slums or blight (ESB);
- Urgent Need (UN) (meeting a need having a particular urgency).

Program Eligibility

The following entities are considered potential eligible subrecipients: Units of general local government (UGLG), state agencies, community revitalization agencies, community development districts, community-based development organizations, and non-profits primarily engaged in community redevelopment activities that apply in partnership with their local UGLG or state agencies.

To be considered eligible for the HRP, subrecipients must comply with the requirements set forth in HCDA Sections 105(a)(1), (2), (4), (14), (15), and (17), and be able to provide documentation of impacts from Hurricane Sally.

Program Responsible Entity

The responsible entity for administration of the Hometown Revitalization Program will be FloridaCommerce and its selected subrecipients.

Program Maximum Assistance

Minimum Award: \$500,000

Maximum Award: \$5,000,000

Program Estimated Begin and End Dates

Begin Date: Anticipated within 90 days after execution of the HUD funding agreement.

End date: Anticipated to be no more than 48 months following program launch.

Other Program Details

Uses of funds may include, but may not be limited to:

- Public facility improvements, including streetscapes, lighting, sidewalks, and other physical improvements to commercial areas;
- Acquisition, demolition, site preparation, or rehabilitation of commercial structures carried out by a unit of local government;
- Assistance to small businesses for rehabilitation and physical improvements to their places of business; and
- Façade improvements to private or public structures in commercial areas.

Program Competitive Application Overview (if applicable)

The following table contains the criteria and relative importance for the selection of applications.

Table 99: HRP Application Criteria

Criteria	Relative Importance
Demographic need (LMI, historically underserved areas)	High
Leverage of additional resources	Medium
Project impact	Medium

Management capacity	Medium
Readiness to proceed	Low
Special designation	Low

4.7.4.2 Workforce Recovery Training Program

Grant Number	Proposed Budget	Proposed MID Budget HUD Defined	Proposed MID Budget Grantee Defined
B-21-DZ-12-0001	\$2,499,541.64	\$1,999,633.31	\$499,908.33

Program Description

Hurricane Sally had a significant impact on the housing supply, creating an increased demand for new construction and home repair activities, with additional impact on commercial construction and repair activities. The increased demand for construction activities following Hurricane Sally has created or increased the supply gap in many construction occupations, including a long-term supply gap for skilled workers across several construction trades in the Hurricane Sally MID areas. Although Hurricane Sally occurred in 2020, this supply gap has yet to be met.

By addressing the unmet needs in the construction trades, Florida can provide a new labor force to support the increased demands for post-disaster construction, while supporting Floridians looking for new employment in the post-disaster economy.

To ensure there are resources to support the remaining recovery needs, FloridaCommerce will implement a Workforce Recovery Training Program (WRTP) that may include, but may not be limited to, the areas of:

- Roofing;
- Masonry;
- Carpentry;
- Concrete finishing;
- Plumbing;
- HVAC (heating, ventilation, and air conditioning);
- Electricity;
- Heavy equipment operations;
- Flooring installation/Carpet laying;
- Glass / window installation;
- Plastering;
- Welding; and
- Customized training tailored to the specific economic revitalization needs of a particular region.

Program Tieback to Disaster/Unmet Needs

In order to demonstrate tieback, all subrecipients must be located within the Hurricane Sally impacted area.

Program National Objective(s)

The national objective for the WRTP is benefit to low- and moderate- income persons.

Program Eligibility

Potential eligible subrecipients include local Workforce Development Boards, educational institutions, and technical centers.

In order to be considered eligible for the WRTP, applicants must meet the requirements in section 105(a)(8) of the HCDA.

Program Responsible Entity

The Responsible Entity for the WRTP is FloridaCommerce and its subrecipients (i.e., Local Workforce Development Boards, educational institutions, and/or technical centers).

Program Maximum Assistance

Minimum Award: \$1,000,000

Maximum Award: \$2,000,000

Program Estimated Begin and End Dates

Begin Date: Anticipated within 90 days after execution of the HUD funding agreement.

End date: Anticipated to be no more than 36 months following program launch.

Other Program Details

Section 3 requires that recipients of CDBG-DR funding provide, to the greatest extent possible, training, employment, contracting and other economic opportunities to low- and very low-income persons and to business concerns that provide economic opportunities to low-and very low-income persons. Subrecipients will be required to demonstrate efforts to recruit and target residents receiving public housing assistance, and other low-and very-low- income persons.

This program is not a direct grant program. No funds will be paid directly to individuals seeking job training.

Program Competitive Application Overview (if applicable)

FloridaCommerce will select entities to deliver workforce training services through a competitive application cycle. FloridaCommerce will seek proposals from eligible Local Workforce Development Boards, educational institutions, and technical centers, who will describe the services they can provide in the impacted communities.

The following table contains the criteria and relative importance for the selection of applications.

Table 100: WRTP Application Criteria

Criteria	Relative Importance
Type of training provided	High
Demographic need (LMI, historically underserved areas)	Medium
Career services	Medium
Support services provided	Medium
Graduate placement	Medium
Training timeframe	Low

5.0 Appendix

Appendix A: Certifications

- a. The grantee certifies that it has in effect and is following a residential anti-displacement and relocation assistance plan in connection with any activity assisted with funding under the CDBG program.
- b. The grantee certifies its compliance with restrictions on lobbying required by 24 CFR part 87, together with disclosure forms, if required by part 87.
- c. The grantee certifies that the Action Plan for Disaster Recovery is authorized under State and local law (as applicable) and that the grantee, and any entity or entities designated by the grantee, possess(es) the legal authority to carry out the program for which it is seeking funding, in accordance with applicable HUD regulations and this Notice. The grantee certifies that activities to be administered with funds under this Notice are consistent with its Action Plan.
- d. The grantee certifies that activities to be undertaken with CDBG-DR funds are consistent with its action plan.
- e. The grantee certifies that it will comply with the acquisition and relocation requirements of the URA, as amended, and implementing regulations at 49 CFR part 24, except where waivers or alternative requirements are provided for in this Notice.
- f. The grantee certifies that it will comply with section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) and implementing regulations at 24 CFR part 75.
- g. The grantee certifies that it is following a detailed citizen participation plan that satisfies the requirements of 24 CFR 91.105 or 91.115, as applicable (except as provided for in notices providing waivers and alternative requirements for this grant). Also, each local government receiving assistance from a State grantee must follow a detailed citizen participation plan that satisfies the requirements of 24 CFR 570.486 (except as provided for in notices providing waivers and alternative requirements for this grant).
- h. State grantee certifies that it has consulted with all disaster-affected local governments (including any CDBG entitlement grantees), Indian tribes, and any local public housing authorities in determining the use of funds, including the method of distribution of funding, or activities carried out directly by the state.
- i. The grantee certifies that it is complying with each of the following criteria:
 - i. Funds will be used solely for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas for which the President declared a major disaster in 2017 pursuant to the Robert T. Stafford Disaster Relief and emergency Assistance Act of 1974 (42 U.S.C. 5121 et seq.).
 - ii. With respect to activities expected to be assisted with CDBG-DR funds, the Action Plan has been developed so as to give the maximum feasible priority to activities that will benefit low- and moderate-income families.
 - iii. The aggregate use of CDBG-DR funds shall principally benefit low- and moderate-income families in a manner that ensures that at least 70 percent of the grant amount is expended for activities that benefit such persons.
 - iv. The grantee will not attempt to recover any capital costs of public improvements assisted with CDBG-DR grant funds, by assessing any amount against properties owned and occupied by persons of low- and moderate-income, including any fee charged or assessment made as a condition of obtaining access to such public improvements, unless:
 - a. disaster recovery grant funds are used to pay the proportion of such fee or assessment that relates to the capital costs of such public improvements that are financed from revenue sources other than under this title; or

- b. for purposes of assessing any amount against properties owned and occupied by persons of moderate income, the grantee certifies to the Secretary that it lacks sufficient CDBG funds (in any form) to comply with the requirements of clause (a).
- j. State and local government grantees certify that the grant will be conducted and administered in conformity with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), the Fair Housing Act (42 U.S.C. 3601–3619), and implementing regulations, and that it will affirmatively further fair housing. An Indian tribe grantee certifies that the grant will be conducted and administered in conformity with the Indian Civil Rights Act.
- k. The grantee certifies that it has adopted and is enforcing the following policies. In addition, States receiving a direct award must certify that they will require UGLGs that receive grant funds to certify that they have adopted and are enforcing:
 - i. A policy prohibiting the use of excessive force by law enforcement agencies within its jurisdiction against any individuals engaged in nonviolent civil rights demonstrations; and
 - ii. A policy of enforcing applicable State and local laws against physically barring entrance to or exit from a facility or location that is the subject of such nonviolent civil rights demonstrations within its jurisdiction.
- l. The grantee certifies that it (and any subrecipient or administering entity) currently has or will develop and maintain the capacity to carry out disaster recovery activities in a timely manner and that the grantee has reviewed the requirements applicable to the use of grant funds.
- m. The grantee certifies to the accuracy of its Financial Management and Grant Compliance Certification Requirements, or other recent certification submission, if approved by HUD, and related supporting documentation as provided in section III.A.1. of the Consolidated Notice and the grantee’s implementation plan and related submissions to HUD as provided in section III.A.2. of the Consolidated Notice.
- n. The grantee certifies that it will not use CDBG–DR funds for any activity in an area identified as flood prone for land use or hazard mitigation planning purposes by the state, local, or tribal government or delineated as a Special Flood Hazard Area (or 100-year floodplain) in FEMA’s most current flood advisory maps, unless it also ensures that the action is designed or modified to minimize harm to or within the floodplain, in accordance with Executive Order 11988 and 24 CFR part 55. The relevant data source for this provision is the state, local, and tribal government land use regulations and hazard mitigation plans and the latest-issued FEMA data or guidance, which includes advisory data (such as Advisory Base Flood Elevations) or preliminary and final Flood Insurance Rate Maps.
- o. The grantee certifies that its activities concerning lead-based paint will comply with the requirements of 24 CFR part 35, subparts A, B, J, K, and R.
- p. The grantee certifies that it will comply with environmental requirements at 24 CFR Part 58.
- q. The grantee certifies that it will comply with the provisions of title I of the HCDA and with other applicable laws.

Warning: Any person who knowingly makes a false claim or statement to HUD may be subject to civil or criminal penalties under 18 U.S.C. 287, 1001, and 31 U.S.C. 3729.

The Florida Department of Economic Opportunity hereby certifies the above, as authorized by the Secretary.

_____ Signed version submitted to HUD _____

Appendix B: Waivers (if applicable)

CDBG-DR grantees that are subject to the Consolidated Notice, as indicated in each Federal Register notice that announces allocations of the appropriated CDBG-DR funds (“Allocation Announcement Notice”), must comply with all waivers and alternative requirements in the Consolidated Notice, unless expressly made inapplicable.

II.B.1. New housing construction waiver and alternative requirement (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6371)

42 U.S.C. 5305(a) and 24 CFR 570.207(b)(3) are waived to the extent necessary to permit new housing construction, subject to the following alternative requirement. When a CDBG-DR grantee carries out a new housing construction activity, 24 CFR 570.202 shall apply and shall be read to extend to new construction in addition to rehabilitation assistance. Private individuals and entities must remain compliant with federal accessibility requirements as well as with the applicable site selection requirements of 24 C.F.R. 1.4(b)(3) and 8.4(b)(5).

II.B.5. Homeownership assistance waiver and alternative requirement. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6373)

42 U.S.C. 5305(a)(24) is waived and replaced with the following alternative requirement:

“Provision of direct assistance to facilitate and expand homeownership among persons at or below 120 percent of area median income (except that such assistance shall not be considered a public service for purposes of 42 U.S.C. 5305(a)(8)) by using such assistance to

(A) subsidize interest rates and mortgage principal amounts for homebuyers with incomes at or below 120 percent of area median income;

(B) finance the acquisition of housing by homebuyers with incomes at or below 120 percent of area median income that is occupied by the homebuyers;

(C) acquire guarantees for mortgage financing obtained by homebuyers with incomes at or below 120 percent of area median income from private lenders, meaning that if a private lender selected by the homebuyer offers a guarantee of the mortgage financing, the grantee may purchase the guarantee to ensure repayment in case of default by the homebuyer. This subparagraph allows the purchase of mortgage insurance by the household but not the direct issuance of mortgage insurance by the grantee;

(D) provide up to 100 percent of any down payment required from homebuyers with incomes at or below 120 percent of area median income; or

(E) pay reasonable closing costs (normally associated with the purchase of a home) incurred by homebuyers with incomes at or below 120 percent of area median income.”

II.B.8. Safe housing incentives in disaster-affected communities. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6374)

The limitation on eligible activities in section 42 U.S.C. 5305(a) is waived and HUD is establishing the following alternative requirement to establish safe housing incentives as an eligible activity. A safe housing incentive is any incentive provided to encourage households to relocate to suitable housing in a lower risk area or in an area promoted by the community’s comprehensive recovery plan. Displaced persons must receive any relocation

assistance to which they are entitled under other legal authorities, such as the URA, section 104(d) of the HCDA, or those described in the Consolidated Notice.

II.D.2. National objective documentation for activities that support economic revitalization. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6375)

24 CFR 570.208(a)(4)(i)&(ii), 24 CFR 570.483(b)(4)(i)&(ii), 24 CFR 570.506(b)(5)&(6), and 24 CFR 1003.208(d) are waived to allow the grantees under the Consolidated Notice to identify the LMI jobs benefit by documenting, for each person employed, the name of the business, type of job, and the annual wages or salary of the job. HUD will consider the person income-qualified if the annual wages or salary of the job is at or under the HUD-established income limit for a one-person family.

II.D.3. Public benefit for activities that support economic revitalization. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6375)

HUD waives the public benefit standards at 42 U.S.C. 5305(e)(3), 24 CFR 570.482(f)(1), (2), (3), (4)(i), (5), and (6), and 570.209(b)(1), (2), (3)(i), (4), and 24 CFR 1003.302(c) for all economic development activities. Paragraph (g) of 24 CFR 570.482 and paragraph (c) and (d) under 570.209 are also waived to the extent these provisions are related to public benefit. However, grantees that choose to take advantage of this waiver in lieu of complying with public benefit standards under the existing regulatory requirements shall be subject to the following condition: grantees shall collect and maintain documentation in the project file on the creation and retention of total jobs; the number of jobs within appropriate salary ranges, as determined by the grantee; the average amount of assistance provided per job, by activity or program; and the types of jobs. Additionally, grantees shall report the total number of jobs created and retained and the applicable national objective in the DRGR system.

II.D.5. Waiver and modification of the job relocation clause to permit assistance to help a business return. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6376)

42 U.S.C. 5305(h), 24 CFR 570.210, 24 CFR 570.482(h), and 24 CFR 1003.209, are waived to allow a grantee to provide assistance to any business that was operating in the disaster-declared labor market area before the incident date of the applicable disaster and has since moved, in whole or in part, from the affected area to another state or to another labor market area within the same state to continue business.

III.B.2.c Direct grant administration and means of carrying out eligible activities (state grantees only). (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6379)

Requirements at 42 U.S.C. 5306(d) are waived to allow a state to use its disaster recovery grant allocation directly to carry out state-administered activities eligible under the Consolidated Notice, rather than distribute all funds to local governments. Pursuant to this waiver and alternative requirement, the standard at 24 CFR 570.480(c) and the provisions at 42 U.S.C. 5304(e)(2) will also include activities that the state carries out directly. Activities eligible under the Consolidated Notice may be carried out by a state, subject to state law and consistent with the requirement of 24 CFR 570.200(f), through its employees, through procurement contracts, or through assistance provided under agreements with subrecipients. State grantees continue to be responsible for civil rights, labor

standards, and environmental protection requirements, for compliance with 24 CFR 570.489(g) and (h), and subparagraph III.A.1.a.(2)(a) of the Consolidated Notice relating to conflicts of interest, and for compliance with 24 CFR 570.489(m) relating to monitoring and management of subrecipients.

III.B.2.f Recordkeeping (state grantees only) (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6379)

When a state carries out activities directly, 24 CFR 570.490(b) is waived and the following alternative provision shall apply: a state grantee shall establish and maintain such records as may be necessary to facilitate review and audit by HUD of the state's administration of CDBG-DR funds, under 24 CFR 570.493 and reviews and audits by the state under III.B.2.h.

III.B.2.h Responsibility for review and handling of noncompliance (state grantees only). (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6379)

This change is in conformance with the waiver allowing a state to carry out activities directly. [24 CFR 570.492](#) is waived, and the following alternative requirement applies for any state receiving a direct award: the state shall make reviews and audits, including on-site reviews of any local governments or Indian tribes (either as subrecipients or through a method of distribution) designated public agencies, and other subrecipients, as may be necessary or appropriate to meet the requirements of section 104(e)(2) of the HCDA, as amended, and as modified by the Consolidated Notice. In the case of noncompliance with these requirements, the state shall take such actions as may be appropriate to prevent a continuance of the deficiency, mitigate any adverse effects or consequences, and prevent a recurrence. The state shall establish remedies for noncompliance by any subrecipients, designated public agencies, or local governments.

III.C. Action Plan for Disaster Recovery Waiver and Alternative Requirement. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6379)

Requirements for CDBG actions plans, located at 42 U.S.C. 5304(a)(1), 42 U.S.C. 5304(m), 42 U.S.C. 5306(a)(1), 42 U.S.C. 5306(d)(2)(C)(iii), 42 U.S.C. 12705(a)(2), and 24 CFR 91.220 and 91.320, are waived for CDBG-DR grants. Instead, grantees must submit to HUD an action plan for disaster recovery which will describe programs and activities that conform to applicable requirements as specified in the Consolidated Notice and the applicable Allocation Announcement Notice.

III.C.4. Waiver of 45-day review period for CDBG-DR action plans to 60 days. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6383)

The Secretary has determined that good cause exists and waives 24 CFR 91.500(a) to extend HUD's action plan review period from 45 days to 60 days.

III.D.1. Citizen participation waiver and alternative requirement (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6383)

To permit a more streamlined process and ensure disaster recovery grants are awarded in a timely manner, provisions of 42 U.S.C. 5304(a)(2) and (3), 42 U.S.C. 12707, 24 CFR 570.486, 24 CFR 1003.604, 24 CFR 91.105(b) through (d), and 24 CFR 91.115(b) through (d), with respect to citizen participation requirements, are waived and

replaced by the alternative requirements in this section. The streamlined requirements require the grantee to include public hearings on the proposed action plan and provide a reasonable opportunity (at least 30 days) for citizen comment.

III.E.1. Program income waiver and alternative requirement. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6385)

When income is generated by an activity that is only partially assisted with CDBG-DR funds, the income shall be prorated to reflect the percentage of CDBG-DR funds used.

III.F.1. Consolidated Plan waiver. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6385)

HUD is temporarily waiving the requirement for consistency with the consolidated plan (requirements at 42 U.S.C. 12706, 24 CFR 91.225(a)(5), and 24 CFR 91.325(a)(5)), because the effects of a major disaster alter a grantee's priorities for meeting housing, employment, and infrastructure needs. In conjunction, 42 U.S.C. 5304(e) is also waived, to the extent that it would require HUD to annually review grantee performance under the consistency criteria. These waivers apply only for 24 months after the applicability date of the grantee's applicable Allocation Announcement Notice.

III.F.3. Use of the urgent need national objective. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6386)

Because HUD provides CDBG-DR funds only to grantees with documented disaster-related impacts and each grantee is limited to spending funds only for the benefit of areas that received a Presidential disaster declaration, the Secretary finds good cause to waive the urgent need national objective criteria in section 104(b)(3) of the HCDA and to establish the following alternative requirement for any CDBG-DR grantee using the urgent need national objective for a period of 36 months after the applicability date of the grantee's Allocation Announcement Notice.

Pursuant to this alternative requirement, grantees that use the urgent need national objective must: 1) describe in the impact and unmet needs assessment why specific needs have a particular urgency, including how the existing conditions pose a serious and immediate threat to the health or welfare of the community; 2) identify each program or activity in the action plan that will use the urgent need national objective—either through its initial action plan submission or through a substantial amendment submitted by the grantee within 36 months of the applicability date of the grantee's Allocation Announcement Notice; and 3) document how each program and/or activity funded under the urgent need national objective in the action plan responds to the urgency, type, scale, and location of the disaster-related impact as described in the grantee's impact and unmet needs assessment.

The grantee's action plan must address all three criteria described above to use the alternative urgent need national objective for the program and/or activity. This alternative urgent need national objective is in effect for a period of 36 months following the applicability date of the grantee's Allocation Announcement Notice. After 36 months, the grantee will be required to follow the criteria established in section 104(b)(3) of the HCDA and its implementing regulations in 24 CFR part 570 when using the urgent need national objective for any new programs and/or activities added to an action plan.

III.F.4. Reimbursement of disaster recovery expenses by a grantee or subrecipient. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6386)

Section 570.200(h)(1)(i) is waived to the extent that it requires pre-agreement activities to be included in the local government's consolidated plan. As an alternative requirement, grantees must include any pre-agreement activities in their action plans, including any costs of eligible activities that were funded with short-term loans (e.g., bridge loans) and that the grantee intends to reimburse or otherwise charge to the grant, consistent with applicable program requirements.

FloridaCommerce incurred pre-award costs and is seeking reimbursement for these costs that are reasonable and allowable under this regulation. FloridaCommerce intends to recover the pre-award costs consistent with the authority cited in this section. These costs include the cost for salary, employer fringe benefits and direct operating cost for each employee based on their individual percentage of time spent on the planning of the CDBG-DR program during a pay period. Any cost associated with the disaster recovery efforts will be allocated based on the total time spent on CDBG-DR activities versus other duties for a particular month. The total cost of the contractors to assist with disaster recovery research and analysis to help FloridaCommerce prepare the unmet needs assessment and action plan and other costs associated with meetings, community outreach and any other direct costs associated with the State Action Plan will be reimbursed by this CDBG-DR grant. Additionally, once contracted, FloridaCommerce may allow the drawdown of pre-agreement costs associated with eligible disaster recovery activities dating back to the date of the disaster(s) for subrecipients and FloridaCommerce with appropriate documentation.

III.F.6. Alternative requirement for the elevation of structures when using CDBG-DR funds as the non-Federal match in a FEMA-funded project. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6386)

Currently, CDBG-DR grantees using FEMA and CDBG-DR funds on the same activity have encountered challenges in certain circumstances in reconciling CDBG-DR elevation requirements and those established by FEMA. FEMA regulations at 44 CFR 9.11(d)(3)(i) and (ii) prohibit new construction or substantial improvements to a structure unless the lowest floor of the structure is at or above the level of the base flood and, for Critical Actions, at or above the level of the 500-year flood. However, 44 CFR 9.11(d)(3)(iii) allows for an alternative to elevation to the 100- or 500-year flood level, subject to FEMA approval, which would provide for improvements that would ensure the substantial impermeability of the structure below flood level. While FEMA may change its standards for elevation in the future, as long as the CDBG-DR grantee is following a FEMA-approved flood standard this waiver and alternative requirement will continue to apply.

III.F.7. Certifications waiver and alternative requirement (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6387)

Sections 104(b)(4), (c), and of the HCDA (42 USC 5304(b)(4), (c) & (m)), sections 106(d)(2)(C) & (D) of the HCDA (42 U.S.C. § 5306(d)(2)(C) & (D)), and section 106 of the Cranston-Gonzalez National Affordable Housing Act (42 U.S.C. 12706), and regulations at 24 CFR 91.225 and 91.325 are waived and replaced with the following alternative.

IV.F.1. Section 104(d) one-for-one replacement of lower-income dwelling units. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390)

87 FR 6390: One- for-one replacement requirements at section 104(d)(2)(A)(i) and (ii) and 104(d)(3) of the HCDA and 24 CFR 42.375 are waived for owner-occupied lower-income dwelling units that are damaged by the disaster and not suitable for rehabilitation. The section 104(d) one-for-one replacement housing requirements apply to occupied and vacant occupiable lower-income dwelling units demolished or converted in connection with a CDBG assisted activity. This waiver exempts all disaster-damaged owner-occupied lower-income dwelling units that meet the grantee’s definition of “not suitable for rehabilitation,” from the one-for-one replacement housing requirements of 24 CFR 42.375.

IV.F.2. Section 104(d) relocation assistance. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390)

The relocation assistance requirements at section 104(d)(2)(A)(iii) and (B) of the HCDA and 24 CFR 42.350, are waived to the extent that an eligible displaced person, as defined under 24 CFR 42.305 of the section 104(d) implementing regulations, may choose to receive either assistance under the URA and implementing regulations at 49 CFR part 24, or assistance under section 104(d) and implementing regulations at 24 CFR 42.350. This waiver does not impact a person’s eligibility as a displaced person under section 104(d), it merely limits the amounts and types of relocation assistance that a section 104(d) eligible displaced person is eligible to receive.

IV.F.3. URA replacement housing payments for tenants (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390)

The requirements of sections 204 and 205 of the URA (42 U.S.C. 4624 and 42 U.S.C. 4625), and 49 CFR 24.2(a)(6)(vii), 24.2(a)(6)(ix), and 24.402(b) are waived to the extent necessary to permit a grantee to meet all or a portion of a grantee’s replacement housing payment obligation to a displaced tenant by offering rental housing through a rental housing program subsidy (to include, but not limited to, a housing choice voucher), provided that comparable replacement dwellings are made available to the tenant in accordance with 49 CFR 24.204(a) where the owner is willing to participate in the program and the period of authorized assistance is at least 42 months.

IV.F.4. URA voluntary acquisition—homebuyer primary residence purchase. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390)

Grantees may implement disaster recovery program activities that provide financial assistance to eligible homebuyers to purchase and occupy residential properties as their primary residence. Such purchases are generally considered voluntary acquisitions under the URA and subject to the URA regulatory requirements at 49 CFR 24.101(b)(2). For CDBG-DR, 49 CFR 24.101(b)(2) is waived to the extent that it applies to a homebuyer, who does not have the power of eminent domain, and uses CDBG-DR funds in connection with the voluntary purchase and occupancy of a home the homebuyer intends to make their primary residence. This waiver is necessary to reduce burdensome administrative requirements for homebuyers following a disaster. Tenants displaced by these voluntary acquisitions may be eligible for relocation assistance.

IV.F.5. CDBG displacement, relocation, acquisition, and replacement housing program regulations - Optional relocation assistance. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390)

The regulations at 24 CFR 570.606(d) are waived to the extent that they require optional relocation policies to be established at the grantee level. Unlike with the regular CDBG program, states may carry out disaster recovery activities directly or through subrecipients, but 24 CFR 570.606(d) does not account for this distinction. This waiver makes clear that grantees receiving CDBG-DR funds may establish optional relocation policies or permit their subrecipients to establish separate optional relocation policies.

IV.F.6. Waiver of Section 414 of the Stafford Act. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6390)

Section 414 of the Stafford Act and its implementing regulation at 49 CFR 24.403(d)(1) are waived to the extent that they would apply to real property acquisition, rehabilitation, or demolition of real property for a CDBG-DR funded project commencing more than one year after the date of the latest applicable Presidentially declared disaster undertaken by the grantees, or subrecipients, provided that the project was not planned, approved, or otherwise underway before the disaster.

V.A. Timely Distribution and Expenditure of Funds (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6391)

HUD waives the provisions at 24 CFR 570.494 and 24 CFR 570.902 regarding timely distribution and expenditure of funds, and establishes an alternative requirement providing that each grantee must expend 100 percent of its allocation within six years of the date HUD signs the grant agreement.

V.C.1. DRGR-related waivers and alternative requirements. (Federal Register Vol. 87, No. 23, February 3, 2022, p. 6392)

The Consolidated Notice waives the requirements for submission of a performance report pursuant to 42 U.S.C. 12708(a), 24 CFR 91.520, and annual status and evaluation reports that are due each fiscal year under 24 CFR 1003.506(a). Alternatively, HUD is requiring that grantees enter information in the DRGR system on a quarterly basis through the performance reports.

Appendix C: Summary and Response of Public Comments

The following provides a summary of public comments received for the 2022 State of Florida Action Plan for Disaster Recovery in response to Hurricane Sally during the public comment period of May 6, 2022, through June 6, 2022. FloridaCommerce received a total of three comments during the 30 calendar days.

Summary of Public Comments Received During Draft Action Plan Publication

Comments Related to Assistance Available

1. I am experiencing extreme hardship and homelessness due to Hurricane Sally. I believe the largest portion of unmet need lies with impacted citizens like myself, and a program should be implemented to assist us.

Response:

Through the WFAH Program, FloridaCommerce will work in partnership with FHFC to utilize CDBG-DR funds to provide zero-interest loans to create new multi-family developments. This affordable housing is also intended to serve vulnerable populations and reduce the risk of homelessness by requiring certain funded developments to set aside at least 10 percent of units to serve ELI households, and to set aside at least five percent of those ELI units to serve Homeless and Persons with Special Needs. FloridaCommerce aims to launch this program within 90 days after execution of the HUD funding agreement. For more information, see subsection 4.7.1.2 Workforce Affordable Housing Construction Program (WFAH).

FloridaCommerce received two comments requesting information on the programs being offered to assist individuals impacted by Hurricane Sally, particularly regarding housing and individual hardship following Hurricane Sally. One of these comments expressed that this hardship was exacerbated by the COVID-19 pandemic.

2. I am experiencing hardship due to Hurricane Sally and exacerbated by COVID-19. What is being offered to help impacted citizens? When will assistance be available? How and when will applications be made available?
3. I would like more information of the programs offered. What will be available to help with home damage?

Response:

COVID-19 Based Hardship and CDBG-DR Funding

Federal Register Guidance governing the use of CDBG-DR funds allocated to FloridaCommerce by HUD (Federal Register Vol. 87, No. 23, Appendix B Consolidated Notice, II.A. Clarification of Disaster-Related Activities) states that “all CDBG-DR funded activities must address an impact of the disaster for which funding was allocated.” FloridaCommerce’s CDBG-DR funded activities under this program must address impacts from Hurricane Sally (2020) and may not address impacts of COVID-19. Disaster Recovery assistance will be made available through the subrecipient-administered programs to eligible applicants impacted by Hurricane Sally.

Further Information on CDBG-DR Programs

The Hurricane Sally *Action Plan for Disaster Recovery* section 4.7 Program Details—and program-specific subsections: 4.7.1 Housing Program(s), 4.7.2 Buyout Program(s), 4.7.3 Infrastructure Program(s), and 4.7.4 Economic Revitalization Program(s)—contains information on the programs FloridaCommerce has proposed to assist Hurricane Sally impacted communities. These proposed programs include:

- The Subrecipient HRRP, which will address unmet housing needs in the Hurricane Sally impacted area. FloridaCommerce aims to launch this program within 90 days after execution of the HUD funding agreement. For more information, see subsection 4.7.1.1 Subrecipient Housing Repair and Replacement Program (HRRP).
- Through the WFAH Program, FloridaCommerce will work in partnership with FHFC to utilize CDBG-DR funds to provide zero-interest loans to create smaller, new multi-family developments.

- The VHB Program encourages risk reduction through the acquisition of residential property in high flood risk areas within counties that received a declaration of both FEMA IA and PA after Hurricane Sally. FloridaCommerce aims to launch this program within 90 days after execution of the HUD funding agreement. For more information, see subsection 4.7.2.1 Voluntary Home Buyout.
- The IRP will address subrecipient infrastructure restoration and improvement projects in communities impacted by Hurricane Sally. FloridaCommerce aims to launch this program within 90 days after execution of the HUD funding agreement. For more information, see subsection 4.7.3.1 Infrastructure Repair Program.
- The HRP is a subrecipient based program with the goal of revitalizing designated commercial districts damaged by Hurricane Sally. FloridaCommerce aims to launch this program within 90 days after execution of the HUD funding agreement. For more information, see subsection 4.7.4.1 Hometown Revitalization Program.
- The WRTP will address the supply gap and increased demand for skilled workers in several construction trades by providing a new labor force to support the increased demands for post-disaster construction, while supporting Floridians looking for new employment in the post-disaster economy. FloridaCommerce aims to launch this program within 90 days after execution of the HUD funding agreement. For more information, see subsection 4.7.4.2 Workforce Recovery Training Program.

Summary of Public Comments Received During Virtual Public Hearings

The following comment(s) were received during the virtual public hearings hosted by FloridaCommerce on May 24, 2022, and June 3, 2022.

Comments Related to Subrecipient Program Implementation

4. Will these programs be managed at the county level? If so, how will this be different than the implementation of the Hurricane Michael program?

Response

The proposed CDBG-DR funded programs outlined in this Action Plan will be administered through subrecipients. Eligible subrecipients for these programs include the following:

Program	Potentially Eligible Subrecipient
Subrecipient HRRP	Units of General Local Government such as counties and municipalities.
WFAH	Private for-profit and nonprofit housing developers and public housing authorities with experience developing and managing rental properties in size and scope of the proposed development. Local governments may apply for funds in partnership with these entities.
VHB	Counties and municipalities within those counties that received a declaration of both FEMA IA and PA after Hurricane Sally.
IRP	Units of General Local Government, state agencies, and other applicants, including, but not limited to, non-profits and non-governmental agencies that apply in partnership with their local UGLG or state agencies.
HRP	Units of general local government (UGLG), state agencies, community revitalization agencies, community development districts, community-based development organizations, and non-profits primarily engaged in community redevelopment activities that apply in partnership with their local UGLG or state agencies.
WRTP	Workforce Development Boards, educational institutions, and technical centers.

The Voluntary Home Buyout Program, Infrastructure Repair Program, Hometown Revitalization Program, and Workforce Recovery Training Program will function similarly to the programs of the same names administered using CDBG-DR funds allocated to aid in recovery following Hurricane Michael. The entities eligible to apply for these programs will mirror those of the Hurricane Michael CDBG-DR program; however, the individual projects may differ, as do the impacts of and needs following these different storms. The proposed Hurricane Sally Subrecipient Housing Repair and Replacement Program will be administered by eligible subrecipients; this will differ from the Hurricane Michael HRRP, which is directly administered by FloridaCommerce.

Appendix D: Data Sources/Methodologies

Monetary Thresholds for FEMA damage are as follows:

Owner Occupied Households:

- Minor-Low:
 - Less than \$3,000 of FEMA inspected real property damage
- Minor-High:
 - \$3,000 to \$7,999 of FEMA inspected real property damage
- Major-Low:
 - \$8,000 to \$14,999 of FEMA inspected real property damage
- Major-High:
 - \$15,000 to \$28,800 of FEMA inspected real property damage
- Severe:
 - Greater than \$28,800 of FEMA inspected real property damage

Renter Occupied Households:

- Minor-Low:
 - Less than \$1,000 of FEMA inspected personal property damage
- Minor-High:
 - \$1,000 to \$1,999 of FEMA inspected personal property damage
- Major-Low:
 - \$3,500 to \$4,999 of FEMA inspected personal property damage
- Major-High:
 - \$5,000 to \$8,999 of FEMA inspected personal property damage
- Severe:
 - Greater than \$9,000 of FEMA inspected personal property damage

Additional information on the risks contained within the Mitigation Risk Assessment in section, 2.6.1 Risk-Based Assessment Methodology, are included in a separate attachment titled “Threat Assessment for Less Severe Hazards,” which is posted to the Hurricane Sally webpage at www.FloridaJobs.org/CDBG-DR/Hurricane-Sally.

Appendix E: Important Definitions and Terms

Acronyms

ADA: Americans with Disabilities Act

AFN: Access and Functional Needs

AFFH: Affirmatively Furthering Fair Housing

AMI: Area Median Income

AP: CDBG-DR Action Plan for Disaster Recovery

CBDO: Community Based Development Organization

CDBG: Community Development Block Grant

CDBG-DR: Community Development Block Grant - Disaster Recovery

CFR: Code of Federal Regulations

CMS: Constituent Management Services

CO: Certifying Officer

CoC: Continuum of Care

CP: Citizen Participation

DEO: Florida Department of Economic Opportunity

DOB: Duplication of Benefits

DR: Disaster Recovery

DRGR: Disaster Recovery Grant Reporting System

DSS: Decent, Safe, and Sanitary

EDA: U.S. Economic Development Administration

ERR: Environmental Review Record

ESB: Elimination of Slums or Blight (national objective)

FACTS: Florida Accountability Tracking System

FDEM: Florida Division of Emergency Management

FEMA: Federal Emergency Management Agency

FEMP: Federal Emergency Management Program

FHFC: Florida Housing Finance Corporation

FIDA: FEMA Information Data and Analysis

FLAIR: Florida Accounting Information Resource system

FR: Federal Register

FVL: Full Verified Loss

GSA: Government Services Agency

HA: Housing Assistance

HCDA: Housing and Community Development Act of 1974, as amended

HCV: Housing Choice Voucher

HGA: Homeowner Grant Agreement

HMGP: Hazard Mitigation Grant Program

HQS: Housing Quality Standards

HRP: Hometown Revitalization Program

HRRP: Subrecipient Housing Repair and Replacement Program

HUD: The United States Department of Housing and Urban Development

IA: (FEMA) Individual Assistance

IRP: Infrastructure Repair Program

ITB: Invitation to Bid

ITN: Invitation to Negotiate

LAP: Language Access and Accessibility Plan

LEP: Limited English Proficiency

LIHTC: Low-Income Housing Tax Credit

LMI: Low and Moderate-Income

MHU: Manufactured Housing Unit

MID: Most Impacted and Distressed Area

MIT: Mitigation

NFIP: National Flood Insurance Program

NGO: Non-governmental organizations

OLTR: Office of Long-Term Resiliency

PA: (FEMA) Public Assistance

PHA: Public Housing Authority

PNP: Private Non-profit Organizations

QPR: Quarterly Performance Report

RARAP: Residential Anti-displacement and Relocation Assistance Plan

RE: Responsible Entity

RECAP: Racially or Ethnically Concentrated Areas of Poverty

REFL: Rebuild Florida

RFA: Request for Applications

RFF: Request for Funds

RFP: Request for Proposals

RFQ: Request for Quote

ROF: Release of Funds

RROF: Request for Release of Funds

SBA: U.S. Small Business Administration

SBDC: Small Business Development Corporation

SERA: Subrecipient Enterprise Resource Application

SFHA: Special Flood Hazard Area

SHIP: State Housing Initiatives Partnership Program

TAB: Title Assistance Benefit

THAB: Temporary Housing Assistance Benefit

UGLG: Unit of General Local Government

UN: Urgent Need (national objective)

URA: Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended

USACE: U.S. Army Corps of Engineers

VHB: Voluntary Home Buyout Program

VOAD: Volunteer Organizations Active in Disaster

WFAH: Workforce Affordable Housing Construction Program

WRTP: Workforce Recovery Training Program

Definitions

Acquisition: The acquiring of real property, in whole or in part, by the recipient, or other public or private nonprofit entity through purchase, long-term lease, donation, or otherwise for any public purpose, subject to the limitation of 24 CFR 570.207. Real property includes air rights, water rights, rights-of-way, easements, and other interests therein. (24 CFR 570.201)

Allocable Costs: Allocable costs must be clearly allocated, meaning the cost is assigned to a CDBG-DR eligible activity with a methodology for determining where to attribute costs.

Allowable Costs: Allowable costs under the CDBG-DR rules and regulations and under 2 CFR 200 Subpart E.

Appraisal: A written statement independently and impartially prepared by a qualified appraiser setting forth an opinion of defined value of an adequately described property as of a specific date, supported by the presentation and analysis of relevant market information.

Bid: An offer by a company, firm or individual to provide goods or services submitted in response to solicitation for those goods or services.

Business concern: a business entity formed in accordance with state law, and which is licensed under state, county or municipal law engaging in the type of business activity for which it was formed. A business concern that provides economic opportunities for low-and very low-income persons.

Cancelled Loans: The borrower has entered a loan agreement, but for a variety of reasons, all or a portion of the loan amount was not disbursed and is no longer available to the applicant. The loan cancellation may be due to default of the borrower, agreement by both parties to cancel the undisbursed portion of the loan, or expiration of the term for which the loan was available for disbursement.

Change Order: Work that is added or deleted from the original contract activities to be performed and changes the original contract amount and/or the completion due date. The change order must be approved by the Florida

Department of Commerce's Office of Long-Term Resiliency, homeowner, subgrantee, contractor, subcontractor, and project architect and/or engineer, as appropriate, prior to being implemented.

Concern: An issue identified in the Florida Department of Commerce's monitoring report sent to the subgrantee and/or subrecipient that, if not addressed or corrected, may result in a finding in a future monitoring report.

Consolidated Notice: HUD's CDBG-DR Consolidated Notice. Appendix B of Federal Register Vol. 87, No. 23

Corrective Action: Required steps to be taken to resolve findings and/or concerns identified in FloridaCommerce's Office of Long-Term Resiliency.

Cost Reimbursement: Payment made to the subgrantee and/or subrecipient after a request for funds has been submitted along with proper supporting documentation and approved by FloridaCommerce. In CDBG-DR grant agreements, the subgrantees and or subrecipients are required to pay in advance for all completed work that is associated with the deliverables set forth in the subrecipient agreement and is reimbursed based on the invoice and supporting documentation submitted to FloridaCommerce.

Declined Loans: Declined loan amounts are loan amounts that were approved or offered by a lender in response to a loan application, but were turned down by the applicant, meaning the applicant never signed loan documents to receive the loan proceeds.

Deficiency: An inadequacy based on a federal or state statutory, regulatory or program requirement.

Direct Cost: Any project cost or project delivery cost that is identified specifically with completing an activity or product such as materials and labor. Costs identified specifically with a contract are direct costs of that contract. Administrative expenses are not generally considered direct costs.

Disaster Recovery Grant Reporting System (DRGR): HUD's web-based reporting and grants management system.

Environmental Review Record (ERR): The environmental file and documents associated with the activities to be undertaken with CDBG funds.

FACTS: An online tool managed by the Florida Department of Financial Services developed to make the government contracting process in Florida more transparent through the creation of a centralized, statewide reporting system.

Federal Register: The official journal of the federal government of the United States that contains government agency rules, proposed rules, and public notices issued by federal administrative agencies.

Finding(s): A specific issue of noncompliance with federal or state regulatory requirements, including the CDBG subrecipient/subgrant agreement provisions, that is identified in a monitoring report produced by the Florida Department of Commerce sent to the subrecipient/subgrantee.

Florida Accounting Information Resource system (FLAIR): The state of Florida's official statewide accounting system managed by the Florida Department of Financial Services.

Grantee: As used in this Action Plan, the State of Florida, Department of Economic Opportunity's Office of Long-Term Resiliency as recipient of disaster recovery CDBG funds from the U.S. Department of Housing and Urban Development.

Indirect Cost: Any cost not directly identified with a cost objective, such as a specific project, facility, or function. Indirect costs include administration, personnel, and security costs.

Invitation to Bid (ITB): a written or electronically posted solicitation for competitive sealed bids.

Invitation to Negotiate (ITN): a written or electronically posted solicitation for competitive sealed replies to select one or more vendors with which to commence negotiations for the procurement of commodities or contractual services.

Low- to Moderate-Income (LMI) Household: Means a household whose annual income does not exceed 80 percent of the median income for the area as most recently determined by HUD.

- LMI 30 refers to those individuals/families making less than 30 percent of the Area Median Income (AMI).
- LMI 50 refers to those individuals/families making less than 50 percent of the Area Median Income (AMI).
- LMI 80 refers to those individuals/families making less than 80 percent of the Area Median Income (AMI).
- Above LMI 80 refers to those individuals/families making more than 80 percent of the Area Median Income (AMI).

Low- to Moderate-Income Resident/Person/Individual: Means a person whose annual income does not exceed 80 percent of the median income for the area as most recently determined by HUD.

Necessary Costs: CDBG-DR funding will fill a necessary gap to address an unmet need that cannot be filled by another funding source. This is demonstrated by conducting a duplication of benefits analysis calculation for each activity.

National Flood Insurance Program (NFIP):

- NFIP Zone A refers to those applicants within the 100-year flood zone.
- NFIP Zone V refers to those applicants within the 100-year flood zone with velocity (coastal storm surge risk).
- NFIP Zone X refers to those applicants outside of the 100-year flood zone.

New Hires: Full-time employees for permanent, temporary, or seasonal employment opportunities.

Offer: A response to a solicitation that, if accepted, would bind the offer. Responses to an Invitation to Bid (ITB) are offers called “bids” or “sealed bids”.

Office of Long-Term Resiliency (OLTR): The Florida Department of Economic Opportunity’s long-term disaster recovery office.

Private Loans: A loan that is not provided by or guaranteed by a governmental entity, and that requires the CDBG–DR applicant (the borrower) to repay the full amount of the loan (principal and interest) under typical commercial lending terms, e.g., the loan is not forgivable.

Program Income: Gross income received by the subgrantee and/or subrecipient directly generated from the use of Disaster Recovery CDBG funds. [Revenue that is received by a state, unit of general local government or subrecipient as defined at 24 CFR 570.500.]

Project Cost: Direct costs of undertaking a CDBG-DR project and which can be tied to a final cost objective and eligible activity. The project costs can count towards meeting the overall LMI benefit requirements.

Project Delivery Cost: Costs used specifically to meet the requirements to complete a particular project, especially as it applies to meeting CDBG requirements.

Project/Program/Activity: The housing, infrastructure, economic development, or planning endeavor undertaken by FloridaCommerce, the subgrantee and/or subrecipient using CDBG-DR funds.

Quarterly Performance Report (QPR): The CDBG-DR Quarterly Performance Report that is required to be uploaded quarterly in the DRGR system for HUD’s review of Florida’s disaster recovery programs.

Reasonable Costs: Costs that do not exceed what a prudent person would incur under similar circumstances as demonstrated by the market price for comparable goods and services. For contracted work, you should conduct an independent cost estimate to establish cost reasonableness.

Real Property: Land, including all the natural resources and permanent buildings on it. Real property includes air rights, water rights, rights-of-way, easements, and other interests therein. (24CFR 570.201)

Rebuild Florida (REFL): A disaster recovery program created by FloridaCommerce to help Florida's long-term recovery efforts from hurricanes that have impacted the citizens of Florida.

Racially or Ethnically Concentrated Areas of Poverty (RECAP): RECAPs must have a non-white population of 50% or more and a poverty rate that exceeds 40%, or is three or more times the average tract poverty rate for the metropolitan/micropolitan area, whichever threshold is lower.

Request for Proposals (RFPs): A solicitation, often made through a bidding process, by an agency to communicate an entity's requirements for goods or services to prospective contractors.

Request for Quote (RFQs): An oral, electronic, or written request for written pricing or services information from a Florida state term contract vendor for commodities or contractual services available on state term contract from that vendor.

Request for Funds (RFF): Subgrantee and or subrecipient request for funds from FloridaCommerce.

Release of Funds (ROF): HUD's or FloridaCommerce's granting approval to use CDBG-DR funding. This approval, or authority to use grant funds, is executed through HUD form 7015.16. The authority to use CDBG-DR funds usually occurs after the project environmental review is completed and approved by FloridaCommerce.

Request for Release of Funds (RROF): A subgrantee and or subrecipient request for a release of funds. This request is executed through HUD Form 7015.15.

Subsidized Loans: Subsidized loans (including forgivable loans) are loans other than private loans. Both SBA and FEMA provide subsidized loans for disaster recovery.

Sealed bid: A method of contracting that employs competitive bids, public opening of bids, and awarding the bid.

Section 3: Means Section 3 of the Housing and Urban Development Act of 1968, as amended, and the implementing regulations at 24 CFR 135 and 24 CFR 75, as applicable, relating to employment and other economic opportunities for low- and very-low income persons.

Section 3 Workers: A public housing resident or an individual residing in a metropolitan area or a non-metropolitan county who meets the definition of a low-income or very low-income person.

Section 3 Business or Business Concern: As related to Section 3 of the of the HUD Act of 1968, as amended:

- Is at least 51 percent owned and controlled by low- or very low-income persons;
- Over 75 percent of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers; or
- It is a business at least 51 percent owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing.

Section 3 Covered Contracts: A contract or subcontract (including a professional service contract) awarded by a recipient or contractor for work generated by the expenditure of Section 3 covered assistance, or for work arising in connection with a Section 3 covered project.

Section 3 Covered Non-Construction Project: A project associated with the Section 3 Covered Project such as maintenance contracts, re-painting, routine maintenance, HVAC servicing, and professional services (architectural, engineering, legal services, accounting, marketing, etc.)

Section 3 Covered Project: The construction, reconstruction, conversion, or rehabilitation of housing (including reduction and abatement of lead-based paint hazards), other public construction such as roads, sewers and community centers, and buildings or improvements (regardless of ownership) assisted with housing or community development assistance.

Subrecipient Enterprise Resource Application (SERA): FloridaCommerce's web-based reporting and grants management system. This system is used by CDBG-DR vendors, subgrantees and subrecipients to submit invoices

and supporting documentation to be reimbursed for goods and services. The transactions in this system are linked to the state's FLAIR system as well as HUD's DRGR system.

Service Area: Means the total geographic area to be directly or indirectly served by a subgrant project that addresses the Low- and Moderate-Income National Objective, where at least 51 percent of the residents are low- and moderate-income persons. A service area must include all, and only those, beneficiaries who are reasonably served or would be reasonably served by the activity.

Solicitation: Any request to submit offers or quotations to the local government. Solicitations under sealed bid procedures are called "invitations for bids". Solicitations under negotiated procedures are called "requests for proposals." Solicitations under simplified acquisition procedures may require submission of either a quotation or an offer.

Subcontract: As used in this Action Plan, any contract as defined above as a "Contract" entered into by a subcontractor to furnish supplies or services for performance of a prime contract, or another subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

Subcontractor: As used in this Action Plan, any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a subrecipient. As related to Section 3 of the of the HUD Act of 1968, as amended, any entity (other than a person who is an employee of the contractor) which has a contract with a contractor to undertake a portion of the contractor's obligation for the performance of work generated by the expenditure of Section 3 covered assistance or arising in connection with a Section 3 covered project.

Subgrantee: As used in this Action Plan, a recipient that demonstrated its abilities to carry out competitive applications due to their expertise related to goals of the program. For example, Florida Housing Finance Corporation.

Subrecipient: A competitively-selected recipient, usually a local government, that is provided CDBG-DR funds from FloridaCommerce, to agreed-upon eligible disaster recovery activities documented in a Subrecipient Agreement.

Subgrant Agreement: An agreement between FloridaCommerce and the subgrantee to undertake the activities the subgrantee will undertake using CDBG-DR funds.

Subrecipient Agreement: An agreement between FloridaCommerce and the subrecipient to undertake the activities the subrecipient agreement will undertake using CDBG-DR funds.

Targeted Section 3 worker: A Section 3 worker who is:

- A worker employed by a Section 3 Business concern; or
- A worker who currently fits or when hired fit at least one of the following categories, as documented within the past five years:
 - A resident of public housing or Section 8-assisted housing;
 - A resident of other public housing projects or Section 8-assisted housing managed by the PHA that is providing the assistance; or
 - A YouthBuild participant.

Vendor: An entity competitively selected to provide clearly-specified goods or services meeting the procurement requirements at 24 CFR 85.36, 2 CFR 200, Section 287.055, Florida Statutes, and Rule 73-23.0051(3), Florida Administrative Code. In accordance with 24 CFR 85.36(c), such procurement actions must be conducted in a manner that provides for free and open competition.

Waiver: A revision to the standard CDBG-DR regulations, requirements, and activities, granted by HUD.

YouthBuild: National organization administered by the U.S. Department of Labor with community-based pre-apprenticeship program that provides job training and educational opportunities for at-risk youth ages 16-24 who have previously dropped out of high school

Appendix F: Standard Form 424

FloridaCommerce submits this Plan to HUD along with a completed and executed Federal Form SF-424.



**FLORIDA DEPARTMENT *of*
ECONOMIC OPPORTUNITY**

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