

## **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 Escambia 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 Escambia 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**

Escambia 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 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 Escambia County can continue to reduce or eliminate risks from 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 and storm surge. 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, 3,849 are susceptible to Category 1 storm surge, 5,221 acres are susceptible to Category 3 storm surge, 11,365 acres are susceptible to 100-year flood, and 1,584 acres are susceptible to wildfire. Of these areas, some 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.

*Storm Surge*

- The Comprehensive Plan should continue to limit density and intensity in the CHHA per designations on the FLUM and by encouraging transfers of development right from inside the CHHA to outside the CHHA.
- The Comprehensive Plan should continue to prohibit new group homes, nursing homes, or other uses which have special evacuation requirements in CHHA, and limit public expenditures in the CHHA.
- The Comprehensive Plan should continue to reference procedures for special needs evacuees in the 2002 CEMP.
- The Comprehensive Plan should continue to require that all new mobile homes and recreational vehicle developments within the CHHA shall be required by county development regulations to pay an impact fee or in-lieu payment to the county for off-site shelter.
- The Comprehensive Plan should consider using a future land use overlay districts to limit population and infrastructure in areas that are susceptible to surge damage, by ensuring that new development is limited to a county specified amount of du/ac in the velocity zone of the CHHA, prohibiting new manufactured homes, and discouraging medical facility expansions in the CHHA.
- 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 Comprehensive Plan should consider imposing impact fees in HVZ to cover costs to build new shelters, or retrofit schools as shelters, and operating costs, and evacuation activities.
- The County should consider increasing shelter capacity by evaluating all new or school retrofit projects outside of the HVZ and 100-year floodplain for the ability to shelter special needs and general population.
- The County should consider denying requests for residential density increases within the CHHA, above what is included on the Future Land Use Map.
- 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 requiring that the deeds for the sale of land or structures in hurricane vulnerable zones contain a hurricane hazard disclosure statement.
- The County should consider including a policy to not approve variances to required flood elevations.
- The County should consider adopting a coastal protection overlay zone recommended by NW FL Coast Resource Management to enhance & protect dune system.

*Flood*

- The County should continue to protect regional estuaries through intergovernmental coordination actions that reduce exposure to natural hazards.

- The County should continue to use its Local Hazard Mitigation Strategy to reduce the potential for flood damage.
- The Comprehensive Plan should continue to protect natural flood control features through the avoidance of any adverse degradation of function of natural system (e.g., estuaries and wetlands), such as controlling alterations or fill amounts.
- The Comprehensive Plan should continue to reduce risk from flood impacts by limiting types of development in the 100-year floodplain
- The County should consider adopting regulations to ensure new development doesn't create flood hazard to existing or downstream development.
- The County should consider requiring that all structures built in the 100-year floodplain include at least one foot freeboard. 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, the City of Jacksonville and the Santa Rosa Island Authority are example communities that have adopted freeboard requirements.
- The Comprehensive Plan should consider protecting against hazard impacts from natural disasters by limiting density & intensity of development, encouraging clustered building placement on uplands, limiting impervious surface, or requiring setbacks and landscaped buffers in the 100-year floodplain.
- The Comprehensive Plan should consider designating wetlands, floodplains for preservation through FLUM or overlay zoning district, and ensure adequate open space for protected natural resource lands, environmentally sensitive lands, and drainage and stormwater retention areas in the 100-year floodplain.
- The County should consider including a policy for reducing future losses through transfers of development rights from areas within the 100-year floodplain to areas outside 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.

#### *Wildfire*

- 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 new development to include & implement a wildfire mitigation plan specific to that development, subject to review & 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.

*General*

- The Comprehensive Plan should continue to institute an Intergovernmental Task Force, to foster cooperation between local governments during pre-disaster planning, post-disaster mitigation analysis and redevelopment.
- The Comprehensive Plan should continue to encourage members to identify all possible intergovernmental & organizational plans, studies, reports, & technical information that may be relevant to the LMS & include in future update to LMS plan and analysis.
- The Comprehensive Plan should continue implementing a policy to incorporate applicable provisions of the Comprehensive Plan into the Comprehensive Emergency Management Plan and the Local Mitigation Strategy.
- The Comprehensive Plan should consider including a policy to incorporate recommendations from existing and future interagency hazard mitigation reports into the Comprehensive Plan, and should consider including these recommendations during the Evaluation and Appraisal Report process as determined feasible and appropriate by the Board of County Commissioners.
- Include each hazard layer on the existing and future land use maps to determine where risks are possible to target hazard mitigation strategies.
- Continue educating the public, especially those at high risk from 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 data layers on hazard maps to illustrate population (i.e., density) or property (i.e., value) exposure.
- Include maps for each hazard data layer to illustrate which future land use categories are susceptible to each hazard.
- Include a quantitative risk assessment for existing and future development (i.e., loss estimates) or specific critical facilities.
- Include loss estimates for future land use.
- Use complementary, not contradictory data in the plans such as the LMS, CEMP, and Comprehensive Plan.
- 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.
- Include a goal to mitigate repetitive loss properties.

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## 1. County Overview

### Geography and Jurisdictions

Escambia County is located along the Gulf of Mexico and is the westernmost county in the Panhandle Region of Northwest Florida. It covers a total of 875.6 square miles, of which approximately 662 square miles are land and 213.2 square miles are water. The physical topography of the land includes the coastal lowlands with elevation near 100 feet, and the western highlands with elevations above 100 feet. The County's elevation ranges from sea level to 200 feet above sea level in the northern part of the County with an average elevation of 69 feet above sea level.



There are two incorporated municipalities within Escambia County, including the Town of Century and the City of Pensacola, which also 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 Escambia 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, over 80% live in the county's unincorporated areas. As indicated in the Escambia County LMS, the county's tourist population would increase the daily population during the tourist season by 33,000 persons, predominantly from the barrier islands of Pensacola Beach and Perdido Key. Escambia County has experienced moderate population growth in recent years, a trend that is expected to continue. Between 1990 and 2000, Escambia County had a growth rate of 12%, which is about half the statewide average of 23.5% for the same time period.

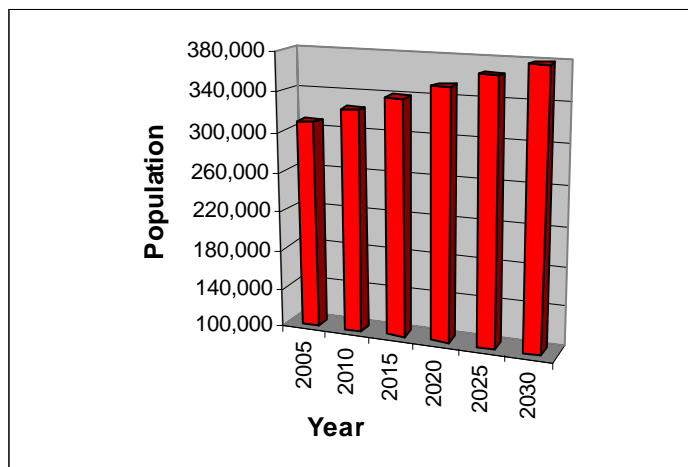
**Table 1.1 Population Estimates by Jurisdiction**

Jurisdiction	Population (Census 2000)	Population (Estimate 2004)	Percent Change 2000-2004	Percent of Total Population (2004)
Unincorporated	236,441	249,132	5.37%	81.09%
Century	1,714	1,728	0.82%	0.56%
Pensacola	56,255	56,366	0.20%	18.35%
<b>Countywide Total</b>	<b>294,410</b>	<b>307,226</b>	<b>4.35%</b>	<b>100.00%</b>

Source: Bureau of Economic and Business Research

According to BEBR (2004), Escambia County's population is projected to grow steadily and is to reach an estimated 378,400 by the year 2030, increasing the average population density of 464 to 572 persons per square mile. **Figure 1.1** illustrates medium growth population projections for Escambia County based on 2004 calculations.

Figure 1.1 Population Projections for Escambia County, 2005–2030



Source: Bureau of Economic and Business Research

Of particular concern within Escambia 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 294,410 persons residing in Escambia County 13.4% are listed as 65 years old or over; 19.5% are listed as having a disability; 15.4% are listed as below poverty; and 6.8% live in a home where the primary language is other than English.

## 2. Hazard Vulnerability

### Hazards Identification

The highest risk hazards for Escambia County as identified per the County’s Local Mitigation Strategy (LMS) are high winds, storm surge, flooding, wildfire and hazardous materials events. Sinkholes were not identified as a potential hazard risk.

### Hazards Analysis

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 Escambia County. Of the 294,410 (U.S. Census 2000) people that reside in Escambia County, nearly 2% are exposed to storm surge, over 4% are exposed to 100-year flooding, and 12.4% are exposed to wildfire. Of the 12,902 people exposed to flood, over 30% are disabled and 16.3% are minorities.



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

Segment of Population	Storm Surge**	Flood	Wildfire
<b>Total (all person)*</b>	<b>5,136</b>	<b>12,902</b>	<b>36,665</b>
Minority	691	2,101	9,329
Over 65	1,004	1,695	5,612
Disabled	1,612	3,929	13,736
Poverty	497	1,420	5,656
Language Isolated	221	490	118
Single Parent	238	704	2,651

Source: Mapping for Emergency Management, Parallel Hazard Information System.

\*Note: The "Total" amount does not equal the sum of all segments of the population, but indicates the total population at risk to the selected hazards.

\*\*Note: Storm surge related flooding population exposure results are a subset of the flood results.

*Evacuation and Shelters*

As discussed in the previous sections, population growth in Escambia 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 Escambia 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 16.75 and 23.75 hours to safely evacuate Escambia 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.

Escambia County currently has a shelter surplus. According to Florida's Statewide Emergency Shelter Plan, Escambia County has an existing shelter capacity of 16,827 people. The 2004 shelter demand for a Category 4 or Category 5 hurricane is 15,314 people, leaving an existing

shelter surplus of 1,513. In 2009, the projected shelter demand is 16,193, leaving an anticipated shelter surplus of 634.

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. Escambia 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 Escambia 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 Escambia County’s existing structures to the storm surge, flood, wildfire, and sinkhole hazards was determined through MEMPHIS.

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

Segment of Population	Storm Surge*	Flood	Wildfire
Single Family	3,308	11,718	9,320
Mobile Home	178	9,181	3,419
Multi-Family	1,273	10,884	3,094
Commercial	772	6,290	1,979
Agriculture	99	4,722	1,331
Gov. / Institutional	1,684	243	395
<b>Total</b>	<b>7,314</b>	<b>43,038</b>	<b>19,538</b>

Source: Mapping for Emergency Management, Parallel Hazard Information System.

\*Note: Storm surge related flooding population exposure results are a subset of the flood results.

There are 62,576 structures exposed to at least one of the three hazards, of which most are single-family homes in subdivisions. Of these structures, nearly 69% are exposed to flood. Over 43,000 structures are located within the 100-year floodplain, of which 17% are exposed to storm surge induced flooding. Over 45% 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 as the Gulf of Mexico, Escambia Bay, Perdido Bay, and Pensacola Bay. According to the latest National Flood Insurance Program Repetitive Loss Properties list, as of March 2005, there are 484 repetitive loss properties in unincorporated Escambia 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.”

Over 31% or 19,538 structures are exposed to wildfire, of which, 47.7% 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. Escambia County future land use data was acquired in November 2000 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 Escambia County future land use map dated November 2000. 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 Perdido Key, Gulf Breeze, and Pensacola Beach, as well as along the Gulf of Mexico, Escambia Bay, Perdido Bay, and Pensacola Bay. The total amount of land in the CHZ is 17,927.6 acres. As shown in **Table 2.4**, 39.2% are parks, conservation areas and golf courses; 21.5% are currently undeveloped; and 18% are in agricultural use; and 10% are used for government, institutional, hospitals or education purposes. **Table 2.5** shows that of the 3,849.1 undeveloped acres, 57.8% of vacant acreage in the Coastal Hazard Zone is in the Mixed Use 3 category, which provides for a less intense mixture of residential, commercial and recreation uses. The County is taking positive action in preserving this land to limit population in the CHHA to reduce vulnerability and additional evacuation or shelter demands.

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 as well as along the Gulf of Mexico, Escambia Bay, Perdido Bay, and Pensacola Bay. The total amount of land in the HVZ is 21,930.5 acres. As shown in **Table 2.4**, 27.5% are parks, conservation areas and golf courses; 23.8% are currently

undeveloped; 20% are used for government, institutional, hospitals or education purposes; and 12.7% are residential single family homes. **Table 2.5** shows that of the 5,220.8 undeveloped acres, 43.5% are in the Mixed Use 3 category, which provides for a less intense mixture of residential, commercial and recreation uses. The County is taking positive action in designating a large portion of the acreage as low to medium density to reduce vulnerability and limiting the amount of people who would need to evacuate or be sheltered from a hurricane.

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 are located along the Gulf of Mexico, Escambia Bay, Perdido Bay, and Pensacola Bay. The total amount of land in the special flood hazard area is 59,935 acres. As shown in **Table 2.4**, 37.9% are in agricultural use; 32% are parks, conservation areas and golf courses; 19% are currently undeveloped; and 4.9% are used for government, institutional, hospitals or education purposes. **Table 2.5** shows that of the 11,364.8 undeveloped acres, 31.9% 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 7,871.9 acres. As shown in **Table 2.4**, 49.3% are in agricultural use; 20.1% are undeveloped lands; 15.7% are residential single family homes and 12.7% are parks, conservation areas and golf courses. **Table 2.5** shows that of the 1,583.5 undeveloped acres, 49.2% 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 Hazards Zone	Hurricane Vulnerability Zone	Flood Zones	Wildfire Susceptible Areas
Agriculture	Acres	3,218.0	2,448.2	22,729.1	3,876.5
	%	18.0	11.2	37.9	49.3
Attractions, Stadiums, Lodging	Acres	7.4	9.8	20.5	20.7
	%	0.0	0.0	0.0	0.3
Places of Worship	Acres	25.0	74.0	32.3	36.3
	%	0.1	0.3	0.1	0.5
Commercial	Acres	122.2	205.3	204.9	26.8
	%	0.7	0.9	0.3	0.3
Government, Institutional, Hospitals, Education	Acres	1,794.1	4,381.2	2,912.4	141.6
	%	10.0	20.0	4.9	1.8
Industrial	Acres	36.1	65.1	105.9	16.5
	%	0.2	0.3	0.2	0.2
Parks, Conservation Areas, Golf Courses	Acres	7,023.0	6,025.8	19,162.2	605.3
	%	39.2	27.5	32.0	7.7
Residential Group Quarters, Nursing Homes	Acres	0.0	0.0	2.5	9.1
	%	0.0	0.0	0.0	0.1
Residential Multi-Family	Acres	67.6	154.3	191.1	35.2
	%	0.4	0.7	0.3	0.5
Residential Mobile Home, or Commercial Parking Lot	Acres	54.0	148.3	278.0	214.2
	%	0.3	0.7	0.5	2.7
Residential Single-Family	Acres	1,402.2	2,782.2	2,315.8	1,238.6
	%	7.8	12.7	3.9	15.7
Submerged Land (Water Bodies)	Acres	4.0	2.7	75.6	0.0
	%	0.0	0.0	0.1	0.0
Transportation, Communication, Rights-Of-Way	Acres	40.6	84.9	89.0	24.5
	%	0.2	0.4	0.2	0.3
Utility Plants and Lines, Solid Waste Disposal	Acres	284.5	327.9	451.2	43.0
	%	1.6	1.5	0.8	0.6
Vacant	Acres	3,849.1	5,220.8	11,364.8	1,583.5
	%	21.5	23.8	19.0	20.1
<b>Total Acres</b>	<b>Acres</b>	<b>17,927.6</b>	<b>21,930.5</b>	<b>59,935.0</b>	<b>7,871.9</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 Hazard Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible Areas	
		Total	Vacant	Total	Vacant	Total	Vacant	Total	Vacant
AA - 10: Byrneville	Acres	0.0	0.0	0.0	0.0	0.0	0.0	16.3	2.2
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1
AA - 11: Christian Home	Acres	0.0	0.0	0.0	0.0	0.0	0.0	14.1	0.0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
AA - 12: McDavid	Acres	0.0	0.0	0.0	0.0	42.6	1.6	38.1	0.2
	%	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.0
AA - 13: Molino	Acres	0.0	0.0	0.0	0.0	492.2	187.5	340.4	63.5
	%	0.0	0.0	0.0	0.0	0.8	1.7	4.3	4.0
AA - 14: Perdido	Acres	0.0	0.0	0.0	0.0	61.5	57.5	7.8	2.2
	%	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.1
AA - 15: Cottage Hill/ Quintette	Acres	0.0	0.0	0.0	0.0	222.5	71.6	259.7	35.0
	%	0.0	0.0	0.0	0.0	0.4	0.6	3.3	2.2
AA - 17: Hurst	Acres	0.0	0.0	0.0	0.0	13.2	0.0	31.2	0.7
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
AA - 18: Century	Acres	0.0	0.0	0.0	0.0	386.1	32.1	26.3	12.5
	%	0.0	0.0	0.0	0.0	0.6	0.3	0.3	0.8
AA - 1: Nokomis	Acres	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA - 2: Atmore	Acres	0.0	0.0	0.0	0.0	38.3	5.4	0.0	0.0
	%	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
AA - 3: Davisville	Acres	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
AA - 4: Bratt	Acres	0.0	0.0	0.0	0.0	101.0	56.9	26.3	1.1
	%	0.0	0.0	0.0	0.0	0.2	0.5	0.3	0.1
AA - 5: Walnut Hill - 1	Acres	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
AA - 6: Walnut Hill - 2	Acres	0.0	0.0	0.0	0.0	0.0	0.0	17.2	4.7
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3
AA - 7: Bay Springs	Acres	0.0	0.0	0.0	0.0	36.8	9.1	108.8	8.9
	%	0.0	0.0	0.0	0.0	0.1	0.1	1.4	0.6
AA - 8: Oak Grove	Acres	0.0	0.0	0.0	0.0	37.2	0.2	6.0	0.0
	%	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
AA - 9: Dogwood Park	Acres	0.0	0.0	0.0	0.0	0.0	0.0	72.0	11.6
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.7
AA-15: Cottage Hill/ Quintette	Acres	4.9	4.5	0.0	0.0	0.0	0.0	0.0	0.0
	%	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
AG (Coastal High Hazard Area)	Acres	4,427.4	487.8	4,405.8	488.7	2,905.2	140.9	41.9	0.0
	%	24.7	12.7	20.1	9.4	4.9	1.2	0.5	0.0
Agriculture	Acres	663.7	91.4	0.0	0.0	28,616.9	3,626.4	4,149.8	779.4
	%	3.7	2.4	0.0	0.0	47.8	31.9	52.7	49.2
Commercial	Acres	33.9	18.1	150.9	71.6	242.1	107.7	60.4	22.7
	%	0.2	0.5	0.7	1.4	0.4	1.0	0.8	1.4
Conservation	Acres	3,448.7	7.6	1,871.9	6.7	7,317.7	58.9	8.9	0.0
	%	19.2	0.2	8.5	0.1	12.2	0.5	0.1	0.0

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

Future Land Use Category	Coastal Hazard Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible Areas		
	Total	Vacant	Total	Vacant	Total	Vacant	Total	Vacant	
Industrial	Acres	167.9	78.0	14.1	10.5	2,592.9	377.9	68.4	20.7
	%	0.9	2.0	0.1	0.2	4.3	3.3	0.9	1.3
Low Density Residential	Acres	199.3	89.6	2,198.8	1,092.4	5,636.3	2,829.7	949.5	345.5
	%	1.1	2.3	10.0	20.9	9.4	24.9	12.1	21.8
Mixed Use - 1	Acres	0.0	0.0	0.0	0.0	1,049.8	331.1	230.1	31.4
	%	0.0	0.0	0.0	0.0	1.8	2.9	2.9	2.0
Mixed Use - 2	Acres	0.0	0.0	0.0	0.0	772.0	305.6	161.9	27.2
	%	0.0	0.0	0.0	0.0	1.3	2.7	2.1	1.7
Mixed Use - 3	Acres	0.0	0.0	0.0	0.0	3,686.2	1,566.1	5.1	1.8
	%	0.0	0.0	0.0	0.0	6.2	13.8	0.1	0.1
Mixed Use - 4	Acres	0.0	0.0	0.0	0.0	1,220.8	636.0	32.1	9.4
	%	0.0	0.0	0.0	0.0	2.0	5.6	0.4	0.6
Mixed Use - 5	Acres	0.0	0.0	0.0	0.0	708.0	12.3	0.0	0.0
	%	0.0	0.0	0.0	0.0	1.2	0.1	0.0	0.0
Mixed Use - 6	Acres	0.0	0.0	0.0	0.0	24.1	0.7	557.3	90.3
	%	0.0	0.0	0.0	0.0	0.0	0.0	7.1	5.7
MIXED USE-1	Acres	88.5	22.7	1,406.7	270.9	0.0	0.0	0.0	0.0
	%	0.5	0.6	6.4	5.2	0.0	0.0	0.0	0.0
MIXED USE-2	Acres	438.5	213.3	590.5	341.8	0.0	0.0	0.0	0.0
	%	2.5	5.5	2.7	6.6	0.0	0.0	0.0	0.0
MIXED USE-3	Acres	5,645.5	2,225.1	5,773.9	2,268.8	0.0	0.0	0.0	0.0
	%	31.5	57.8	26.3	43.5	0.0	0.0	0.0	0.0
MIXED USE-4	Acres	1,115.3	591.2	1,118.9	591.7	0.0	0.0	0.0	0.0
	%	6.2	15.4	5.1	11.3	0.0	0.0	0.0	0.0
MIXED USE-5	Acres	691.3	11.2	667.9	12.9	0.0	0.0	0.0	0.0
	%	3.9	0.3	3.1	0.3	0.0	0.0	0.0	0.0
Public	Acres	333.7	0.0	2,955.2	13.8	1,303.3	5.8	75.8	0.0
	%	1.9	0.0	13.5	0.3	2.2	0.1	1.0	0.0
Recreation	Acres	663.2	8.3	667.5	5.1	394.4	5.6	7.1	0.0
	%	3.7	0.2	3.0	0.1	0.7	0.1	0.1	0.0
Residential	Acres	5.8	0.5	108.6	46.2	861.4	569.1	97.2	0.5
	%	0.0	0.0	0.5	0.9	1.4	5.0	1.2	0.0
Rural Residential	Acres	0.0	0.0	0.0	0.0	836.0	213.1	377.6	107.5
	%	0.0	0.0	0.0	0.0	1.4	1.9	4.8	6.8
Urban Residential	Acres	0.0	0.0	0.0	0.0	336.6	156.3	67.8	4.5
	%	0.0	0.0	0.0	0.0	0.6	1.4	0.9	0.3
<b>Total</b>	<b>Acres</b>	<b>17,927.6</b>	<b>3,849.1</b>	<b>21,930.5</b>	<b>5,220.8</b>	<b>59,935.0</b>	<b>11,364.8</b>	<b>7,871.9</b>	<b>1,583.5</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 for each of Escambia County's two 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 Pensacola is the only municipality with acreage located in CHZ and HVZ areas. Pensacola has the most vacant acreage located in flood zones; and has the largest proportion of floodprone acres out of its vacant land area. The Town of Century has the most acres in the wildfire susceptible areas, and has the largest proportion of wildfire susceptible acres out of its vacant land area.

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 Escambia 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 Hazard Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible Areas	
		Total	Vacant	Total	Vacant	Total	Vacant	Total	Vacant
Century	Acres	0.0	0.0	0.0	0.0	102.5	28.5	24.3	16.7
	%	0.0	0.0	0.0	0.0	100.0	27.8	100.0	68.8
Pensacola	Acres	76.5	28.1	724.1	184.4	705.8	212.5	18.9	1.1
	%	100.0	36.7	100.0	25.5	100.0	30.1	100.0	5.9
Total Municipal Acres	Acres	76.5	28.1	724.1	184.4	808.3	241.0	43.2	17.8
	%	100.0	36.7	100.0	25.5	100.0	29.8	100.0	41.2

Source: Department of Community Affairs

### 3. Existing Mitigation Measures

#### Local Mitigation Strategy (LMS)

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 Escambia County LMS (June 2004 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 Escambia County to determine if the capital improvement projects are included in the LMS hazard mitigation project list.

*Hazard Analysis and Vulnerability Assessment (Page 42-76).*

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

Strengths:

- Includes a qualitative risk assessment for each hazard.
- Includes hazard maps for flood, storm surge,, wildfire and sinkhole.
- Provides information about demographic, income, and special needs population.
- Includes a quantitative vulnerability assessment was completed for Escambia County and municipal facilities.
- Provides county property values in identified hazard zones.
- Includes the potential dollar losses for property, structures and building in various neighborhoods.
- Includes a future land use map and hazard data layers to illustrate which future land use categories are susceptible to each hazard.
- Includes maps for repetitive loss properties in relation to flood and storm surge zones.

Weaknesses:

- Does not include data for population exposure to hazards.
- Does not include maps for critical facilities, although a listing of critical facilities is incorporated by reference.
- Does not include a quantitative risk assessment for existing and future development (i.e., loss estimates) or specific critical facilities, although it is noted that this type of analysis will continue through future enhancement to the County's GIS databases.

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 guiding principles for the Escambia County LMS are found in a table beginning on page 101, which summarizes the existing policies, codes and ordinances for the county and municipal jurisdictions. Citations are included for each policy, code or ordinances in terms of where each can be found within existing documents including the Land Development Code, Post-Disaster Redevelopment Plan, Comprehensive Plan, and the Comprehensive Emergency Management Plan. The table of guiding principles is followed by an evaluation of existing policies, codes and ordinances. 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.

#### *LMS Goals and Objectives*

The Escambia 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 **Section 5** as part of the preliminary recommendations. Final recommendations will result from a collaborative process between DCA, Escambia County, and PBS&J. The following is a summary of the LMS goals and objectives that support comprehensive plan GOPs.

Goal 1 refers to enhancing coordination and communication among local and regional organizations to implement the hazard mitigation goals and objectives established in the LMS. Objectives include to continue to identify and solicit effective participation from all governing bodies, regulating authorities, regional organizations, for-profit and nonprofit organizations, community organizations, neighboring governing bodies and organizations, and any other organizations that may have an interest in being a stakeholder in the mitigation process. Further, a specific task is assigned to ensure, on an on-going basis, the incorporation of mitigation concepts and ideas into any relevant discussions and presentations by any organization or entity out in the community, to include a comment and invitation to attend and be a part of the LMS meetings.

Goal 2 focuses on the reduction of risks and vulnerabilities of people and structures in hazard-prone and environmental areas. Objectives include the identification of the risks and vulnerabilities that need to be addressed in the community through a risk assessment and hazards analysis, as well as the seeking out funding opportunities to implement the mitigation strategy. Specific tasks include to continue to identify and solicit funding opportunities through grant programs such as HMGP, FMA, CDBG, and others at the state and Federal level, and the encouragement of local governments to "buy in" to the LMS strategy and provide funding for the LMS initiatives and projects through special budget appropriation or through a permanent budget line item specifically for the LMS.

Goal 3 refers to the integration and coordination of all local mitigation activities and programs under the LMS as appropriate, or as directed or required by programmatic rules and requirements. Objectives include the identification of any and all intergovernmental plans, studies, reports, and technical information from various agencies at the Federal, State, and Local levels of government and community organizations that have a mitigation function and incorporate those into the LMS mitigation strategy. A specific task under this objective is to, on an on-going basis, continue to encourage members to identify all possible intergovernmental and organizational plans, studies, reports, and technical information that may be relevant to the LMS and included in any future update to the LMS plan and analysis. Another objective under Goal 3 is to focus on Federal and state grant programs and other funding opportunities for mitigation through the LMS either as desired at the local level, or as State and Federal regulations and guidelines require. A specific task assigned under this objective is to coordinate the LMS activities and grant program processes to incorporate the Capital Improvements Programs where appropriate.

Goal 4 refers to the provision of education, outreach, research, and development of mitigation initiatives and programs. The first objective is to provide education to all potential stakeholders, governing and political bodies, and to the general public as to the goals and objectives of the LMS. A specific task assigned under this objective is to inventory what printed materials are being provided to the public in relation to preparedness and mitigation and assess the need to consolidate efforts, update information, or make more consistent, the message that is being presented. Take advantage of the economies of scale. Another task is to target homebuilders to enhance their educational efforts to homebuyers with regard to mitigation techniques and options. The second objective is to create and develop a Firewise program in Escambia County. Tasks include exploring the option of creating a Firewise program in Escambia County and to initiate communications with all the municipalities in the County, the Escambia Fire-Rescue, Pensacola Fire-rescue, DOF, and the local Florida Builders' Association and coordinate any interest in the development of a Firewise program in the County. The third objective is to continue to develop research and provide studies that contain updated and more specific detailed data that will facilitate the identification and focus of mitigation activities that may be impacted by local development and growth.

Goal 5 seeks to improve and enhance current development rules, laws, regulations, and codes to ensure that future development will continue to be less vulnerable to our hazards. The first objective is to continue to improve upon the use of the minimum NFIP standards through improved local, regional or state codes and ordinances. Specific tasks (1) the evaluation of current development regulations and the determination of any short falls in the level of protection against the identified hazards in this plan, and to meet with the appropriate regulating agencies to discuss options and recommendations; (2) the evaluation of current building regulations and determine any short falls in the level of protection against the identified hazards in this plan, and to meet with the appropriate regulating agencies to discuss options and recommendations; and (3) continue to participate in the CRS program and implement activities that will earn points in the program and better mitigate our community in the future. A second objective is to continue to improve upon and increase the minimum Florida Building Code with regard to windload and flying debris minimum standards through improved local, regional, or state codes and ordinances where appropriate and possible. A third objective is to continue to improve upon and increase the minimum standards of any other identified mitigation activities, plans, or policies that impact the community against identified hazards through improved local, regional, and state codes and ordinances.

Goal 6 seeks to incorporate the activities and principles of the CRS program wherever possible and continue to utilize this LMS for credit as the "Floodplain Management Plan" for each of the CRS jurisdictions within Escambia County. The objective is to continue to provide credit points in the CRS program for Santa Rosa Island Authority, City of Pensacola, and Escambia County. Specific tasks include (1) the evaluation of current development regulations and the determination of any short falls in the level of protection against the identified hazards in this plan, and to meet

with the appropriate regulating agencies to discuss options and recommendations; (2) the evaluation of current building regulations and determination of any short falls in the level of protection against the identified hazards in this plan, and to meet with the appropriate regulating agencies to discuss options and recommendations; and (3) to continue to participate in the CRS program and implement activities that will earn points in the program and better mitigate the community in the future.

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 Escambia County adopting and implementing corresponding policies that are legally enforceable.

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

The CEMP acknowledges the Post-Disaster Redevelopment Plan as a process to review the performance of historical mitigation projects, and provide recommendations for future mitigation projects. The CEMP provides the following guidance on mitigation measures, as indexed in the LMS:

- Protection of critical facilities (p. 55 of CEMP)
- Removal and relocation of damaged and vulnerable infrastructure (p. 55)
- Economic diversification (p. 16)
- Local government NFIP participation (p. 56)
- Evacuation procedures (p. 27)

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

The Escambia County PDRP includes potential mitigation strategies for planning future development:

- *Zoning: Reduction of hurricane evacuation* – After a hurricane, there may be major damage areas that should be rezoned from residential to commercial
- *Zoning: Clustering* – Maintain the same density but cluster the housing away from the maximum hazard area.
- *Infrastructure Relocation*
- *Impact Fees*
- *Property and Land Acquisition*
- *Regulation of Mobile Homes (in the CHHA)*
- *Coastal Setbacks*

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

Escambia County and both municipalities participate in the National Flood Insurance Program (NFIP). Escambia County and the City of Pensacola participate in the NFIP Community Rating System (CRS), each with a rating as a class 7. The City of Century does not currently participate in the CRS.

## **4. Comprehensive Plan Review**

### **Purpose and Intent**

The Escambia County Comprehensive Plan (Adopted 1997) was reviewed for the purpose of developing this profile. This review was undertaken in order to assess what steps Escambia 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 Escambia County as identified per the County's Local Mitigation Strategy (LMS) are high winds, storm surge, flooding, wildfire and hazardous materials events. Sinkholes are not identified as a potential hazard risk. Therefore, sinkhole hazard is not addressed in this summary. Although reference to a specific risk assessment and hazards analysis is not addressed in the Plan, several policies refer to "identifying risks and vulnerabilities". These policies relate to storm surge issues such as hurricane evacuation and shelter space capacities.

Several policies in the Plan defer to the Land Development Regulations for implementation of development rules. Policies providing linkages to the County LMS are included to aid in future LMS updates and to link the objectives and policies of the Plan to identified hazards in the LMS. The Plan has a policy directing the preparation of PDRPs, and many policies emphasize the reduction or elimination of exposure of human life and property to natural hazards through the implementation of Policies 11.A.8.1 through 11.A.8.5.

### **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. There are policies in place to address flood damage reduction and flood preparedness (Policies 11.A.4.5 and 11.A.7.10). There are also policies in the Plan that explicitly reference the National Flood Insurance Program. For example, Policy 11.A.8.1: National Flood Insurance Program, states that "the County shall continue its participation in the national flood insurance program in conformance with Public Law 93-288".

### **Storm Surge and Evacuation**

Comprehensive Plan language places a heavy emphasis on hurricane evacuation issues. The Plan utilizes planning districts and growth management tools to regulate population growth and infrastructure within the CHHA. Other policies focus on evacuation network coordination and maintenance, as well as evacuation protocol.

Policies state that the County will continue to implement its Comprehensive Emergency Management Plan (CEMP) and utilize guidance provided in the Northwest Florida Hurricane Study. The Comprehensive Plan discusses specific CEMP procedures for evacuation of special needs populations and updating shelter lists. The Plan also prohibits the location of new group homes, nursing homes, or other uses which have special evacuation requirements in the CHHA.

The Coastal Management Element contains language to facilitate interagency and interstate cooperation for hurricane evacuation. Policies cite the need for continued cooperation with

Alabama officials, including participation with Alabama officials in annual meetings. On a local level, critical roadway segment improvements will be supported through participation with the Pensacola Metropolitan Planning Organization (MPO) and interaction with the Florida DOT to further reduce and improve hurricane evacuation times. The Plan also provides guidance and support to regulate the densities and intensities of land use in order to maintain established evacuation clearance times.

According to Plan policies, the County provides funding sources for infrastructure improvements necessitated as a result of concurrency and hurricane evacuation standards. These sources can include the creation of tax increment financing districts. Districts of this type will be incorporated into each update of the Five Year Schedule of Capital Improvements.

### **Sheltering**

Escambia County currently has a significant shelter surplus. According to Florida's Statewide Emergency Shelter Plan, Escambia County has an existing shelter capacity of 16,827 people. The 2004 shelter demand for a Category 4 or Category 5 hurricane is 15,314 people, leaving an existing shelter surplus of 1,513. In 2009, the projected shelter demand is 16,193, leaving an anticipated shelter surplus of 634. 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.

The Coastal Management Element contains policies directing sheltering and evacuation. Policies state that the Escambia County Emergency Management Division will identify appropriate shelter locations. The Division will work with the Escambia County School District and the Northwest Florida Chapter of the American Red Cross to identify additional shelter capacity. The identification of shelter facilities will be based on the ARC 4496 structural criteria, proposed mitigation projects and the incorporation of enhanced hurricane protection areas into new construction projects.

### **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. 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 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.



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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 Father Integration into the LMS	Basis For Suggested Options
LMS	Comp	Key G = Goal O = objective P = Policy T = Task				
<b>Strategy - Collaboration, coordination, and education</b>						
Is there information sharing and/or involvement in plan development between planners and emergency managers?	Yes: Same steering committee of planners & emergency managers updated LMS & comp plan.	G1 Enhance coordination & communication among local & regional organizations to implement hazard mitigation goals & objectives.	CME P11.A.8.6 County shall implement the Escambia County Local Mitigation Strategy.	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 2004 LMS adequately addresses this strategy through the mitigation task.	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.
		G1 OA Continue to identify & solicit effective participation from all governing bodies, regulating authorities; regional, for-profit & nonprofit, & community organizations; neighboring governing bodies & organizations, & organizations interested in being a stakeholder in mitigation process.	CME 11.A.8.7 Intergovernmental Task Force, per PDRP shall be established by 11/00, to foster cooperation between local governments during pre-disaster planning, post-disaster mitigation analysis & redevelopment. Task force will be activated to make recommendations concerning pre-disaster planning, post-disaster mitigation analysis and redevelopment during every calendar year during which it was mobilized for a disaster declaration.			
		G1 O A T 3 Always incorporate mitigation concepts & ideas into relevant discussions & presentations by any organization or entity in community, to include a comment and invitation to attend LMS meetings				

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Do the Comp Plan, LMS, CEMP, and other local and regional plans cross-reference each other and include consistent data on hazardous locations?	Yes: LMS references CEMP & Comp (as other plans), & Comp references LMS	G3 Integrate & coordinate all local mitigation activities & programs under LMS as appropriate, or as directed or required by programmatic rules & requirements.	CME P11.A.8.6 County shall implement the Escambia County Local Mitigation Strategy.		The 2004 LMS adequately addresses this strategy through Goal 3.	
		G3 OA Identify any & all intergovernmental plans, studies, reports, & technical information from various Federal & State agencies , & Local government & community organizations that have a mitigation function & incorporate into LMS.	G 3 O A T 2 Continue to encourage members to identify all possible intergovernmental & organizational plans, studies, reports, & technical information that may be relevant to the LMS & include in future update to LMS plan and analysis.	Review and coordinate existing resource protection plans with LMS		Okaloosa County Comp Plan CME P 1.2.7
		G5 OA Continue to improve use of minimum NFIP standards through improved local, regional or state codes and ordinances.	CME P 11.A.8.1 County shall continue its participation in NFIP.		Bay County Comp Plan CME P 7.16.1	
		G6 OA T3 Continue participation in CRS program & implement activities to earn points & better mitigate our community in future.	CME P 11.B.2.8 Escambia County, shall implement adopted Interlocal agreements with Cities of Pensacola & Gulf Breeze & Santa Rosa County to establish procedures for each government to review development proposals that affect Escambia Bay, Santa Rosa Sound or East Bay (or water bodies as appropriate).	Coordinate Stormwater Master Plan with LMS Guiding Principles	The 2004 LMS adequately addresses this strategy through Goals 3, 5 & 6.	Okaloosa County Comp Plan SE P 1.2
		G3 OA T2 Continue to encourage members to identify all possible intergovernmental & organizational plans, studies, reports, & technical information relevant to LMS & include in future update to LMS plan and analysis.		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	



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Do the Comp Plan, LMS, CEMP, and other local and regional plans cross-reference each other and include consistent data on hazardous locations? (continued)	LMS & Comp data needs to be compared (local action)		G2 OA Identify risks & vulnerabilities that need to be addressed in our community through a risk assessment and hazards analysis.	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.	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/strengthen hazard mitigation planning. Maps are useful to analyze relationship between land uses in hazard areas for mitigation planning or changes to future land uses.	
			G3 OA Identify any & all intergovernmental plans, studies, reports, & technical information from various Federal & State agencies , & Local government & community organizations that have a mitigation function & incorporate into LMS.					Cross reference the LMS source data that is used in plan updates to ensure that data is consistent and not conflicting.
Are hazard mitigation projects addressed in the 5-year schedule of Capital Improvement Projects?	Local Action	Local Action	G3 OB T1 By 6/04, coordinate the LMS activities and grant program processes to incorporate the Capital Improvements Programs where appropriate.	CME O 11.A.5 Limit public expenditures that subsidize private sector development in Coastal High Hazard Areas (CHHA)	During the annual review of the five-year schedule of capital improvements, consider the LMS project list.	The 2004 LMS adequately addresses this strategy through Goal 3.	FEMA funds are available for hazard mitigation, and opportunity for implementation is increased by projects being listed in both plans & Okaloosa County Comp Plan. Establish criteria to consider public hazard elimination when evaluating capital improvement projects. [9J-5.016(3)(c)1a.]	
				CME P 11.A.5.2 Limit public expenditures in CHHA to recreational uses, public access & to support infrastructure provided, if infrastructure sizing will support densities & intensities in CHHA by this plan. County shall provide funds for infrastructure improvements necessitated by concurrency& hurricane evacuation standards. Following ordinance adoption, Five Year Schedule of Capital Improvements shall be amended to identify funds allocated & available for expenditure, & availability shall be a prerequisite to approve development that requires increase or expansion of infrastructure.	Establish criteria within the capital budgeting process to evaluate capital improvement projects on the basis of whether they eliminate damages or impacts to the public caused by hazards.			

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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	G4 Provide Education, Outreach, Research, and Development of mitigation initiatives and programs.	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 2004 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, and Okaloosa County LMS.
			G4 OA Provide education to all potential stakeholders, governing and political bodies, and to the general public as to the goals and objectives of the LMS.				
			G 4 O A T 7 By D12/04, target homebuilders to enhance their educational efforts to homebuyers regarding mitigation techniques.				
			G 4 O B T 1 By 6/04, explore the option of creating a Firewise program in Escambia County.				
			G 4 O B T 2. By 9/04, initiate communications with all municipalities in County, Escambia Fire-Rescue, Pensacola Fire-rescue, DOF, & local FL Builders' Association & coordinate interest in development of Firewise program.				

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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?	No	Yes	None found during this review.	CME O 11.A.7 Through 2005, maintain a roadway clearance time for hurricane evacuation, out of the county of 24 hours for Category 2-3 storm event.			Okaloosa County LMS & Comp Plan
				CME P 11.A.7.1 County shall continue to manage & implement its CEMP (May 2002) & utilize the recommendations & guidance provided in Northwest Florida Hurricane Study.		Include goal/objective to support interagency involvement in evacuation planning.	
				CME P 11.A.7.2 Continue to support critical roadway segment improvements through participation with the Pensacola MPO and interaction with the FL DOT to further reduce and improve hurricane evacuation times.	Prioritize evacuation route improvements in Capital Improvements schedule and MPO Long-Range Transportation Plan.	Ensure roads are designed and engineered for the amount of wind, surge, flooding and debris that can be expected.	
				CME P 11.A.7.6 County will continue to cooperate with Alabama officials in recognition of the fact that the majority of evacuees drive the short distance to AL.			
				CME P 11.A.7.7: Appointed LPA committee shall prepare an analysis of proposed & new development's impact on hurricane evacuation times for the BCC, who will address deficiencies identified in the report & take corrective measures to maintain or reduce the clearance times established in Objective 11.A.7.			Best management practices from <i>Protecting Florida's Communities</i>
				CME P 11.A.7.9 County shall not issue development orders for projects in CHHA or impacting major evacuation routes, unless hurricane evacuation time is 24 hours or less, including new residential development etc.	Hurricane evacuation routes are identified & shown on Future Transportation Map Series	Examine topographic data used to run the SLOSH model to determine if better data (i.e., LIDAR), as available, to use to identify evacuation zones.	Bay County Comp Plan TE P 4.11.1
				CME P 11.A.7.10 . In order to prevent unnecessary evacuees from crowding roads and shelters during the hurricane season, the county shall continue to notify households of their need to evacuate at various threat levels. Hotels, motels and other similar facilities shall conspicuously post the need for evacuation, evacuation routes and shelter locations.			Science & technology can provide more accurate data, & enhance analysis.

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Are there measures to provide adequate evacuation clearance time to support current population and population growth?	No	Yes		CME P 11.A.7.11 During evacuation times and in cooperation with public safety officials (FHP, ECSO, GBPD, etc.) the county can allow reverse laning on multi-lane roadways and evacuation routes.			
				FLUE P 7.A.6.4 Densities & intensities of land use will be regulated consistent with goals, objectives & policies of this ordinance to maintain road clearance times established by Objective 11.A.7.	Institute a level of service (LOS) standard that is tied to levels of development and/or institute an impact fee in the CHHA or HVZ to help pay for public expenses of implementing evacuations.		Best management practices from <i>Protecting Florida's Communities</i>
Are there measures to provide adequate shelter space to meet population growth and special needs?	No	Yes	None found during this review.	CME P 11.A.7.12: Escambia County Emergency Management Division will identify appropriate shelter locations for evacuees & continue to work with Escambia County School District & Northwest Florida ARC to identify additional shelter capacity, based on the ARC 4496 structural criteria, through mitigation projects & incorporating enhanced hurricane protection areas into new construction projects.	To increase shelter capacity, evaluate all new or school retrofit projects outside of the HVZ and 100-year floodplain for sheltering of special needs and general population.	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.	There is an existing shelter deficit of 12,146 and population growth is imminent, Okaloosa County LMS, and best management practices from <i>Protecting Florida's Communities</i>
					Institute a LOS standard or ratio for population in an HVZ to shelter capacity		
				CME P 11.A.7.3 Per procedures for special needs evacuees on 2002 CEMP, the emergency management division will maintain a voluntary register of people who need assistance during an evacuation & ensure that an annually updated shelter list is available and maintained at the emergency operations center.	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.	Update social vulnerability results on a regular basis in the LMS and existing shelter capacity to substantiate mitigation pertaining to sheltering provisions.	
				CME P 11.A.7.8 All new mobile homes and recreational vehicle developments within the CHHA shall be required by county development regulations to pay an impact fee or in-lieu payment to the county for off-site shelter.	Institute impact fees in HVZ zone to cover costs to build new shelters, or retrofit schools to be used as shelters, & operating costs.	Include Shelter demand and capacity. Map existing shelter locations overlaid with special needs population densities and FLU to show where more shelters may be needed/retrofitted.	
					Require new public emergency shelters to be built outside the HVZ		

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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	G 2 Reduce risks and vulnerabilities of people and structures in hazard-prone and environmental areas.	CME O 11.A.1 (in part) Protect, conserve and enhance coastal ecosystems, environmentally sensitive areas, wetlands, water resources, and remaining coastal barriers by monitoring these areas and implementing Policies 11.A.1.1 - 11.A.1.7, etc.		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.	Most sensitive portion of coastal area shall be managed through the imposition of strict construction standards to minimize damage to natural environment, private property, & 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> .	
				CME P 11.A.1.1: County shall monitor sensitive areas & provide recommendations to Escambia BOCC. Monitoring data shall include changes in acreage of: coastal wetlands, extent of wetland communities, protected land on barrier islands & land held for conservation and recreation use. Monitoring data & recommendations shall be included in comp plan implementation committee's annual report.				
				CME P 11.A.1.2 Limit specific & cumulative impacts of development or redevelopment upon wetlands, water quality, water quantity, or other natural resources.	Institute special assessment districts to finance beach renourishment & berm maintenance in areas that do not grant public beach access.	Include goal/objective to incorporate CME GOPs.		
				CME P 11.A.1.3 (in part) Protect & enhance primary dune system. County will seek funding for dune enhancement projects through LMS.				
				CME P 11.A.1.5 Implement mitigation provisions for development that impacts estuaries, wetlands, environmentally sensitive areas, primary dunes or other natural resources identified in this plan or the LDC. Provisions include avoidance of adverse degradation of function of natural system (estuaries, wetlands, primary dunes, etc.), and mitigation of unavoidable adverse impacts on natural systems at a minimum ratio of 1.5 to 1.0.	New development, redevelopment, zoning changes & land use plan amendments shall be consistent with LMS Guiding Principles to protect environmentally sensitive lands through land use policies that support sustainable communities	As LMS Guiding Principles are updated, incorporate into the comp plan, as appropriate.		Consistent use of information will enhance/strengthen planning endeavors for hazard mitigation.
				CME P A.1.6 Resource extraction in environmentally sensitive areas within the coastal areas is prohibited if the disturbed area cannot be completely restored following the extraction activities.	Use local, state or federal funds to purchase/lease large tracts of undeveloped land in the CHHA.			

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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	G 2 Reduce risks and vulnerabilities of people and structures in hazard-prone and environmental areas.	CME P 11.A.4.2 LDC shall contain provisions to protect beach & shoreline systems to be reviewed annually by comp plan implementation committee & updated as necessary to address concerns, issues & items in the Escambia/Santa Rosa Coast Resource Management Plan such as CCCL-related regulations, dune replenishment, enhancement & revegetation programs, wetland & environmentally sensitive area regulations.	County adopts coastal protection overlay zone recommended by NW FL Coast Resource Management Plan to protect dune/dune system.		Walton County Comp Plan FLUE P L-1.5.1
				CME P 11.A.4.4 Anytime proposed construction would alter Gulf front beaches or primary dunes, the application for construction must include an implementable plan for restoration of the altered gulf front beaches or primary dunes, which must occur before the proposed construction is allowed to be used or occupied.	Protect against hazard impacts from natural disaster through land acquisition, conservation easements, and/or purchase of development rights in high risk areas.	Promote continued purchase of undeveloped lands at high risk to flooding, with proper considerations of private property rights & compensation	Okaloosa County Comp Plan CME P 7.7.4 & LMS
				CME P 11.A.5.1 CHHA is the land within the Category 1 evacuation zones as delineated within the Northwest Florida Hurricane Study	Define CHHA to also include category 1 surge zone.	To illustrate those at risk to a Cat 1 hurricane, include map of category 1 hurricane evacuation zone, category 1 storm surge, existing evacuation corridors & population density of evacuees by census tract.	Most sensitive part of coastal area shall be managed through strict construction standards to minimize damage to natural environment, private property, & life [§161.53(5), F.S.]. Protect, establish construction standards which minimize impacts of manmade structures, and restore altered beaches & dunes [9 J-5.012(3)(b)4], and BMPs from Protecting Florida's Communities. Santa Rosa County Comp Plan CME P 7.1.A.7
				CME P 11.A.8.1 County shall continue its participation in NFIP.	Exceed CCCL permitting standards.		
				FLUE P11.A.1.2 Limit specific & cumulative impacts of development or redevelopment upon wetlands, water quantity or other natural resources.	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.		
FLUE P 7.A.5.7 (in part) Buffers will be created between development and environmentally sensitive areas including wetlands.							

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Are there measures to protect and/or restore natural resources that might in turn decrease the risk from flooding?	Yes	Yes	G 5 O A Continue to improve use of the minimum NFIP standards through improved local, regional or state codes and ordinances.	CME P 11.A.1.1: County shall monitor sensitive areas & provide recommendations to Escambia BOCC. Monitoring data shall include changes in acreage of: coastal wetlands, extent of wetland communities, protected land on barrier islands & land held for conservation & recreation use. Monitoring data & recommendations shall be included in comp plan implementation committee's annual report.	Designate wetlands, floodplains for preservation through FLUM or overlay zoning district.	Include map of 100-year floodplain overlain with future land uses.	Best management practice from <i>Protecting Florida's Communities &amp; Consistent use of data will enhance/strengthen mitigation planning.</i>
						Include goal/objective to limit impervious surfaces in 100-year floodplain where possible	
				CME P 11.A.1.2 Limit specific & cumulative impacts of development or redevelopment upon wetlands, water quality, water quantity, wildlife habitats, living marine resources or other natural resources.	New development, redevelopment, zoning changes & land use plan amendments shall be consistent with LMS Guiding Principles.	Promote continued purchase of undeveloped lands at high risk to flooding, with proper considerations of private property rights & compensation.	Okaloosa County Comp Plan FLUE P 7.1
				CME P 11.A.1.5 County shall implement mitigation provisions which must be followed by any development that impacts estuaries, wetlands, environmentally sensitive areas, primary dunes or other natural resources identified in this plan or the LDC. Provisions shall include avoidance of any adverse degradation degradation of function of natural system (estuaries, wetlands, primary dunes, etc.), and mitigation of unavoidable adverse impacts on natural systems at a minimum ration of 1.5 to 1.0 whenever degradation occurs as a result of new development.	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
				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			Okaloosa County Comp Plan FLUE P 1.2
			CME O 11.A.2 (in part) Monitor & improve estuarine environmental quality and protect functioning wetlands by implementing Policies 11.A.2.1 through 11.A.2.5, among others.				

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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		CME P 11.A.2.1 Protect estuaries in County's jurisdiction & other local governments through intergovernmental coordination actions that ...reduce exposure to natural hazards.	Ensure adequate open space for protected natural resource lands, environmentally sensitive lands, & drainage & stormwater retention areas	Include goal/objective to protect environmentally sensitive lands in 100-year floodplain.	Best management practices from <i>Protecting Florida's Communities</i>	
				CME P 11.A.2.6 (in part) Development in wetland areas, except water-dependent uses, commercial & industrial land uses will not be located in wetlands having high degree of hydrological significance, including wetlands in 100-year floodplain.	Restrict increases in land use density& intensity in wetlands.			Okaloosa County Comp Plan CE P 2.1
				CME O 11.A.4 Protect beaches, dunes, floodplains & floodways, by establishing construction standards which minimize impacts of man-made structures &continually support & seek funds to restore previously impacted areas.	Implement policies in the Conservation Element that limit specific and cumulative impacts on wetlands within the 100-year floodplain.		Okaloosa County Comp Plan CME P 1.2.1	
			G 5 O A	Continue to improve use of the minimum NFIP standards through improved local, regional or state codes and ordinances.	CME P 11.A.8.1 County shall continue its participation in NFIP.	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.
					CME P 11.A.4.5 County shall protect floodplains by, at a minimum, implementing the following:  1.Restrict/prohibit uses dangerous to health, safety & property from water/erosion, or which result in damaging increases in erosion/flood heights/velocities.	Protect 100-year floodplains via acquisition, conservation easement, purchase of development rights, etc.		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 flooding? (continued)	Yes	Yes		2. Uses vulnerable to floods, including facilities which serve such uses, must be protected against flood damage at initial construction.	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.		Santa Rosa County Comp Plan IE P 6.3.B.5	
				3. Control alteration of natural floodplains, stream channels & natural protective barriers involved in accommodation of floodwaters.				
				4. Control filling, grading, dredging & development which may increase erosion or flood damage.				
			<b>G 6 O A</b> On an on-going basis, continue to participate in the CRS program and implement activities that will earn points in the program and better mitigate our community in the future.	5. Prevent/regulate construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards to other lands.  A review of the county's floodplain protection provisions shall be included in the comprehensive plan implementation committee annual report and updated as necessary.	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
				<b>FLUE P 7.A.5.1</b> County shall implement provisions described throughout this plan that promote natural functions of identified wetlands and wetlands enhancement projects any time a proposed project adversely impacts, or alters functioning wetlands (reference Policy 11.A.1.4).	Establish Interlocal agreements with adjacent local governments that address conservation, use, & protection of unique vegetative communities & water bodies that cross jurisdictional boundaries.			Walton County Comp Plan CE PC-3.2.9
<b>G5 OA</b> Continue to improve use of the minimum NFIP standards through improved local, regional or state codes and ordinances.	<b>FLUE P 7.A.5.8</b> County reviews applications for development approval,. If parcel has wetlands based on the listed data or any other reliable information, the county will require a site-specific wetlands determination to determine the buildable area (uplands) of parcel or lot. Preparation of site-specific survey must be approved by Escambia County and in a form and format acceptable to the county. Protection of wetlands as determined in the site-specific survey shall be afforded during and after construction activities. Also, for protection of the floodplain and to regulate any activities proposed therein, the county will adopt the FEMA floodplain maps in the LDC.	Exceed FEMA requirements for development in floodplains & floodways, where feasible.	Include goal/objective to exceed FEMA requirements for development in 100-year floodplain, where feasible.	BMP from Protecting Florida's Communities & Okaloosa County Comp Plan				

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	LMS	Comp	Key G = Goal O = objective P = Policy T = Task						
Are there measures to protect and/or restore natural resources that might in turn decrease the risk from wildfire?	Yes	No	G 2 Reduce risks and vulnerabilities of people and structures in hazard-prone and environmental areas.	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 and to focus mitigation activities.	Areas susceptible to wildfire 9J-5.006(2)(b)		
			G4 OB Create and develop a Firewise program in Escambia County		Advance directives & policies of local EM operational plans & LMS to eliminate or reduce present & future vulnerability to wildfire hazards.			Alachua County Comp Plan	
			G4 OB T1 By June 2004, explore the option of creating a Firewise program here in Escambia County.		County shall implement Firewise Medal Community Program			Support public education activities of local FDs & FL Division of Forestry in promoting "Firewise" programs, local inspections, & enforcement activities to reduce/ eliminate wildfire risk.	Okaloosa County LMS
			G4 OB T2. By September 2004, initiate communications with all the municipalities in the County, the Escambia Fire-Rescue, Pensacola Fire-rescue, DOF, and the local Florida Builders' Association and coordinate any interest in the development of a Firewise program in the County.		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 <i>Wildfire Mitigation in FL: Land Use Planning Strategies and Best Development Practices</i> & Alachua County Comp Plan	
			Install fire hydrants in high risk wildfire areas in the wildland urban interface.		Support public and private mitigation efforts to provide fire hydrants to locations at risk along the urban/rural interface where water systems exist			DCA's <i>Wildfire Mitigation in FL: Land Use Planning Strategies and Best Development Practices</i> , & Okaloosa County LMS	
			Require management plans for conservation easements that address reduction in wildfire fuels.		Support activities that integrate wildfire mitigation techniques with design & review process of subdivision plats to reduce risks to new communities through cooperative efforts.				
			Review proposals for subdivisions, lot splits, and other developments for fire protection needs during site plan review process.						

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	LMS	Comp	Key G = Goal O = objective P = Policy T = Task						
Are there measures to protect and/or restore natural resources that might in turn decrease the risk from wildfire? (continued)	Yes	No					Restrict or prohibit certain land uses as necessary to assure public health, safety, & welfare & protection of property.		Alachua County Comp Plan
							All new development should complete & implement a wildfire mitigation plan specific to that development, subject to review & approval by the Escambia County Fire Rescue Department.		
							Structures shall be designed to minimize potential for loss of life & property (e.g., outdoor sprinkler systems, fire-resistant building materials or treatments, & landscaping & site design practices.		
							Streets, roads, driveways, bridges & culverts should be designed to assure access for firefighting.		
							County shall pursue funds for community/volunteer service program for fuels management on County owned land.		
							Cooperate with fire protection service or agencies to determine guidelines for use and development of wildfire-prone areas.		
							County shall implement a fuels management program to include prescribed burning, mechanical fuel reduction, thinning; increased public awareness of prescribed burning.		

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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	G2 Reduce risks and vulnerabilities of people and structures in hazard-prone and environmental areas.	CME P 11.A.5.4: County shall maintain inventory of infrastructure in CHHA & update annually. Comp plan implementation committee shall produce report for BCC's consideration on opportunities to relocate or replace infrastructure.	Prioritize public structures for retrofit, relocation, or flood-proofing public facilities or infrastructure in high risk hazard areas.	Map & assess vulnerability of public facilities & infrastructure susceptible to hazards. Use information to prioritize facilities for structural/operational analyses. 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> & Okaloosa County LMS
			G2 T1 Continue to identify and solicit funding opportunities through grant programs such as HMGP, FMA, CDBG, & others at state & Federal level.				
			G3 OB Continue to focus on grant programs & other funds for mitigation through LMS at local level, or as State and Federal regulations & guidelines require. Programs already required to utilize the LMS are HMGP, FMA, NFIP, CRS, & potentially CDBG.				
			G5 OA Continue to improve use of the minimum NFIP standards through improved local, regional or state codes and ordinances.				
				CME P 11.A.8.1 County shall continue its participation in NFIP.	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. Limit expansion of public facilities in high risk hazard areas. Floodproof WWTP and WTP systems in CHHA	Assist property owners, residents, businesses, non-profits and others in understanding and knowing or their eligibility for grants, loans an services that may help to mitigate hazards that directly affect their interests.	

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Are there measures that support retrofitting or relocating private and/or public structures in hazard areas? (continued)	Yes	Yes	G5 OB Continue to improve upon and increase the minimum Florida Building Code with regard to windload and flying debris minimum standards through improved local, regional, or state codes and ordinances where appropriate and possible.		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.)	Exceed FBC construction standards & other design conditions that require foundations to withstand storm conditions, wave forces, hydrostatic & hydronic loads consistent with FEMA construction standards.	Bay County Comp Plan CME P 7.9.1
			G5 OC Continue to improve upon and increase the minimum standards of any other identified mitigation activities, plans, or policies that impact our community against our identified hazards through improved local, regional, and state codes and ordinances.				
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.  Protect culturally significant facilities (e.g., historic, archaeological) in high hazard areas.	Asses vulnerability of historic structures & include goal/objective to mitigate historic properties	Best management practices from <i>Protecting Florida's Communities</i>

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Does the comp plan include measures to mitigate flood damage to Repetitive Loss structures?	Yes	No	G5 OA Continue to improve use of the minimum NFIP standards through improved local, regional or state codes and ordinances.	CME P 11.A.8.1 County shall continue its participation in NFIP.	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 100- year floodplain.			
					Enforce rigorous development standards consistent with the NFIP and CRS program.			
					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	G5 OA Continue to improve use of minimum NFIP standards through improved local, regional or state codes and ordinances.	CME O 11.A.4 Protect beaches, dunes, floodplains & floodways, by establishing construction standards which minimize impacts of man-made structures & support/seek funding to restore previously impacted areas.	Adopt more stringent development standards than the NFIP and existing building codes, and exceed CCCL permitting standards in CHHA.	The 2004 LMS adequately addresses this strategy through Goal 5.	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.)	
								CME P 11.A.4.1 New development shall comply with current FEMA construction standards.
								CME P 11.A.8.1 County shall continue its participation in NFIP.
								FLUE P 7.A.5.3 Location of parcels subject to FEMA construction standards shall be determined through use of the FEMA Flood Hazard Boundary Maps (panels).
Are there measures to require compliance with or exceed building codes and/or design standards for certain	Yes	Yes	G5 OB Continue to improve & increase minimum Florida Building Code with regard to windload and flying debris minimum standards through					

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hazard areas? (continued)		improved local, regional, or state codes and ordinances where appropriate and possible.				
		G5 OC Continue to improve & increase minimum standards of any mitigation activities, plans, or policies that impact our community against our identified hazards through improved local, regional, and state codes and ordinances.	FLUE P 7.A.6.3 No new construction seaward of the CCCL will be allowed until the applicant obtained permits & approvals from state or federal regulatory agencies.			

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<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.	None found during this review.	CME O 11.A.6 Direct population concentrations away from CHHA.		Include map that depicts population, including special needs population, densities in existing land use categories, and project growth rate to illustrate current & potential future vulnerability	Population density by demographics, as listed in this Hazards Profile, mapping is useful for mitigation planning for issues such as evacuation route retrofits/expansions, shelter retrofits, areas with least resources to mitigate (e.g., renters), etc.		
				CME P 11.A.6.1 County will limit land use classifications to those reflected on FLU maps & will limit densities & intensities of land use as defined within this ordinance. This will assure the relative proportion of dwelling units within the CHHA, as compared to the balance of the county, will remain fairly constant during the planning period.					
				CME P 11.A.6.2: Post-Disaster Population Assessment. After a major storm event such as a hurricane, per post-disaster review procedures county's planning department will reassess current & future population densities on coastal barrier islands, & make recommendations regarding population densities on the coastal barrier islands.					
				CME P 11.A.6.3 Amend land use regulations to include a requirement that any development on a coastal barrier island of more than 20 units per acre complete a special PUD approval process. As part of the PUD approval process a specific set of findings of fact must be developed including, but not limited to, consideration of coastal densities, health, life and safety of the general public, and evacuation times.				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	Okaloosa County Comp Plan CE P 2.1
				CME P 11.A.7.4 By 2002, prohibit location of new group homes, nursing homes, or other uses which have special evacuation requirements in CHHA.					
				FLUE P 7.A.4.7.a: (in part) Rezoning within the AG/CHHA [Agriculture/Coastal High Hazard Area] to a higher density and/or intensity will be discouraged.				Rezoning of all land uses in CHHA to a higher density &/or intensity will be discouraged.	
FLUE P 7.A.6.4 Densities & intensities of land use will be regulated consistent with goals, objectives & policies of this ordinance to maintain road clearance times established by Objective 11.A.7.									



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	<b>LMS</b>	<b>Comp</b>	<b>Key G = Goal O = objective P = Policy T = Task</b>				
Are there measures to limit population densities in high-hazard areas? (continued)	No	Yes: for Surge and flood.		<p><b>Policy 7.A.4.7.f.3: MU-3</b> (in part) (Mainland Coastal High Hazard Area) -- This mixed-use category (subset) provides for a less intense mixture of residential, commercial and recreation uses. The purpose of the subset is to delineate the mainland CHHA in a separate category for purposes of monitoring development within the Category 1 Hurricane Evacuation Zone. To encourage development outside of this category, the county may allow, through the LDC, the transfer of development rights from this category to other non-CHHA future land use categories.</p>	Use local, state or federal funds to purchase/lease large tracts of undeveloped land in the CHHA to reduce the development potential of these areas.		Bay County Comp Plan CME P 7.7.4
					Capacity of public infrastructure shall not be increased on Coastal Barrier Resources consistent with CBRA.		Bay County Comp Plan CME P 7.13.2
Are there measures to limit public expenditures that subsidize development in high-hazard areas?	No	Yes	None found during this review.	<p><b>CME G 11.A</b> Protect people &amp; property by limiting public expenditures in areas subject to destruction by natural disasters &amp; by restricting development activities that would damage or destroy coastal resources.</p>	Capacity of public infrastructure shall not be increased on Coastal Barrier Resources consistent with CBRA.	Include objective to limit public expenditures in high hazard areas, unless funds are used to mitigate an existing critical facility or repetitive loss structure.	Bay County Comp Plan CME P 7.13.2
				<p><b>CME O 11.A.5</b> . Limit public expenditures that subsidize development in coastal high hazard areas (CHHA) by implementing Policies 11.A.5.1 through 11.A.5.4, etc., upon adoption of this ordinance (reference section 15.01).</p>			
				<p><b>CME P 11.A.5.1</b> CHHA is the land within the Category 1 evacuation zones as delineated within the Northwest Florida Hurricane Study</p>			
				<p><b>CME P 11.A.5.2</b> Public expenditures in CHHA are limited to recreational uses, public access &amp; to support infrastructure provided, if infrastructure sizing is consistent to support densities &amp; intensities established in CHHA by this plan. County shall, by ordinance, provide funding for infrastructure improvements necessitated by concurrency&amp; hurricane evacuation standards.</p>			

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Are there measures to limit public expenditures that subsidize development in high-hazard areas? (continued)	No	Yes	None found during this review.	CME P 11.A.5.3 . New public facilities shall not be located in CHHA unless facility is necessary to protect human lives or preserve important natural resources; service provided at facility cannot be provided outside the CHHA; & facility is designed to provide minimum capacity necessary to meet level of service standards for its service area & its sizing is consistent with densities & intensities on future land use map.	Ensure that all public facilities that serve first response and critical emergency needs are located outside the 100-year floodplain.	Ensure that all public facilities that serve first response and critical emergency needs are located outside the flood zone or flood prone areas.	Critical facilities ability to provide essential services may be hampered if the structure or surrounding areas are flooded, posing a barrier to access. Okaloosa Comp Plan for comp plan recommendation.
				CME P 11.A.5.4: County shall maintain inventory of infrastructure in CHHA & update annually. Comp plan implementation committee shall produce report for BCC's consideration on opportunities to relocate or replace infrastructure.		Update the LMS maps/tables that show which critical facilities are located in SFHAs.	
				CIE O 14.A.2 . Limit public expenditures that subsidize development in the coastal high hazard areas upon adoption of this ordinance.	High risk facilities (e.g., nursing homes, convalescent homes, hospitals, mobile home parks, subdivisions or RV parks shall not be located in CHHA and existing facilities must prepare an evacuation plan if in HVZ.	Ensure that all public facilities that serve first response and critical emergency needs are located outside the flood zone or flood prone areas.	Bay County Comp Plan CME P 7.7.3 & Okaloosa County LMS
				CIE P 14.A.2.1 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 Policy 11.A.5.2.	Use local, state or federal funds to purchase/lease large tracts of undeveloped land in the CHHA to reduce the development potential of these areas.	Ensure that all public facilities that serve first response and critical emergency needs are located outside the flood zone or flood prone areas.	Bay County Comp Plan CME P 7.7.4
				County shall not accept dedications of roads, water & sewer facilities, or other public facilities in CHHA unless specifically provided for in an enforceable development agreement.	Include list of all mitigated projects in high hazard areas, damage costs prior to mitigation, cost to mitigate and cost savings due to mitigation (if known).		Bay County Comp Plan CME P 7.7.5

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Are there measures to limit public expenditures that subsidize development in high-hazard areas? (continued)	No	Yes				Conduct an analysis on unintended consequences (e.g., subsidizing development) from allowing public expenditures in CHHA.	Include map of critical facilities and table and map of infrastructure in hazard zones, to depict those currently exposed to hazard impacts.	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
Are there creative neighborhood design solutions or development regulations that mitigate hazards, such as clustering or transfer of development rights?	No	Yes	G5 OA Continue to improve upon the use of the minimum NFIP standards through improved local, regional or state codes and ordinances.			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 both mitigate natural hazards & protect natural resources such as: clustering on upland areas, limiting impervious surface in SFHA, setbacks and buffers.	Okaloosa County Comp Plan CME O 2.6
			G5 OB Continue to improve upon and increase the minimum Florida Building Code with regard to windload and flying debris minimum standards through improved local, regional, or state codes and ordinances where appropriate and possible.			County will adopt regulations to ensure development doesn't create flood hazard to existing or downstream development	Include goal/objective to support No Adverse Impact (NAI) initiatives and best practices.	Bay County Comp Plan CE P 6.13.4

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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.	CME P 11.A.5.4: County shall maintain inventory of infrastructure in CHHA & update annually. Comp plan implementation committee shall produce report for BCC's consideration on opportunities to relocate or replace infrastructure.		Maintain GIS inventory of resiliency (e.g., wind speed, flood elevation) of structures in CHHA.	
				Policy 11.A.6.2: Post-Disaster Population Assessment. After a major storm event such as a hurricane, per post-disaster review procedures county's planning department will reassess current & future population densities on coastal barrier islands, & make recommendations regarding population densities on the coastal barrier islands.	Limit specific impacts & cumulative impacts of development or redevelopment upon wetlands, water quality, water quantity, or other natural resources through site design techniques, such as clustering, elevation on pilings, setbacks, and buffering. The intent of this policy is to avoid such impact and to permit Mitigation of impacts only as a last resort.	Maintain completed and future LMS hazard mitigation projects in GIS for use with PDRP	Walton County Comp Plan CE P C-1.1.1
				CME O 11.A.8 Post-Disaster Redevelopment Plan (PDRP) 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 11.A.8.1 through 11.A.8.5, among others, upon adoption of this ordinance (reference section 15.01).			
				CME P 11.A.8.2 Prepare post disaster redevelopment plans to reduce or eliminate exposure of human life & public & private properties to natural hazards, to distinguish between immediate & long term repair & redevelopment activities. County shall maintain an inventory of areas within the county which have experienced repeated damage from coastal storms, which will be used by county in guiding & directing redevelopment activities including those activities associated with repairing or relocating infrastructure.	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

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Are there measures to limit redevelopment in hazard areas and procedures for post-disaster recovery that will lead to a more disaster-resistant community? (continued)	No	Yes	None found during this review.	CME P11.A.8.4 Commencing in 2005, PDRP shall be reviewed every five years. PDRP will provide a process and criteria for the relocation, removal or modification of damaged structures in compliance with: NFIP minimum elevation& construction standards; coastal construction standards (F.S.161); hazard mitigation sufficiency; extent of damage; & impact of the removal or modification of the structure would have on important natural resources, infrastructure, need to protect lives and property, financial feasibility, & consistent with the requests, recommendations or permits from state/federal regulatory agencies.				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	Okaloosa County Comp Plan FLUE P 1.2		
				CME P 11.A.8.5 Comp plan implementation committee shall make recommendations to BCC, as needed, regarding comprehensive plan and ordinance amendments to insure consistency with the CEMP & applicable existing inter-agency hazard mitigation reports. The committee shall include recommendations of the emergency management director in its report.				Permitting of new development & redevelopment in any Hurricane Evacuation Zones shown in Figure 34 of Tri-State Hurricane Evacuation Study (June 1986), shall not result in increased hurricane evacuation times.		Walton County Comp Plan CE P C-4.2.5	
				CME P 11.A.8.7 An Intergovernmental Task Force, per PDRP shall be established by November 2000, to foster cooperation between local governments during pre-disaster planning, post-disaster mitigation analysis and redevelopment. Task force will be activated to make recommendations concerning pre-disaster planning, post-disaster mitigation analysis and redevelopment during every calendar year during which it was mobilized for a disaster declaration.							
				CME P 11.A.9.7 Through the local hazard mitigation strategy, the county shall jointly seek state or federal funding, for the development and establishment of a "Dune Restoration and Protection Program" which will be applicable to all county-owned shoreline areas.							

## 6. Data Sources

### County Overview:

Florida Population Studies Bulletin 141: Projections of Florida Population by County, 2004–2030. Bureau of Economic and Business Research, Warrington College of Business, University of Florida. Gainesville, Florida.

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**

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

- **Goal 1** *Enhance coordination and communication among local and regional organizations to implement the hazard mitigation goals and objectives. (p 31)*
  - **Objective A** Continue to identify and solicit effective participation from all governing bodies, regulating authorities, regional organizations, for-profit and nonprofit organizations, community organizations, neighboring governing bodies and organizations, and any other organizations that may have an interest in being a stakeholder in the mitigation process.
    - Task 3** On an on-going basis, incorporate mitigation concepts and ideas into any relevant discussions and presentations by any organization or entity out in the community, to include a comment and invitation to attend and be a part of the LMS meetings.
- **Goal 2** *Reduce risks and vulnerabilities of people and structures in hazard-prone and environmental areas. (p.32)*
  - **Objective A** Identify the risks and vulnerabilities that need to be addressed in our community through a risk assessment and hazards analysis.
  - **Objective D** Seek out funding opportunities to implement the mitigation strategy.
    - Task 1** On an ongoing basis continue to identify and solicit funding opportunities through grant programs such as HMGP, FMA, CDBG, and others at the state and Federal level.
    - Task 2** By December 2004, encourage the local governments to “buy in” to the LMS strategy and provide funding for the LMS initiatives and projects through special budget appropriation or through a permanent budget line item specifically for the LMS.
- **Goal 3** *Integrate and coordinate all local mitigation activities and programs under the LMS as appropriate, or as directed or required by programmatic rules and requirements. (p. 35)*
  - **Objective A** Identify any and all intergovernmental plans, studies, reports, and technical information from various agencies at the Federal, State, and Local levels of government and community organizations that have a mitigation function and incorporate those into the LMS mitigation strategy.
    - Task 2** On an on-going basis, continue to encourage members to identify all possible intergovernmental and organizational plans, studies, reports, and technical information that may be relevant to the LMS and included in any future update to the LMS plan and analysis.
  - **Objective B** Continue to focus on Federal and state grant programs and other funding opportunities for mitigation through the LMS either as we desire at the local level, or as State and Federal regulations and guidelines require. Programs already required to utilize the LMS are HMGP, FMA, NFIP, CRS, and potentially CDBG.
    - Task 1** By June 2004, coordinate the LMS activities and grant program processes to incorporate the Capital Improvements Programs where appropriate.

- **Goal 4** *Provide Education, Outreach, Research, and Development of mitigation initiatives and programs. (p. 36)*
  - **Objective A** Provide education to all potential stakeholders, governing and political bodies, and to the general public as to the goals and objectives of the LMS.
    - Task 4** By September 2004, inventory what printed materials are being provided to the public in relation to preparedness and mitigation and assess the need to consolidate efforts, update information, or make more consistent, the message that is being presented. Take advantage of the economies of scale.
    - Task 7** By December 2004, target homebuilders to enhance their educational efforts to homebuyers with regard to mitigation techniques and options.
  - **Objective B** Create and develop a Firewise program in Escambia County
    - Task 1** By June 2004, explore the option of creating a Firewise program here in Escambia County.
    - Task 2.** By September 2004, initiate communications with all the municipalities in the County, the Escambia Fire-Rescue, Pensacola Fire-rescue, DOF, and the local Florida Builders' Association and coordinate any interest in the development of a Firewise program in the County.
  - **Objective C** Continue to develop research and provide studies that contain updated and more specific detailed data that will facilitate the identification and focus of mitigation activities that may be impacted by local development and growth.
- **Goal 5** *Improve and enhance current development rules, laws, regulations, and codes to ensure that future development will continue to be less vulnerable to our hazards. (p.37)*
  - **Objective A** Continue to improve upon the use of the minimum NFIP standards through improved local, regional or state codes and ordinances.
    - Task 1** By March 2005, evaluate our current development regulations and determine any short falls in the level of protection against the identified hazards in this plan. Meet with the appropriate regulating agencies to discuss options and recommendations.
    - Task 2** By March 2005, evaluate our current building regulations and determine any short falls in the level of protection against the identified hazards in this plan. Meet with the appropriate regulating agencies to discuss options and recommendations.
    - Task 3** On an on-going basis, continue to participate in the CRS program and implement activities that will earn points in the program and better mitigate our community in the future.
  - **Objective B** Continue to improve upon and increase the minimum Florida Building Code with regard to windload and flying debris minimum standards through improved local, regional, or state codes and ordinances where appropriate and possible.
  - **Objective C** Continue to improve upon and increase the minimum standards of any other identified mitigation activities, plans, or policies that impact our community against our identified hazards through improved local, regional, and state codes and ordinances.
- **Goal 6** *Incorporate the activities and Principles of the CRS program wherever possible and continue to utilize this LMS for credit as the "Floodplain Management Plan" for each of our CRS jurisdictions within Escambia County. (p.39)*

- **Objective A** Continue to provide credit points in the CRS program for Santa Rosa Island Authority, City of Pensacola, and Escambia County.

**Task 1** By March 2005, evaluate our current development regulations and determine any short falls in the level of protection against the identified hazards in this plan. Meet with the appropriate regulating agencies to discuss options and recommendations.

**Task 2** By March 2005, evaluate our current building regulations and determine any short falls in the level of protection against the identified hazards in this plan. Meet with the appropriate regulating agencies to discuss options and recommendations.

**Task 3** On an on-going basis, continue to participate in the CRS program and implement activities that will earn points in the program and better mitigate our community in the future.

**ATTACHMENT F**  
**Escambia County Comprehensive Plan Excerpts Related to Hazard Mitigation**

**FUTURE LAND USE ELEMENT**

**OBJECTIVE 7.A.2:** Future Land Use and Natural Resources. Amendments to future land uses will be required to demonstrate consistency with the appropriate topography, soil conditions and the availability of facilities and services.

**Policy 7.A.2.1:** The LDC, as revised pursuant to Policy 7.A.1.1, will contain specific and detailed provisions to implement this ordinance including, as a minimum, the following: d. Regulation of areas subject to seasonal or periodic flooding (reference Policy 7.A.5.3);

**Policy 7.A.6.3:** Coastal Construction Control Line. No new construction seaward of the CCCL will be allowed until the applicant for such construction has obtained all necessary permits and approvals from state or federal regulatory agencies. (i.e. DEP, Florida Land and Water Adjudicatory Commission, etc.)

**Policy 7.A.4.7.a:** (in part) Rezoning within the AG/CHHA [Agriculture/Coastal High Hazard Area] to a higher density and/or intensity will be discouraged.

**Policy 7.A.4.7.f.3:** MU-3 (in part) (Mainland Coastal High Hazard Area) – This mixed-use category (subset) provides for a less intense mixture of residential, commercial and recreation uses. The purpose of the subset is to delineate the mainland CHHA in a separate category for purposes of monitoring development within the Category 1 Hurricane Evacuation Zone. To encourage development outside of this category, the county may allow, through the LDC, the transfer of development rights from this category to other non-CHHA future land use categories.

**Policy 7.A.5.1:** Wetlands. The County shall implement the provisions described throughout this plan that promote the natural functions of identified wetlands and wetlands enhancement projects will be required where appropriate. Appropriate shall be defined as any time a proposed project adversely impacts, or alters functioning wetlands (reference Policy 11.A.1.4).

**Policy 7.A.5.3:** Floodprone Areas. The location of parcels subject to FEMA construction standards (reference Policy 11.A.4.1) shall be determined through use of the FEMA Flood Hazard Boundary Maps (panels) which are incorporated herein by reference.

**Policy 7.A.5.7:** (in part) Wetlands Buffers. Buffers will be created between development and environmentally sensitive areas including wetlands.

**Policy 7.A.5.8:** Wetlands or Wildlife Indicators. The County does adopt and will use the National Wetlands Inventory Map and the Escambia County Soils Survey and the Florida Game and Freshwater Fish Commission LANDSAT imagery of the county as indicators of the potential presence of wetlands or listed wildlife habitat. In reviewing applications for development approval, if a parcel is determined to have wetlands or listed wildlife habitat potential based on any of these or any other reliable information, the county will require a site specific wetlands or listed wildlife habitat determination and such determination shall be used to determine the buildable area (uplands) of the parcel or lot. Preparation of the site-specific survey must be approved by Escambia County and in a form and format acceptable to the county. Protection of the wetlands or listed wildlife habitat as determined in the site-specific survey shall be afforded during and after construction activities. Also, for protection of the floodplain and to regulate any activities proposed therein, the county will adopt the FEMA floodplain maps (community panels) in the LDC. Also, see Policy 7.A.5.3 above and Objective 11.A.2 and the policies thereunder.

**Policy 7.A.6.4:** Coastal Land Use. Densities and intensities of land use will be regulated consistent with the goals, objectives and policies of this ordinance in order to maintain the road clearance times established by Objective 11.A.7.

## **COASTAL MANAGEMENT ELEMENT**

**Goal 11.A:** Protect people and property by limiting public expenditures in areas subject to destruction by natural disasters and by restricting development activities that would damage or destroy coastal resources.

**OBJECTIVE 11.A.1:** Coastal and Upland: Continually, the County shall protect, conserve and enhance coastal ecosystems, environmentally sensitive areas, wetlands, water resources, living marine resources, remaining coastal barriers and wildlife habitats by monitoring these areas and implementing Policies 11.A.1.1 through 11.A.1.7, among others, upon adoption of this ordinance.

**Policy 11.A.1.1:** Environmental Indicator Monitoring: The County shall monitor these sensitive areas and provide recommendations to the Escambia County Board of County Commissioners. Monitoring data shall include: 1. changes in the total acreage of coastal wetlands and the extent of wetland communities. 3. changes in the acreage of protected land on barrier islands, and 4. changes in acreage of land held for conservation and recreation use. Monitoring data and recommendations shall be included in the comprehensive plan implementation committee's annual report.

**Policy 11.A.1.2:** Future Land Use Element Resource Protection Policies. Limit the specific impacts and cumulative impacts of development or redevelopment upon wetlands, water quality, water quantity, wildlife habitats, living marine resources or other natural resources.

**Policy 11.A.1.3:** (in part) Primary Dune Protection. The County shall protect and enhance the primary dune system. The County will seek funding for dune enhancement projects through the local hazard mitigation strategy.

**Policy 11.A.1.5:** (in part) LDC Mitigation Provisions. The County shall implement mitigation provisions which must be followed by any development that impacts estuaries, wetlands, environmentally sensitive areas, primary dunes or other natural resources identified in this plan or the LDC. The provisions shall include: e. The avoidance of any adverse degradation of the function of the natural systems (estuaries, wetlands, primary dunes, etc.) f. Mitigate unavoidable adverse impacts on natural systems at a minimum ration of 1.5 to 1.0 whenever degradation occurs as a result of new development. Note: Mitigation will be allowed ONLY when development cannot occur pursuant to subparagraph a. above.

**Policy 11.A.1.6:** Resource Extraction. Resource extraction in environmentally sensitive areas within the coastal areas is prohibited if the disturbed area cannot be completely restored following the extraction activities.

**OBJECTIVE 11.A.2:** (in part) Estuarine/wetland protection: Monitor and improve estuarine environmental quality and protect functioning wetlands by implementing Policies 11.A.2.1 through 11.A.2.5, among others, upon adoption of this ordinance.

**Policy 11.A.2.1:** Intergovernmental Protection of Estuaries. Protect estuaries which are within the jurisdiction of the County and other local governments through intergovernmental coordination actions that ensure adequate sites for water-dependent uses, prevents estuarine pollution, control surface water runoff, protect living marine resources, reduce exposure to natural hazards, and ensure public access.

**Policy 11.A.2.6:** (in part) Wetland Development Provisions. Development in wetland areas as defined by the FDEP shall be subject to the following provisions: d. With the exception of water-dependent uses, commercial and industrial land uses will not be located in wetlands that have a high degree of hydrological or biological significance, including the following types of wetlands: Wetlands that are located in the 100-year floodplain.



**OBJECTIVE 11.A.4:** Beach and Floodplain Protection. Protect beaches, dunes, floodplains and floodways, by establishing construction standards which minimize the impacts of man-made structures and continually support or seek funding for the restoration of previously impacted areas.

**Policy 11.A.4.1:** FEMA Construction Standards. New development shall comply with current FEMA construction standards.

**Policy 11.A.4.2:** LDC Beach and Shoreline Protection. The LDC shall contain provisions which provide protection for beach and shoreline systems. These regulating provisions shall be reviewed annually by the comprehensive plan implementation committee and updated as necessary to address, among other concerns and issues, items contained in the Escambia/Santa Rosa Coast Resource Management Plan (ESRCRMP), including, but not limited to, the following: c. CCCL-related regulations; d. Dune replenishment, enhancement and revegetation programs. e. Wetland and environmentally sensitive area regulations.

**Policy 11.A.4.4:** Developer Dune Restoration. Anytime proposed construction would alter Gulf front beaches or primary dunes, the application for said construction must include an implementable plan for restoration of the altered gulf front beaches or primary dunes. Said restoration must occur before the proposed construction is allowed to be used or occupied.

**Policy 11.A.4.5:** LDC Floodplain Protection. The county shall protect floodplains by, at a minimum, implementing the following provisions: 1. Uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities will be restricted or prohibited. 2. Uses vulnerable to floods, including facilities which serve such uses, must be protected against flood damage at the time of initial construction. 3. The alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of floodwaters will be controlled. 4. Filling, grading, dredging and other development which may increase erosion or flood damage will be controlled. 5. The construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands will be prevented or regulated. A review of the county's floodplain protection provisions shall be included in the comprehensive plan implementation committee annual report and updated as necessary.

**OBJECTIVE 11.A.5:** Coastal High Hazard Areas. Limit public expenditures that subsidize development in coastal high hazard areas (CHHA) by implementing Policies 11.A.5.1 through 11.A.5.4, among others, upon adoption of this ordinance (reference section 15.01).

**Policy 11.A.5.1:** Definition. Coastal high hazard area shall be defined as the land within the Category 1 evacuation zones as delineated within the Northwest Florida Hurricane Study (U.S. Army Corps of Engineers, July 1999).

**Policy 11.A.5.2:** Public Expenditures in CHHA. Public expenditures within the coastal high hazard area will be limited to the provision, or support of recreation uses such as parks and walkovers, erosion control devices, increase public access and the correction of deficiencies, and to support infrastructure provided, however, that infrastructure sizing is consistent with that needed to support the densities and intensities established by this plan for those areas within the CHHA. The county shall, by ordinance, provide for funding sources for infrastructure improvements necessitated as a result of concurrency and hurricane evacuation standards including but not limited to the creation of tax increment financing districts. Following the adoption of any such ordinance, the Five Year Schedule of Capital Improvements (Table 14-1) shall be amended to identify the tax increment, or other financing funds allocated and available for each infrastructure improvement. The identification and availability of such funding shall be a prerequisite to approval of any development that requires an increase or expansion of infrastructure.

**Policy 11.A.5.3:** Public Facilities Criteria. New public facilities shall not be located in the coastal high hazard area unless the following criteria are met: 1. The facility is necessary to protect human lives or preserve important natural resources; or 2. The service provided by the facility cannot be provided at

another location outside the CHHA; and 3. The facility is designed to provide the minimum capacity necessary to meet level of service standards for its service area and its sizing is consistent with the densities and intensities reflected on the future land use map.

**Policy 11.A.5.4:** CHHA Infrastructure Inventory. The county shall maintain an inventory of infrastructure located within the coastal high hazard areas. The 1995 report on coastal infrastructure shall be updated annually. The comprehensive plan implementation committee shall produce a report for consideration by the board of county commissioners wherein opportunities to relocate or replace such infrastructure is presented.

**OBJECTIVE 11.A.6:** Population Redirection. Direct population concentrations away from coastal high hazard areas upon adoption of this ordinance.

**Policy 11.A.6.1:** CHHA Land Use. The county will limit all land use classifications to those reflected on the future land use maps and will limit the densities and intensities of land use as defined within this ordinance. Such limitations will assure that the relative proportion of dwelling units within the CHHA, as compared to the balance of the county, will remain fairly constant during the planning period.

**Policy 11.A.6.2:** Post-Disaster Population Assessment. In the event of a major storm event, such as a hurricane, as part of the post-disaster review procedures the county's planning department will reassess the current population on the coastal barrier islands and provide recommendations to the board of county commissioners within six months of the disaster which will include an assessment of future population densities and make any recommendations regarding population densities on the coastal barrier islands.

**Policy 11.A.6.3:** Higher Density Projects in CHHA. The county shall amend its land use regulations to include a requirement that any development on a coastal barrier island of more than 20 units per acre complete a special PUD approval process. As part of the PUD approval process a specific set of findings of fact must be developed including, but not limited to, consideration of coastal densities, health, life and safety of the general public, and evacuation times. These findings of fact shall be analyzed by the county and considered by the board of county commissioners in the final consideration for permitting any such project.

**OBJECTIVE 11.A.7:** Hurricane Evacuation. Through 2005, maintain a roadway clearance time for hurricane evacuation, out of the county of 24 hours for Category 2-3 storm event. Note: Year 2005, high seasonal occupancy, long response clearance times from the Transportation Analysis Update of the Northwest Florida Hurricane Study (HES) (U.S. Army Corps of Engineers, July 1999) is the basis for establishing the 24-hour roadway clearance time. Data for the technical traffic model for the HES will be updated to include 2000 Census data by December 2003.

**Policy 11.A.7.1:** Comprehensive Emergency Management Plan Implementation. The county shall continue to manage and implement its Comprehensive Emergency Management Plan (May 2002) and utilize the recommendations and guidance provided in the Northwest Florida Hurricane Study (U.S. Army Corps of Engineers, July 1999). **Policy 11.A.7.2:** Roadway Improvements. 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 11.A.7.3:** Evacuation for Special Needs. Evacuation procedures for special needs evacuees are set out in the May 2002 Comprehensive Emergency Management Plan. The emergency management division will maintain a voluntary register of people who need assistance during an evacuation as required by F.S. ch. 252. The emergency management division will ensure that an annually updated shelter list is available and maintained at the emergency operations center.

**Policy 11.A.7.4:** Group Home/Nursing Home Prohibition. By 2002, prohibit the location of new group homes, nursing homes, or other uses which have special evacuation requirements in the coastal high hazard area (CHHA).

**Policy 11.A.7.6:** Cooperation with Alabama. The county will continue to cooperate with Alabama officials in recognition of the fact that the majority of evacuees drive the short distance to Alabama for hurricane evacuation purposes. The county will continue to participate with Alabama officials in yearly meetings.

**Policy 11.A.7.7:** The committee appointed pursuant to Policy 14.A.3.6 shall include within the reports required by section 14.06 an analysis of proposed and new development's impact on hurricane evacuation times. The BCC, upon receipt of a report from the local planning agency (LPA), will address any deficiencies identified in the report and take corrective measures as necessary. The report and recommendations will consider the actual development which has occurred during the evaluation period (preceding 12 months) as well as the projected development anticipated to be approved during the succeeding evaluation period. The needed corrective actions by the BCC will be designed to maintain or reduce the clearance times established in Objective 11.A.7.

**Policy 11.A.7.8:** LDC Mobile Home/RV Impact Fees in CHHA. All new mobile homes and recreational vehicle developments within the CHHA shall be required by county development regulations to pay an impact fee or in-lieu payment to the county for off-site shelter provisions.

**Policy 11.A.7.9:** Development Orders in CHHA. The county shall not issue development orders for projects within the CHHA or impacting major evacuation routes, unless the hurricane evacuation time meets the acceptable standard established by Objective 11.A.7 above. Escambia County will ensure new residential development will be permitted only if the impact from that development will not cause the county evacuation times to be exceeded. All final development order applications that consist of 50 or more dwelling and/or lodging units (on a one-time or cumulative basis) in the CHHA (i.e., Category 1 Hurricane Evacuation Area), shall be evaluated to assure that the clearance times established by Objective 11.A.7 would be maintained. Hurricane clearance times shall be evaluated based on all existing and vested development in the county, together with any other development that has received final development order approval. "Final development orders," as used in this section, are development orders that include plans for the construction of improvements, and include subdivision plats and construction plans, site plans, conditional use approvals, and PUD final development plans, as well as individual building permits for building that are not part of a larger final development order.

**Policy 11.A.7.10:** Household/Hotel Evacuation. In order to prevent unnecessary evacuees from crowding roads and shelters during the hurricane season, the county shall continue to notify households of their need to evacuate at various threat levels. Hotels, motels and other similar facilities shall conspicuously post the need for evacuation, evacuation routes and shelter locations.

**Policy 11.A.7.11:** Evacuation Route Lane Changes. During evacuation times and in cooperation with public safety officials (FHP, ECSO, GBPD, etc.) the county can allow reverse laning on multi-lane roadways and evacuation routes.

**Policy 11.A.7.12:** Evacuation Shelter Locations. The Escambia County Emergency Management Division will identify appropriate shelter locations for evacuees. The Emergency Management Division will continue to work with the Escambia County School District and the Northwest Florida Chapter of the American Red Cross to identify additional shelter capacity, based on the ARC 4496 structural criteria, through mitigation projects and incorporating enhanced hurricane protection areas into new construction projects.

**OBJECTIVE 11.A.8:** Post-Disaster Redevelopment Plan (PDRP) 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 11.A.8.1 through 11.A.8.5, among others, upon adoption of this ordinance (reference section 15.01).

**Policy 11.A.8.1:** National Flood Insurance Program. The county shall continue its participation in the national flood insurance program in conformance with Public Law 93-288.

**Policy 11.A.8.2:** Phases of Redevelopment/Damage Assessment. By April 30, 1993, prepare draft post disaster redevelopment plans which will reduce or eliminate the exposure of human life and public and private properties to natural hazards and which will distinguish between immediate repair and cleanup actions needed to protect public health and safety and long-term repair and redevelopment activities. To assist with the implementation of this policy, the county shall maintain an inventory of areas within the county which have experienced repeated damage from coastal storms. The inventory will be used by the county in guiding and directing redevelopment activities including those activities associated with repairing or relocating infrastructure.

**Policy 11.A.8.4:** Post-Disaster Redevelopment Plan Criteria. Commencing in 2005, the post-disaster redevelopment plan shall be reviewed every five years. The post-disaster redevelopment plan will provide a process and criteria for the relocation, removal or modification of damaged structures. The criteria will include, but not be limited to: 1. Compliance with national flood insurance minimum elevation and construction standards; 2. Conformance with coastal construction standards pursuant to F.S. ch. 161; 3. Hazard mitigation sufficiency; 4. Extent of damage; 5. The impact the removal or modification of the structure would have on: a. Important natural resources; b. Infrastructure; c. The need to protect lives and property; d. Financial feasibility; and 6. Be consistent with the requests, recommendations or permits issued by state or federal regulatory agencies.

**Policy 11.A.8.5:** Consistency with Comprehensive Emergency Management Plan. The comprehensive plan implementation committee shall make recommendations to the board of county commissioners, as needed, regarding comprehensive plan and ordinance amendments to insure consistency with the comprehensive emergency management plan and applicable existing inter-agency hazard mitigation reports. The committee shall include recommendations of the emergency management director in its report.

**Policy 11.A.8.6:** Local Hazard Mitigation Strategy. The County shall implement the Escambia County Local Mitigation Strategy.

**Policy 11.A.8.7:** Intergovernmental Recovery Task Force. An Intergovernmental Task Force, as outlined in the Post Disaster Redevelopment Plan shall be established by November 2000, to foster cooperation between local governments during pre-disaster planning, post-disaster mitigation analysis and redevelopment. Additionally the task force will be activated and mobilized and mobilized for a minimum period of 60 days following a disaster declaration. The task force will make recommendations to the committee appointed pursuant to Policy 14.A.3.6 which shall include within the reports required by section 14.06 consideration of recommendations from the task force concerning pre-disaster planning, post-disaster mitigation analysis and redevelopment during every calendar year during which it was mobilized for a disaster declaration.

**Policy 11.A.9.6:** Beach Hardening Restrictions. No hardening (seawalls, break-waters, revetments, etc.) of gulf beaches shall be allowed unless such hardening has been determined to have an overriding public purpose. Such determination, by necessity, will be made cooperatively between all regulatory agencies having authority over the gulf beaches.

**Policy 11.A.9.7:** Dune Restoration. Through the local hazard mitigation strategy, the county shall jointly seek state or federal funding, for the development and establishment of a "Dune Restoration and Protection Program" which will be applicable to all county-owned shoreline areas.

**Policy 11.B.2.8:** Interlocal Agreements. Escambia County, shall implement the adopted interlocal agreements with the City of Pensacola, the City of Gulf Breeze and Santa Rosa County so as to establish procedures whereby each government will be afforded the opportunity to review development proposals that affect Escambia Bay, Santa Rosa Sound or East Bay (or any other water bodies as appropriate). Said agreement shall insure that adequate sites for water dependent uses are made available, estuarine pollution is prevented or minimized, surface water runoff is controlled, living marine

resources are protected, exposure to natural hazards is reduced and public access to the shorelines is maintained.

### **RECREATION AND OPEN SPACE ELEMENT**

**OBJECTIVE 12.A.4:** Recreation Facilities and LOS. Ensure that parks and recreation facilities and open space are provided consistent with the adopted level of service standards by public agencies and private enterprise by implementing Policies 12.A.4.1 through 12.A.4.11.

**Policy 12.A.4.10:** (in part) County Acquisition of Open Space. The County shall continue to acquire (through lease, acquisition, or dedication) open space and natural areas so as to maintain and improve: 2. The natural function of open space, wetlands and other sensitive lands within the county. The priority for acquisition of open space and/or natural areas shall be: 1. Unique natural systems/environmentally sensitive lands; 2. Shoreline sites; 3. Sites within the urban or transitioning areas experiencing rapid development.

### **CAPITAL IMPROVEMENTS ELEMENT**

**OBJECTIVE 14.A.2:** Projects in the CHHA. Limit public expenditures that subsidize development in the coastal high hazard areas upon adoption of this ordinance.

**Policy 14.A.2.1:** Public Access/Recreation Only. 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 Policy 11.A.5.2.