

## **Executive Summary**

The experiences of the 2004 Hurricane Season epitomize the importance of better integrating hazard mitigation activities into local comprehensive planning. Residents from all over the state experienced significant damages from Hurricanes Charley, Frances, Jeanne, and Ivan by either winds, tornadoes, surge, or flooding. But this was not the only time that we have experienced natural disaster, nor will it be the last. In 1992, Hurricane Andrew devastated South Florida. In 1998 and 1999, most counties in Florida experienced wildfires. In some cases, despite fire fighters best efforts, the fires advanced through neighborhoods and homes were lost. Every year in Central Florida, new sinkholes emerge swallowing homes and damaging infrastructure. The cost of recovery for these various disasters ranges from hundreds of thousands to billions of dollars, significantly taxing local, state, and federal financial sources. Losses covered through federal funding as a result of the 2004 hurricanes alone could reach as high as \$7 billion. Worst of all, however, are the many lives that, directly or indirectly, are lost due to natural disasters. It is imperative that we reduce the human and financial costs of natural disasters. Through better integration of natural hazard considerations into local comprehensive planning, we can build safer communities.

This profile of Santa Rosa County has been prepared as part of a statewide effort by the Florida Department of Community Affairs (DCA) to guide local governments on integrating hazard mitigation principles into local comprehensive plans. Through the process outlined in this profile, planners will be able to (1) convey Santa Rosa County's existing and potential risk to identified hazards; (2) assess how well local hazard mitigation principles have been incorporated into the County's Comprehensive Plan; (3) provide recommendations on how hazard mitigation can better be integrated into the Comprehensive Plan; and (4) determine if any enhancements could be made to the LMS to better support comprehensive planning. Best available statewide level data is provided to convey exposure and risk as well as to illustrate the vulnerability assessment component of the integration process.

### **Summary of Recommendations**

Santa Rosa County's Comprehensive Plan has good integration of hazard mitigation principles and its LMS has adequate data and goals to support comprehensive planning. There are many goals, objectives, and policies that support risk reduction from hurricanes and floods in the LMS and Comprehensive Plan. However, there are always ways to strengthen such plans, and the following is a summary of options for the County to do so.

### **Comprehensive Plan Preliminary Recommendations**

The following recommendations include hazard mitigation measures in which Santa Rosa County can continue to reduce or eliminate risks to storm surge, flood, and wildfire. These recommendations pertain to the use of vacant lands and/or redevelopment practices. An assessment of whether the LMS goals and objectives are reflected in the comprehensive plan (and vice versa) is provided in the Preliminary Recommendations Matrix in **Section 5**. Based on the land use tabulations, most of the vacant acreage is susceptible to flood, tropical cyclone generated storm surge, and wildfire. No acres were determined to be in sinkhole susceptible areas. For more information about the methodology and data used for the land use tabulations, please refer to Section 2. Hazard Vulnerability in this hazards profile.

Of the vacant lands, 6,522 acres are susceptible to Category 1 storm surge (CHZ), 13,556 acres are susceptible to Category 1 – 3 storm surge (HVZ), 9,785 are susceptible to 100-year flood, and 2,595 acres are susceptible to wildfire.

*Storm Surge*

Around 95% of the 6,522 vacant acres in the Coastal High Hazard Area and 91% of the 13,556 vacant acres in the Hurricane Vulnerability Zone are to be developed for residential, commercial, industrial uses or public facilities, indicating that these risk reduction strategies should be considered prior to development of this vacant land.

- The Comprehensive Plan should continue to consider the relocation, mitigation or replacement of infrastructure currently present within the CHHA where state funding is anticipated to be needed.
- The Comprehensive Plan should continue to limit public expenditures that subsidize development in the CHHA.
- The Comprehensive Plan should continue to support critical roadway segment improvements through participation with the Pensacola MPO and interaction with FL DOT to further reduce and improve hurricane evacuation times.
- The Comprehensive Plan should continue to limit densities/intensities of land use to assure generalized low density land use within the CHHA.
- The Comprehensive Plan should continue to limit new development along the shoreline of the Garcon Point Peninsula and Escambia Bay to low density residential uses, conservation uses, recreation uses, or to water related or water dependent uses.
- The County should continue to prohibit the new development of adult congregate living facilities, nursing homes, total care facilities, hospitals, correctional facilities and similar developments in the CHHA.
- The County should consider prohibiting septic tanks in the CHHA except in cases of excessive hardship where (1) no reasonable alternative exists, (2) a discharge from a septic tank will not adversely affect public health and will not degrade surface or ground water and (3) where the Health Department determines that soil conditions, water table elevation and setback provisions are adequate to meet state requirements.
- The Comprehensive Plan should consider transfer of development rights from areas within the CHHA to outside the CHHA, as another measure to reduce density in the CHHA to reduce residential and commercial development in surge prone areas
- The Comprehensive Plan should consider not allowing new solid waste and commercial hazardous waste management facilities in the HVZ.
- The County should consider denying requests for residential density increases within the CHHA, above what is included on the Future Land Use Map.
- The Comprehensive Plan should consider requiring developments that increase evacuation clearance time in the CHHA to provide mitigation measures such as emergency van pools.
- The County should consider developing an inventory of transportation disadvantaged persons that would be affected by an evacuation order, and ensure the availability of adequate transportation for safe and timely evacuation of high risk areas.
- The County should consider retrofitting essential public facilities that exist in the CHHA to mitigate impacts from surge.
- The County should consider prohibiting new schools in the CHHA and retrofitting new schools as shelters outside the HVZ, where possible.

- The County should consider only allowing new on-site shelters outside the HVZ, where possible.
- The County should consider requiring that the deeds for the sale of land or structures in hurricane vulnerable zones contain a hurricane hazard disclosure statement.

### *Flood*

About 72% of the 9,785 vacant acres in the 100-year floodplain are to be developed for residential, commercial, industrial uses or public facilities, indicating that these risk reduction strategies should be considered prior to development of this vacant land.

- The Comprehensive Plan should continue to require the use of the latest version of the Flood Damage Prevention Ordinance to determine the location of the 100-year floodplain/flood prone areas and limit development in those areas, consistent with FEMA requirements.
- The Comprehensive Plan should continue to require that there will be no reduction in the flood storage capacity or the other natural functions and values of the floodplain in designated floodway areas. Encroachments should continue to be prohibited within designated regulatory floodway including fill and new construction and development improvements that would result in any increase in flood levels.
- The Comprehensive Plan should continue to regulate development within the flood prone areas to minimize flood storage capacity reduction so that post development equals predevelopment standards, which will afford protection to life and property within the floodplain.
- The Comprehensive Plan should continue to require site specific development plans to protect natural drainage features and incorporate such features into the site planning and development process.
- The County should consider implementing policies to promote clustering of development and transfer of development density/intensity to limit development in areas subject to flooding.
- The County should consider adopting regulations to ensure new development doesn't create flood hazard to existing or downstream development.
- The County should consider including a policy for reducing repetitive (flood) loss properties such as at risk property acquisition or elevation.
- The County should consider including a policy for reducing future losses through transfers of development right from areas within the 100-year floodplain to areas outside the 100-year floodplain, and impose density and intensity limitations in the 100-year floodplain.
- The County should consider including a policy to not approve variances to required flood elevations.
- The County should consider establishing an impact fee and/or other equitable user-oriented revenue sources for the construction of drainage facilities, either county-wide or in districts of high flooding potential.
- The County should consider the requirement for the installation of back-flow preventers on new septic tanks in the 100-year floodplain to mitigate impacts from flood, or create incentives and disincentives to reduce the desirability of septic installation within the 100-year floodplain.

- The County should consider promoting the use of vegetated swales, sodding, landscaping, and retention of natural vegetation as components of the drainage system for natural runoff through the use of landscape and subdivision ordinances.
- The County should consider requiring that stormwater management planning and construction of capital improvements coincide with stormwater drainage requirements to adequately address growth and development.
- The County should consider requiring that developers incorporate wetland portions of sites within the 100-year floodplain as conservation easements.
- The County should consider requiring that the maintenance and operation of private stormwater systems is funded by private sources.
- The County should consider requiring areas that have not established base flood elevations to be studied prior to development.
- The County should consider calling for compensating storage calculations in all non coastal flood hazard areas.
- The County should consider building shelters and essential public facilities outside of the 100-year floodplain.

#### *Wildfire*

About 52% of the 2,595 vacant acres that are susceptible to wildfire are to be developed for residential, commercial, industrial uses or public facilities, indicating that these risk reduction strategies should be considered prior to development of this vacant land.

- The County should consider participating in the Firewise Medal Community program to reduce risks within the wildland urban interface.
- Where reasonable, consideration should be made to design structures and sites within the County to minimize potential for loss of life and property (e.g., outdoor sprinkler systems, fire-resistant building materials or treatments, and landscaping and site design practices); review proposals for subdivisions, lot splits, and other developments for fire protection needs during site plan review process; coordinate with fire protection service or agencies to determine guidelines for use and development in wildfire-prone areas.
- The County should consider requirement for all applicable new development to include and implement a wildfire mitigation plan specific to that development, subject to review and approval by the County Fire Rescue Department.
- The County should consider increasing public awareness of prescribed burning and require management plans for conservation easements that address reduction in wildfire fuels.
- The County should consider additional measures to reduce risk from wildfire, such as directing developers to manage natural areas around private recreational facilities with Best Management Practices (including prescribed burning), and using a natural resources management plan to acquire sensitive lands for which fire management planning is to occur.

### *Sinkhole*

No areas were determined to be susceptible to sinkholes according to the data used for the hazards analysis in this profile. The sinkhole hazard was not analyzed in the latest version of the Santa Rosa County LMS, as there have been no historical reports of this hazard in the county.

### *General*

- The Comprehensive Plan should continue to reference the LMS in reducing the exposure of human life and public and private property to natural hazards.
- The County should consider creating an objective of policy that requires coordination with the LMS committee in updating the LMS to incorporate planning expertise, land use and development regulations.
- Include each hazard layer on the existing and future land use maps to determine where risks are possible to target hazard mitigation strategies.
- The Comprehensive Plan should consider including a policy to incorporate recommendations from existing and future interagency hazard mitigation reports into the Comprehensive Plan during the Evaluation and Appraisal Report process as determined feasible and appropriate by the Board of County Commissioners.
- The Comprehensive Plan should consider including a policy to incorporate applicable provisions of the Comprehensive Plan into the Comprehensive Emergency Management Plan and the Local Mitigation Strategy.
- Continue educating the public, especially those at high risk from hurricanes, floods and wildfires and make them aware of proactive steps they can take to mitigate damage.

### **Local Mitigation Strategy Preliminary Recommendations**

The following data and information could be included in an update of the LMS. This information could help convey how and where disasters impact the population and the built environment to support comprehensive planning.

- Include hazard maps for hurricane, flood, storm surge, and wildfire.
- Include maps for critical facilities.
- Include information on demographic, income, and special needs population.
- Provide data for population and property exposure to hazards.
- Include data layers on hazard to illustrate population (i.e., density) or property (i.e., value) exposure.
- Provide future land use maps that include hazard data layers to illustrate which future land use categories are susceptible to each hazard.
- Include a quantitative risk assessment for critical facilities.
- Provide loss estimates by land use in relation to the hazard.
- Include a quantitative risk assessment for future development (i.e., loss estimates) or specific critical facilities.

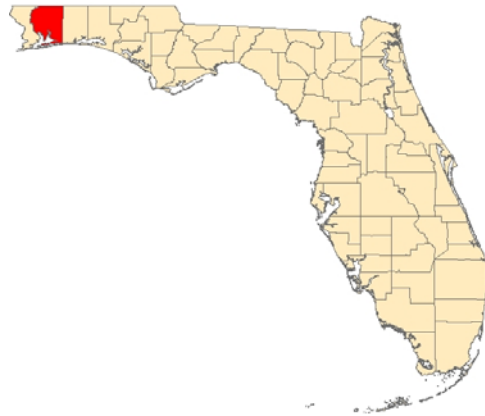
- Include a listing or maps for repetitive loss properties.
- Include a goal to mitigate repetitive loss properties
- Include a goal to support interagency involvement in evacuation planning.
- Include a goal to ensure adequate and safe public shelters are available in all locations in the County to prevent or reduce post-disaster homelessness, including adequate electrical supplies for cooking and to maintain sanitary conditions.
- Include a goal to purchase undeveloped lands at high risk to flooding, with proper considerations of private property rights and compensation.

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## 1. County Overview

Santa Rosa County is located along the Gulf of Mexico in the Panhandle Region of Northwest Florida. It covers a total of 1,174 square miles, of which approximately 1,017 square miles are land and 157 square miles are water. There are three incorporated municipalities within Santa Rosa County, including the cities of Gulf Breeze and Milton and the Town of Jay. The City of Milton serves as the county seat.



### Population and Demographics

According to the April 1, 2004 population estimate by the University of Florida’s Bureau of Economic and Business Research (BEBR), population estimates for all jurisdictions within Santa Rosa County and the percent change from the 2000 U.S. Census are presented in **Table 1.1**. While some of these residents live in incorporated jurisdictions, approximately 90% live in the county’s unincorporated areas. Santa Rosa County has experienced rapid population growth in recent years, a trend that is expected to continue. Between 1990 and 2000, Santa Rosa County had a growth rate of 44.3%, which is almost double the statewide average of 23.5% for the same time period.

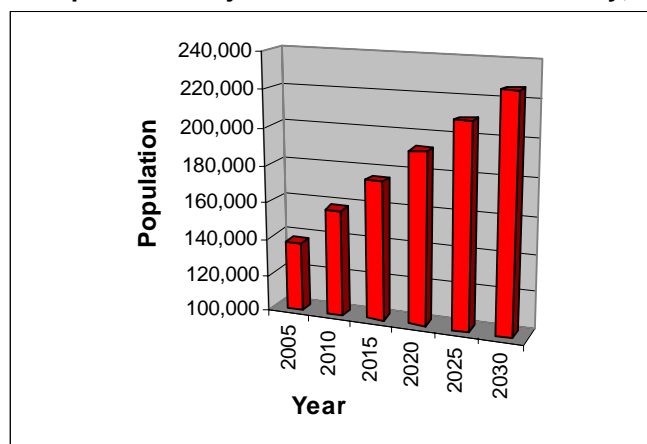
**Table 1.1 Population Estimates by Jurisdiction**

Jurisdiction	Population (Census 2000)	Population (Estimate 2004)	Percent Change 2000-2004	Percent of Total Population (2004)
Unincorporated	104,454	119,833	14.72%	89.61%
Gulf Breeze	5,665	5,790	2.21%	4.33%
Jay	579	586	1.21%	0.44%
Milton	7,045	7,512	6.63%	5.62%
<b>Countywide Total</b>	<b>117,743</b>	<b>133,721</b>	<b>13.57%</b>	<b>100.00%</b>

Source: University of Florida, Bureau of Economic and Business Research, 2004

According to BEBR (2004), Santa Rosa County’s population is projected to grow steadily and is to reach an estimated 226,100 by the year 2030, increasing the average population density of 131 to 222 persons per square mile. **Figure 1.1** illustrates medium growth population projections for Santa Rosa County based on 2004 calculations.

**Figure 1.1 Population Projections for Santa Rosa County, 2005–2030**





Of particular concern within Santa Rosa County’s population are those persons with special needs or perhaps limited resources such as the elderly, disabled, low-income or language isolated residents. According to the 2000 Census, of the 117,743 persons residing in Santa Rosa County 11% are listed as 65 years old or over; 18.9% are listed as having a disability; 9.8% are listed as below poverty; and 5.3% live in a home where the primary language is other than English.

**2. Hazard Vulnerability**

**Hazards Identification**

The highest risk hazards for Santa Rosa County as identified in the County’s Local Mitigation Strategy (LMS) are Hurricane; Tropical Storm; Storm Surge; Flooding; General Flooding; Dam Safety; Land Erosion; Sinkholes; Expansive Soils; Severe Storms; Tornado and Waterspout; Thunderstorms and Lightning; Winter Storms; Heat Wave and Drought; and Wildfire. The sinkhole hazard was not analyzed in the latest version of the Santa Rosa County LMS, as there have been no historical reports of this hazard in the county.

**Hazards Analysis for Existing Population and Structures**

The following analysis examines three major hazard types: surge from tropical cyclones, flood, and wildfire. All of the information in this section was obtained through the online Mapping for Emergency Management, Parallel Hazard Information System (MEMPHIS). MEMPHIS was designed to provide a variety of hazard related data in support of the Florida Local Mitigation Strategy DMA2K revision project, and was created by Kinetic Analysis Corporation under contract with the Florida Department of Community Affairs (DCA). Estimated exposure values were determined using the Category 3 Maxima Scenario for storm surge; FEMA’s designated 100-year flood zones (A, AE, V, VE, AO, 100 IC, IN, AH) for flood; and medium-to-high risk zones from MEMPHIS for wildfire (Level 5 through Level 9). Storm surge exposure data is a subset of flood exposure; therefore, the storm surge results are also included in the flood results. For more details on a particular hazard or an explanation of the MEMPHIS methodology, consult the MEMPHIS Web site (<http://lmsmaps.methaz.org/lmsmaps/index.html>).

*Existing Population Exposure*

**Table 2.1** presents the population currently exposed to each hazard throughout Santa Rosa County. Of the 117,743 (U.S. Census 2000) people that reside in Santa Rosa County, less than 1% is exposed to storm surge, nearly 2% are exposed to 100-year flooding, and 9.5% are exposed to wildfire. Of the 1,940 people exposed to flood, over 41% are disabled and 12% are minorities.

**Table 2.1 Estimated Number of Persons Exposed to Selected Hazards**

Segment of Population	Storm Surge	Flood	Wildfire
<b>Total (all persons)</b>	<b>37</b>	<b>1,940</b>	<b>11,207</b>
Minority	0	233	1,059
Over 65	14	213	1,045
Disabled	23	800	3,523
Poverty	0	211	1,251
Language Isolated	0	0	0
Single Parent	0	102	504

Source: Mapping for Emergency Management, Parallel Hazard Information System

*Evacuation and Shelters*

As discussed in the previous sections, population growth in Santa Rosa County has been steady, and the trend is projected to continue. Additionally, storm events requiring evacuation typically impact large areas, often forcing multiple counties to issue evacuation orders simultaneously and placing a greater cumulative number of evacuees on the roadways which may slow evacuation time further. Thus, it is important to not only consider evacuation times for Santa Rosa County, but also for other counties in the region as shown in **Table 2.2**. Also, population that will reside in new housing stock might not be required to evacuate as new construction will be built to higher codes and standards.

**Table 2.2 County Clearance Times per Hurricane Category (Hours)**  
**(High Tourist Occupancy, Medium Response)**

County	Category 1 Hurricane	Category 2 Hurricane	Category 3 Hurricane	Category 4 Hurricane	Category 5 Hurricane
Bay	14.5	17.5	18.5	23.75	23.75
Escambia	16.75	20	20	23.75	23.75
Okaloosa	13.5	19.25	19.25	21.75	21.75
Santa Rosa	8.5	9.25	9.25	10.5	10.5
Walton	11.75	21	21	21.5	21.5

Source: DCA, DEM Hurricane Evacuation Study Database, 2005

As the population increases in the future, the demand for shelter space and the length of time to evacuate will increase, unless measures are taken now. Currently, it is expected to take between 8.5 and 10.5 hours to safely evacuate Santa Rosa County depending on the corresponding magnitude of the storm, as shown in **Table 2.2**. This data was derived from eleven regional Hurricane Evacuation Studies that have been produced by FEMA, the United States Army Corps of Engineers and Regional Planning Councils in Florida. The study dates range from 1995 to 2004. These regional studies are updated on a rotating basis with Northeast Florida region scheduled for completion in the fall of 2005.

Similar to most of Florida’s coastal counties, Santa Rosa County currently has an existing shelter deficit. According to Florida’s Statewide Emergency Shelter Plan, Santa Rosa County has an existing shelter capacity of 7,151 people. The 2004 shelter demand for a Category 4 or Category 5 hurricane is 8,957 people, leaving an existing shelter deficit of 1,806. In 2009, the projected shelter demand is 10,641, leaving an anticipated shelter deficit of 3,490.

Per an objective in the Coastal Element (9J-5.012(3)(b)7.), counties must maintain or reduce hurricane evacuation times. This could be accomplished by using better topographical data to determine the surge risk to populations to evaluate which areas to evacuate, and increasing the ability to shelter in place to decrease the number of evacuees. Santa Rosa County could encourage new homes to be built with saferooms, community centers in mobile home parks or developments to be built to shelter standards (outside of the hurricane vulnerability zones), or require that new schools be built or existing schools be retrofitted to shelter standards; which would be based on FEMA saferoom and American Red Cross shelter standards. Additionally, the County could establish level of service (LOS) standards that are tied to development.

*Existing Built Environment Exposure*

While the concern for human life is always highest in preparing for a natural disaster, there are also substantial economic impacts to local communities, regions, and even the state when property damages are incurred. To be truly sustainable in the face of natural hazards, we must work to protect the residents and also to limit, as much as possible, property losses that slow

down a community’s ability to bounce back from a disaster. **Table 2.3** presents estimates of the number of structures in Santa Rosa County by occupancy type that are exposed to each of the hazards being analyzed. Exposure refers to the number of people or structures that are susceptible to loss of life, property damage and economic impact due to a particular hazard. The estimated exposure of Santa Rosa County’s existing structures to the storm surge, flood and wildfire hazards was determined through MEMPHIS.

**Table 2.3 Estimated Number of Structures Exposed to Selected Hazards**

<b>Occupancy Type</b>	<b>Storm Surge</b>	<b>Flood</b>	<b>Wildfire</b>
Single Family	2,128	10,637	7,841
Mobile Home	154	2,004	1,793
Multi-Family	523	2,504	985
Commercial	122	707	549
Agriculture	25	4,179	1,805
Gov. / Institutional	76	296	490
<b>Total</b>	<b>3,028</b>	<b>20,327</b>	<b>13,463</b>

Source: Mapping for Emergency Management, Parallel Hazard Information System

There are 33,790 structures exposed to at least one of the three hazards, of which most are single-family homes in subdivisions. Of these structures, approximately 60% are exposed to flood. Over 20,000 structures are located within the 100-year floodplain, of which 14.9% are exposed to storm surge induced flooding. Nearly 70% of the structures exposed to surge are single family homes. Typically, structures at risk from surge are high-value real estate due to their proximity to the ocean or tidally influenced water bodies such the Gulf of Mexico and the East Bay, and the Santa Rosa Sound. According to the latest National Flood Insurance Program Repetitive Loss Properties list, as of March 2005, there are 369 repetitive loss properties in unincorporated Santa Rosa County. Under the National Flood Insurance Program (NFIP), repetitive loss properties are defined as “any NFIP-insured property that, since 1978 and regardless of any change(s) of ownership during that period, has experienced: a) four or more paid flood losses; or b) two paid flood losses within a 10-year period that equal or exceed the current value of the insured property; or c) three or more paid losses that equal or exceed the current value of the insured property.”

Nearly 40% or 13,463 structures are exposed to wildfire, of which, 58% are single-family dwellings.

In addition to understanding exposure, risk assessment results must also be considered for prioritizing and implementing hazard mitigation measures. The risk assessment takes into account the probability (how often) and severity (e.g., flood depth, storm surge velocity, wildfire duration) of the hazard as it impacts people and property. Risk can be described qualitatively, using terms like high, medium or low; or quantitatively by estimating the losses to be expected from a specific hazard event expressed in dollars of future expected losses. Although people and property are exposed to hazards, losses can be greatly reduced through building practices, land use, and structural hazard mitigation measures. The next section of this report examines the existing and future land use acreage in hazard areas. This information can be useful to consider where to implement risk reducing comprehensive planning measures.

**Analysis of Current and Future Vulnerability Based on Land Use**

The previous hazards analysis section discussed population and existing structures at risk from surge, flooding, and wildfire according to MEMPHIS estimates. This section is used to demonstrate the County’s vulnerabilities to these hazards in both tabular format and spatially, in relation to existing and future land uses. Existing land use data was acquired from County

Property Appraisers and the Florida Department of Revenue in 2004 for tabulation of the total amount of acres and percentage of land in the identified hazards areas, sorted by their existing land use category according for the unincorporated areas. The total amount of acres and percentage of land in the identified hazards areas was tabulated and sorted by their future land use category according to the local Future Land Use Map (FLUM), as well as the amount of these lands listed as vacant according to existing land use. Santa Rosa County future land use data was acquired in October 2004 and might not reflect changes per recent future land use amendments. Maps of existing land use within hazard areas are based on the 2004 County Property Appraiser geographic information system (GIS) shapefiles. Maps of future land uses in hazard areas were developed using the Santa Rosa County future land use map dated October 2004. A series of maps were created as part of the analysis and are available as attachments to the county profile. All maps are for general planning purposes only.

For the purposes of this profile, the identified hazard areas include the coastal hazards zone in relation to storm surge, hurricane vulnerability zones in relation to evacuation clearance times, flood zones in relation to the 100-year flood, and wildfire susceptible areas.

In **Attachment A**, two maps present the existing and future land uses within the Coastal Hazards Zone (CHZ), which represents the Category 1 Hurricane Evacuation Zone joined with the Category 1 Storm Surge Zone. The areas that are most susceptible to storm surge are located in the coastal communities of Navarre Beach and Gulf Breeze, as well as along the Gulf of Mexico and the East Bay, and the Santa Rosa Sound. The total amount of land in the CHZ is 26,309.8 acres. As shown in **Table 2.4**, 47.4% are parks, conservation areas and golf courses; 24.8% are currently undeveloped; 13.5% are residential single family homes; and 6.1% are used for government, institutional, hospitals or education purposes. **Table 2.5** shows that of the 6,521.6 undeveloped acres, 42.8% are designated for residential single-family homes. The County has the opportunity to implement mitigation measures that will reduce vulnerability from storm surge.

In **Attachment B**, two maps present the existing and future land uses within the Hurricane Vulnerability Zone (HVZ), which represents Category 1 to 3 Hurricane Evacuation Zones. The HVZ is predominantly located along the coast well as along the East Bay and its tributaries, such as the Blackwater River. The total amount of land in the HVZ is 67,939 acres. As shown in **Table 2.4**, 30.6% are parks, conservation areas and golf courses; 21.4% are used for government, institutional, hospitals or education purposes; 20% are currently undeveloped; and 15.9% are in agricultural use. **Table 2.5** shows that of the 13,555.9 undeveloped acres, 35.4% are designated for residential single-family homes. The County has the opportunity to implement mitigation measures that will reduce vulnerability from storm surge.

In **Attachment C**, two maps present the existing and future land uses within a 100-year flood zone. There are flood-prone areas scattered across the County. However, a majority of the large swaths surround the coast well as along the East Bay and its tributaries, such as the Blackwater River. The total amount of land in the special flood hazard area is 103,698.2 acres. As shown in **Table 2.4**, 44.1% are parks, conservation areas and golf courses; 28% are in agricultural use; 13.1% are used for government, institutional, hospitals or education purposes; and 9.4% are currently undeveloped. **Table 2.5** shows that of the 9,785.3 undeveloped acres, 34.5% are designated for agricultural use. Since a large portion of the acreage is designated agricultural, the County has the opportunity to maintain this land use and low density development to prevent increased vulnerability to flooding. Although stormwater management systems are designed to eliminate flooding, these systems can fail during a storm if debris blocks drainage channels or culverts washout.

In **Attachment D**, two maps present the existing and future land uses within wildfire susceptible areas. These areas are located in small areas, scattered across the county. The total amount of land in the wildfire susceptible areas is 22,654.8 acres. As shown in **Table 2.4**, 48.3% are in agricultural use; 17.9% are used for government, institutional, hospitals or education purposes; 14.7% are parks, conservation areas and golf courses and 11.5% are undeveloped lands. **Table**

2.5 shows that of the 2,594.7 undeveloped acres, 48.3% are used for agriculture. The County should continue to take measures to reduce wildfire risk within the urban/rural interface.

**Table 2.4 Total Unincorporated Acres in Hazard Areas by Existing Land Use Category**

Existing Land Use Category		Coastal Hazard Zone	Hurricane Vulnerability Zone	Flood Zones	Wildfire Susceptible Areas
Agriculture	Acres	904.0	10,797.2	29,007.4	10,943.6
	%	3.4	15.9	28.0	48.3
Attractions, Stadiums, Lodging	Acres	30.1	86.7	113.3	2.2
	%	0.1	0.1	0.1	0.0
Places of Worship	Acres	11.4	76.2	25.6	13.6
	%	0.0	0.1	0.0	0.1
Commercial	Acres	76.5	134.0	97.9	25.4
	%	0.3	0.2	0.1	0.1
Government, Institutional, Hospitals, Education	Acres	1,601.5	14,512.3	13,551.0	4,062.2
	%	6.1	21.4	13.1	17.9
Industrial	Acres	176.1	433.8	180.8	23.6
	%	0.7	0.6	0.2	0.1
Parks, Conservation Areas, Golf Courses	Acres	12,480.7	20,783.8	45,730.5	3,339.5
	%	47.4	30.6	44.1	14.7
Residential Group Quarters, Nursing Homes	Acres	4.0	7.1	4.5	0.0
	%	0.0	0.0	0.0	0.0
Residential Multi-Family	Acres	47.0	121.3	70.5	11.6
	%	0.2	0.2	0.1	0.1
Residential Mobile Home, or Commercial Parking Lot	Acres	240.1	564.7	399.3	507.8
	%	0.9	0.8	0.4	2.2
Residential Other	Acres	16.3	14.3	12.3	0.0
	%	0.1	0.0	0.0	0.0
Residential Single-Family	Acres	3,556.6	5,773.4	3,627.1	1,070.7
	%	13.5	8.5	3.5	4.7
Submerged Land (Water Bodies)	Acres	6.7	39.0	5.8	0.0
	%	0.0	0.1	0.0	0.0
Transportation, Communication, Rights-Of-Way	Acres	6.5	30.3	5.1	2.0
	%	0.0	0.0	0.0	0.0
Utility Plants and Lines, Solid Waste Disposal	Acres	630.7	1,009.0	1,081.9	57.7
	%	2.4	1.5	1.0	0.3
Vacant	Acres	6,521.6	13,555.9	9,785.3	2,594.7
	%	24.8	20.0	9.4	11.5
<b>Total Acres</b>	<b>Acres</b>	<b>26,309.8</b>	<b>67,939.0</b>	<b>103,698.2</b>	<b>22,654.8</b>
	<b>%</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Department of Community Affairs

**Table 2.5 Total Unincorporated Acres in Hazard Areas by Future Land Use Category**

Future Land Use Category		Coastal Hazards Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible Areas	
		Total	Vacant	Total	Vacant	Total	Vacant	Total	Vacant
Agriculture	Acres	2,019.8	874.1	14,197.1	2,677.4	34,383.6	3,373.8	12,900.7	1,252.2
	%	7.7	13.4	20.9	19.8	33.2	34.5	56.9	48.3
Bagdad Historic District	Acres	59.5	8.5	64.9	11.6	31.4	6.2	1.3	0.0
	%	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0
City	Acres	1,151.0	173.0	1,404.7	208.2	1,066.1	376.8	3.3	2.9
	%	4.4	2.7	2.1	1.5	1.0	3.9	0.0	0.1
Commercial	Acres	212.0	85.8	498.5	247.5	219.8	86.1	99.7	51.5
	%	0.8	1.3	0.7	1.8	0.2	0.9	0.4	2.0
Conservation/Recreation	Acres	11,451.0	14.1	19,441.7	51.7	44,909.7	19.8	2,559.0	0.7
	%	43.5	0.2	28.6	0.4	43.3	0.2	11.3	0.0
Garcon Point Rural Residential	Acres	1,876.6	1,258.4	4,457.9	2,715.3	2,323.4	1,591.9	1,409.8	481.3
	%	7.1	19.3	6.6	20.0	2.2	16.3	6.2	18.6
Garcon Point Single Family Residential	Acres	1,654.4	1,030.6	3,263.3	1,984.3	1,682.0	1,023.7	379.7	261.1
	%	6.3	15.8	4.8	14.6	1.6	10.5	1.7	10.1
Industrial	Acres	72.9	53.7	681.3	222.5	65.1	40.6	95.6	10.7
	%	0.3	0.8	1.0	1.6	0.1	0.4	0.4	0.4
Marina	Acres	67.8	33.9	61.5	29.4	81.8	34.8	0.2	0.2
	%	0.3	0.5	0.1	0.2	0.1	0.4	0.0	0.0
Military	Acres	737.0	0.0	12,589.8	31.7	11,962.7	0.9	3,885.9	0.0
	%	2.8	0.0	18.5	0.2	11.5	0.0	17.2	0.0
Mixed Residential Commercial	Acres	172.3	50.6	843.8	348.0	330.6	147.1	153.2	50.4
	%	0.7	0.8	1.2	2.6	0.3	1.5	0.7	1.9
Navarre Beach Commercial	Acres	33.4	0.0	31.0	0.0	2.2	0.0	0.0	0.0
	%	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Navarre Beach High Density Residential	Acres	35.0	0.0	33.2	0.0	2.0	0.0	0.0	0.0
	%	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Navarre Beach Low Density Residential	Acres	95.2	0.0	66.2	0.0	34.6	0.0	0.0	0.0
	%	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Navarre Beach Medium Density Residential	Acres	147.4	0.0	131.1	0.0	0.5	0.0	0.0	0.0
	%	0.6	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Navarre Beach Medium/High Density Residential	Acres	10.5	0.0	4.2	0.0	4.2	0.0	0.0	0.0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Navarre Beach Mixed Residential /Commercial	Acres	46.4	0.0	42.6	0.0	0.5	0.0	0.0	0.0
	%	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Navarre Beach Utilities	Acres	21.0	0.0	20.3	0.0	0.7	0.0	0.0	0.0
	%	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rail	Acres	0.0	0.0	2.5	1.6	0.0	0.0	0.0	0.0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Future Land Use Category		Coastal Hazards Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible Areas	
		Total	Vacant	Total	Vacant	Total	Vacant	Total	Vacant
Residential	Acres	321.9	132.0	448.8	196.9	185.7	59.7	72.0	17.4
	%	1.2	2.0	0.7	1.5	0.2	0.6	0.3	0.7
Single Family Residential	Acres	6,110.1	2,792.6	9,577.5	4,804.8	6,397.2	3,012.5	1,093.3	465.5
	%	23.2	42.8	14.1	35.4	6.2	30.8	4.8	17.9
Water	Acres	14.7	14.3	77.4	25.2	14.5	11.4	1.1	0.9
	%	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.0
<b>Total Acres</b>	<b>Acres</b>	<b>26,309.8</b>	<b>6,521.6</b>	<b>67,939.0</b>	<b>13,555.9</b>	<b>103,698.1</b>	<b>9,785.3</b>	<b>22,654.8</b>	<b>2,594.7</b>
	<b>%</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Department of Community Affairs

The amount of total land and existing vacant land in identified hazard areas was also tabulated by DCA for each of Santa Rosa County's three incorporated municipalities. These amounts are listed in **Table 2.6**. The intent of this table is to show the vacant acreage in hazard zones in each municipality, and to show the percentage of vacant acreage in each hazard zone for each municipality. In the total column for each hazard, the percentage for each municipality is the hazard zone acreage as a percent of total hazard acreage for all municipalities. In the vacant column for each hazard, the percentage for each municipality is the percent of area in the hazard zone for the respective municipality. The total municipal percent of vacant acreage is the percent of acreage in the hazard zones for all municipalities.

The City of Gulf Breeze has the most vacant acres in the CHZ and HVZ, but Milton has the largest proportion of surge prone acres out of its vacant land area. The City of Gulf Breeze has the most vacant acres in the flood zone, but the Town of Jay has the largest proportion of flood zone acres out of its vacant land area. The City of Milton is the only municipality with vacant acreage in wildfire susceptible areas.

Vacant land is often destined to be developed. It is prudent to conduct further analyses of what the vacant lands will be used for, to determine whether they will be populated, and at what level of intensity/density, to ensure that hazard risks are minimized or eliminated. Each of the municipalities in Santa Rosa County has vacant lands that are in hazard areas. Since hazards cross jurisdictional boundaries, it is important to consider all hazard areas to collaboratively formulate hazard mitigation strategies and policies throughout the county.

**Table 2.6 Total Land and Existing Vacant Land in Hazard Areas by Municipal Jurisdiction**

Future Land Use Category		Coastal Hazards Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible Areas	
		Total	Vacant	Total	Vacant	Total	Vacant	Total	Vacant
Gulf Breeze	Acres	1,056.7	157.2	1,115.1	160.3	601.0	130.9	0.0	0.0
	%	100.0	14.9	100.0	14.4	100.0	21.8	0.0	0.0
Jay	Acres	0.0	0.0	0.0	0.0	12.5	4.7	0.0	0.0
	%	0.0	0.0	0.0	0.0	100.0	37.5	0.0	0.0
Milton	Acres	99.2	19.6	436.7	80.7	259.5	57.1	5.6	4.2
	%	100.0	19.8	100.0	18.5	100.0	22.0	100.0	76.0
<b>Total Municipal Acres</b>	<b>Acres</b>	<b>1,155.9</b>	<b>176.8</b>	<b>1,551.8</b>	<b>241.0</b>	<b>873.0</b>	<b>192.6</b>	<b>5.6</b>	<b>4.2</b>
	<b>%</b>	<b>100.0</b>	<b>15.3</b>	<b>100.0</b>	<b>15.5</b>	<b>100.0</b>	<b>22.1</b>	<b>100.0</b>	<b>76.0</b>

Source: Department of Community Affairs

### 3. Existing Mitigation Measures

The Local Mitigation Strategy is suited to be a repository for all hazard mitigation analyses (i.e., vulnerability and risk assessment), programs, policies and projects for the county and municipalities. The LMS identifies hazard mitigation needs in a community and alternative structural and nonstructural initiatives that can be employed to reduce community vulnerability to natural hazards. The LMS is multi-jurisdictional and intergovernmental in nature. Communities can reduce their vulnerability to natural hazards by integrating the LMS analyses and mitigation priorities into the local government comprehensive plan.

As noted in DCA's *Protecting Florida's Communities* Guide, one significant strategy for reducing community vulnerability is to manage the development and redevelopment of land exposed to natural hazards. Where vacant land is exposed to hazard forces, local government decisions about allowable land uses, and the provision of public facilities and infrastructure to support those uses, can have major impacts on the extent to which the community makes itself vulnerable to natural hazards. Where communities are already established and land is predominately "built out," local governments can take initiatives to reduce existing levels of vulnerability by altering current land uses both in the aftermath of disasters, when opportunities for redevelopment may arise, and under "blue sky" conditions as part of planned redevelopment initiatives.

Per the DCA's *Protecting Florida's Communities* Guide, LMSes prepared pursuant to the state's guidelines (Florida Department of Community Affairs, 1998) have three substantive components:

Hazard Identification and Vulnerability Assessment. This section identifies a community's vulnerability to natural hazards. Under Florida rules, the HIVA is required to include, at a minimum, an evaluation of the vulnerability of structures, infrastructure, special risk populations, environmental resources, and the economy to any hazard to which the community is susceptible. According to FEMA, LMSes revised pursuant to the Disaster Mitigation Act of 2000 (DMA 2000) criteria must include maps and descriptions of the areas that would be affected by each hazard to which the jurisdiction is exposed, information on previous events, and estimates of future probabilities. Vulnerability should be assessed for the types and numbers of exposed buildings, infrastructure, and critical facilities with estimates of potential dollar losses. Plan updates will be required to assess the vulnerability of future growth and development.

Guiding Principles. This section lists and assesses the community's existing hazard mitigation policies and programs and their impacts on community vulnerability. This section typically contains a list of existing policies from the community's Comprehensive Plan and local ordinances that govern or are related to hazard mitigation. Coastal counties frequently include policies from their PDRPs.

Mitigation Initiatives. This component identifies and prioritizes structural and non-structural initiatives that can reduce hazards vulnerability. Proposals for amendments to Comprehensive Plans, land development regulations, and building codes are often included. Structural projects typically address public facilities and infrastructure, and buy-outs of private structures that are repetitively damaged by flood. Many of these qualify as capital improvement projects based on the magnitude of their costs and may also be included in the capital improvements elements of the counties' and cities' Comprehensive Plans.

The Santa Rosa County LMS (2005–2010 version) was assessed to determine if the hazard analysis and vulnerability assessment (i.e., surge, flood, wildfire, and sinkhole) data can support comprehensive planning, whether the guiding principles include a comprehensive list of policies for the county and municipalities, and whether the LMS goals and objectives support comprehensive planning goals, objectives, and policies (GOP). Future updates to the assessment will include working with Santa Rosa County to determine if the capital improvement projects are included in the LMS hazard mitigation project list.



*Hazard Analysis and Vulnerability Assessment (Sections 4 and 5).*

The strengths and weaknesses of the Hazard Analysis and Vulnerability Assessment are as follows:

Strengths:

- Provides a hazards analysis and a qualitative risk assessment for each hazard.
- Includes a color-coded, spatially-defined risk vulnerability assessment on a parcel by parcel basis for the entire county, including separate assessments for each municipal jurisdiction.
- Extensive GIS analysis of vulnerable facilities and/or structures in relation to hurricane, flood, storm surge and wildfire hazard areas.
- Provides county property values for parcels in identified hazard zones.
- Includes exposure values and potential dollar losses due to hazards.
- Considers existing and future land use classifications and hazard data layers to illustrate which land use categories are susceptible to the hurricane, flood, storm surge and wildfire hazards.

Weaknesses:

- Does not include hazard maps for hurricane, flood, storm surge, wildfire or sinkhole, although data in the LMS was drawn from FDCA's MEMPHIS (Mapping for Emergency Management, Parallel Hazard Information System) web-based mapping tool.
- Does not include maps for critical facilities, although a listing of critical facilities is incorporated by reference and the LMS does refer to GIS-based vulnerability assessments by overlaying hazard areas onto point locations of critical facilities.
- Does not include information on demographic, income, and special needs population.
- Does not include a listing or maps for repetitive loss properties.

Incorporating land use and population data into the risk assessment of the LMS provides a better source of data for planners to use in policy making and policy evaluation of the local comprehensive plan. The LMS also sets a standard for the quality of data that should be used in determining risk and thereby used to determine mitigation policies.

*Guiding Principles*

The Santa Rosa County LMS does not include a Guiding Principles section for the county nor each municipality. The Guiding Principles section is found in most counties' LMSes and is useful in providing the different jurisdictions ideas for enhancing their own plans or providing the LMS committee an analysis of where there may be weaknesses in implementing mitigation strategies. It is recommended that Santa Rosa County's next LMS update include a Guiding Principles section.

*LMS Goals and Objectives*

The Santa Rosa County LMS has goals and objectives that support mitigation principles that are found in the comprehensive plan. A list of the LMS goals and objectives pertaining to comprehensive planning can be found in **Attachment E**. An assessment of whether the LMS goals and objectives are reflected in the comprehensive plan (and vice versa) is provided in **Table 5.1** as part of the preliminary recommendations. Final recommendations will result from a collaborative process between DCA, Santa Rosa County, and PBS&J. The following is a summary of the LMS goals and objectives that support comprehensive plan GOPs.

Goal 2 seeks to maintain communication between the LMS Steering Committee and key County and Municipal departments to coordinate intra- and inter-departmental mitigation activities among various jurisdictions, and with the public. Key objectives under this goal are to ensure all interests of various departments are represented by the appointed staff to the Steering Committee, and that all interests are aware of Working Groups and a need to represent their own interests concerning various geographical areas or to address various hazards.

Goal 3 refers to the update the LMS plan, as necessary, to identify changes to hazards, vulnerability, goals, initiatives/priorities accomplishments/withdrawal/additions/pending, update of funding sources, current disaster declarations, and adoption of revisions. Key objectives include having the Steering Committee direct staff to update plan sections, tables, maps, etc., based upon current activities, trends, or issues, as well as continually reviewing the plan and comparing it to other planning requirements (emergency management plans, comprehensive land use plans, community rating system plans) that contain mitigation provisions or may otherwise help to assert or hinder mitigation initiatives.

Goal 5 seeks to reduce or eliminate hazards identified to at risk locations in the County and its municipalities. Key objectives include targeting mitigation efforts and activities towards areas where hazards exist, working with agencies, professionals, and the public to develop the best solutions for identified hazards, and examining and implementing appropriate technologies to identify, model, or otherwise simulate risks and zones of risk and incorporating these into the LMS plan.

Maintaining consistent language for outlining goals and objectives in both the LMS and comprehensive plan presents a united front on decreasing risk in the county. While the LMS may not be able to regulate land use as the comprehensive plan does, having these common goals and objectives increases the likelihood of the jurisdictions of Santa Rosa County adopting and implementing corresponding policies that are legally enforceable.

### **Comprehensive Emergency Operations Plan (CEMP)**

The Santa Rosa County CEMP does not include any specific mitigation goals or objectives, though it does describe the various mitigation programs, plans and activities in place as well as the County's standard operating procedures and local mitigation responsibilities in Annex B: Mitigation Functions. This includes the post-disaster implementation of the Hazard Mitigation Grant Program (HMGP) and related disaster mitigation, response and recovery assistance programs, as well as pre-disaster mitigation programs such as the County Local Mitigation Strategy, the National Flood Insurance Program, Community Rating System and Flood Mitigation Assistance Program. The CEMP establishes that the LMS Steering Committee, as appointed by the County Administrator, is responsible for identifying and selecting projects funded under the HMGP. The Committee is also charged with maintaining proper documentation for the LMS.

### **Post-Disaster Redevelopment Plan (PDRP)**

The Santa Rosa County PDRP was not available for review at the time that this profile was developed.

### **National Flood Insurance Program/Community Rating System**

Santa Rosa County and all of its municipalities participate in the National Flood Insurance Program (NFIP). Santa Rosa County participates in the NFIP Community Rating System (CRS) with a rating as a class 7, and the City of Gulf Breeze participates in the CRS as a class 9 community. The municipalities of Jay and Milton do not currently participate in the CRS.

## **4. Comprehensive Plan Review**

### **Purpose and Intent**

The Santa Rosa County Comprehensive Plan 2000-2020 (Adopted October 30, 2003) was reviewed for the purpose of developing this profile. This review was undertaken in order to assess what steps Santa Rosa County has taken to integrate hazard mitigation initiatives from their Local Mitigation Strategy (LMS) and hazard mitigation initiatives in general, into the local planning process. Each Element of the Plan was evaluated to establish the extent to which the principles from the LMS were incorporated into the objectives and policies of the existing Comprehensive Plan.

### **Approach**

This review includes an assessment of storm surge, flooding, and wildfire hazards. A preliminary list of objectives and policies currently contained in the Plan that pertain to hazard mitigation and any policies related to these hazards is found in **Attachment F**. The following is a discussion of the extent to which the Plan appears to address each of the hazards. Recent policy amendments may not have been available for review, or proposed policies might be in the process of creation, which address these hazards. As a result, this assessment is considered preliminary and subject to input from the local government.

### **Summary of Findings**

The highest risk hazards for Santa Rosa County as identified in the County's Local Mitigation Strategy (LMS) are hurricane, tropical storm, storm surge, flooding, general flooding, dam safety, land erosion, sinkholes, expansive soils, severe storms, tornado and waterspout, thunderstorms and lightning, winter storms, heat wave and drought, and wildfire. The Comprehensive Plan contains several hazard mitigation goals addressing the storm surge and flood hazards, as well as coastal zone protection. One of the general mitigation goals enumerated in the Plan is a reduction in exposure of life and property to hazards through the implementation of the County LMS.

Several policies within the Plan direct growth management decisions to reduce or eliminate hazards to the built environment. Plan policies are in place to guide coastal development and protect the CHHA and other environmentally sensitive areas. These policies support the protection of sensitive coastal areas through conservation easements, outright acquisition, or other means.

Policies dictate that the County's CEMP will be used as the operational guide to prepare for the response to, and recover from, a tropical storm, hurricane and/or other natural or man-made disasters. The County will update its CEMP every four years, and re-evaluate the CEMP after a major disaster event to recommend and adopt appropriate modifications. The Plan has a policy that supports the review of "existing inter-agency hazard mitigation reports" against other planning documents, and the Coastal Management Element requires consistency between the Land Development Regulations, the CEMP and LMS. The Community Planning Division will also make recommendations to the County Commission regarding consistency of Land Development Code with the hazard mitigation annex of the Santa Rosa County Comprehensive Emergency Management Plan and with any applicable existing inter-agency hazard mitigation reports.

### **Flooding**

Flooding is addressed from two vantage points, the protection of natural drainage features, and protection of lives and properties through development standards and stormwater abatement. In Santa Rosa County, all future buildings must be constructed to Florida Building Code standards and built above the established base flood elevations (BFE's). Policies dictate reliance on the

FEMA Flood Damage Prevention Ordinance to determine the location of the 100-year floodplain and flood prone areas. Once those areas are determined, development will be limited, consistent with FEMA requirements.

All future buildings must be constructed to Florida Building Code standards and built above the established base flood elevations. Policies throughout the Plan also promote the acquisition and/or protection of high risk, floodprone, or environmentally sensitive areas. The County will regulate development within flood prone areas to minimize flood storage capacity reduction so that post development equals predevelopment standards, in order to protect to life and property within the floodplain.

### **Storm Surge and Evacuation**

Several Plan policies address hurricane evacuation times and transportation and sheltering needs, based on the Northwest Florida Hurricane Evacuation Study. The Future Land Use Element promotes continual coordination of coastal area population densities with the Santa Rosa Hurricane Evacuation Plan. Policies also state that densities and intensities of land use will be regulated consistent with the goals, objectives and policies of the Plan in order to maintain County hurricane evacuation clearance times.

The Plan relies on tools such as County development review and intergovernmental coordination to address mitigation needs and necessary transportation improvements. For example, the County will promote improvements to critical roadway segments delineated in the Northwest Florida Hurricane Evacuation Study. Promotion of roadway improvements will be accomplished through the County's coordination with the Pensacola MPO and FDOT

According to the Comprehensive Plan, the County will continue to manage and implement its CEMP, and utilize the recommendations and guidance provided in the NWFRPC Hurricane Evacuation Study. The County will annually review evacuation route needs to assure that the necessary improvements are incorporated within the Capital Improvement Program, the Capital Improvement Element, the Transportation Element and the FDOT five year work program.

### **Sheltering**

Similar to most of Florida's coastal counties, Santa Rosa County currently has an existing shelter deficit. According to Florida's Statewide Emergency Shelter Plan, Santa Rosa County has an existing shelter capacity of 7,151 people. The 2004 shelter demand for a Category 4 or Category 5 hurricane is 8,957 people, leaving an existing shelter deficit of 1,806. In 2009, the projected shelter demand is 10,641, leaving an anticipated shelter deficit of 3,490. The opportunity exists to construct new facilities to standards that will allow them to serve as shelters, and to construct future public facilities outside of floodplain areas.

Several policies address sheltering needs and the protection of the special needs population. For example, the CEMP must include accommodations for the handicapped and indigent, including transportation and sheltering. In more general terms, in cases where shelter deficits are in excess of 200 spaces, the County will consider the construction of additional spaces during its annual Capital Improvements Program review.

### **Wildfire**

No policies pertaining to wildfire mitigation or management practices were found in the Comprehensive Plan.

## **5. Recommendations**

For the Local Mitigation Strategy (LMS) to be effective in the decision-making process of growth management, its objectives and policies must be integrated into the Comprehensive Plan. The Plan is the legal basis for all local land use decisions made. It is the document that outlines the fundamental regulatory provisions for all development, and should therefore state the broad measures of hazard mitigation to be implemented by other regulations such as ordinances, neighborhood plans, land use codes and development regulations.

The following Preliminary Recommendations Matrix provides an overview of hazard mitigation strategies found within the County's LMS, policies found within the Escambia County Comprehensive Plan, and suggestions to strengthen such plans.

**INTEGRATION OF THE LOCAL MITIGATION STRATEGY INTO THE LOCAL COMPREHENSIVE PLAN  
SANTA ROSA COUNTY PROFILE**

Strategies & Integration Topics: Are these integrated in the LMS and Local Comprehensive Plan		Current LMS Information, Goals & Objectives	Current Comp Plan Policies	Options for Further Integration into the Comprehensive Plan	Options for Further Integration into the LMS	Basis For Suggested Options	
LMS	Comp	Key G = Goal O = objective P = Policy MA = Mitigation Action					
<b>Strategy - Collaboration, coordination, and education</b>							
Is there information sharing and/or involvement in plan development between planners and emergency managers?	Yes	No	G 2 Maintain communication between the LMS Steering Committee and key County and Municipal departments to coordinate mitigation activities among various jurisdictions, and the public (Section 6, pg 2).	None found during this review.	Create an objective or policy to coordinate with LMS committee in updating the LMS to incorporate planning expertise, land use & development regulations. Require a planner to be on the LMS Committee.	The 2005 LMS adequately addresses this strategy through Goal 2.	Clear directives for planning and emergency management staff to work together will ensure that the plans address all aspects of hazards. Best management practices from Protecting Florida's Communities and Okaloosa LMS and Comp Plan
Do the Comp Plan, LMS, CEMP, and other local, regional, state and federal plans cross-reference each other and include consistent data on hazardous locations?	Yes: LMS references CEMP & Comp, & Comp references LMS & CEMP		G 3 O 3 Continually review LMS & compare with plans that have mitigation provisions (e.g., comp plan) or may otherwise impact mitigation initiatives	CME P 7.1.A.8 Reduce the exposure of life & property to natural hazards through implementation of the LMS. The LMS will be updated to comply with DMA 2000.		The 2005 LMS adequately addresses this strategy through Goal 3.	
Do the Comp Plan,			G 4 O 1 Work with existing programs in county and municipalities (building inspections, local CRS - NFIP, emergency management, chambers of commerce, etc.) to connect mitigation to these efforts.	CME P 7.1.B.3 The Community Planning Zoning & Development Division shall make recommendations to the Board of County Commissioners regarding Land Development Code and Ordinance Amendments to ensure consistency with the hazard mitigation annex of the CEMP & any existing inter-agency hazard mitigation reports.			
				CME P 7.1.F.1 The county shall continue to manage/implement its CEMP and use recommendations/ guidance provided in the NWRPC Hurricane Evacuation Study.			
Do the Comp Plan,			CME P 7.1G.1 The County's CEMP shall be used as an operational guide to prepare for response/recovery from a hurricane and/or other disasters.				

**INTEGRATION OF THE LOCAL MITIGATION STRATEGY INTO THE LOCAL COMPREHENSIVE PLAN  
SANTA ROSA COUNTY PROFILE**

Strategies & Integration Topics: Are these integrated in the LMS and Local Comprehensive Plan		Current LMS Information, Goals & Objectives	Current Comp Plan Policies	Options for Further Integration into the Comprehensive Plan	Options for Further Integration into the LMS	Basis For Suggested Options	
LMS	Comp	Key G = Goal O = objective P = Policy MA = Mitigation Action					
LMS, CEMP, and other local, regional, state and federal plans cross-reference each other and include consistent data on hazardous locations? (continued)			FLUE P 3.1.E.6 The county shall use the latest version of the Flood Damage Prevention ordinance to determine the location of the 100-year floodplain/flood prone areas and limit development in those areas, consistent with FEMA requirements.	Review and coordinate existing resource protection plans with LMS.		Okaloosa County Comp Plan CME P 1.2.7	
	LMS & Comp data needs to be compared (local action)	MA Support activities that newly document or update hazard maps to focus on mitigation activities against wildfire. (Section 6, pg 12)	Data and Analysis section not reviewed for this project.	Include map of identified hazard locations (e.g., SLOSH, 100-year floodplain) overlain with land uses in the FLU series. (Note: counties to determine other hazard zone boundaries as appropriate)	Include existing and future land uses on each hazard map, for those hazards identified as those that county is at most risk.	Consistent use of data will enhance hazard mitigation planning. Maps are useful to analyze relationship between land uses in hazard areas for mitigation planning or changes to future land uses.	
Are hazard mitigation projects addressed in the 5-year schedule of Capital Improvement Projects?	Local Action	Local Action	No specific projects are listed in the version of the LMS that was reviewed for this profile.	CME O 7.1.A Protect people and property by limiting public expenditures in areas subject to destruction by natural disasters.	During the annual review of the five-year schedule of capital improvements, the LMS project list should be considered.	Update the LMS projects on a regular basis, to incorporate into the CIE.	FEMA funds are available for hazard mitigation, and opportunity for implementation is increased by projects being listed in both plans.
			CME P 7.1.A.6 The county shall consider the relocation, mitigation or replacement of infrastructure currently present within the CHHA where state funding is anticipated to be needed. An analysis of this need will be included annually in the evaluation of the Comp plan.				
			CME P 7.1.F.10 Where shelter deficits exist > 200 shelter spaces, consider the construction of additional spaces during its annual CIP review.				
			CIE O 10.1.B Limit public expenditures that subsidize development in the CHHA.	Establish criteria within the capital budgeting process to evaluate capital improvement projects that consider criteria for the elimination of damages or impacts to the public caused by hazards that considers the LMS Guiding Principles.		Establish criteria to consider public hazard elimination when evaluating capital improvement projects. [9J-5.016(3)(c)1a.]	
CIE P 10.1.B.2 Incorporate review processes for infrastructure planning/assessment of the appropriateness of public capital improvements in CHHA as identified in the CME of this Plan.							

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Are there measures to educate residents, homeowner/property associations, and the business community of ways they can mitigate against hazards?	Yes	No	G 4 Assist property owners, residents, businesses, non-profits and others in understanding and knowing of their eligibility for grants, loans and services that may help to mitigate hazards that directly affect their interests.	None found during this review.	Coordinate with the LMS committee to educate public about mitigation techniques and benefits associated with property protection via floodproofing or elevating existing structures in SFHA (via the CRS outreach initiatives), Firewise initiative, retrofitting against wind hazards, landscaping to reduce wind-borne debris, & increasing flood water retention; and preparedness measures such as evacuation and sheltering.	The 2005 LMS adequately addressed this strategy through Goal 4.	While regulation for new development can reduce or eliminate risk to hazards, one of the best ways to mitigate existing risk is through education.
			G 4 O 1 Work with existing programs in county and municipalities (building inspections, local CRS/NFIP, emergency management, chambers of commerce, etc.) to connect mitigation to these efforts.				
			G 4 O 3 Develop website to convey updated information about mitigation activities on a continual basis.				
			G 4 O 5 Maintain initiatives or priorities & contact persons lists to facilitate rapid notification of assistance (mitigation) availability.				



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<b>Strategy - Get out of the way: provide evacuation and sheltering services</b>							
Are there measures to provide adequate evacuation clearance time to support current population and population growth?	Yes	Yes	MA Ensure that maps accurately reflect the amount of surge, wave and flood action that can occur during a major hurricane.	FLUE P 3.1.F.2 The county shall promote improvements to the critical roadway segments delineated in the NW FL Hurricane Evacuation Study, through the County's participation with the Pensacola MPO and interaction with the FDOT.	Provide adequate emergency evacuation routes & highway capacity on evacuation routes and by incorporating mitigation measures adopted in the LMS.	Examine the topographic data that was used to run the SLOSH model to determine if better data (i.e., LIDAR), as available, could be used to identify evacuation zones.	Okaloosa County Comp Plan TE P 1.5 & Science & technology can provide more accurate data, & enhance analysis.
				FLUE P 3.1.F.3 Densities and intensities of land use will be regulated consistent with the goals/objectives/policies of the Comp Plan in order to maintain the required road clearance time.	Adopt CEMP that's consistent with updated (insert location, e.g., NW) FL Hurricane Evacuation Re-Study		Okaloosa County Comp Plan CME P 2.5.1
					Hurricane evacuation routes are identified & shown on Future Transportation Map Series		Bay County Comp Plan TE P 4.11.1
			MA Ensure roads are designed and engineered for the amount of wind, surge, flooding and debris that can be expected.	CME O 7.1.F The county shall maintain or reduce hurricane evacuation times by implementing various policies. CME P 7.1.F.2 The county shall continue to support critical roadway segment improvements through participation with the Pensacola MPO and interaction with FL DOT to further reduce and improve hurricane evacuation times.	Prioritize evacuation route improvements in Capital Improvements schedule and MPO Long-Range Transportation Plan.		Best management practices from <i>Protecting Florida's Communities</i>
			CME P 7.1.F.3 The county shall maintain a minimum medium response roadway clearance time for hurricane evacuation of 12 hours on roads under local jurisdiction. CME P 7.1.F.5 The county shall limit the density in CHHA as allowed by law. CME P 7.1.F.6 The county will evaluate development orders for their impacts on traffic circulation and evacuation routes within Hurricane Evac Zones 1, 2, & 3. CIE P 10.B.1.3 • The County shall request and support state expenditures necessary to address/improve capacity deficiencies on roads or bridges necessary to effectively support the Hurricane Evacuation Plan for the County.	Require subdivisions/PUDs to include more than one exiting roadway in defined high risk areas, such as CHHA or HVZ. Institute a level of service (LOS) standard that is tied to levels of development and/or institute an impact fee in the CHHA/HVZ to help pay for public expenses of implementing evacuation orders.	Include goal/objective to support interagency involvement in evacuation planning.		

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Are there measures to provide adequate evacuation clearance time to support current population and population growth? (continued).			<p><b>CME P 7.1.F.9</b> • A proposed development in a hurricane evacuation zone which is anticipated to utilize ten percent (10%) or more of an identified hurricane evacuation route's level of service E hourly directional maximum service volume will be identified as having an adverse regional impact and must be mitigated.</p> <p><b>CME P 7.1.F.8</b> Amendments to the Comp Plan on Navarre Beach shall not be approved which will result in an increase in hurricane evacuation times without mitigation of the adverse impact to evacuation times.</p>	Developments that increase evacuation clearance time in the CHHA are required to provide mitigation measures such as emergency van pools.		Okaloosa County Comp Plan CME P 2.5.3	
Are there measures to provide adequate shelter space to meet population growth and special needs?	Yes	Yes	<p><b>MA</b> Ensure adequate and safe public shelters are available in all locations in the County to prevent or reduce post-disaster homelessness, including adequate electrical supplies for cooking and to maintain sanitary conditions.</p>	<p><b>CME P 7.1.F.10</b> Where shelter deficits exist in excess of 200 shelter spaces, the county will consider the construction of additional spaces during its annual Capital Improvements Program review.</p>	<p>Require new developments that increase evacuation clearance time in the CHHA to provide mitigation measures such as emergency van pools or emergency shelters outside of the HVZ where appropriate.</p> <p>Require new public emergency shelters to be built outside the HVZ</p> <p>Institute a LOS standard or ratio for population in an HVZ to shelter capacity</p> <p>Institute impact fees in HVZ zone to cover costs to build new shelters, or retrofit schools to be used as shelters, &amp; operating costs.</p>	<p>Update social vulnerability results on a regular basis in the LMS and existing shelter capacity to substantiate mitigation action pertaining to sheltering provisions.</p>	<p>There is an existing shelter deficit of 1,806 and population growth is imminent.</p> <p>Best management practice from <i>Protecting Florida's Communities</i></p>

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Are there measures to provide adequate shelter space to meet population growth and special needs? (continued).			CME 7.1.F.11 The county shall strongly encourage new mobile home and RV parks within evacuation zones to have on-site shelter facilities for their residents or plans for alternative off-site shelters.	All new mobile homes (manufactured homes) and recreational vehicle developments within the HVZ shall be required by county development regulations to pay an impact fee to the county for off-site shelter.	Include Florida Statewide Shelter Plan Table 3-1 Shelter Demand/Capacity In People and Table 6-1 Hurricane Shelter Deficit Reduction Cumulative Progress to demonstrate shelter capacity. Map existing shelter locations overlaid with special needs population densities and FLU to show where more shelters may be needed/retrofitted.	Escambia County Comp Plan CME P 11.A.7.8
		MA Ensure that all public buildings that serve as first response & critical emergency or public needs, including record/data collection and communication centers/infrastructure, are located outside flood zones or flood-prone areas.	CME P 7.1.G.3 The CEMP shall include accommodations for the handicapped and indigent, including transportation and sheltering.	To increase shelter capacity, all new or school retrofit projects outside of the HVZ and 100-year floodplain shall be evaluated for sheltering of special needs and general population, and built to ARC standards.		Best management practices from <i>Protecting Florida's Communities</i>

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<b>Strategy - Make the environment less hazardous: Protect and enhance natural protective features</b>							
Are there measures to protect and/or restore natural resources that might in turn decrease the risk from storm surge?	Yes	Yes		<p><b>CME P 7.1.A.7</b> New roads, pipelines, and other public infrastructure within the coastal area shall be planned and constructed in a manner that will minimize their impact upon coastal marshes, wetlands and surface waters.</p> <p><b>CME P 7.1.D.4</b> The county will encourage activities that protect and rebuild coastal dunes by continuing, or supporting the continuation of activities for dune restoration purposes, installation of sand fences, and enforcing restrictions regarding the destruction of sea oats and requiring the planting of sea oats by new development.</p> <p><b>CME O 7.1.D</b> Require development to protect beaches and dunes, to restore altered beaches and dunes, and to comply with construction standards which minimize the impacts of man-made structures on beach and dune systems.</p> <p><b>CME P 7.1.D.1</b> Ensure compliance with FDEP's CCCL regulations that require location of construction a sufficient distance landward of the beach to permit natural shoreline fluctuations and to preserve dune and beach stability.</p> <p><b>MA</b> Promote continued purchase of undeveloped lands at high risk to flooding, with proper considerations of private property rights &amp; constitutional requirements for just compensation, as appropriate.</p>	<p>New roads, pipelines, and other public infrastructure within high risk areas (e.g., CHHA, 100-year floodplain) shall be built to lessen direct damages from natural hazards.</p> <p>Exceed CCCL permitting standards.</p> <p>Institute special assessment districts to finance beach renourishment &amp; berm maintenance in areas that do not grant public beach access.</p>	<p>Include data and maps of environmentally sensitive lands (e.g., CBRS, and coastal dunes and wetlands, etc.) overlaid with storm surge zones and future land uses.</p>	<p>Most sensitive portion of coastal area shall be managed through the imposition of strict construction standards to minimize damage to natural environment, private property, &amp; life [§161.53(5), F.S.]; protect beaches or dunes, establish construction standards which minimize impacts of man-made structures on beach or dune systems, and restore altered beaches or dunes [9 J-5.012(3)(b)4], and best management practices from <i>Protecting Florida's Communities</i>.</p>
				<p><b>CME P 7.1.C.6</b> With respect to acquisition, the county, where feasible, shall protect sensitive coastal areas unduly threatened by development, through acquisition, establishment of public or private conservation easements, or through other available means as deemed appropriate.</p>			
				<p><b>CME P 7.1.A.3</b> The CHHA is defined as the category 1 evacuation zone</p>	<p>Define CHHA to also include category 1 surge zone.</p>		

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Are there measures to protect and/or restore natural resources that might in turn decrease the risk from storm surge? (continued)	Yes	Yes		CME P 7.1.D.6 Any application for proposed construction which would alter beaches/dunes must include a plan for restoration which must occur before the proposed construction may be used/occupied.	New development, redevelopment, zoning changes & land use plan amendments shall be consistent with LMS Guiding Principles regarding the hazard impacts from natural disaster through land use policies that support sustainable communities.	As LMS Guiding Principles are updated, incorporate into the comp plan.	Okaloosa County Comp Plan FLUE P 7.1		
				CME P 7.1.E.1 The county shall limit new development along the shoreline of the Garcon Point Peninsula to low density residential uses, conservation uses, recreation uses, or to water related or water dependent uses.					
				CME P 7.1.E.2 The county shall limit new land uses designations along Escambia Bay to low density residential, conservation uses, recreation uses, water related or water dependent uses.					
Are there measures to protect and/or restore natural resources that might in turn decrease the risk from flooding?	Yes	Yes		FLUE P 3.1.E.6 The county shall use the latest version of the Flood Damage Prevention Ordinance to determine the location of the 100-year floodplain/flood prone areas and development shall be limited in those areas, consistent with FEMA requirements.	Use GIS to institute a wetlands identification & monitoring program inside the 100-year flood plain and identified surge zones. Identify lots/parcels containing wetlands based on actual jurisdictional interpretations & develop monitoring program to determine wetland loss.	Include map of 100-year floodplain overlain with future land uses.	Bay County Comp Plan CE O 6.2 & Consistent use of data will enhance/strengthen mitigation planning		
				P 6.3.B.4 There shall be no reduction in the flood storage capacity or the other natural functions and values of the floodplain in designated floodway areas. Encroachments shall be prohibited within designated regulatory floodway including fill and new construction and development improvements that would result in any increase in flood levels.			Designate wetlands, floodplains for preservation through FLUM or overlay zoning district.	Include goal/objective to limit impervious surfaces in 100-year floodplain where possible.	Best management practices from <i>Protecting Florida's Communities</i>
							Restore/enhance disturbed or degraded wetlands by removing invasive exotics (plants) or replanting native vegetation on county-owned land		Okaloosa County Comp Plan CE P 5.1

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Are there measures to protect and/or restore natural resources that might in turn decrease the risk from flooding? (continued)	Yes	Yes		P 6.3.B.5 • The County shall regulate development within the flood prone areas to minimize flood storage capacity reduction so that post development equals predevelopment standards, which will afford protection to life and property within the floodplain.	Development approval process shall ensure new development & redevelopment is consistent with natural drainage patterns & require appropriate stormwater management systems consistent with adopted drainage LOS, natural drainage patterns & soil conditions.	Include goal/objective to maintain/enhance stormwater management systems in 100-year floodplain.	Okaloosa County Comp Plan FLUE P 1.2	
				P 6.3.C.1 • Site specific development plans will be required to protect natural drainage features and incorporate such features into the site planning and development process.	Protect 100-year floodplains, via acquisition, conservation easement, purchase of development rights, etc.		Okaloosa County Comp Plan CE P 5.3	
				CME P 7.1.A.2 • The County shall enforce FEMA construction standards.	Exceed FEMA NFIP elevation requirements for development in the 100-year floodplain where feasible (e.g., CRS).		Many post-disaster building performance/damage assessments have shown that it is advisable to include freeboard to reduce future flood damages. Okaloosa and Brevard Counties, City of Jacksonville and the Santa Rosa Island Authority are example communities that have adopted freeboard requirements.	

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Are there measures to protect and/or restore natural resources that might in turn decrease the risk from flooding? (continued) Are there measures to protect and/or restore natural resources that might in turn decrease the risk from flooding? (continued)	Yes	Yes		P 7.1.A.5 • New development and redevelopment shall comply with current FEMA and FBC construction standards.	Protect against hazard impacts from natural disasters by limiting density & intensity of development, building placement (clustering), building coverage or impervious surface, or setbacks & landscaped buffers in the 100-year floodplain.	Okaloosa County Comp Plan FLUE P 6.3	
					County will adopt regulations to ensure new development doesn't create flood hazard to existing or downstream development.		Bay County Comp Plan CE P 6.13.4
			MA Promote continued purchase of undeveloped lands at high risk to flooding, with proper considerations of private property rights & constitutional requirements for just compensation, as appropriate.	CE P 8.1.A.1 ( in part) • The County maintains a comprehensive approach to wetlands protection, including: 1) Preservation: support the purchase and preservation of wetlands. 2) Future Land Use Map: ... Undeveloped areas of the County with the largest concentrations of wetlands have been designated for low density development. 3) Avoidance and Minimization of Impacts of Development: Land uses that are consistent with the FLU Map will be allowed so long as they are designed to avoid/minimize impact on jurisdictional wetlands. Where avoidance or minimization is possible, the County will not issue a permit for development within jurisdictional wetlands. 4) Buffers: Vegetated buffers at a minimum width of 15 feet will also be required between development and free-flowing streams, rivers, lakes, bays, basins, and bayous.	Ensure adequate open space for protected natural resource lands, environmentally sensitive lands, & drainage & stormwater retention areas in the 100-year floodplain.	Include goal/objective to exceed FEMA requirements for development in 100-year floodplain, where feasible.	Okaloosa County Comp Plan FLUE P 10.8
				P 8.1.A.3 • For the purposes of protecting the shoreline and/or wetlands, the County may allow (or require) clustering of development upland from wetlands or landward of the shoreline.	Restrict increases in land use density& intensity in wetlands. Development is subject to TDRs where sufficient uplands exist. Lowest floor elevation must be one foot above the BFE per FIRM. Where uplands don't exist development will be limited to a threshold (determined by County). Protect 100-year floodplain via acquisition, conservation easement, purchase of development rights, etc.	Okaloosa County Comp Plan CE P 2.1  Okaloosa County Comp Plan CE P 5.3	

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Are there measures to protect and/or restore natural resources that might in turn decrease the risk from wildfire?	Yes	No	MA Support activities that newly document or update maps, aerials photos, or remote sensing imagery that shows degrees of risk (Levels of Concern) for wildfire - use data to focus mitigation activities.	None found during this review.	Identify areas that are susceptible to wildfire. Include maps that depict wildfire risk to existing and future land use.	Update wildfire risk map on a regular basis, to support wildfire related comp plan policies.	Areas susceptible to wildfire 9J-5.006(2)(b)	
			MA Support activities of local fire departments & FL Division of Forestry in promoting "Firewise" programs, local inspections, & enforcement activities to reduce/ eliminate wildfire risk.		The County shall educate the public, especially those at high risk from wildfires, & make them aware of proactive steps they can take to mitigate wildfire damage.			DCA's Wildfire Mitigation in FL: Land Use Planning Strategies and Best Development Practices & Alachua County Comp Plan
			MA Support public and private mitigation efforts to provide fire hydrants to locations at risk along the urban/rural interface where water systems exist to provide such services.		Require management plans for conservation easements that address reduction in wildfire fuels.			
			MA Support activities that integrate wildfire mitigation techniques with design & review process of subdivision plats to reduce risks to new communities through cooperative efforts between land planning offices, fire departments & FL Division of Forestry.		Install fire hydrants in high risk wildfire areas in the wildland urban interface.			
				Review proposals for subdivisions, lot splits, and other developments for fire protection needs during site plan review process.		DCA's Wildfire Mitigation in FL: Land Use Planning Strategies and Best Development Practices		
				Cooperate with fire protection service or agencies to determine guidelines for use and development of wildfire-prone areas.				



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Are there measures to protect and/or restore natural resources that might in turn decrease the risk from wildfire? (continued)	Yes	No		None found during this review.	<p>Advance directives &amp; policies of local emergency management operational plans &amp; LMS to eliminate or reduce present &amp; future vulnerability to wildfire hazards.</p> <p>Restrict or prohibit certain land uses as necessary to assure public health, safety, &amp; welfare &amp; protection of property.</p> <p>All new development should complete/implement a wildfire mitigation plan specific to that development, subject to review &amp; approval by county fire officials.</p> <p>Structures shall be designed to minimize potential for loss of life &amp; property (e.g., outdoor sprinkler systems, fire-resistant building materials/treatments, &amp; landscaping/site design practices.</p> <p>Streets, roads, driveways, bridges &amp; culverts should be designed to assure access for firefighting.</p> <p>County shall pursue funds for community/volunteer service program for fuels management on County owned land</p> <p>County shall implement a fuels management program to include prescribed burning, mechanical fuel reduction, thinning; increased public awareness of prescribed burning.</p>		Alachua County Comp Plan

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<b>Strategy - Make structures more resistant to natural hazard forces</b>							
Are there measures that support retrofitting or relocating private and/or public structures in hazard areas?	Yes	Yes	G 5 Reduce or eliminate hazard identified to at risk locations in the County and its municipalities.	CME P 7.1.A.6 • The County shall consider the relocation, mitigation or replacement of infrastructure currently present within the CHHA where state funding is anticipated to be needed. An analysis of this need will be included annually in the evaluation of this Plan.	Prioritize public structures for retrofit, relocation, or flood-proofing public facilities or infrastructure in high risk hazard areas.	Map and assess vulnerability of public facilities and infrastructure that are susceptible to hazards. This information can be used to prioritize facilities for structural/operational analyses. The analysis results can then be used to prioritize LMS mitigation projects and capital improvement projects.	Best management practices from <i>Protecting Florida's Communities</i>
					Floodproof WWTP and WTP systems in CHHA.		
					New roads, pipelines, and other public infrastructure within high risk areas (e.g., CHHA, 100-year floodplain) shall be built to lessen direct damages from natural hazards.		
			CME P 7.1.A.8 Reduce the exposure of human life and public and private property to natural hazards through implementation of the County's LMS. The LMS will be updated to address the requirements of the Disaster Mitigation Act of 2000.	Limit expansion of public facilities in high risk hazard areas.			
			G 5 O 1 Targeting mitigation efforts and activities towards areas where hazards exist.		Review and consider LMS as basis for additional regulations for building practices, flood zone management, retrofitting existing buildings & other measures to reduce coastal storm damage. (Note: LMS should address these items.)		Bay County Comp Plan CME P 7.9.1
			MA Ensure all future buildings are constructed to FBC, and are built above BFE in FIRM A and V zones.		Enforce rigorous development standards that exceed the NFIP/CRS requirements (e.g., elevation, anchoring structures to resist flotation collapse and lateral movement)		As stated previously.

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Are there measures to protect cultural resources from natural hazards?	No	No	None found during this review.		None found during this review.		Create an inventory of culturally significant facilities/sites (e.g., historic, archaeological) in high hazard areas, and use mitigation measures to protect these sites.	Asses vulnerability of historic structures & include goal/objective to mitigate historic properties	Best management practices from <i>Protecting Florida's Communities</i>
Does the comp plan include measures to mitigate flood damage to Repetitive Loss structures?	Yes	No	<b>G 4 O 1</b> Work with existing programs in county and municipalities (building inspections, local CRS - NFIP, emergency management, chambers of commerce, etc.) to connect mitigation to these efforts.  <b>MA</b> Ensure all future buildings are constructed to FBC, and are built above BFE in FIRM A and V zones.	None found during this review.	Identify structures that are repetitively damaged by coastal storms.			Repetitive loss structures shall be inventoried or analyzed [9J-5.012(2)(e)2]	
					Perform an analysis for acquiring, relocating or elevating Repetitive Loss structures in the SFHA (100- year floodplain).	Include a goal/objective to mitigate repetitive loss properties.	Best management practices from <i>Protecting Florida's Communities</i> & FEMA funds are available for hazard mitigation.		
					Initiate grant/ loan program to assist all property owners with financing elevating , floodproofing, or relocating existing repetitive loss structures in SFHA.				
Are there measures to require compliance with or exceed building codes and/or design standards for certain hazard areas?	Yes	Yes	<b>MA</b> Ensure all future buildings are constructed to FBC, and are built above BFE in FIRM A and V zones.  <b>G 4 O 1</b> Work with existing programs in county and municipalities (building inspections, local CRS - NFIP, emergency management, chambers of commerce, etc.) to connect mitigation to these efforts.	<b>CME P 7.1.D.1</b> Ensure compliance with FDEP's CCCL regulations that require location of construction a sufficient distance landward of the beach to permit natural shoreline fluctuations and to preserve dune and beach stability.	Adopt more stringent development standards than the NFIP and existing building codes, and exceed CCCL permitting standards in CHHA.		The most sensitive portion of the coastal area shall be managed through the imposition of strict construction standards in order to minimize damage to the natural environment, private property, and life. (\$161.53(5), F.S.)		
				<b>P 7.1.A.4 C)</b> Within the CHHA, structures damaged more than 50% by coastal storms may be rebuilt provided that the redevelopment meets current building code and Land Development Code requirements.					
				<b>CME P 7.1.A.2 •</b> The County shall enforce FEMA construction standards.					
				<b>CME P 7.1.A.5</b> New development and redevelopment shall comply with current FEMA and FBC construction standards.	Prohibit unauthorized obstruction of natural or man-made drainageways.	Include goal/objective to support No Adverse Impact (NAI) initiatives and best practices.	Bay County Comp Plan SME P 5E.10.1.1		
					Ensure development does not cause any adverse impacts to adjacent or other properties		Bay County Comp Plan CE P 6.13.4		

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LMS	Comp	Key	G = Goal O = objective P = Policy MA = Mitigation Action				
<b>Strategy - Manage the development and redevelopment in hazardous areas</b>							
Are there measures to limit population densities in high-hazard areas?	No	Yes: for Surge and flood.		<p><b>FLUE O 3.1.F</b> Coordinate costal area population densities with the county's Hurricane Evacuation Plan.</p> <p><b>FLUE P 3.1.F.3</b> Densities/intensities of land use will be regulated consistent with the Comp Plan in order to maintain the required road clearance time.</p> <p><b>CME P 7.1.A.4</b> Within the CHHA, A) New development of adult congregate living facilities, nursing homes, total care facilities, hospitals, correctional facilities and similar developments shall be prohibited....D) Densities/ intensities of use to guide development and post-disaster redevelopment within the CHHA are established in the Comp Plan.</p> <p><b>CME P 7.1.B.2</b> The county shall limit the densities/intensities of land use to assure generalized low density land use within the CHHA.</p> <p><b>CME P 7.1.E.1</b> The county shall limit new development along the shoreline of the Garcon Point Peninsula to low density residential uses, conservation uses, recreation uses, or to water related or water dependent uses.</p> <p><b>CME P 7.1.E.2</b> The county shall limit new land uses designations along Escambia Bay to low density residential, conservation uses, recreation uses, water related or water dependent uses.</p>	<p>Direct population concentrations away from the CHHA through implementation of FLUM, acquisition of land, &amp; LMS</p> <p>High risk developments (e.g., nursing homes, convalescent homes, hospitals, mobile home parks, subdivisions or RV parks shall not be located in CHHA.</p> <p>Rezoning of all land uses in CHHA to a higher density &amp;/or intensity will be discouraged.</p>	<p>Include map that depicts population densities in existing land use categories, and project growth rate to illustrate current &amp; potential future vulnerability to all hazards</p>	<p>Okaloosa County Comp Plan CME O 2.1</p> <p>Bay County Comp Plan CME P 7.7.3</p> <p>Okaloosa County Comp Plan FLUE P 7.A.4.7</p>

**INTEGRATION OF THE LOCAL MITIGATION STRATEGY INTO THE LOCAL COMPREHENSIVE PLAN  
SANTA ROSA COUNTY PROFILE**

Strategies & Integration Topics: Are these integrated in the LMS and Local Comprehensive Plan		Current LMS Information, Goals & Objectives	Current Comp Plan Policies	Options for Further Integration into the Comprehensive Plan	Options for Further Integration into the LMS	Basis For Suggested Options
LMS	Comp	Key G = Goal O = objective P = Policy MA = Mitigation Action				
Are there measures to limit public expenditures that subsidize development in high-hazard areas?	Yes	Yes	P 7.1.G.5 The county shall maintain an inventory of areas within the county that have experienced repeated damage from coastal storms and shall seek grant funding to limit redevelopment within these areas.	Conduct an analysis on unintended consequences (e.g., subsidizing development) from allowing public expenditures in CHHA.	Include objective to limit public expenditures in high hazard areas, unless funds are used to mitigate an existing critical facility or repetitive loss structure.	Limitation of public expenditures that subsidize development in high hazard coastal areas, and establishing criteria to consider public hazard elimination when evaluating capital improvement projects.9J-5.016
			CME O 7.1.A Protect people and property by limiting public expenditures in areas subject to destruction by natural disasters.			
			CME P 7.1.A.1 Public expenditures on Navarre Beach not directly paid by users, necessary for evacuation, or necessary for the ensurance of public safety shall be limited to the following: the development of parks and recreational facilities; the enhancement or protection of natural resources; or increasing the public's access to the shoreline.		Include map of critical facilities, and table and map of infrastructure in hazard zones, to depict those currently exposed to hazard impacts.	
			MA Ensure that all public buildings that serve as first response & critical emergency or public needs, including record/data collection and communication centers/infrastructure, are located outside flood zones or flood-prone areas.		CME P 7.1.F.7 The county will coordinate with the School Board to make sure that future school facilities are located outside areas susceptible to hurricane and/or storm damage and/or areas prone to flooding, or as consistent with laws regarding floodplain and school building requirements.	
			CIE O 10.1.B Limit public expenditures that subsidize development in the CHHA.			
			CIE P 10.1.B.1 Except for the provision or support of recreation uses such as parks and walkovers, erosion control devices, increased public access and the correction of deficiencies, public expenditures within the CHHA shall be governed by Objective 7.1A and its associated policies.			
			CIE P 10.1.B.2 The county shall incorporate into its review processes for infrastructure planning an assessment of the appropriateness of public of public capital improvements in CHHA as identified in the Coastal Management Element of this Plan.	Ensure that all public facilities that serve first response and critical emergency needs are located outside the 100-year floodplain.	Update the LMS maps/tables that show which critical facilities are located in SFHAs. These could be prioritized for retrofit or relocation using HMGP, PDM, or FMA funds.	Critical facilities ability to provide essential services may be hampered if the structure or surrounding areas are flooded, posing a barrier to access.

**INTEGRATION OF THE LOCAL MITIGATION STRATEGY INTO THE LOCAL COMPREHENSIVE PLAN  
SANTA ROSA COUNTY PROFILE**

Strategies & Integration Topics: Are these integrated in the LMS and Local Comprehensive Plan			Current LMS Information, Goals & Objectives	Current Comp Plan Policies	Options for Further Integration into the Comprehensive Plan	Options for Further Integration into the LMS	Basis For Suggested Options
	LMS	Comp	Key G = Goal O = objective P = Policy MA = Mitigation Action				
Are there creative neighborhood design solutions or development regulations that mitigate hazards, such as clustering or transfer of development rights?	No	Yes	None found during this review.	FLUE P 8.1.A.3 For the purposes of protecting the shoreline and/or wetlands, the county may allow (or require) clustering of development upland from wetlands or landward of the shoreline.	Protect against hazard impacts due to natural disasters by limiting density and intensity of development, building placement (clustering), building coverage or impervious surface, or setbacks and landscaped buffers. Evaluate proposed plan amendments to ensure they do not contribute to urban sprawl that fails to protect against such natural disasters.	Include goal/objective to encourage creative neighborhood design solutions or development regulations which mitigate natural hazards	Okaloosa County Comp Plan FLUE 6.3
					County will adopt regulations to ensure new development doesn't create flood hazard to existing or downstream development		Bay County Comp Plan CE P 6.13.4
Are there measures to limit redevelopment in hazard areas and procedures for post-disaster recovery that will lead to a more disaster-resistant community?	No	Yes	None found during this review.	P 7.1.G.5 The county shall maintain an inventory of areas within the county that have experienced repeated damage from coastal storms and shall seek grant funding to limit redevelopment within these areas.	Implement recommendations from the LMS & PDRP to reduce risk from riverine & coastal flooding & hurricane wind to life property & critical infrastructure.		Okaloosa County Comp Plan CME O 2.6
				CME P 7.1.A.4 .....C) within the CHHA, structures damaged more than 50% by coastal storms may be rebuilt provided that the redevelopment meets current building code and Land Development Code requirements.	Implement Guiding Principles in LMS to protect people, reduce post-disaster public expenditures, mitigate losses & coordinate with private sector to mitigate losses.		Okaloosa County Comp Plan CME P 2.6.1
				O 7.1.G Prepare post-disaster redevelopment plans an reduce or eliminate the exposure of human life and public and private property to natural hazards by implementing Comp plan policies.			

## **6. Data Sources**

### **County Overview:**

Florida Statistical Abstract – 2004 (38<sup>th</sup> Edition). Bureau of Economic and Business Research, Warrington College of Business, University of Florida. Gainesville, Florida.

State and County QuickFacts. U.S. Census Bureau. Data derived from 2000 Census of Population and Housing.

### **Hazard Vulnerability:**

Florida Repetitive Loss List March 05. Florida Department of Community Affairs, Division of Emergency Management, Flood Mitigation Assistance Office. March 2005.

Mapping for Emergency Management, Parallel Hazard Information System (MEMPHIS). Florida Department of Community Affairs, Division of Emergency Management.

Protecting Florida's Communities – Land Use Planning Strategies and Best Development Practices for Minimizing Vulnerability to Flooding and Coastal Storms. Florida Department of Community Affairs, Division of Community Planning and Division of Emergency Management. September 2004.

State of Florida 2004 Statewide Emergency Shelter Plan. Florida Department of Community Affairs, Division of Emergency Management.

### **GIS Data:**

#### Flood Zone

Source: FEMA FIRM GIS coverages (1996), supplied by University of Florida GeoPlan Center Florida Geographic Data Library Version 3.0.

- Areas with an “A\_”, “V\_”, “FPQ”, “D”, “100IC”, or “FWIC” value in the “Zone” field in these coverages were considered to be in the 100-year flood zone, and were used in the mapping/analysis.

#### Hurricane Evacuation Zone/Coastal High-Hazard Area (Category 1 Hurricane Evacuation Zone)

Source: GIS coverage of hurricane zones compiled by Florida Department of Community Affairs/Division of Emergency Management (2003), from GIS data collected from county emergency management agencies in the State of Florida.

- Areas shown/analyzed are those areas in the above-referenced GIS coverage where the value in the field “Evac\_cat” is equal to “Zone TS”, “Zone A/1”, “Zone B/2”, or “Zone C/3”, in the maps/tables for the Hurricane Vulnerability Zone.
- Areas shown/analyzed are those areas in the above-referenced GIS coverage where the value in the field “Evac\_cat” is equal to “Zone TS” or “Zone A/1”, in the maps/tables for the Coastal Hazards Zone.

#### Hurricane Storm Surge Zone GIS Data

Source: GIS coverage of storm surge zones compiled by Florida Department of Community Affairs/Division of Emergency Management (2004), from various storm surge studies performed by regional planning councils and the U.S. Army Corps of Engineers.

- Areas shown/analyzed are those areas in the above-referenced GIS coverage where the value in the field "Category" is equal to "Tropical Storm" or "Category 1".

Sinkhole Hazard GIS Data

Source: Kinetic Analysis Corporation web site (2005),  
at: [http://lmsmaps.methaz.org/lmsmaps/final\\_cty/](http://lmsmaps.methaz.org/lmsmaps/final_cty/)

- Areas shown/analyzed are those areas in the "Rawsink1.shp" GIS coverage supplied by KAC, where the value in the field "Gridcode" is 3 to 6, representing "High", or Very High, "Extremely High", or "Adjacent", based on the classification system used in the sinkhole hazard maps available at the above website.

Wildfire Susceptibility GIS Data

Source: Florida Department of Agriculture and Consumer Services/Division of Forestry, Florida Fire Risk Assessment System (FRAS) data, 2004.

- Areas shown as "wildfire susceptible areas" and that were analyzed are those areas with a "Wildfire Susceptibility Index" value of greater than 10,000 (in north Florida counties) or greater than 0.1 (in south Florida counties)\*, based on the FRAS model, and that are also within areas of forest or shrub vegetation or "low impact urban" land cover, based on the Florida Fish and Wildlife Conservation Commission "Florida Vegetation and Land Cover - 2003" GIS data.
  - The rating scale in the "Wildfire Susceptibility Index" GIS coverages has a range of 0 to 100,000 in north Florida counties, and a range of 0 to 1.0 in south Florida counties.

Parks, Conservation Areas, Golf Courses

"Parks, Conservation Areas, Golf Courses" existing land uses include all public and private conservation areas depicted on the statewide GIS coverage of conservation lands "flma\_200501.shp", produced by FDEP (2005).

Municipal Boundaries

Source: Boundaries of municipalities were extracted from the U.S. Census 2000 "Places" GIS coverage for the State of Florida.



**ATTACHMENT A  
Maps of the Existing and Future Land Uses within Coastal Hazards Zone**

**ATTACHMENT B**  
**Maps of the Existing and Future Land Uses within Hurricane Vulnerability Zone**

**ATTACHMENT C  
Maps of the Existing and Future Land Uses within the 100-year Floodplain**

**ATTACHMENT D  
Maps of the Existing and Future Land Uses within Wildfire Susceptible Areas**

**ATTACHMENT E**  
**Local Mitigation Strategy**  
**Goals and Objectives Pertaining to Comprehensive Planning**

Santa Rosa County's LMS includes the following goals and objectives that are directly related to local comprehensive planning and growth management:

- **Goal 2** – *Maintain communication between the LMS Steering Committee and key County and Municipal departments to coordinate intra- and inter-departmental mitigation activities among various jurisdictions, and with the public.*

Objectives:

- Ensuring all interests of various departments are represented by the appointed staff to the Steering Committee
- Ensuring all interests are aware of Working Groups and a need to represent their own interests concerning various geographical areas or to address various hazards.

- **Goal 3** – *Update the LMS plan, as necessary, to identify changes to hazards, vulnerability, goals, initiatives/priorities accomplishments/withdrawal/additions/pending, update of funding sources, current disaster declarations, and adoption of revisions.*

Objectives:

- Having the Steering Committee direct staff to update plan sections, tables, maps, etc., based upon current activities, trends, or issues.
- Continually reviewing the plan and comparing it to other planning requirements (emergency management plans, comprehensive land use plans, community rating system plans) that contain mitigation provisions or may otherwise help to assert or hinder mitigation initiatives.

- **Goal 5** – *Reduce or eliminate hazards identified to at risk locations in the County and its municipalities.*

Objectives:

- Targeting mitigation efforts and activities towards areas where hazards exist.
- Working with agencies, professionals, and the public to develop the best solutions for identified hazards.
- Examining and implementing appropriate technologies to identify, model, or otherwise simulate risks and zones of risk and incorporating these into the LMS plan.

**ATTACHMENT F**  
**Santa Rosa County Comprehensive Plan Excerpts Related to Hazard Mitigation**

**FUTURE LAND USE ELEMENT**

**OBJECTIVE 3.1.E:** To ensure the protection of natural resources and historical resources.

**Policy 3.1.E.6:** The County shall use the latest version of the Flood Damage Prevention Ordinance promulgated by the FEMA to determine the location of the 100-year floodplain and flood prone areas and development shall be limited in those areas, consistent with FEMA requirements.

**OBJECTIVE 3.1.F:** To continually coordinate coastal area population densities with the Santa Rosa Hurricane Evacuation Plan.

**Policy 3.1.F.2:** The County shall promote, to the extent possible, improvements to the critical roadway segments delineated in the Northwest Florida Hurricane Evacuation Study, U.S. Army Corps of Engineers et. al., July 1999. Promotion of roadway improvements shall be accomplished through the County's participation with the Pensacola MPO and interaction with the FDOT.

**Policy 3.1.F.3:** Densities and intensities of land use will be regulated consistent with the goals, objectives and policies of this Plan in order to maintain the road clearance time as reflected in Policy 7.1.F.3.

**INFRASTRUCTURE ELEMENT**

**OBJECTIVE 6.3.B:** To coordinate the increase in capacity of storm water facilities with meeting future needs.

**Policy 6.3.B.3:** The LOS standards for drainage and water quality shall be: (a) Retain the first inch of run-off; and (b) Post development run-off shall not exceed the predevelopment run-off rate for all storm events, up to and including an event with a 24-hour duration, 100 year return frequency. (c) Post development run-off in constrained basins shall not exceed the predevelopment run-off rate for a 10-year storm event during all storm events, up to and including an event with a 24-hour duration, 100 year return frequency. (d) Post development run-off in closed basins shall be retained on-site for all storm events, up to and including the 24 hour duration, 100 year return frequency storm event.

**Policy 6.3.B.4:** There shall be no reduction in the flood storage capacity or the other natural functions and values of the floodplain in Santa Rosa County in areas designated as regulatory floodway by FEMA Flood Insurance studies in Santa Rosa County. Encroachments shall be prohibited within designated regulatory floodway including, but not limited to, fill and new construction and development improvements that would result in any increase in flood levels.

**Policy 6.3.B.5:** The County shall regulate development within the flood prone areas to minimize flood storage capacity reduction so that post development equals predevelopment standards, which will afford protection to life and property within the floodplain.

**Policy 6.3.C.1:** Site specific development plans will be required to protect natural drainage features and incorporate such features into the site planning and development process.

**COASTAL MANAGEMENT ELEMENT**

**OBJECTIVE 7.1.A:** Protect people and property by limiting public expenditures in areas subject to destruction by natural disasters.

**Policy 7.1.A.1:** Public expenditures on Navarre Beach not directly paid by users, necessary for evacuation, or necessary for the ensurance of public safety shall be limited to the following: the development of parks and recreational facilities; the enhancement or protection of natural resources; or increasing the public's access to the shoreline.

**Policy 7.1.A.2:** The County shall enforce FEMA construction standards.

**Policy 7.1.A.3:** Coastal High Hazard Areas shall be defined as the land within the Category 1 Hurricane Evacuation Zone as delineated within the NWFRPC Hurricane Evacuation Study. This area includes lands within the County which are scientifically predicted to experience destruction or severe damage from storm surge, wave erosion or other manifestations of rapidly moving or storm driven water; the FEMA V-zones; and the land waterward of the Coastal Construction Control Line.

**Policy 7.1.A.4:** Within the CHHA, the following provisions apply: A) New development of adult congregate living facilities, nursing homes for the aged, total care facilities, hospitals, correctional facilities and similar developments shall be prohibited; B) Except as provided in (A) above, there is no prohibition on development or redevelopment seaward of the Coastal Construction Control Line provided that the applicant for such development or redevelopment has obtained all necessary State and/or Federal permits; C) Within the CHHA, structures damaged more than 50% by coastal storms may be rebuilt provided that the redevelopment meets current building code and Land Development Code requirements. D) Densities and intensities of use to guide development and post-disaster redevelopment within the CHHA are as established in this Plan. E) Sizing of infrastructure shall be consistent with that needed to support the densities and intensities established by this Plan for those areas within the CHHA.

**Policy 7.1.A.5:** Requires new development to comply with FEMA and Florida Building Code construction standards. Flood Mapping – Ensure that maps accurately reflect the amount of surge, wave and flood action that can occur during a major hurricane. There are no policies within the Elements of the Plan under review that relate to hazard mapping. Bridge and Highway Construction – Ensure roads are designed and engineered for the amount of wind, surge, flooding and debris that can be expected. There are no policies within the Elements of the Plan under review that relate to road design. However, Policy 3.1.F.2 of the Future Land Use Element promotes improvements to critical roadway segments delineated in the Northwest Florida Hurricane Evacuation Re-Study. Critical Public Buildings Away From Floodplains and Flood-Prone Areas – Ensure that all public buildings that serve first response and critical emergency/public needs, including record/data collection and communication centers/infrastructure, are located outside of flood zones or flood-prone areas.

**Policy 7.1.A.6:** The County shall consider the relocation, mitigation or replacement of infrastructure currently present within the CHHA where state funding is anticipated to be needed. An analysis of this need will be included annually in the evaluation of this Plan.

**Policy 7.1.A.7:** New roads, pipelines and other public infrastructure within the Coastal Area shall be planned and constructed in a manner that will minimize their impact upon coastal marshes, wetlands and surface waters.

**Policy 7.1.A.8:** Reduce the exposure of human life and public and private property to natural hazards through implementation of the Santa Rosa County Local Hazard Mitigation Strategy. This Strategy will be updated to address the requirements of the Disaster Mitigation Act of 2000.

**Policy 7.1.B.2:** The County shall limit the densities and intensities of land use as defined within this Plan. Such limitations will assure generalized low density use of land within the majority of the Coastal High Hazard Areas of Santa Rosa County.

**Policy 7.1.B.3:** The Community Planning Zoning & Development Division shall make recommendations to the Board of County Commissioners, as needed, regarding Land Development Code and Ordinance Amendments to ensure consistency with the hazard mitigation annex of the Santa Rosa County Comprehensive Emergency Management Plan as well as any applicable existing inter-agency hazard mitigation reports. (Coastal Management Element) Several policies within the Plan support Goal 5 of the LMS by directing growth management decisions to reduce or eliminate hazards to the built environment.

**Policy 7.1.C.6:** Support the acquisition of sensitive coastal areas through conservation easements, outright acquisition, or other means. Building Construction and Flooding – Ensure all future buildings are constructed to Florida Building Code standards and are built above the established base flood elevations, or BFE's, whether for zones impacted by moving water (velocity or "V" zones or floodways on Flood Insurance Rate Maps or FIRMS) or by rising water (such as "A" and "B" zones on FIRMS).

**OBJECTIVE 7.1.D:** Require development to protect beaches and dunes, to restore altered beaches and dunes, and to comply with construction standards which minimize the impacts of man-made structures on beach and dune systems.

**Policy 7.1.D.1:** Ensure compliance with the Florida Department of Environmental Protection (FDEP) Coastal Construction Control Line (CCCL) regulations that require location of construction a sufficient distance landward of the beach to permit natural shoreline fluctuations and to preserve dune and beach stability. It is not the intent of this policy to prevent a development from receiving a variance to these regulations if deemed necessary by the FDEP.

**Policy 7.1.D.4:** The County will encourage activities that protect and rebuild coastal dunes. This will be accomplished by continuing, or supporting the continuation of, activities by private and public agencies for dune restoration purposes, installation of sand fences on public and private properties, and enforcing restrictions regarding the destruction of sea oats and requiring the planting of sea oats by new development in coastal areas.

**Policy 7.1.D.6:** Any time proposed construction would alter Gulf beaches or dunes, the application for said construction must include an implementable plan for restoration of the altered beaches or dunes. Said restoration must occur before the proposed construction is allowed to be used or occupied. Note: The posting of bonds or other sureties pursuant to regulations contained within the LDC will be acceptable.

**OBJECTIVE 7.1.E:** Provide criteria and standards for shoreline land-uses within the Land Development Code giving priority to water dependent uses.

**Policy 7.1.E.1:** Santa Rosa County shall limit new development along the shoreline of the Garcon Point Peninsula to low density residential uses, conservation uses, recreation uses, or to water related or water dependent uses.

**Policy 7.1.E.2:** Santa Rosa County shall limit new land uses designations along Escambia Bay to low density residential, conservation uses, recreation uses, water related or water dependent uses.

**Policy 7.1.E.3:** When considering new land use designations along shorelines other than the Garcon Point Peninsula or Escambia Bay, priority will be given to low density residential, conservation uses, recreation uses, water related or water dependent uses. In Navarre, higher density residential and tourist related uses will be allowed consistent with the Future Land Use Map.

**OBJECTIVE 7.1.F:** The County shall maintain or reduce hurricane evacuation times by implementing Policies 7.1F.1 through 7.1.F.11, among others.



**Policy 7.1.F.1:** The County shall continue to manage and implement its "Comprehensive Emergency Management Plan" and utilize the recommendations and guidance provided in the NWFRRPC Hurricane Evacuation Study.

**Policy 7.1.F.2:** The County shall continue to support critical roadway segment improvements through participation with the Pensacola MPO and interaction with the Florida DOT to further reduce and improve hurricane evacuation times.

**Policy 7.1.F.3:** The County shall maintain a minimum medium response roadway clearance time for hurricane evacuation of 12 hours on roads under local jurisdiction.

**Policy 7.1.F.4:** The County shall annually review evacuation route needs to assure that the necessary improvements are incorporated within the Capital Improvement Program, the Capital Improvement Element, the Transportation Element and the FDOT five year work program.

**Policy 7.1.F.5:** Santa Rosa County shall limit the density in the Coastal High Hazard Area as allowed by law. The intent of this policy is not to nullify any existing leases on Navarre Beach that specify density.

**Policy 7.1.F.6:** Santa Rosa County will evaluate development orders for their impacts on traffic circulation and evacuation routes within Hurricane Evacuation Zones 1, 2 and 3.

**Policy 7.1.F.7:** Santa Rosa County will coordinate with the School Board to make sure that future school facilities are located outside areas susceptible to hurricane and/or storm damage and/or areas prone to flooding, or as consistent with Chapter 235, F.S. and Rule 6A-2, F.A.C., regarding floodplain and school building requirements.

**Policy 7.1.F.8:** Amendments to the Comprehensive Plan on Navarre Beach shall not be approved which will result in an increase in hurricane evacuation times without mitigation of the adverse impact to evacuation times.

**Policy 7.1.F.9:** A proposed development in a hurricane evacuation zone which is anticipated to utilize ten percent (10%) or more of an identified hurricane evacuation route's level of service E hourly directional maximum service volume will be identified as having an adverse regional impact. The volume is based on the FDOT's Generalized Hour/Peak Direction Level of Service Maximum Volumes as presented in the Florida Highway Systems Manual. These adverse impacts shall be mitigated.

**Policy 7.1.F.10:** Where shelter deficits exist in excess of 200 shelter spaces the County will consider the construction of additional spaces during its annual Capital Improvements Program review.

**Policy 7.1.F.11:** The County shall strongly encourage new mobile home and RV parks within evacuation zones to have on-site shelter facilities for their residents or plans for alternative off-site shelters. On-site shelter facilities may include public meeting buildings, community centers and recreational centers as long as they are designed to hurricane shelter standards.

**OBJECTIVE 7.1.G:** Prepare post-disaster redevelopment plans and reduce or eliminate the exposure of human life and public and private property to natural hazards by implementing Policies 7.1.G.1 through 7.1.G.9, among others.

**Policy 7.1.G:** Immediate recovery actions needed to protect the public health, safety and welfare shall take priority in permitting decisions following hurricane storm events. Such priority actions will include, but not be limited to, debris removal; roadway and infrastructure repair; water use restrictions, if necessary; access restrictions, if required to protect lives or property, and other similar activities needed to assure the safe movement of people, goods and supplies within the

impacted area. Long-term repair or recovery actions, such as relocating infrastructure, rebuilding of damaged structures and the like, will be distinguished from the short-term actions herein described.

**Policy 7.1.G.1:** Santa Rosa County's Comprehensive Emergency Management Plan shall be used as the operational guide to prepare for the response to, and recover from, a tropical storm, hurricane and/or other natural or man-made disasters.

**Policy 7.1.G.2:** The County shall update its Comprehensive Emergency Management Plan every four years, and shall re-evaluate its effectiveness immediately after a major disaster event to recommend and adopt appropriate modifications.

**Policy 7.1.G.3:** The Comprehensive Emergency Management Plan (CEMP) plan shall include accommodations for the handicapped and indigent, including transportation and sheltering.

**Policy 7.1.G.5:** The County shall maintain an inventory of areas within the County that have experienced repeated damage from coastal storms and shall seek grant funding to limit redevelopment within these areas.

### **CONSERVATION ELEMENT**

**OBJECTIVE 8.1.A:** Conserve, appropriately use, and protect the quality of waters that flow into the bays, bayous, sound, and Gulf of Mexico through appropriate land use planning, regulation and education.

**Policy 8.1.A.1:** (in part) Wetlands protection in Santa Rosa County will continue to be a cooperative effort between the County, the public, the Florida Department of Environmental Protection (FDEP), the U.S. Army Corps of Engineers (USACOE), and other state and federal agencies. For purposes of this Comprehensive Plan, wetlands are defined as those wetlands under the jurisdiction of the FDEP or the USACOE (jurisdictional wetlands). The County maintains a comprehensive approach to wetlands protection, including the following components: Preservation: In 2003, approximately 35% of all wetlands within Santa Rosa County were under public ownership and designated for Conservation/Recreation use on the Future Land Use Map. The County will continue to support the purchase and preservation of wetlands. Future Land Use Map: The land use categories shown on the Future Land Use Map take into consideration the compatibility of development with wetland resources. Undeveloped areas of the County with the largest concentrations of wetlands have been designated for low density development. Avoidance and Minimization of Impacts of Development: Land uses that are consistent with the Future Land Use Map will be allowed so long as they are designed to avoid or minimize impact on jurisdictional wetlands. Where avoidance or minimization is not possible, wetland impacts may be mitigated as required by the agency or agencies having jurisdiction. Where avoidance or minimization is possible, the County will not issue a permit for development within jurisdictional wetlands, except for incidental impacts such as those required for access to the site, internal circulation, infrastructure, boardwalks, etc. New lots shall not be created and/or platted that do not contain sufficient buildable upland areas in order to provide a reasonable use for the lot under the requirements of the Comprehensive Plan. Buffers: Vegetated buffers will also be required between development and free-flowing streams, rivers, lakes, bays, basins, and bayous. Such buffers will have a minimum width of 15 feet.

**Policy 8.1.A.3:** For the purposes of protecting the shoreline and/or wetlands, the County may allow (or require) clustering of development upland from wetlands or landward of the shoreline.

**Policy 8.1.A.4:** The County shall use the National Wetlands Inventory Map, the Santa Rosa County Soil Survey, and Digital Ortho-Photography as indicators of the potential presence of wetlands. In reviewing applications for development approval, if a parcel is determined to have wetlands potential, the County will refer the applicant to the Florida Department of Environmental

Protection and/or the US Army Corps of Engineers for a site-specific wetlands determination and such determination shall be used to determine the buildable area of the parcel or lot. Protection or mitigation of the wetlands as determined in the site specific survey shall be afforded during and after construction activities.

**Policy 8.1.A.5:** Illegal development in wetland areas shall be reported. Consistent with applicable law, it will be required that these areas shall be restored and/or mitigated.

**OBJECTIVE 8.1.C:** Continually conserve, protect and manage earth resources (soils, minerals and native vegetative communities including forests) by implementing Policies 8.1.C.1 through 8.1.C.10, among others.

**Policy 8.1.C.5:** Consistent with Policy 3.1.E.4 of the Future Land Use Element, the County shall require buffers between development and environmentally sensitive areas. The purpose of the buffer is to protect natural resources from the activities and impacts of development.

**Policy 8.1.C.6:** The County shall require the protection of jurisdictional wetlands and certain trees during development or construction activities. The location of protected trees and/or jurisdictional wetlands shall be included on site plans submitted for approval so that identification of these resources, and protection for the resources, is accommodated in advance of development approval.

#### **CAPITAL IMPROVEMENTS ELEMENT**

**OBJECTIVE 10.1.D:** Future development shall bear a proportionate cost of facility improvements necessitated by the development in order to adequately maintain adopted LOS standards. The County shall continue to enforce regulations within the LDC, which include methods of assessment. These assessment methods include a series of variables based upon the size, character, type and location of the development and the development's impact upon all County systems as well as the benefits the development is anticipated to receive from such systems.

**Policy 10.1.A.2:** (in part) The criteria to evaluate capital improvement projects directly related to individual elements of this Plan are: (A) The elimination of future public hazards; and (B) The elimination of any existing capacity deficits.

**OBJECTIVE 10.1.B:** To limit public expenditures that subsidize development in Coastal High Hazard Areas.

**Policy 10.1.B.1:** Except for the provision or support of recreation uses such as parks and walkovers, erosion control devices, increased public access and the correction of deficiencies, public expenditures within the CHHA shall be governed by Objective 7.1.A and its associated policies.

**Policy 10.B.1.2:** The County shall incorporate into its review processes for infrastructure planning an assessment of the appropriateness of public capital improvements in coastal high hazard areas as identified in the Coastal Management Element of this Plan.

**Policy 10.B.1.3:** The County shall request and support state expenditures necessary to address or improve capacity deficiencies on roads or bridges necessary to effectively support the Hurricane Evacuation Plan for the County, particularly in those areas, or with respect to those facilities, which are experiencing level of service deficiencies.