



# **Integrating Hazard Mitigation into Comprehensive Planning**

## **Taylor County Profile**

**Florida Department of Community Affairs**

## Executive Summary

The experiences of the 2004 hurricane season epitomize the importance of better integrating hazard mitigation activities into local comprehensive planning. Last fall, residents all over the state experienced significant damages from Hurricanes Charley, Frances, Jeanne, and Ivan as a result of winds, tornadoes, surge, and/or flooding. But this was not the only time we have experienced natural disasters, 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 firefighters' best efforts, 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 Taylor County Profile has been prepared as part of a statewide effort by the Florida Department of Community Affairs to guide local governments in integrating hazard mitigation principles into local Comprehensive Plans. Information provided in this profile will enable planners to (1) convey Taylor 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 be better integrated into the Comprehensive Plan; and (4) determine if any enhancements could be made to the Local Mitigation Strategy (LMS) to better support comprehensive planning. Best available statewide level data are provided to convey exposure and risk as well as illustrate the vulnerability assessment component of the integration process.

In this profile, guidance is provided on how hazard mitigation can be a part of comprehensive planning through an examination of population growth, the hazards that put the County at risk, the special needs population and structures that could be affected by these hazards, and the distribution of existing and future land uses in different hazard areas. We hope that this analysis will serve as an example of the issues each jurisdiction should consider as they update their plans to include hazard mitigation. The profile also contains a review of the LMS and the Comprehensive Plan. Based on the analysis and review, we were able to develop specific options for the County on how to incorporate more hazard mitigation into the Comprehensive Plan and how to enhance the LMS so that it is also a better tool for local planners.

During our review, we found that Taylor County had many strengths regarding hazard mitigation in both its LMS and Comprehensive Plan, and these are outlined in the profile. There are always ways to further strengthen such plans, however, and the following is a summary of some of the options that would enable the County to do so.

The Comprehensive Plan cross references and supports the Comprehensive Emergency Management Plan but does not reference the Local Mitigation Strategy as a hazard mitigation tool due to its lack of existence when the Comprehensive Plan was last updated. In the next update of the Plan, the LMS should be referenced and the LMS project list should be incorporated into the Capital Improvements Schedule.

There are policies that address evacuation routes and the need to maintain the current evacuation clearance time levels of service, but there could also be policies that prioritize improvements and maintenance of evacuation routes in the 5-year Capital Improvements Schedule. Also, there can be policies to address emergency shelter deficiencies in the County or

that promote alternatives to public shelters, such as residential safe rooms in structures outside the surge and flood zones.

Better public education on building practices and flood hazard mitigation could lead to a decrease in loss of life and property and so should be supported in the Comprehensive Plan. Since storm surge and flooding pose a high threat to the County, increased elevation requirements in hazard areas may reduce damages in the case of a flood. Obtaining flood zone data in a digital format for analysis will reveal more flood mitigation opportunities for the County including areas that should be restricted from future development.

Many structures in Taylor County are within a high-risk wildfire zone but wildfire mitigation is not directly addressed in the Comprehensive Plan. The County can address this by promoting cooperation with the Division of Forestry, firewise development standards, and public education of low-cost wildfire mitigation techniques that residents can do themselves.

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# 1. County Overview

## Geography and Jurisdictions

Taylor County is located along the Gulf Coast at the heart of the Big Bend region. It covers a total of 1,042 square miles with an average population density of 18.5 people per square mile (U.S. Census, 2000).



There is one incorporated municipality within the County as shown in Table 1.1.

## Population and Demographics

Official 2004 population estimates for all jurisdictions within Taylor County as well as the percent change in population from the 2000 U.S. Census are presented in **Table 1.1**. The most current estimated countywide population of Taylor County is 20,941 people (University of Florida, Bureau of Economic and Business Research, 2004). Approximately 32.6% of countywide population resides in the City of Perry while 67.4% of County residents reside in unincorporated areas. Between 1990 and 2000, Taylor County as a whole had a growth rate of 12.5%, which was less than the statewide growth rate of 23.5% in those 10 years.

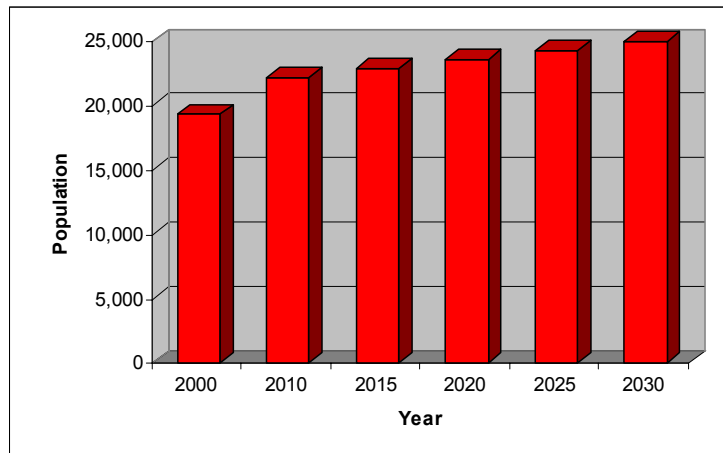
**Table 1.1 Population Estimates by Jurisdiction**

Jurisdiction	Population, Census 2000	Population Estimate, 2004	% Change, 2000-2004	% of Total Population (2004)
Unincorporated	12,409	14,118	13.8%	67.4%
Perry	6,847	6,823	-0.4%	32.6%
<b>Countywide Total</b>	<b>19,256</b>	<b>20,941</b>	<b>8.8%</b>	<b>100.0%</b>

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

According to the University of Florida, Bureau of Economic and Business Research (2004), Taylor County’s population is projected to grow steadily for the next 25 years, reaching 24,900 people by the year 2030. **Figure 1.1** illustrates medium population projections for Taylor County based on 2004 calculations.

**Figure 1.1 Medium Population Projections for Taylor County, 2010-2030**



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

Of particular concern within Taylor County's population are those persons with special needs and/or limited resources such as the elderly, disabled, low-income, or language-isolated residents. According to the 2000 U.S. Census, 14.1% of Taylor County residents are listed as 65 years old or over, 23.7% are listed as having a disability, 18.0% are listed as below poverty, and 4.3% live in a home with a primary language other than English.

## 2. Hazard Vulnerability

### Hazards Identification

The following are natural hazards that pose a risk for the County as identified in the County's Local Mitigation Strategy (LMS): hurricanes and coastal storms, severe storms / tornadoes, wildfires, and floods. All other hazards were given medium or low priority.

The LMS includes historical accounts of major disasters in the County. It notes that Taylor County was not directly hit by a hurricane during the 2004 season, but did feel the effects from Hurricanes Jeanne and Frances. Hurricanes are a particular concern for the County since the geography of the area allows for extensive inland flooding from storm surge. Wildfires have threatened the County and region in the recent past. In 1998, there was a fire in San Pedro Bay that burned 32,000 acres and eventually threatened the City of Perry before it was extinguished. The 2001 Mallory Swamp Fire burned over 61,000 acres in neighboring Counties. The "Spring Flood" of 2003 caused waist deep water in the streets of Perry.

### Hazards Analysis

The following analysis looks at four major hazard types: hurricanes and tropical storms (specifically surge), flooding, sinkholes, and wildfire. All of the information in this section, except the evacuation and shelter estimates, 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. It was created by Kinetic Analysis Corporation (KAC) under contract with the Florida Department of Community Affairs (FDCA). Estimated exposure values were determined using the Category 3 Maxima Scenario for storm surge, the Federal Emergency Management Agency's (FEMA's) designated 100-year flood zones (A, AE, V, VE, AO, 100 IC, IN, AH), levels of concern 5 through 9 for wildfire, and high through adjacent risk zones for sinkholes. Storm surge exposure data are 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>) or your countywide LMS.

#### *Existing Population at Risk*

**Table 2.1** presents the estimated countywide population at risk from hazards, as well as a breakdown of the sensitive needs populations at risk. Digital maps of FEMA flood zones for Taylor County were unavailable at the time of this analysis. According to the Taylor County LMS though, the total population that could be affected by inland flooding may exceed 800, not including the coastal communities of Dark Island, Dekle Beach, Keaton Beach, Exell Island, and Cedar Island. (Taylor County, 2005).

In Taylor County, wildfires are a major risk. **Table 2.1** shows there are 3,118 disadvantaged people residing in a medium-high risk wildfire zone. Fortunately, the LMS describes the success of a recent prescribed burning program achieved by the Department of Forestry last year to mitigate wildfire risks. As indicated in the LMS, Taylor County is vulnerable to surge based on its geographical condition. Fortunately, Perry, the major residential center in the county, is located outside of the coastal hazard zone. Storm surge could potentially put at risk 1,689 residents

located in the coastal communities listed above. These residents at risk of surge would most likely require evacuation or sheltering. The number at risk from surge would likely increase during the main fishing season, July to September, thereby increasing the number of potential evacuees. Sinkholes are described in the LMS as a low priority hazard for the County, but this data shows that 1,486 people may be at risk from a sinkhole.

**Table 2.1 Estimated Number of Persons at Risk from Selected Hazards**

Population	Flood	Sinkhole (high-adjacent risk)	Wildfire (medium-high risk)	Surge
Minority	NA	281	136	16
Over 65	NA	194	633	402
Disabled	NA	756	1,552	1,020
Poverty	NA	223	538	308
Language Isolated	NA	0	0	0
Single Parent	NA	88	161	67
<b>Countywide Total</b>	NA	<b>1,486</b>	<b>3,118</b>	<b>1,689</b>

NA = Data not available.

Source: Florida Department of Community Affairs, 2005a.

*Evacuation and Shelters*

As discussed in the previous sections, population growth in Taylor County has been steady, and this trend is projected to continue. As the population increases in the future, the demand for shelter space and the length of time it takes to evacuate the County are only going to increase. Currently, evacuation clearance times for Taylor County are estimated to be 12 hours for Category 3 hurricanes and 24 hours for Category 4 and 5 hurricanes, as shown in **Table 2.2**. These data were derived from 11 regional Hurricane Evacuation Studies that have been produced by FEMA, the U.S. Army Corps of Engineers, and Florida Regional Planning Councils. The study dates range from 1995 to 2004 and are updated on a rotating basis. According to Rule 9J-5, counties must maintain or reduce hurricane evacuation times. Some experts have suggested that counties should try to achieve 12 hours or less clearance time for a Category 3 hurricane. This is due to the limited amount of time between the National Hurricane Center issuing a hurricane warning and when the tropical storm-force winds make landfall. Taylor County is able to meet this recommendation for now, but with continued growth and the limited road network of the region, it will be difficult to maintain this evacuation time. Additionally, storm events requiring evacuation typically impact larger areas, often forcing multiple counties to issue evacuation orders and placing a greater number of evacuees on the major roadways, further hindering evacuation progress. Thus, it is important to not only consider evacuation times for Taylor County, but also for other counties in the region as shown in **Table 2.2**.

**Table 2.2 County Evacuation Clearance Times in Hours**  
(High Tourist Occupancy, Medium Response)

County	Hurricane Category				
	1	2	3	4	5
Dixie	6	6	6	6	6
Franklin	5.5	8	8	8	8
Gulf	7	9.75	9.75	10.75	10.75
Jefferson	3.5	3.5	5.25	5.25	5.25
Leon	15.75	23	23	24.5	24.5
Taylor	12	12	12	24	24
Wakulla	13.25	21.25	21.25	22	22

Note: Best available data as of 7/05

Source: State of Florida, 2005

(some counties may be in the process of determining new clearance times)

Coupled with evacuation is the need to provide shelters. If adequate space can be provided in safe shelters for Taylor County residents, then this could be a partial solution to the ever-increasing clearance times for evacuation. Currently, the State Shelter Plan reports that County shelters have the capacity for 600 evacuees, but there are 1,681 more people that will need sheltering in the case of a Category 5 hurricane. It is projected that by 2009 the deficit will increase to 1,818 people in need of space (FDCA, 2004). The County will need to address this deficiency but might also try to decrease the demand for public shelters by encouraging new homes to be built with safe rooms if they are outside of flood and surge zones. Residents who are further inland in the County and not in a flood zone could find shelter in an emergency if they had a safe room that could withstand hurricane-force winds. Safe rooms could at least be a last option for residents who cannot evacuate in time, especially in the case of a tornado.

*Existing Built Environment*

While the concern for human life is always of utmost importance in preparing for a natural disaster, there also are large 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 recover from a disaster. **Table 2.3** presents estimates of the number of buildings in Taylor County by structure type that are at risk from each of the four hazards being analyzed. Flood data was also not available to analyze structures at risk.

According to the latest National Flood Insurance Program Repetitive Loss Properties list, there are 18 homes in unincorporated Taylor County that have had flood damage multiple times over the last 15 years. There also are 2,332 structures at risk from surge, as shown in **Table 2.3**. A majority of those structures are either single-family homes or mobile homes.

**Table 2.3** also shows 1,170 structures are within high to adjacent risk sinkhole areas with 56% of those structures being single-family homes. Single-family homes are also at risk from wildfire, with 41% of the total 6,765 structures at risk being single-family homes.

**Table 2.3 Estimated Number of Structures at Risk from Selected Hazards**

Structure Type	Flood	Sinkhole (high-adjacent risk)	Wildfire (medium- high risk)	Surge
Single-Family Homes	NA	656	2,778	896
Mobile Homes	NA	201	1,064	840
Multi-Family Homes	NA	33	307	228
Commercial	NA	86	263	51
Agriculture	NA	48	1,704	281
Gov./Institutional	NA	146	649	36
<b>Total</b>	NA	<b>1,170</b>	<b>6,765</b>	<b>2,332</b>

NA = Data Not Available

Source: Florida Department of Community Affairs, 2005a.

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 not only the people and property in a hazard area, but also the probability of occurrence that is necessary to understand the impacts to people and property. 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 in considering where to implement risk reducing comprehensive planning measures.



## Analysis of Current and Future Vulnerability

The previous hazards analysis section discussed population and existing structures at risk from flooding, sinkholes, wildfire, and surge according to MEMPHIS estimates. This section demonstrates the County's vulnerabilities to these hazards spatially and in relation to existing and future land uses. The following maps of existing land use within hazard areas are based on the 2004 geographic information system (GIS) shapefiles from the County Property Appraisers Office. Maps of future land uses in hazard areas were developed using the Taylor County future land use map obtained February 2001. Flood-prone acres could not be tabulated due to the lack of digital data on flood zones within the County.

In **Attachment A**, four maps show the existing and future land uses within the coastal hazard zone (Category 1 storm surge zone) and the hurricane vulnerability zone (Category 1 evacuation zone). The affected area for the coastal hazard and hurricane vulnerability zones is mostly south of Highway 19 and Highway 98. **Table 2.4** presents the number of acres of land in both of these zones by existing land use. A majority of the area within these zones is currently used for agriculture or parks and conservation- 91.5% in the coastal hazard zone and 92.1% in the hurricane vulnerability zone. **Table 2.5** shows that of the currently vacant acres, 45.4% within the coastal hazard zone and 44.1% within the hurricane vulnerability zone are designated for future agriculture/rural residential use. With an increase in the amount of residences in these zones, it is likely there will be an increase in persons and property that are vulnerable to a hurricane. The demand for hurricane shelters and evacuation routes is also likely to increase.

In **Attachment B**, two maps present the existing and future land uses within the 100-year flood zone. The amount of acreage by existing and future land uses are not included in **Table 2.4** and **Table 2.5** due to a lack of data at the time of this analysis. The maps show that much of the County is subject to flooding. Most of the County located north and west of Perry is within in the flood zone. There is also a lot of land south of Highway 19 and east of Perry at risk to flooding. Most of this land is used for agriculture and remains so in the future land use map, although land along Keaton Beach Road allows for low-density development.

In **Attachment C**, maps present the land uses associated with high-risk wildfire zones. Potential wildfire risk areas are concentrated in the interior of the County near the northwest and northeast periphery of Perry and found in sporadic locations south towards Steinhatchie. The amount of acres of susceptible to wildfire is relatively low at 15,873 as show in **Table 2.4**. Of those acres, 86.1% are currently used for agriculture. Of the currently 337 vacant acres susceptible to wildfire, 71.4% are designated for future mixed use- urban development (**Table 2.5**). These developments should consider firewise building materials and landscape design to reduce their vulnerability to wildfire.

**Attachment D** includes maps of potential sinkhole areas in the County. The sinkhole susceptible areas are located along Highway 19 near Perry, along the Steinhatchee River, and near Hampton Springs. **Table 2.4** shows that 50.3% of the potential sinkhole acres are currently in agricultural use, meaning that there are not as many structures at risk as there could be. Of the currently vacant acres susceptible to sinkholes, 46% is split between future commercial-aviation related uses and mixed use-urban development (**Table 2.5**). These allowable uses could greatly increase the County's vulnerability to sinkhole damage.

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

Existing Land Use Category		Coastal Hazard Zone	Hurricane Vulnerability Zone	Flood Zones	Wildfire Susceptible Areas	Potential Sinkhole Areas
Agriculture	Acres	60,313.7	317,313.9	NA	13,660.6	4,653.9
	%	40.2	72.2	NA	86.1	50.3
Attractions, Stadiums, Lodging	Acres	11.4	15.4	NA	0.0	11.8
	%	0.0	0.0	NA	0.0	0.1
Places of Worship	Acres	6.0	42.8	NA	0.0	15.8
	%	0.0	0.0	NA	0.0	0.2
Commercial	Acres	60.2	158.7	NA	48.1	138.7
	%	0.0	0.0	NA	0.3	1.5
Government, Institutional, Hospitals, Education	Acres	7,449.0	10,129.5	NA	312.7	449.4
	%	5.0	2.3	NA	2.0	4.9
Industrial	Acres	11.1	943.7	NA	0.0	500.0
	%	0.0	0.2	NA	0.0	5.4
Parks, Conservation Areas, Golf Courses	Acres	76,947.6	87,303.8	NA	697.5	769.3
	%	51.3	19.9	NA	4.4	8.3
Residential Group Quarters, Nursing Homes	Acres	0.0	0.0	NA	0.0	0.4
	%	0.0	0.0	NA	0.0	0.0
Residential Multi-Family	Acres	0.4	0.4	NA	0.0	1.3
	%	0.0	0.0	NA	0.0	0.0
Residential Mobile Home, or Commercial Parking Lot	Acres	492.9	4,449.5	NA	312.7	423.1
	%	0.3	1.0	NA	2.0	4.6
Residential Single-Family	Acres	529.2	4,338.9	NA	192.4	851.6
	%	0.4	1.0	NA	1.2	9.2
Transportation, Communication, Rights-Of-Way	Acres	740.1	2,530.7	NA	264.6	432.3
	%	0.5	0.6	NA	1.7	4.7
Utility Plants and Lines, Solid Waste Disposal	Acres	41.9	147.1	NA	48.1	26.1
	%	0.0	0.0	NA	0.3	0.3
Vacant	Acres	3,491.8	12,223.5	NA	336.7	977.1
	%	2.3	2.8	NA	2.1	10.6
<b>Total Acres</b>	<b>Acres</b>	<b>150,095.3</b>	<b>439,597.9</b>	<b>NA</b>	<b>15,873.4</b>	<b>9,250.8</b>
	<b>%</b>	<b>100.0</b>	<b>100.0</b>	<b>NA</b>	<b>100.0</b>	<b>100.0</b>

NA = Data not available.

**Table 2.5 Total and Undeveloped Acres in Hazard Areas by Future Land Use Category for the Unincorporated County**

Future Land Use Category		Coastal Hazard Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible Areas		Potential Sinkhole Areas	
		Total	Undev.	Total	Undev.	Total	Undev.	Total	Undev.	Total	Undev.
Agriculture - 1 (med. to large scale)	Acres	0.0	0.0	0.0	0.0	NA	NA	1,707.6	0.0	0.0	0.0
	%	0.0	0.0	0.0	0.0	NA	NA	10.8	0.0	0.0	0.0
Agriculture - 2 (very large scale - eg. Timber)	Acres	77,161.2	602.8	296,635.3	3,769.7	NA	NA	9,187.2	48.1	2,410.3	39.2
	%	51.4	17.3	67.5	30.8	NA	NA	57.9	14.3	26.1	4.0
Agriculture - Rural Residential	Acres	8,370.8	1,583.9	64,232.4	5,390.9	NA	NA	1,972.1	0.0	2,354.1	144.9
	%	5.6	45.4	14.6	44.1	NA	NA	12.4	0.0	25.4	14.8
Commercial - Aviation Related	Acres	0.0	0.0	49.0	2.0	NA	NA	72.2	0.0	280.4	226.5
	%	0.0	0.0	0.0	0.0	NA	NA	0.5	0.0	3.0	23.2
Commercial - Water Oriented	Acres	76.9	0.0	76.9	0.0	NA	NA	0.0	0.0	0.0	0.0
	%	0.1	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0
Conservation	Acres	59,708.9	169.0	62,482.8	173.9	NA	NA	505.1	0.0	0.0	0.0
	%	39.8	4.8	14.2	1.4	NA	NA	3.2	0.0	0.0	0.0
Industrial	Acres	0.0	0.0	1,906.7	616.0	NA	NA	360.8	0.0	803.2	130.4
	%	0.0	0.0	0.4	5.0	NA	NA	2.3	0.0	8.7	13.3
Mixed Use - Rural Residential	Acres	1,163.2	75.6	7,928.1	709.6	NA	NA	745.6	24.1	616.2	89.6
	%	0.8	2.2	1.8	5.8	NA	NA	4.7	7.2	6.7	9.2
Mixed Use - Urban Development	Acres	3,000.0	1,058.9	5,194.0	1,490.7	NA	NA	1,034.2	240.5	1,759.4	222.5
	%	2.0	30.3	1.2	12.2	NA	NA	6.5	71.4	19.0	22.8
None	Acres	140.7	1.6	418.0	70.7	NA	NA	288.6	24.1	1,027.3	123.9
	%	0.1	0.0	0.1	0.6	NA	NA	1.8	7.2	11.1	12.7
Public	Acres	473.7	0.0	674.6	0.0	NA	NA	0.0	0.0	0.0	0.0
	%	0.3	0.0	0.2	0.0	NA	NA	0.0	0.0	0.0	0.0
<b>Total</b>	<b>Acres</b>	<b>150,095.4</b>	<b>3,491.8</b>	<b>439,597.9</b>	<b>12,223.5</b>	<b>NA</b>	<b>NA</b>	<b>15,873.3</b>	<b>336.7</b>	<b>9,250.9</b>	<b>977.1</b>
	<b>%</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>NA</b>	<b>NA</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

NA = Data not available.

**Table 2.6** presents the total numbers of acres in a hazard zone in Taylor County's incorporated areas and how many of those acres are currently undeveloped. Perry is the only incorporated municipality in the County. As shown in **Table 2.6**, the City is subject to sinkholes due to the karst geological formation in its proximity. Of the 1,044 acres at risk, 135 are currently vacant. Perry is not within the coastal hazard zone and only has 250 acres of land within the hurricane vulnerability zone. Wildfire susceptible areas are found on 183 acres of incorporated land. Flood data was not available for analysis but flooding in the City of Perry was noted in the LMS.

**Table 2.6 Total and Vacant Incorporated Acres in Hazard Areas**

Jurisdiction		Coastal Hazard Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible Areas		Sinkhole Susceptible Areas	
		Total	Vacant	Total	Vacant	Total	Vacant	Total	Vacant	Total	Vacant
Perry	Acres	0.0	0.0	250.3	58.0	NA	NA	182.6	17.4	1,043.5	134.9
	%	0.0	0.0	100.0	23.2	NA	NA	100.0	9.5	100.0	12.9
Total Acres	Acres	0.0	0.0	250.3	58.0	NA	NA	182.6	17.4	1,043.5	134.9
	%	0.0	0.0	100.0	23.2	NA	NA	100.0	9.5	100.0	12.9

NA=Not Available

### 3. Existing Mitigation Measures

#### Local Mitigation Strategy

The LMS is an ideal repository for all hazard mitigation analyses, policies, programs, and projects for the County and its municipalities due to its multi-jurisdictional and intergovernmental nature. The LMS identifies hazard mitigation needs in a community and structural or non-structural initiatives that can be employed to reduce community vulnerability. Communities can further reduce their vulnerability to natural hazards by integrating the LMS analyses and mitigation objectives into their Comprehensive Plans.

An LMS prepared pursuant to the State's 1998 guidelines has three substantive components (FDCA, 2005b):

Hazard Identification and Vulnerability Assessment (HIVA). 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 the community is susceptible to. According to FEMA, LMSs 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, 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 monetary 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. The Guiding Principles typically contain 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 Post-Disaster Redevelopment Plans (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 LMS Goals and Objectives will guide the priority of the mitigation initiatives.

The Taylor County LMS (adopted in 1999, amended in 2005) was used as a source of information in developing this profile and was also reviewed for any enhancements that could be made to allow better integration with other plans, particularly the local Comprehensive Plans.

#### *Hazard Identification and Vulnerability Assessment*

This section of the LMS was briefly reviewed for its ability to provide hazard data that can support comprehensive planning. The LMS uses detailed data on structures at risk for all of the major hazards discussed in this profile. Of the potential hazards, the LMS focuses on hazards that have high priority including, hurricanes and coastal storms, severe storms and tornadoes, wildfires, and floods. The LMS also includes many historical examples of local and regional storm and fire events. The LMS includes detailed maps that illustrate hazard zones and natural disaster events at different categories. Also, there is strong analysis of populations at risk for each type of hazard. The LMS also quantifies potential losses to property for each natural disaster.

#### *Guiding Principles*

The LMS has a list of goals, objectives, and policies relating to hazard mitigation that are found in the Comprehensive Plan, County Land Development Regulations, County Strategic 5-Year Plan, and the County Emergency Management Plan. This list will greatly aid the County in determining if there are any weaknesses in its hazard mitigation policies and where adjustments can be made to strengthen the County's ability to protect its citizens from natural hazards.

#### *LMS Goals and Objectives*

The LMS Goals and Objectives can be found in **Attachment E**. The goals and objectives are also summarized in **Section 5** as part of the recommendations analysis. The following is a summary of how well the LMS has addressed mitigation issues that coincide with planning concerns.

The LMS has many objectives that promote hazard mitigation through intra- and inter-governmental cooperation, coordination of existing government plans, public and private education, and research and development of scientific data. Goals also aim to protect cultural, economic, and natural resources, as well as City and County-owned facilities.

There are objectives that call for the coordination of the LMS with existing County agency programs, the CEMP, building codes and land acquisition programs. Goal 2 and the subsequent objectives aim to increase public and private awareness of pre and post-disaster mitigation through outreach programs, a business community awareness program, and involvement in local and public schools.

A section in the LMS was included after the goals and objectives that describe "the process by which local jurisdictions incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate." (Taylor County, 2005). It recommends that changes made to the County Comprehensive Plan, the Comprehensive Emergency Management Plan, County Land Development Regulations, and the County Strategic 5-year Plan "consider the impacts of natural disasters and potential mitigation strategies" (Taylor County, 2005).

Referencing other plans and programs in the goals and objectives of the LMS lays a clear foundation for this plan to be integrated with other plans and for its committee to oversee programs that may involve many different departments of the County and Municipality.



### **Comprehensive Emergency Management Plan**

The Mitigation Annex II of the Taylor County CEMP was incorporated into the Taylor County LMS when it was updated in 2005. The CEMP outlines the general recovery and damage assessment functions in the case of an emergency, as well as the primary and secondary response agencies. The hazard mitigation section of the CEMP is limited in scope. It touches on how the County Emergency Management Office will coordinate efforts with federal agencies, state agencies, local departments, and decision-makers to comply with applicable hazard mitigation regulations.

### **Post-Disaster Redevelopment Plan**

A PDRP for Taylor County was not available for review at the time this profile was drafted. If Taylor County has a current PDRP, this will be obtained and reviewed for the final version of this document.

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

Taylor County and Perry both participate in the National Flood Insurance Program. In addition, Taylor County participates in the Community Rating System and has a current class of 9.

## **4. Comprehensive Plan Review**

Taylor County's Comprehensive Plan (adopted in 1991) was reviewed in order to see what the County has already done to integrate their LMS policies, and hazard mitigation in general, into their planning process. A list of the goals, objectives, and policies currently in the plan that contribute to hazard mitigation is found in **Attachment F**. These policies are also presented in **Section 5**. The following is a summary of how well the plan addressed the four hazards of this analysis.

### **Coastal Hazards**

Taylor County's Comprehensive Plan has many policies considered to be best management practices for mitigating hurricane and coastal surge impacts. The Plan states that the County must limit public expenditures and subsidies within the CHHA, such as public facilities and roads. Policies also aim to maintain evacuation levels of service and limit development to locations and numbers that can be evacuated safely. Policies also require the Land Development Regulations (LDR) to limit dwelling unit density in the CHHA and types of development that are vulnerable to storm surge and high winds. Additionally, there is a policy that includes communication with the public about potential hazards, preparatory measures, and the location of evacuation routes. There were no policies dealing with the provision of hurricane shelters.

### **Flooding Hazards**

Flooding was addressed in the Comprehensive Plan in multiple policies. There were many policies for protecting or limiting densities in floodplains and wetlands. Policies also restrict development in unsuitable areas including areas prone to floods and land near wetlands. Policies require mitigation measures to be addressed during the development review process for development and redevelopment that cause disruptions to wetlands. The County also requires the identification and protection of environmentally sensitive lands at the development review process. Policies also regulate stormwater management and require setbacks from wetlands, and require development to have proper drainage.

### **Wildfire Hazards**

There were no policies in the Comprehensive Plan that directly related to wildfire hazards. Several policies referred to the conservation of fresh water supplies which indirectly relates to having sufficient water to suppress a wildfire.

### **Sinkhole Hazards**

No policies were found during this review that use the term sinkholes. There is a policy, however, that prohibits development on land that has unsuitable geological formations and unsuitable soil conditions.

### **Other Hazard Mitigation Policies**

Protection of natural and cultural resources are addressed in multiple policies. Comprehensive Plan policies do reference the CEMP but not the LMS since the LMS had not yet been created in 1991. Multiple policies generally limit development and redevelopment in hazard areas and limit the building of unsafe structures.

## **5. Recommendations**

For the LMS to be effective in the decision-making process of growth management, its objectives and policies must be integrated into the Comprehensive Plan. The Plan is the legal basis for all local land use decisions made. If hazard mitigation is to be accomplished beyond the occasional drainage project, these hazards must be addressed in comprehensive planning, where development can be limited or regulated in high-risk hazard areas just as sensitive environments are routinely protected through growth management policies. Mitigation of hazards is considerably easier and less expensive if done when raw land is being converted into development. Retrofitting structure and public facilities after they have been built is significantly more expensive. However, if older neighborhoods or communities are scheduled to be revitalized or redeveloped, hazard mitigation needs to be an aspect considered and integrated into the project prior to the time of development approval.

Taylor County has begun this process of integrating hazard mitigation throughout its Plan's elements. The prior section summarized how the major hazards for the County have been for the most part well-addressed. There is, however, still some disconnect between the LMS objectives and initiatives, and the policies in the Comprehensive Plan. By tightening the connection between these documents, the County will find it easier to implement hazard mitigation, and there will be higher awareness of these issues within more departments of the County government.

NOTE: The recommendations set out in this section are only suggestions. Through the workshop process and contact with the local governments, the goal of this project is to result in specific recommendations tailored and acceptable to each county. While the profile addresses hurricanes, flooding, wildfire, and sinkholes, the County should consider other hazards, if appropriate, such as tornadoes and soil subsidence, during the update of the local Comprehensive Plan.

**Recommendations:**

- Include a policy that supports the use and maintenance of the LMS as a hazard mitigation tool.
- Include a policy that considers the LMS and CEMP when amending Comprehensive Plan land use changes.
- Incorporate LMS Goal 2 and Objectives 2.1 – 2.8 into the Comprehensive Plan that promote the education of hazard mitigation issues to residents, home owners, property associations, businesses, and public officials.
- Promote cooperation with the Regional Planning Council, neighboring Counties, and the Water Management District to share information and resources that can help reduce the risks associated with natural disasters.
- Continue cooperation with the Department of Forestry to mitigate the threat of wildfires.
- Adopt firewise building code requirements for defined high fire risk areas.
- Use NFPA 1144 (Standard for Protection of Life and Property from Wildfire) for building design standards, access standards for subdivisions, water supply and pressure standards, and underground utilities.
- Require firewise neighborhood design as condition of approval for subdivision or PUD in risk areas.
- Identify Safe Zones in case of wildfire.
- Include a policy requiring ongoing improvements to evacuation routes and evacuation times.
- Improve storm shelter capacity in the County.
- Locate post disaster debris sites to avoid environmentally sensitive areas and historical sites.
- Require structure elevations in surge zones to be higher than the base flood elevation.
- Prohibit or restrict placement of new manufactured/mobile homes in CHHA.
- Restrict development through overlay districts or preservation zones in karst-sensitive areas or require geotechnical testing to be done in these zones prior to development approval.

## 6. Sources

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**Attachment A**

**Maps of the Existing and Future Land Uses within the  
Coastal Hazard Zone and the Hurricane Vulnerability Zone**



**Attachment B**

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

**Attachment C**

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

**Attachment D**

**Maps of the Existing and Future Land Uses  
within Potential Sinkhole Hazard Areas**

## Attachment E

### Taylor County Local Mitigation Strategy

#### Goals and Objectives

- Goal 1: Enhance and maintain county capability to implement a comprehensive countywide hazard loss reduction strategy**
- Objective 1.1: Review existing county agency programs, plans and policies to determine their effectiveness and efficiency in reducing risk and vulnerabilities to natural and manmade hazards, on annual basis.
- Objective 1.2: As a means of enhancing intra and inter-governmental coordination, establish and support an on-going liaison between Federal, State, Regional and Local Governments as well as the private sector and general public through the LMS Working Group.
- Objective 1.3: Integrate the pre- and post disaster mitigation functions with the response and recovery functions detailed in the County's Comprehensive Emergency Management Plan (CEMP)
- Objective 1.4: Design a process for prioritizing the local projects for mitigation related funding programs.
- Objective 1.5: Establish a mediation process to resolve conflicts between county agencies' existing plans, programs and mitigation related policies and integrate them into the Taylor County Local Mitigation Strategy.
- Objective 1.6: Review and recommend at least annual updates of the county's risk and vulnerability assessments. Including updates to the inventory of critical facilities and infrastructure.
- Objective 1.7: Coordinate funding resources and opportunities among county agencies.
- Objective 1.8: Support the development and use of disaster loss reduction related building codes and standards designed to reduce vulnerability and risk to all hazards.
- Goal 2: Increase public and private sectors awareness and support for disaster loss education practices as a means of developing a culture of hazard mitigation in Florida.**
- Objective 2.1: Create an Education and Outreach Committee of the LMS Working Group to organize and develop a comprehensive countywide mitigation education and outreach strategy.
- Objective 2.2: Conduct a summit for education stakeholders to present and promote mitigation education programs.

- Objective 2.3: Develop a business continuity awareness program designed to educate the business community on the benefits of mitigation in reducing their vulnerabilities and risk to natural and man made hazards.
- Objective 2.4: Develop, and promote outreach strategies designed to educate residents and visitors of Taylor County’s endemic hazards, their associated risk and vulnerabilities, and the applicable mitigation actions.
- Objective 2.5: Identify and incorporate available hazard mitigation education and outreach programs/products into local public school education programs.
- Objective 2.6: Establish an ongoing education and outreach effort to educate elected officials on the importance of hazard mitigation to include annual report to the county commissioners and other appropriate officials.
- Objective 2.7: Develop a public awareness campaign on the benefits of pre- and post disaster mitigation through the dissemination of mitigation success stories.
- Objective 2.8: Develop a strategy for working with the print, electronic and broadcast media on the dissemination of mitigation education and outreach material.

**Goal 3: Reduce Taylor County’s hazard vulnerability through the application of scientific research and development.**

- Objective 3.1: Establish partnerships with public and private research universities and Taylor County educational facilities. This scientific partnership will assist in assessing Taylor County’s vulnerability to natural and anthropogenic hazards in order to develop the means to reduce the potential for damage from their impacts on society.

**Goal 4: Protect the County’s cultural, economic and natural resources.**

- Objective 4.1: Support mitigation initiatives that are compatible with the protection of county’s cultural, economic and natural resources.
- Objective 4.2: Promote land acquisition programs that support mitigation opportunities compatible with the protection of natural and cultural resources
- Objective 4.3: Encourage the development of drainage improvement systems based on their compatibility with the natural environmental system functions

**Goal 5: Reduce the vulnerabilities of county and city owned facilities and infrastructure to natural and man-made hazards**

- Objective 5.1: Establish hazard mitigation priorities for retrofitting of existing county and city critical facilities and infrastructure based upon risk and vulnerability assessment.



## **Attachment F**

### **Taylor County Comprehensive Plan Excerpts Related to Hazard Mitigation**

#### **Future Land Use Element**

- Policy I .1.5** The County's land development regulations shall contain standards for the coordination and siting of proposed urban development near agricultural or forested areas, or environmentally sensitive areas (including but not limited to wetlands and floodplain areas) to avoid adverse impact upon existing land uses.
- Policy I.3.1** The County's land development regulations shall contain specific and detailed provisions to manage future growth and development to implement the Comprehensive Plan which shall contain at a minimum the following provisions to:
- (d) Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management;
  - (c) Protect environmentally sensitive lands identified within the Conservation Element;
- Policy I.4.1** The County's land development regulations shall restrict development within unsuitable areas due to flooding, improper drainage, steep slopes, rock formations and adverse earth formations, unless acceptable methods are formulated by the developer and approved by the County to solve the problems created by the unsuitable land conditions.
- Policy I.1.6** The County's land development regulations shall govern future urban development within designated urban development areas in conformance with the land topography and soil conditions, and within areas which are or will be served by public facilities and services to established Level of Service Standards.
- Policy 1.3.4** The County shall require the location of public, private and charter school sites to be consistent with the following criteria:
- (c) There are no significant environmental constraints that would preclude development of an educational facility on the site;
  - (d) There will be no adverse impacts on archaeological or historic sites or structures listed on the

State of Florida Historic Master Site File, which are located on the site;

- (e) The proposed location is well drained and soils are suitable for development or are adaptable for development and outdoor educational purposes with drainage improvements;

OBJECTIVE I. 4 The County shall adopt land development regulations which regulate the location of land development consistent with topography and soil conditions, by October 1, 1990.

**Policy I.6.2** The **County's** land development regulations shall include provisions for adequate drainage, stormwater management, open space and convenient on site traffic flow for all development.

**Policy. I.6.4** The County shall participate in the National Flood Insurance Program and regulate development and the installation of utilities in flood hazard areas in conformance with the program's requirements.

OBJECTIVE I.9 The County shall include historic resource preservation provisions within the land development regulations by October 1, 1990.

**Policy I.9.1** The County shall maintain a listing of all known prehistoric and historic sites having particular significance to the history of the County, state or nation, whose locations have been documented and can be physically located on the land. This list shall be updated as new documented information regarding the prehistoric or historic significance of a site is identified and provided to the County.

**Policy I.9.2** The County's land development regulations shall include historic resource regulations for the maintenance and adaptive reuse of significant historic structures and sites.

OBJECTIVE I. 10: The County shall adopt regulations to protect natural resources and environmentally sensitive lands (including wetlands and floodplains) as part of its land development regulations by October 1, 1990.

**Policy I. 10.2** The County's land development regulations shall include provisions which will allow mitigation of the adverse effects of land uses on environmentally sensitive areas.

**Policy I.10.3** As part of the County's development review process, environmentally sensitive land shall be identified for protection. These environmentally sensitive lands shall include, but not be limited to, wetlands, floodprone areas, areas designated as prime groundwater aquifer recharge areas.

**Infrastructure Element**

**Policy IV.2.9** The County's land development regulations shall include provisions which prohibit the construction of structures or landscape alterations which would significantly impact or interrupt natural drainage flows including sheet flow and flow to isolated wetland systems, without mitigation. Normal agricultural and silvicultural activities shall be exempted from these regulations, subject to Best Management Practices as adopted by the Florida Department of Agriculture or Florida Division of Forestry, as appropriate, and also the current regulatory requirements of Chapters 373 and 403, Florida Statutes.

**Policy IV.2.10** The County's land development regulations shall include a provision which requires that all construction activity undertaken shall incorporate erosion and sediment controls during construction.

**OBJECTIVE IV.4** The County shall establish provisions within its land development regulations which encourage the conservation of potable water resources by October 1, 1990.

**Policy IV.4.1** The County shall cooperate with the Water Management District in the implementation of water resource conservation strategies and techniques which are adopted by the District and shall adhere to any emergency water conservation measures imposed by the Water Management District.

**Policy IV.4.2** The County shall require that all new construction and all remodeling activities utilize fixtures conforming to the following schedule of maximum water usage, consistent with the Water Conservation Act of 1982, thereby conserving potable water resources.

**OBJECTIVE IV.5** The County shall cooperate with the Water Management District by establishing provisions within the land development regulations for the protection of the functions of natural groundwater recharge areas **and** natural drainage features which are consistent with current Water Management District regulations concurrent with the adoption of the Land Development Code.

**Policy IV.5.1** The County's land development regulations shall provide for the limitation of development adjacent to natural drainage features to protect the functions of the feature.

**Conservation Element**

**GOAL V - CONSERVE, THROUGH APPROPRIATE USE AND PROTECTION, THE RESOURCES OF THE COUNTY TO MAINTAIN THE INTEGRITY OF NATURAL FUNCTIONS.**

- Policy V.2.3** The County shall identify and make recommendations to appropriate state agencies, for the purchase of environmentally sensitive lands under programs including, but not limited to, the Conservation and Recreation Lands Program.
- Policy V.2.4** The County's land development regulations shall require that, unless impacts are mitigated pursuant to DER or other appropriate state agency requirements, a .35-foot natural buffer shall be maintained around all wetlands and prohibit the location of residential, commercial and industrial land uses within the buffer areas. Mitigation measures must be acceptable to the Department of Environmental Regulation or other governmental agency having mitigation permit jurisdiction. Resource based recreation activities (such as hunting and fishing) shall be allowed. Normal agricultural and pine silvicultural activities shall be allowed, subject to Best Management Practices as adopted by the Florida Department of Agriculture or Florida Division of Forestry, as appropriate, and also subject to the current regulatory requirements of Chapters 373 and 403, Florida Statutes, and the rules, regulations and permitting requirements of the Suwannee River Water Management District and other State or Federal governmental agencies having jurisdiction. Unless further restricted by the County's Land Development Regulations, normal hardwood silvicultural activities shall be allowed subject to Best Management Practices and other regulatory requirements as cited for pine silviculture above.
- Policy V.2.5** The County shall, through the development review process, require that post-development runoff rates and pollutant loads do not exceed predevelopment conditions.
- Policy V.2.6** The County's land development regulations shall require all new development to maintain the natural functions of environmentally sensitive areas, including but not limited to wetlands and 100-year floodplains so that the long term environmental integrity and economic and recreational value of these areas is maintained. This will be accomplished through compliance with applicable statutes, rules and regulations of State and Federal Agencies having jurisdiction.
- Policy V.2.7** The County's land development regulations shall that, unless impacts are mitigated, the conservation of wetlands shall be provided for through prohibiting any development or dredging and filling which would significantly alter their natural functions. Mitigation measures must be acceptable to the Department of Environmental Regulation or other governmental agency having mitigation permit jurisdiction. Resource based recreation activities (such as hunting and fishing) shall

be allowed. Normal agricultural and pine silvicultural activities shall be allowed, subject to Best Management Practices as adopted by the Florida Department of Agriculture or Florida Division of Forestry, as appropriate, and also subject to the current regulatory requirements of Chapters 373 and 403, Florida Statutes, and the rules, regulations and permitting requirements of the Suwannee River Water Management District and other Federal or State governmental agencies having jurisdiction. Unless further restricted by the County's land development regulations, normal hardwood silvicultural activities shall be allowed subject to Best Management Practices and other regulatory requirements as cited for pine silviculture above.

**Policy V 2.8** The County's land development regulations shall provide for the conservation of wetlands through prohibiting any development or dredging and filling, which would significantly alter their natural functions without mitigation. Agricultural, and silvicultural activities consistent with Best Management Practices manual developed by the Florida Division of Forestry and the Florida Department of Agriculture shall be allowed.

**Policy V.2.9** The County shall support water conservation programs conducted by the Water Management District within the scope of their delegated authority.

**Policy V.2.10** The County shall cooperate with the plans of the Water Management District for the emergency conservation of water sources.

**Policy V.2.14** The County's land development regulations shall require a 75-foot regulated natural buffer adjacent to all perennial rivers, streams and creeks and their estuaries located within the significant natural areas identified in Policy V.4.11, and prohibit the location of residential, commercial and industrial (including mining) land uses within the buffer areas. Resource based recreation activities (such as hunting and fishing) shall be allowed. Also beyond seventy-five (75) feet, normal agricultural and silvicultural activities will be allowed, subject to BMP's and all other existing regulations. Normal agricultural and pine silvicultural activities shall be allowed outside the 75-foot regulated natural buffer, subject to Best Management Practices as adopted by the Florida Department of Agriculture or Florida Division of Forestry, as appropriate, and also subject to all other existing regulations. The County has reserved the right to further regulate hardwood silvicultural activities. Agricultural and silvicultural activities are also subject to the current regulatory requirements of Chapters 373 and 403, Florida Statutes, as well as the rules, regulations and permitting requirements of the Suwannee River Water Management District and other Federal or State



governmental agencies having jurisdiction. Unless further restricted by the County's land development regulations, normal hardwood silvicultural activities shall be allowed outside the 75-foot regulated natural buffer subject to Best Management Practices and other regulatory requirements as cited for pine silviculture above. The County's land development regulations shall govern the land management practices and activities which are allowed within the 75-foot regulated natural buffer. The significant natural areas to which this policy applies are identified and described in Policy V.5.11.

**Policy V.2.15**

The County's land development regulations shall require a 35-foot regulated natural buffer adjacent to all perennial rivers, streams and creeks and their estuaries, or those which are intermittent in nature and their estuaries, but which have a distinct, identifiable stream bed or creek run, and prohibit the location of residential, commercial and industrial land uses within the buffer areas. (See Policy V.2.14 and V.4.11 for certain rivers, streams and creeks which are afforded a higher level of protection). Resource based recreation activities (such as hunting and fishing) shall be allowed. Normal agricultural and pine silvicultural activities shall be allowed within the buffer areas subject to Best Management Practices as adopted by the Florida Department of Agriculture or Florida Division of Forestry, as appropriate, which are applicable to the management of these buffer areas, and also subject to the current regulatory requirements of Chapters 373 and 403, Florida Statutes, as well as the rules, regulations and permitting requirements of the Suwannee River Water Management District and other Federal or State governmental agencies having jurisdiction. Unless further restricted by the County's land development regulations, normal hardwood silvicultural activities shall be allowed subject to Best Management Practices and other regulatory requirements as cited for pine silviculture above.

OBJECTIVE V.3

The County shall provide for the conservation, appropriate use and protection of soils within the County's land development regulations by October 1,1990.

**Policy V.3.3**

The County shall require, during the development review process, consider the appropriate multiple use of forest resources to provide for timber production, recreation, wildlife habitat, watershed protection, erosion control and maintenance of water quality.

**Policy V.3.5**

The County shall allow normal agricultural and silvicultural activities, subject to Best Management Practices as adopted by the Florida Department of Agriculture or the Florida Division of Forestry, as appropriate, and current regulatory requirements of

sections 373 and 403, Florida Statutes. Effective October 1, 1990.

**Policy V 4.1**

In the land development regulations adopted by the statutory deadline, the County shall require an assessment of the potential adverse effects on rare and endangered species for the following:

1. All development within the 35-foot regulated natural buffer adjacent to all perennial rivers, streams and creeks, and those which are intermittent in nature, but which have a distinct, identifiable stream bed or creek run.
2. All development with the 75-foot regulated natural buffer adjacent to all perennial Rivers, streams and creeks located within the significant natural areas identified in the Taylor County Comprehensive Plan.
3. All development within 35 feet of a wetland or water body other than as described in 1. and 2. above.

**Policy V.4.3**

The County shall incorporate as part of its land development regulations an ordinance applicable to Urban Development Areas which protects native vegetation and provides for the extensive use of native vegetation, thereby promoting the regeneration of natural habitats.

**Policy V.4.5**

In order to carry out OBJECTIVE 4, the County shall use innovative techniques in the land development regulations for preservation of such areas, such as: designation and regulations of conservation areas; site plan review; on-site density transfers to allow clustering of allowable units to protect environmentally sensitive portions of a site; and, overlay zoning whereby density calculations and developable land expectations are based on net developable acreage after excluding the environmentally sensitive portions.

**Policy V.4.7**

Prior to approving a plan amendment, in those areas designated Agricultural/Rural Residential, Mixed Use Rural Residential, and Mixed Use - Urban Development on the Future Land Use Map, the County shall require the applicant to provide an inventory of all wetlands and other environmentally sensitive lands, as well as documentation that the proposed user will not negatively impact environmentally sensitive lands.

**Policy V.4.11**

The County shall, during any development review process involving significant natural areas and their estuaries, address mitigation of development activities to ensure that the possible adverse impacts of the proposed development activity on the natural functions

of these significant natural areas will be minimized, and that the natural functions will not be significantly altered. Mitigation measures must be acceptable to the Department of Environmental Regulation or other governmental agency having mitigation permit jurisdiction. The significant natural areas and their estuaries to which this Policy applies are: Aucilla River Corridor (includes Aucilla Sinks)

Econfina River Corridor

Spring Warrior Creek Corridor

Steinhatchee River Corridor

St. Marks National Wildlife Refuge

Coastal Marsh and Tidal Swamp Conservation Areas

Aucilla SRWMD Conservation Area

The generalized location of these significant natural areas is as shown on the Future Land Use Map series, A separate map identifying the corridors of these significant natural areas shall be provided as part of the Comprehensive Plan amendment. Their boundaries are further described below:

In the case of the river corridors, the corridors shall include the river itself and extend to an outer boundary established at a nominal distance of 150 feet from the natural bank of the river. The Aucilla River corridor shall extend from the Gulf of Mexico to the county line. The Econfina River corridor shall extend from the Gulf of Mexico to the east boundary "rural community" established at Shady Grove. The Steinhatchee River corridor shall extend from the Gulf of Mexico to the county line. In the case of the Spring Warrior Creek corridor, the corridor shall include the creek itself and extend to an outer boundary established at a nominal distance of 150 feet from the natural bank of the creek. The corridor shall extend from the Gulf of Mexico to C.R. 361 (Beach Road). In the case of the St. Marks National Wildlife Refuge, the Coastal Marsh and Tidal Swamp Conservation Area and the Aucilla SRWMD Conservation Area, the boundary shall be the boundary of the lands owned by the governmental entity. Resource based, low intensity recreation activities and facilities shall be allowed along rivers, with any new facility being located at least five miles from an existing facility. Residential, commercial and industrial uses shall be allowed, subject to a setback of at least seventy-five (75) feet from the natural bank along the rives and Spring Warrior Creek, subject to all other permitting requirements. Residential density shall be shown on the Future Land Use Map. Beyond seventy-five (75) feet, residential, commercial and industrial use is allowed, subject to all other permitting requirements. The densities and intensities of use, as well as the permitted uses allowed on the St. Marks National Wildlife Refuge, the Coastal Marsh and Tidal **Swamp** Conservation Area and the Aucilla SRWMD Conservation Area shall be consistent with the management plans for these areas in

fulfillment of their conservation purpose. Residential densities shall not be greater than one unit per 40 acres, as shown on the Future Land Use Map.

**Intergovernmental Coordination Element**

**Policy VII.2.4** In order to protect the Aucilla River and other estuaries that fall under the jurisdiction of other local governments, the count shall develop coordination mechanisms with Jefferson and Dixie counties and the Department of Natural Resources, regarding estuarine pollution, surface water runoff, protection of living marine resources, reduction of exposure to natural hazards and ensuing public access. Coordination mechanism shall include consideration of an informal agreement between all entities that each will notify the other's jurisdictions upon receipt of development proposals along the estuary. Further, all entities should notify each other upon receipt of proposals for plan amendments affection those issues.

**Capital Improvements Element**

**OBJECTIVE VIII.5:** The County, by October 1, 1990, shall limit expenditures for infrastructure which subsidize growth within the coastal high hazard area, as identified within this Comprehensive Plan, to those public facility needs identified within the Coastal Management Element.

**Policy VIII.5.1** The County shall limit expenditures for new infrastructure within the coastal high hazard area to those public facility needs identified in the five year schedule of improvements within this Comprehensive Plan.

**Policy VIII.5.2** The County shall replace or renew public facilities or plants damaged due to storm surge or flood only where such facilities can meet minimum requirements for flood proofing.

**Policy VIII.5.3** The County shall require that public facilities which are repaired or replaced within the coastal high hazard area, after being damaged or destroyed from any cause, meet all applicable standards or requirements in effect at the time of repair or replacement.

**Coastal Management Element**

**OBJECTIVE IX.1** The County shall establish land development regulations which shall assist in the protection, conservation or enhancement of the County's coastal wetlands, living marine resources and wildlife habitats by October 1, 1990.

**Policy IX.1.2** The County shall provide safeguards within the land development regulations which assist in the protection of estuaries which are located both within the jurisdiction of the County and adjacent local governments through a coordinated review and comment process of development or redevelopment proposals to ensure restoration or enhancement of disturbed or degraded natural resources, including estuaries, wetlands and drainage systems, subject to the provisions of Objective 1.8 and its related policies. Effective October 1, 1990.

**Policy IX.1.4** The County's land development regulations shall limit dwelling unit density to one unit per five acres in rural areas within the Coastal High Hazard Area (seaward of the most landward Federal Emergency Management Area Velocity Zone Line). Effective October 1, 1990.

**Policy IX.2.1** The County shall cooperate with state and federal agencies in their administration of programs to restore and enhance any disturbed or degraded estuaries, wetlands and drainage systems except existing developments, drainage systems, structures, etc., will not be required to be changed, except in cases where clear lawful jurisdictional authority exists or eminent domain proceedings are implemented in accordance with law. Effective October 1, 1990.

**Policy IX.2.2** The County as part of the development review process shall require new development and redevelopment which may cause disruptions or degradations to wetlands or the aquatic preserve to include mitigating measures. Effective October 1, 1990.

**OBJECTIVE IX.5:** The County, through the Procedure for Monitoring and Evaluation of the Capital Improvements Element, shall limit expenditures that subsidize development within coastal high-hazard areas to the restoration or enhancement of natural resources, the construction and maintenance of roads necessary for public access, and the provision of public park facilities, including those which provide public access to the shoreline, subject to the provisions of Objective 1.8 and its related policies. Effective October 1, 1990.

**Policy IX.5.1** The County's coastal high hazard area shall be that area which is designated by and is coincident with the evacuation zones for Category 1 and Category 2 hurricanes as established in the regional hurricane evacuation study applicable to the County.

**Policy IX.5.2** The County's land development regulations shall limit development which is vulnerable to natural hazards such as storm surge and high winds within coastal high hazard areas, subject to the provisions of Objective 1.8 and its related policies. Effective October 1, 1990.

**Policy IX.5.3** The County, as part of the development review process, shall require the location of public facilities, except roads parks and required for public access, away from coastal high-hazard areas where such public facilities have the potential for being damaged during a storm. Effective October 1, 1990.

OBJECTIVE IX.6: The County shall maintain the residential land use densities provided within this element of the Comprehensive Plan to assist in the limitation of undue population concentration in coastal high-hazard areas as defined in Policy IX.5.1, by October 1, 1990.

**Policy IX.6.1** The County shall regulate building construction, reconstruction and alteration in conformance with Chapter 161, Florida Statutes, as amended. Effective October 1, 1990.

**Policy IX.6.2** The County shall participate in the National Flood Insurance Program and regulate development and installation of utilities in flood hazard areas in conformance with the program's requirements for minimizing damage caused by flooding and storm surge. Currently in effect.

**Policy IX.6.3** The County shall comply with appropriate provisions of the hazard mitigation annex of the County's peacetime emergency plan and applicable existing interagency hazard mitigation reports. Effective with adoption of this Comprehensive Plan.

**Policy IX.6.4** The County's land development regulations shall hit residential development and resident populations within coastal high hazard areas to locations and numbers which can be safely evacuated during hurricane hazard periods. Effective October 1, 1990.

**Policy IX.6.5** The land development regulations shall limit dwelling unit density to four units per acre in designated urban development areas which are served by community or public water systems within the Coastal High Hazard Areas. Effective October 1, 1990.

OBJECTIVE IX.7: The County shall maintain hurricane evacuation times of 15 hours for a category 1 storm and 22 hours for a category 5 storm for the residents of the Coastal Management Area, to be effective with the adoption of this Comprehensive Plan.

**Policy IX.7.1** The County shall coordinate the procedures for notifying the public within the Coastal Management Area of potential dangers and appropriate preparatory measures for hurricanes or other potential natural disasters, including the location of evacuation routes. The applicable regional and local evacuation plans shall be coordinated. Effective with the adoption of the Comprehensive Plan.

OBJECTIVE IX.8: The County, concurrently with the adoption of this Comprehensive Plan, shall plan for post-disaster redevelopment which reduces or eliminates the exposure of human life and public and private property to natural hazards subject to the provisions of Objective 1.8 and its related policies.

**Policy IX. 8.1** The County's Peacetime Emergency Plan shall address immediate repair and cleanup actions needed to protect the public health and safety, including repairs to potable water, wastewater and electrical power facilities; removal of debris, stabilization or removal of structures about to collapse; and expediting the approval of issuing of permits for minimal repairs to make dwellings habitable before commencing with or permitting long-term repair and redevelopment activities. Effective October 1, 1990.

**Policy IX. 8.2** The County shall remove, relocate or structurally modify damaged public facilities, as appropriate, in light of factors such as cost to construct, cost to construct or maintain, recurring damage, impacts on land use, impacts on the environment and public safety need. Effective October 1, 1990.

**Policy IX.8.3** The County's land development regulations shall require the removal, relocation or structural modification of unsafe structures, as appropriate, if rebuilt, require structures which have suffered damage to an extent of more than 50 percent of their replacement value at the time of such damage to be rebuilt in conformance with current building requirements. Effective October 1, 1990.

**Policy IX.8.4** The County's land development regulations shall limit redevelopment in areas of repeated damage by requiring structures which suffer repeated damage to rebuild landward of their current location or to modify the structure to delete the areas most prone to damage. Effective October 1, 1990.

**Policy IX.8.5** The County, as part of the monitoring and evaluation process of the Comprehensive Plan, shall identify areas needing redevelopment, including elimination of unsafe conditions and inappropriate uses as opportunities arise. Effective October 1, 1990.

OBJECTIVE IX.10: The County's land development regulations shall include provisions for the protection, preservation or sensitive reuse of historic resources within the Coastal Management Area, by October 1, 1990.

**Policy IX.10.1** The County shall maintain an inventory of known and identified historic sites to facilitate the application of standards specified within the land development regulations for maintenance of their character in the voluntary development or sensitive reuse of historic structures. Effective October 1, 1990.



- Policy IX. 11.1** The County's capital improvements budgeting process shall only schedule public facilities improvements which, when constructed, will be capable of serving development or redevelopment at the densities permitted by this element of the Comprehensive Plan, consistent with coastal resource protection and safe evacuation. Effective October 1,1990.
- Policy IX.12.5** Require minimum buffers, as defined in Policies V.2.14 and V.2.15, for all development from rivers and the estuary with the following limitations:
1. Clearing of native vegetation shall be limited to up to 25 percent of the buffer.
  2. Clearing may only be allowed for purposes of providing physical or visual access.
  3. Clearcutting shall be prohibited within the buffer area. Buffers adjacent to agricultural and silvicultural uses shall be regulated by Policies V.1-14, V.2.15, and other policies which address these uses.
- Policy IX.12.11** The County shall cooperate and support the Suwannee River Water Management District programs which increase protection of rivers and water bodies which empty into the estuary, including the Save Our Rivers Program.