



HURRICANE



TORNADO



WILDFIRE



FLOOD

Disaster Resistant Communities Group

6224 Wake Robin Lane
Tallahassee Florida 32309

850.241.3565

www.DRC-Group.com

The 2010 Gulf County Local Mitigation Strategy was prepared by the Gulf County LMS Task Force with support from the Disaster Resistant Communities Group.



EXECUTIVE SUMMARY

Gulf County is threatened by a number of different types of natural, technological, and societal or man-made hazards. These hazards endanger the health and safety of the population of the county, jeopardize its economic vitality, and imperil the quality of its environment. Because of the importance of averting or minimizing the vulnerabilities to these hazards, the public and private sector interests of Port St. Joe, Wewahitchka, and Gulf County have joined together to create a task force to undertake a comprehensive planning process that has culminated in the publication of this document: “Gulf County Local Mitigation Strategy (LMS).”

This task force, entitled the Gulf County LMS Task Force, has conducted detailed studies to identify the hazards threatening the jurisdictions of Port St. Joe, Wewahitchka, and unincorporated Gulf County and to estimate the relative risks posed to the community by those hazards. This information has been used by the Task Force to assess the vulnerabilities of the facilities and jurisdictions of the county to the impacts of future disasters involving those hazards. With these identified, the Task Force has worked to identify proposed projects and programs that will avoid or minimize these vulnerabilities to make the communities of the county much more resistant to the impacts of future disasters.

These proposed projects and programs aimed at reducing the impacts of future disasters are termed “mitigation initiatives” in this document. Mitigation initiatives have been developed and will continue to be proposed by the Task Force for implementation whenever the resources to do so become available. It is important to note that this mitigation list is not finalized. The list of mitigation initiatives will and should evolve as projects are undertaken and completed, as future disasters affect the county and new needs are identified, and as local priorities change. As the mitigation initiatives identified in this plan are implemented, step-by-step, the county will become a more “disaster resistant” community.

This document details the work of the Gulf County LMS Task Force to develop and maintain the planning organization, to undertake technical analyses and to coordinate the mitigation initiatives that have been proposed by the participating jurisdictions and organizations.

The Federal Emergency Management Agency (FEMA) and Florida Department of Community Affairs (DCA) require that this document be adopted by the governing bodies of Port St. Joe, Wewahitchka, and Gulf County. Adoption of the Gulf County LMS by the City and County Commissions will not have any legal effect on the Comprehensive Plan or any other legally binding documents. However, adoption of the LMS will give the county and its jurisdictions priority with respect to funding for disaster recovery and hazard mitigation from state and federal sources. Through publication of this local mitigation strategy, the Task Force continues to solicit the involvement of the



entire community to make the people, neighborhoods, businesses, and institutions of Gulf County safer from the impacts of future disasters.



Table of Contents

Section	Topic	Page
Section 1	Introduction and Purpose	1
	Hazard Mitigation Overview The Gulf County Context	
Section 2	The Planning Process	5
	The Task Force Organizational Structure Summary of the Planning Process The Task Force’s Operating Procedures Current Status of Participation in the Task Force	
Section 3	Jurisdiction Profiles	15
	Gulf County Port St. Joe Wewahitchka	
Section 4	Hazards and Vulnerabilities	27
	Community Assets Recent Disaster Events Hazard Identification and Vulnerability Assessment Critical Facilities Inventory Repetitive Loss Properties	
Section 5	Mitigation Goals and Policies	122
	Goals for the Mitigation Plan Organizations with Mitigation Functions Plans, Policies, and Programs Examination	
Section 6	Compilation of Mitigation Initiatives	135
	Proposed Mitigation Initiatives Ranked By Priority Score Mitigation Initiatives Priority Score Process Completed Mitigation Initiatives Mitigation for New Buildings and Infrastructure The Priority for Initiative Implementation Effectiveness of Mitigation Initiatives	
Section 7	Plan Implementation, Maintenance and Updating	170



Planning Implementation Responsibility and Schedules
Plan Maintenance and Monitoring of Plan
Implementation
Plan Updating, Review, and Approval
Status of Plan Promulgation
Implementation through Existing Plans and Programs
Continued Public Involvement
The Next Planning Cycles
Modification to Other Policies, Plans and Programs

Appendices

Appendix A	The Task Force Bylaws
Appendix B	Documentation of the Planning Process
Appendix C	Task Force Operating Procedures
Appendix D	Evaluation of Mitigation Policies
Appendix E	Funding Sources by Category



List of Tables

Title	Page
Table # 2.1 – Task Force Membership	12
Table # 2.2 – Task Force Work Plan	13
Table # 3.1 – Gulf County Jurisdictional Profile	18
Table # 3.2 – Gulf County Current Land Uses	20
Table # 3.3 – Gulf County Future Land Uses	20
Table # 3.4 – Port St. Joe Jurisdictional Profile	22
Table # 3.5 – Port St. Joe Current Land Uses	22
Table # 3.6 – Port St. Joe Future Land Uses	23
Table # 3.7 – Wewahitchka Jurisdictional Profile	25
Table # 3.8 – Wewahitchka Current Land Uses	25
Table # 3.9 – Wewahitchka Future Land Uses	26
Table # 4.1 – Recent Disasters in Gulf County	27
Table # 4.2 – Florida KBDI Averages	35
Table # 4.3 – Flood Effects Using the Saffir / Simpson Hurricane Scale	38
Table # 4.4 – Wewahitchka High-Water Mark Elevations	40
Table # 4.5 – March 1998 El Niño Flood – Structures Damaged	41
Table # 4.6 – March 1998 El Niño Flood – Areas Affected	41
Table # 4.7 – March 1998 El Niño Flood – Areas Losing Electrical Service	42
Table # 4.8 – Potential Losses from Hurricane Flooding by Jurisdiction	49
Table # 4.9 – Potential Losses from Hurricane Flooding by Structure Type	50
Table # 4.10 – Potential Losses from Riverine Flooding by Jurisdiction	51
Table # 4.11– Potential Losses from Riverine Flooding by Structure Type	51
Table # 4.12 – Recent Hail Damage Locations	53
Table # 4.13 – Wind Effects using the Fujita-Pearson Tornado Scale	54
Table # 4.14 – Wind Effects using the Saffir / Simpson Hurricane Scale	55



Table # 4.15 – Gulf County Tornado History	56
Table # 4.16 – Gulf County Hurricane History	58
Table # 4.17 – Hurricane Kate Damage Summary	60
Table # 4.18 – Hurricane Opal Damage Summary	60
Table # 4.19 – Damage Survey Report Data for Gulf County	61
Table # 4.20 – Potential Losses from High Winds by Jurisdictions – Tornado	62
Table # 4.21 – Potential Losses from High Winds by Jurisdictions – Hurricane	62
Table # 4.22 – Potential Losses from High Winds by Structure Type – Tornado	64
Table # 4.23 – Potential Losses from High Winds by Structure Type – Category 1 Hurricane	65
Table # 4.24 – Potential Losses from High Winds by Structure Type – Category 2 Hurricane	66
Table # 4.25 – Potential Losses from High Winds by Structure Type – Category 3 Hurricane	67
Table # 4.26 – Potential Losses from High Winds by Structure Type – Category 4 Hurricane	68
Table # 4.27 – Potential Losses from High Winds by Structure Type – Category 5 Hurricane	69
Table # 4.28 – Potential Losses from Storm Surge by Jurisdiction	83
Table # 4.29 – Potential Losses from Storm Surge by Category	84
Table # 4.30 – Potential Losses from Subsidence and Expansive Soils by Jurisdiction	86
Table # 4.31 – Potential Losses from Subsidence and Expansive Soils by Structure Type	86
Table # 4.32 – Potential Losses from Urban Fire by Jurisdiction	90
Table # 4.33 – Potential Losses from Urban Fire by Structure Type	90
Table # 4.34 – Gulf County Wildfires by Causes	94
Table # 4.35 – North Florida KBDI Averages	95
Table # 4.36 – Potential Losses from Wildfire by Jurisdiction	96
Table # 4.37 – Section 302 Facility Summary	100



Table # 4.38 – Hazardous Materials Incidents	102
Table # 4.39 – Crime in Gulf County	104
Table # 4.40 – Hazard Identification and Risk Estimation	106
Table # 4.41 – Hazard by Risk Rating	112
Table # 4.42 - Worst Case Scenario by Hazard	113
Table # 4.42 – Structure / Infrastructure Hazard Impacts	115
Table # 4.43 – Repetitive Damage Properties per NFIP	117
Table # 5.1 – Ranked Mitigation Goals	123
Table # 5.2 – Goals Identified in Existing Policy Objectives	124
Table # 5.3 – Federal Organizations and Mitigation Functions	128
Table # 5.4 – State Organizations and Mitigation Functions	129
Table # 5.5 – Regional Organizations and Mitigation Functions	131
Table # 5.6 – Local Organizations and Mitigation Functions	131
Table # 5.7 – Utility Companies and Infrastructure Functions	132
Table # 6.1 – Proposed Mitigation Initiatives	136
Table # 6.2 – Priority Scoring for Mitigation Initiatives	157
Table # 6.3 – Mitigation Initiatives by Priority Score	159
Table # 6.4 – Completed Mitigation Initiatives	168
Table # 7.1 – Meeting Schedule and Activities for Plan Maintenance	180
Table # D.1 – Evaluation of Local Policies List for the City of Port St. Joe	D-1
Table # D.2 – Evaluation of Local Mitigation Policies for the City of Wewahitchka	D-11
Table # D.3 – State and Regional Mitigation Evaluation	D-15



List of Figures

Title	Page
Figure # 2.1 – Gulf County Hazard Mitigation Planning Process	7
Figure # 3.1 – Geographic Location of Gulf County	16
Figure # 3.2 – Map of Gulf County	17
Figure # 3.2 – Gulf County Land Use Map	19
Figure # 3.3 – Map of the Port St. Joe	21
Figure # 3.4 – Map of the City of Wewahitchka	24
Figure # 4.1 – Jim Woodruff Dam	34
Figure # 4.2 – Mean Regional KDBI along with Mean Number of Acres Burned Statewide	36
Figure # 4.3 – Earthquake Potential throughout Florida	37
Figure # 4.4 – Seismicity of Florida	37
Figure # 4.5 – Flood Zone for a Category 1 Hurricane	43
Figure # 4.6 – Flood Zone for a Category 2 Hurricane	44
Figure # 4.7 – Flood Zone for a Category 3 Hurricane	45
Figure # 4.8 – Flood Zone for a Category 4 Hurricane	46
Figure # 4.9 – Flood Zone for a Category 5 Hurricane	47
Figure # 4.10 – 10 Year Flood Zone	48
Figure # 4.11 – Tornado Risk Assessment	56
Figure # 4.12 – Tropical Event Racks with 65 miles of Gulf County	59
Figure # 4.13 – Wind Speeds for Various Tropical Events	61
Figure # 4.14 – Southern Pine Beetle Hazard Rating	71
Figure # 4.15 – Critical Beach Erosion Areas	74
Figure # 4.16 – Lightning Flash Density	75
Figure # 4.17 – Lightning Fatalities	76



Figure # 4.18 – Flood Zone for a Category 1 Hurricane	78
Figure # 4.19 – Flood Zone for a Category 2 Hurricane	79
Figure # 4.20 – Flood Zone for a Category 3 Hurricane	80
Figure # 4.21 – Flood Zone for a Category 4 Hurricane	81
Figure # 4.22 – Flood Zone for a Category 5 Hurricane	82
Figure # 4.23 – Sinkhole Risk Assessment	85
Figure # 4.24 – Port St. Joe City Limits	88
Figure # 4.25 – Wewahitchka City Limits	89
Figure # 4.26 – Wildfire Threat	93
Figure # 4.27 – Mean Regional KDBI along with Mean Number of Acres Burned Statewide	96

