

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 Calhoun 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 Calhoun 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

Calhoun 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 Calhoun County can continue to reduce or eliminate risks from flood and wildfire. These recommendations pertain to the use of vacant lands and/or redevelopment practices. Based on the land use tabulations, most of the vacant acreage is susceptible to wildfire and flood. 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, 2,111 acres are susceptible to wildfire and 1,448 acres are susceptible to 100-year flood.

Flood

About 24% of the 1,448 vacant acres in the 100-year floodplain are to be developed for residential, commercial, industrial uses or public facilities, indicating that these risk reduction strategies should be considered prior to development of this vacant land.

- The Comprehensive Plan should continue the implementation of policies for preserving and enhancing the natural environment (i.e., 100-year floodplain) through

the enforcement of land development regulations for floodplain management and stormwater management to maintain the natural functions.

- The Comprehensive Plan should continue to require that developers demonstrate that dredge and fill activities are consistent with best management practices to maintain natural topography and hydrological functions of the flood plains, provide incentives to cluster housing on the non-flood prone portion of the site and maintain 50 foot buffers from wetlands, reduce densities in flood prone areas, prohibit the storage of hazardous waste or materials in the floodplain, and assure that post-development runoff rates do not exceed pre-development conditions.
- The Comprehensive Plan should continue to require on-site compensating storage if filling occurs in the 100-year floodplain, and require buffers from creeks and rivers.
- The Comprehensive Plan should continue to prohibit dredge and fill of wetlands for road construction to the river berm, and require that new roads be constructed so that the grade of the streets conform as closely as possible to the existing topography to prevent interruption of natural drainage flows.
- The Comprehensive Plan should continue to require that structures be elevated on pilings on existing sites which do not contain sufficient uplands, and not allow lots or parcels to be created without sufficient uplands.
- The Comprehensive Plan should continue to prohibit septic tanks in flood hazard areas or wetlands.
- The Comprehensive Plan should continue to disallow conversions of agricultural land located in wetlands to other land uses, allow for clustering if overall density remains at one unit per acre, and require developments to maintain an open space ration of 50% of the land parcel.
- The Comprehensive Plan should continue to require on-site compensating storage if filling occurs in the 100-year floodplain, and coordinate with Florida DER and DNR, NFWFMD, and USACE to improve compliance with the dredge and fill state permitting process.
- The County should continue to identify floodplains for acquisition under existing programs.
- The Comprehensive Plan consider requiring that new or expansions of existing critical facilities (including schools) not occur in floodways and in areas where potential for flooding exists.
- The County should consider retrofitting stormwater management facilities.
- 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.
- 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 County should consider promoting the use of vegetated swales, sodding, landscaping, and retention of natural vegetation as components of the drainage system for natural runoff through the use of landscape and subdivision ordinances.
- The County should consider requiring that the maintenance and operation of private stormwater systems is funded by private sources.
- The County should consider requiring areas that have not established base flood elevations to be studied prior to development.
- The County should consider calling for compensating storage calculations in flood hazard areas.

Wildfire

About 25% of the 2,111 vacant acres that are susceptible to wildfire are to be developed for residential, commercial, industrial uses or public facilities, indicating that these risk reduction strategies should be considered prior to development of this vacant land.

- The County should continue to coordinate with the Altha and area volunteer fire departments to ensure fire protection is provided to all areas of the County.
- 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 a requirement for all new development to include and implement a wildfire mitigation plan specific to that development, subject to review and approval by the County Fire Rescue Department.
- The County should consider increasing public awareness of prescribed burning and require management plans for conservation easements that address reduction in wildfire fuels.

General

- 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.
- The Comprehensive Plan should consider including a policy to incorporate applicable provisions of the Comprehensive Plan into the Comprehensive Emergency Management Plan and the Local Mitigation Strategy.
- Continue educating the public, especially those at high risk from 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.
- In addition to the future land use map that has a flood hazard data layer, include one that has a wildfire 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.

Table of Contents

1. County Overview.....	1
2. Hazard Vulnerability	2
3. Existing Mitigation Measures.....	8
4. Comprehensive Plan Review	11
5. Data Sources	13
Attachments.....	A-1

1. County Overview

Geography and Jurisdictions

Calhoun County is located in the Florida Panhandle. It covers a total of 574.3 square miles, of which 567.3 square miles are land and 7.0 square miles are water. There are two incorporated municipalities within Calhoun County, as shown in **Table 1.1**. The City of Blountstown 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 Calhoun County and the percent change from the 2000 U.S. Census are presented in **Table 1.1**. While some residents live in incorporated jurisdictions, nearly 78% live in unincorporated areas of the county. Calhoun County has experienced significant population growth in recent years, a trend that is expected to continue. Between 1990 and 2000, Calhoun County had a growth rate of 18.2%, which is slightly less than the statewide average of 23.5% for the same time period.

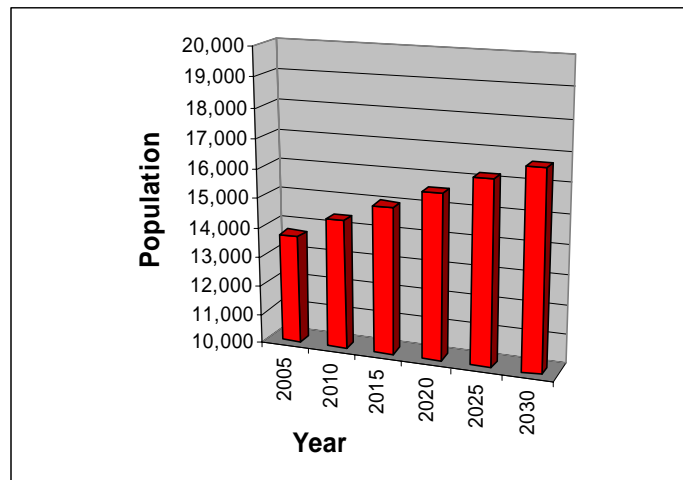
Table 1.1 Population Estimates by Jurisdiction

Jurisdiction	Population (Census 2000)	Population (Estimate 2004)	Percent Change 2000-2004	Percent of Total Population (2004)
Unincorporated	10,067	10,610	5.39%	77.96%
Altha	506	548	8.30%	4.03%
Blountstown	2,444	2,452	0.33%	18.02%
Total	13,017	13,610	4.56%	100.00%

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

According to BEBR (2004), Calhoun County's population is projected to grow steadily and reach an estimated 16,700 by the year 2030, increasing the average population density of 24 to 29 persons per square mile. **Figure 1.1** illustrates medium growth population projections for Calhoun County based on 2004 calculations.

Figure 1.1 Population Projections for Calhoun County, 2005–2030



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

Of particular concern within Calhoun 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 13,017 persons residing in Calhoun County, 17% are listed as 65 years old or over, 26% are listed as having a disability, 20% are listed as below poverty, and 5.6% live in a home where the primary language is other than English.

2. Hazard Vulnerability

Hazards Identification

The highest risk hazards for the western half of Calhoun County as identified in the County's Local Mitigation Strategy (LMS) are tropical storms, hurricanes, tornadoes, and wildfires. The highest risk hazards for the eastern half of Calhoun County are flooding, tropical storms, hurricanes, tornadoes, and wildfires. Although Calhoun County is not a coastal county, storm surge that is pushed through the Apalachicola and Chipola Rivers from the Gulf of Mexico could pose a flood risk to areas along the eastern county boundary. According to the Calhoun County LMS, the risk from sinkhole is virtually non-existent as there are no known locations of karst topography in Calhoun County.

Hazards Analysis

The following analysis examines two hazard types: 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 DMA 2K project, and was created by Kinetic Analysis Corporation (KAC) under contract with the Florida Department of Community Affairs (DCA). Estimated exposure values were determined using FEMA's designated 100-year flood zones (i.e., A, AE, V, VE, AO, 100 IC, IN, AH) for flood, and all medium-to-high risk zones from MEMPHIS for wildfire (Level 5 through Level 9). 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>).

Because the Calhoun County LMS considers storm surge and sinkholes to be negligible hazards and MEMPHIS data indicates that no persons or structures are exposed to these hazards, therefore, no further analysis was conducted for the storm surge and sinkhole hazards.

Existing Population Exposure

Table 2.1 presents the population currently exposed to each hazard in Calhoun County. Of the 13,017 (U.S. Census 2000) people that reside in Calhoun County, 18.6% are exposed to 100-year flooding and 3% are exposed to wildfire. Of the 2,418 people exposed to flood, 49% are disabled and 20% are impoverished.

Table 2.1 Estimated Number of Persons Exposed to Selected Hazards

Segment of Population	Flood	Wildfire
Total (all persons)*	2,418	397
Minority	423	60
Over 65	308	111
Disabled	1,186	259
Poverty	484	110
Language-Isolated	0	0
Single Parent	149	37

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.

Evacuation and Shelters

As discussed in the previous sections, population growth in Calhoun 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 Calhoun 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
Calhoun	24	24	24	30	30
Gadsden	<i>Not Available</i>				
Holmes	6.25	7	7	10.25	10.25
Jackson	5.5	8.25	8.25	11	11
Liberty	<i>Not Available</i>				
Washington	6.25	6.5	6.5	8.5	8.5

Source: DCA, DEM Hurricane Evacuation Study Database, 2005

Note: This is best available data in 2005, although data is not available for some counties.

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 24 and 30 hours to safely evacuate Calhoun 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.

Similar to most of Florida's coastal counties, Calhoun County currently has a significant shelter deficit. According to Florida's Statewide Emergency Shelter Plan, Calhoun County does not currently have any existing shelter capacity. The 2004 shelter demand for a Category 4 or Category 5 hurricane is 1,395 people, leaving an existing shelter deficit of 1,395. In 2009, the projected shelter demand is 1,502, leaving an anticipated shelter deficit of 1,502. Therefore, it is

essential that Calhoun County continue to coordinate with nearby counties for evacuation and shelter planning. The opportunity also 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.

It is important for counties to maintain or reduce hurricane evacuation times. This could be accomplished by using better data to determine the hazard risk to populations to evaluate which areas to evacuate, and increasing the ability to shelter in place to decrease the number of evacuees. Calhoun 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 Calhoun 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 Calhoun County's existing structures to the flood and wildfire hazards was determined through MEMPHIS.

Table 2.3 Estimated Number of Structures Exposed to Selected Hazards

Occupancy Type	Flood	Wildfire
Single Family	1,307	798
Mobile Home	271	198
Multi-Family	504	248
Commercial	403	264
Agriculture	3,036	1,774
Gov. / Institutional	473	422
Total	5,994	3,704

Source: Mapping for Emergency Management, Parallel Hazard Information System

There are 9,698 structures exposed to at least one of the two hazards, of which most are used for agriculture. Of these structures, 61.8% are exposed to flood. Nearly 6,000 structures are located within the 100-year floodplain. According to the latest National Flood Insurance Program Repetitive Loss Properties list, as of March 2005, there are six repetitive loss properties in unincorporated areas of Calhoun 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.”

Slightly over 38%, or 3,704 structures are exposed to wildfire, of which 47.9% are used for agriculture and 21.5% are single-family homes. Calhoun County is rural in nature and fires represent a major hazard, particularly for persons living outside municipal boundaries. Over 93 percent of the county's acreage is under the cover of trees or in pasture/cropland. In addition, with more than 80 percent of county residents living outside of Blountstown or Altha, wildfires,

and structural fires with the potential to turn into wildfires, are of significant concern (Calhoun County LMS, 2004).

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 exposed to flood 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. DCA tabulated the total amount of acres and percentage of land in identified hazard exposure areas, sorted by existing land use category for the unincorporated areas. Existing land use data was acquired from County Property Appraisers and the Florida Department of Revenue in 2004. DCA also tabulated the total amount of acres and percentage of land in the identified hazards areas 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. Calhoun County future land use data was acquired in October 2003 and might not reflect changes per recent future land use amendments. DCA has provided maps of existing land use within hazard areas based on the 2004 County Property Appraiser geographic information system (GIS) shapefiles. Maps of future land uses in hazard areas were developed using the Calhoun County future land use map dated October 2003. 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 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 a 100-year flood zone. There are flood-prone areas scattered across the County. However, a majority of the large swaths surround the many creeks, streams and rivers including the Apalachicola River along the eastern county boundary, and the Chipola River in the central part of the county. The total amount of land in the special flood hazard area is 102,390.5 acres. As shown in **Table 2.4**, 97.1% are in agricultural use; 1.4% is currently undeveloped; 0.6% is single-family residential homes; and 0.4% is residential mobile homes or commercial parking lots. **Table 2.5** shows that of the 1,448.2 undeveloped acres, 75.3% are designated for agricultural use. The County has taken favorable action in designating 75.3% of vacant acreage in the 100-year flood zone for agriculture.

In **Attachment B**, two maps present the existing and future land uses within wildfire susceptible areas. These areas are scattered across the County, but are more predominate in the northwestern portion of the county. The total amount of land in the wildfire susceptible areas is 18,193.4 acres. As shown in **Table 2.4**, 85% are in agricultural use; 11.6% are currently undeveloped; 1.7% is residential mobile homes or commercial parking lots; and 1% is single family residential homes. **Table 2.5** shows that of the 2,111.1 undeveloped acres, 74.6% are designated for agricultural use. 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		Flood Zones	Wildfire Susceptible Areas
Agriculture	Acres	99,446.2	15,463.3
	%	97.1	85.0
Attractions, Stadiums, Lodging	Acres	5.3	4.7
	%	0.0	0.0
Places of Worship	Acres	22.1	0.7
	%	0.0	0.0
Commercial	Acres	81.8	0.9
	%	0.1	0.0
Government, Institutional, Hospitals, Education	Acres	172.1	10.3
	%	0.2	0.1
Industrial	Acres	76.5	0.0
	%	0.1	0.0
Parks, Conservation Areas, Golf Courses	Acres	15.6	56.6
	%	0.0	0.3
Residential Group Quarters, Nursing Homes	Acres	35.2	0.4
	%	0.0	0.0
Residential Multi-Family	Acres	51.3	14.5
	%	0.1	0.1
Residential Mobile Home, or Commercial Parking Lot	Acres	367.6	311.9
	%	0.4	1.7
Residential Single-Family	Acres	636.7	181.5
	%	0.6	1.0
Submerged Land (Water Bodies)	Acres	4.7	1.8
	%	0.0	0.0
Utility Plants and Lines, Solid Waste Disposal	Acres	27.2	35.7
	%	0.0	0.2
Vacant	Acres	1,448.2	2,111.1
	%	1.4	11.6
Total Acres	Acres	102,390.5	18,193.4
	%	100.0	100.0

Source: Department of Community Affairs

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

Future Land Use Category		Flood Zones		Wildfire Susceptible Areas	
		Total	Vacant	Total	Vacant
Agriculture	Acres	97,212.4	1,090.6	16,300.9	1,574.3
	%	94.9	75.3	89.6	74.6
Mixed Use	Acres	2524.9	126.8	579.4	60.6
	%	2.5	8.8	3.2	2.9
No Data	Acres	269.1	9.4	10.0	0.0
	%	0.3	0.6	0.1	0.0
Sub-Division	Acres	626.4	126.6	1,204.3	473.7
	%	0.6	8.7	6.6	22.4
Urban Fringe	Acres	1757.6	94.7	98.8	2.5
	%	1.7	6.5	0.5	0.1
Total Acres	Acres	102,390.4	1,448.2	18,193.3	2,111.1
	%	100.0	100.0	100.0	100.0

Source: Department of Community Affairs

The amount of total land and existing vacant land in identified hazard areas was also tabulated for each of Calhoun 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.

Blountstown is the only municipality with acreage in the flood zone. Blountstown has the most acres in the wildfire susceptible areas, but neither Altha nor Blountstown have any vacant acreage in wildfire susceptible areas.

Vacant land is often destined to be developed. It is prudent to conduct further analyses of what the vacant lands will be used for, to determine whether they will be populated, and at what level of intensity/density, to ensure that hazard risks are minimized or eliminated. Each of the municipalities in Calhoun 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

Jurisdiction		Flood Zones		Wildfire Susceptible Areas	
		Total	Vacant	Total	Vacant
Altha	Acres	0.0	0.0	2.7	0.0
	%	0.0	0.0	100.0	0.0
Blountstown	Acres	579.2	57.1	5.8	0.0
	%	100.0	9.9	100.0	0.0
Total Municipal Acres	Acres	579.2	57.1	8.5	0.0
	%	100.0	9.9	100.0	0.0

Source: Department of Community Affairs

3. Existing Mitigation Measures

Local Mitigation Strategy (LMS) Assessment

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 (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 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 Calhoun County LMS (adopted in 2004) was assessed to determine if the hazard analysis and vulnerability assessment (i.e., flood and wildfire) 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).

Hazard Analysis and Vulnerability Assessment (Page 9-56)

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

Strengths:

- Provides population and property exposure to most hazards.
- Provides a hazards analysis and a highly detailed qualitative vulnerability assessment.
- Provides information about demographic, income, and special needs populations.
- Provides a description of geographic areas exposed to each of the hazards.
- Includes a list of repetitive loss properties.
- Includes maps for each of the hazards.
- Includes a map of critical facilities exposed to several hazards.
- Includes a qualitative risk assessment for each hazard.
- Includes a quantitative risk assessment by occupancy class for some hazards.
- Includes a future land use map for each jurisdiction to illustrate which future land use categories are susceptible to flood hazard.
- .

Weaknesses:

- Hazard maps do not include data layers to illustrate population (i.e., density) or property (i.e., value) exposure.
- Does not include a future land use maps that include a wildfire hazard data layer to illustrate which future land use categories are susceptible to each hazard.
- Does not include loss estimates for future land use.
- Does not include a quantitative risk assessment for existing and future development (i.e., loss estimates) or specific critical facilities.

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

LMS Goals and Objectives

The Calhoun 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 C**. The following is a summary of the LMS goals and objectives that support comprehensive plan GOPs.

Goal 1 strives to protect human health, safety and welfare. Objectives supporting this goal include: limit public expenditures in areas subject to repetitive damage from disasters; ensure the protection of critical facilities such as prohibitions on constructing critical facilities in high-hazard areas; reduce or eliminate development in hazard prone areas; regulate non-conforming land uses particularly in areas subject to damage from disasters; encourage the removal of septic tanks and technically hazardous sites such as chemical storage facilities from high hazard areas;

consider the impact of mitigation when conducting development review and approval; implement additional development restrictions on high-hazard areas; and consider the use of land acquisition programs for properties subject to development that are located in high-hazard areas.

Goal 2 aims to protect economic activities within the community. Objectives encourage economic diversification to protect the community from hazards that may affect a single economic source; encourage programs to address repetitively damaged and vulnerable commercial structures; and coordinate with the local business community in the development of existing and proposed mitigation initiatives.

Goal 4 seeks to promote adequate and safe housing. Objectives encourage programs to address repetitively damaged and vulnerable residential structures, and encourage the development of mitigation-related building codes and inspection procedures.

Goal 5 pledges to protect community resources, including infrastructure as well as environmental, recreational and historic resources. Objectives provide for the removal and/or relocation of damaged and vulnerable infrastructure; regulate land use, floodplains, non-point source storm water run-off, and the design and location of sanitary sewer and septic tanks in hazard-prone areas, pursuant to rule 9J5.012(3)(c)3, F.A.C.; and encourage the removal of septic tanks from high-hazard areas.

Goal 6 promotes the community's ability to respond to a disaster in a timely manner. Objectives support the participation in the NFIP and CRS; develop procedures to request limited revision of Flood Insurance Rate Map studies from the NFIP; develop procedures to address activities that can earn credit toward reduction of NFIP insurance premiums through CRS; preserve the ability to evacuate hazard areas; and develop policies and procedures for pre- and post-storm development.

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

Comprehensive Emergency Operations Plan (CEMP)

The Calhoun County CEMP references the LMS in its Mitigation Element. The CEMP notes that all pre-disaster mitigation priorities and projects are generated through the LMS. Post-disaster mitigation priorities consider the prioritized list of activities from the LMS, damage assessment reports and the expertise of County Emergency Management Director and Building Inspectors for Calhoun County and the City of Blountstown. The CEMP discusses hazard mitigation in the context of standard operating procedures, activities, responsibilities and available programs. This includes the post-disaster implementation of the Hazard Mitigation Grant Program and related disaster mitigation, response and recovery assistance programs, as well as pre-disaster mitigation programs such as the National Flood Insurance Program and the Community Development Block Grant program.

Though the identification of mitigation opportunities lies predominately with the County Emergency Management Department, the document lists numerous activities and supporting agencies to assist in supporting mitigation in the County. Primary supporting agencies include County departments such as the Property Appraiser, Road Department, and Building Department as well as the City of Blountstown's Street Department and Building Department. Because the Calhoun County Emergency Management Department is responsible for coordinating all post-disaster recovery operations in the county, it is well poised to identify opportunities for future mitigation projects such as elevation or acquisition of floodprone structures, drainage improvement projects, and infrastructure enhancement projects.

As such, the CEMP is a good tool for planners, which includes collaborative procedures for

working with emergency managers to reduce vulnerability from hazards.

Post-Disaster Redevelopment Plan (PDRP)

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

National Flood Insurance Program/Community Rating System

Calhoun County participates in the National Flood Insurance Program (NFIP). The municipalities of Altha and Blountstown do not currently participate in the NFIP. Neither Calhoun County nor any of its municipalities currently participate in the NFIP Community Rating System (CRS).

4. Comprehensive Plan Review

Purpose and Intent

The Calhoun County 1991-2001 Comprehensive Plan (Adopted 1991) was reviewed for the purpose of developing this profile. This review was undertaken in order to assess what steps Calhoun 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 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 D**. 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 the western half of Calhoun County as identified in the County's Local Mitigation Strategy (LMS) are tropical storms, hurricanes, tornadoes, and wildfires. The highest risk hazards for the eastern half of Calhoun County are flooding, tropical storms, hurricanes, tornadoes, and wildfires. Calhoun County is not a coastal county, though storm surge could cause riverine flooding. According to the Calhoun County LMS, the risk from sinkholes is virtually non-existent as there are no known locations of karst topography in Calhoun County.

Calhoun County Comprehensive Plan focuses on the protection of natural features such as floodplains, wetlands, and slopes through development controls and stormwater management. Policies relating to hazard mitigation within the Plan include those relating to flooding, erosion control, and stormwater management. No policies pertaining to wildfires were found in the Comprehensive Plan.

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. Several policies address flood hazard issues, including steering development away from the 100-year floodplain and floodprone areas, and practicing development techniques to minimize flooding and enhance flood prevention. According to Policies, developers will be required to: 1) be consistent with best management practices to minimize dredge and fill activities in order to maintain the natural topography and hydrological functions of the floodplains, 2) locate and

cluster housing on the non-floodprone portion of the site, 3) reduce densities in floodprone areas and 4) prohibit the storage of hazardous waste or materials within the floodplain.

Environmental Services Element policies state that land development regulations which are to be adopted by the statutory deadline in the Comprehensive Plan must specify regulatory programs to control loss of life and property in flood hazard areas. There are also policies related to specific County resources. For example, the Conservation Element states that the natural functions of wetlands, floodplains and the Apalachicola River will be protected by prohibiting mining in 100-year floodplain areas, wetlands and within 100 feet of the Apalachicola River.

Sheltering

Although Calhoun County is not coastal, as with many counties in Florida, the County faces a shelter deficit in the event of a hurricane. According to Florida's Statewide Emergency Shelter Plan, Calhoun County does not currently have any existing shelter capacity. The 2004 shelter demand for a Category 4 or Category 5 hurricane is 1,395 people, leaving an existing shelter deficit of 1,395. In 2009, the projected shelter demand is 1,502, leaving an anticipated shelter deficit of 1,502. It is essential that Calhoun County continue to coordinate with nearby counties for evacuation and shelter planning. The opportunity also 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.

Wildfire

The Calhoun County Comprehensive Plan is limited in fire mitigation and management practices goals, objectives and policies. Policy 1.5 of the Capital Facilities Element states that Calhoun County will continue to coordinate with Altha and area volunteer fire departments to ensure fire protection is provided to all areas of the County. However, no policies pertaining to wildfires were found in the Comprehensive Plan.

5. Data Sources

County Overview:

Florida Statistical Abstract – 2004 (38th 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.
<http://lmsmaps.methaz.org/lmsmaps/>

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.

State of Florida. 2005 Hurricane Evacuation Study Database. 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/

- 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 the 100-year Floodplain**

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

ATTACHMENT C

Local Mitigation Strategy Goals and Objectives Pertaining to Comprehensive Planning

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

1. Goal: Protect human health, safety and welfare

Objectives:

- Limit public expenditures in areas identified as subject to repetitive damage from disasters.
- Ensure the protection of critical facilities such as prohibitions on constructing critical facilities in high-hazard areas.
- Reduce or eliminate development in hazard prone areas such as floodplains.
- Regulate non-conforming land uses particularly in areas subject to damage from disasters.
- Encourage the removal of septic tanks and technically hazardous sites such as chemical storage facilities from high hazard areas.
- Consider the impact of Mitigation when conducting development review and approval.
- Implement additional development restrictions on high-hazard areas.
- Consider the use of land acquisition programs for properties subject to development that are located in high-hazard areas.

2. Goal: Protect economic activities within the community.

Objectives:

- Encourage economic diversification to protect the community from hazards that may affect a single economic source.
- Encourage programs to address repetitively damaged and vulnerable commercial structures.
- Coordinate with the local business community in the development of existing and proposed mitigation initiatives.

4. Goal: Promote adequate and safe housing.

Objectives:

- Encourage programs to address repetitively damaged and vulnerable residential structures.
- Encourage the development of Mitigation-related building codes and inspection procedures.

5. Goal: Protect community resources, including, but not limited to, infrastructure, and environmental, recreational and historic resources.

Objectives:

- Provide for the removal and/or relocation of damaged and vulnerable infrastructure.
- Regulate land use, floodplains, non-point source storm water run-off, and the design and location of sanitary sewer and septic tanks in hazard- prone areas, pursuant to rule 9J5.012(3)(c)3, F.A.C.
- Encourage the removal of septic tanks from high-hazard areas.

6. Goal: Promote the community's ability to respond to a disaster in a timely manner.

Objectives:

- Participate in the National NFIP and CRS.
- Develop procedures to request limited revision of Flood Insurance Rate Map studies from the NFIP.
- Develop procedures to address activities that can earn credit toward reduction of NFIP insurance premiums through CRS.
- Preserve the ability to evacuate hazard areas.
- Develop policies and procedures for pre- and post-storm development.

ATTACHMENT D
Calhoun County Comprehensive Plan Excerpts Pertaining to Hazard Mitigation

FUTURE LAND USE ELEMENT

OBJECTIVE 1: Future growth and development will be managed through the preparation, adoption, implementation and enforcement of land development regulations no later than the statutory deadline.

Policy 1.1: Calhoun County shall adopt land development regulations that shall contain specific and detailed provisions required to implement the adopted Comprehensive Plan, and which as a minimum shall: (a) Regulate the subdivision of land; (b) Regulate the use of land, ensure the protection of water resources, compatibility of adjacent land uses and provide for open space consistent with this Element; (c) Protect the special areas designated on the Future Land Use Map; (d) Regulate development in areas subject to seasonal and periodic flooding and provide for drainage and stormwater management; (e) Protect potable water wellfields, aquifer recharge areas and all water resources; (f) Regulate signage; (g) Ensure safe and convenient on-site traffic flow and vehicle parking needs; and (h) Provide that development orders and permits shall not be issued which result in a reduction of the levels of service for the affected public facilities below the level of service standards adopted in this Comprehensive Plan.

OBJECTIVE 4: Calhoun County shall adopt land development regulations (LDR's) within one year of the plan transmittal date that preserve and conserve unique and environmentally sensitive lands and resources from adverse impacts of development. The LDR's shall contain environmental protection measures as described in Policies 4.1 - 4.3.

Policy 4.1: Proposals for development within riverine floodplains shall be approved by the County only if non beneficial alteration of the functions of the floodplain is proposed and if the proposed development is consistent with the rules of the Northwest Florida Water Management District and Calhoun County.

Policy 4.2 Developers shall be required to: 1) consistent with best management practices minimize dredge and fill activities in order to maintain the natural topography and hydrological functions of the flood plains, 2) locate and cluster housing on the non-flood prone portion of the site, 3) reduce densities in flood prone areas and 4) prohibit the storage of hazardous waste or materials within the floodplain.

Policy 4.3 Through the site plan review process, developers must demonstrate that contemplated dredge and fill activities consistent with best management practices are the minimum necessary in order to accomplish the desired development objective and at the same time, maintain the natural functions of the floodplain.

Policy 4.5: The developer of any site shall be responsible for the on-site management of runoff in a manner so that post-development runoff rated, volumes and pollutant loads do not exceed pre-development conditions. In addition, the developer plan shall make provisions for treating the first on-site inch of stormwater runoff.

Policy 4.6: The County's land development regulations shall address and limit development activities which have the potential to contaminate water, soil or crops, including requiring developers to use appropriate soil erosion mitigation measures during construction. Protective measure shall include, but not be limited to the following: Objective 6 and related policies of this Future Land Use element pertaining to wetland protection measures; Policies 5-2 and 5-3 of this Future Land Use Element pertaining to protection of groundwater; Objective 7 and related policies of the conservation element of this comprehensive plan pertaining to soil erosion protection measures.

OBJECTIVE 6: The County's wetlands shall be conserved and protected from functional alterations by the adoption of this Comprehensive Plan and land development regulations by the statutory deadline which specify design criteria for new development. Such criteria include the following: (these policies are identical to Objective 4 and related policies contained in the Conservation Element.)

Policy 6.1: The County shall prohibit dredge and fill of wetlands for the purpose of constructing roads to the river berm.

Policy 6.2: Upon adoption of this Comprehensive Plan, the County shall require: a) site plans for new development to identify the location and extent of wetlands located on the property; b) site plans shall indicate which best management techniques will be used to assure that normal quality of water will be provided to maintain wetlands after development; and c) where alteration of wetlands is necessary in order to allow use of property as defined by Objective Nine (9) and related policies of this Future Land Use Element, mitigation measures will be consistent with best management techniques and with state, regional and federal laws pertaining to wetland alternations; d) Development shall be clustered on the portion of the site not located in wetlands and shall maintain a 50 foot buffer from the wetland; e) For sites (parcels recorded on or before the date of plan adoption) which do not contain sufficient uplands to permit development, fill and clearing of natural vegetation shall be allowed only in conjunction with a minimal accessway and a minimum amount beneath one residential structure, provided the direction and rate of historical surface water flows are not altered. Structures shall be elevated on pilings, and septic systems shall conform to HRS standards. Also, septic tanks shall not be located in flood hazard areas or wetlands; f) Subsequent to plan adoption, the County shall not allow lots or parcels to be created without sufficient uplands. The definition of wetlands to be protected shall be comprehensive definition encompassing the definitions used by the Northwest Florida Water Management District, the Department of Environmental Regulation and the U.S. Army Corps of Engineers; (g) Permit development only if natural groundwater storage areas will be protected from contamination by percolation or direct drainage of effluent. All development shall be required to dispose of sewage in a manner consistent with the provisions of Florida Administrative Code 1OD-6.

OBJECTIVE 9: Land development regulations will be adopted by the statutory deadline which protect timber lands and agricultural lands from encroachment, allow mixed use development to occur in and near historic settlements, prevent development from destroying wetlands and polluting adjacent water bodies and permit owners of agricultural land limited ability to develop their land for residential use. The following policies describe each future land use category and development standards applicable to each category.

Policy 9.10: Agriculture 2-A is hereby established. The 2A land use designation is a floating land use classification that allows development of up to one unit per acre to occur in areas otherwise designated as Agriculture 2. It is called a floating land use category because its boundaries are not created until development is proposed or actually takes place. Land which ordinarily is designated Agriculture 2 is reclassified by the Planning commission as Agriculture 2-A if such a reclassification is requested by a developer and the proposed development meets certain minimum legal and design criteria. The following are minimum criteria to be used by The Planning Commission in deciding whether Agriculture 2 should be reclassified to Agriculture 2-A: a) No more than 100 acres of Agriculture 2 land can be reclassified to Agriculture 2-A during any given year; b) No more than 1,000 acres of Agriculture 2 will be reclassified to Agriculture 2-A during the planning period; c) If less than 100 acres of land is reclassified during a given year, the remaining portion of potential 2-A land available for reclassification will be carried forward to the next year; d) Once reclassified as Agriculture 2-A, the land use designation reverts back to Agriculture 2 if a building is not constructed on the site within 270 days; e) An amendment to the future land use map will be required prior to the approval of a

development order changing the land use designation from Agricultural 2 to Agricultural 2A; f) The parcel to be developed must front directly on a county maintained roadway, local street or state roadway; g) Access management provisions as described in the traffic circulation element must be adhered to; h) No more than one Agriculture 2A conversion by an individual land owner can occur during any one year; i) A maximum of 50 acres per land owner per year shall be converted; j) Conversions shall not occur in wetlands, floodprone areas or farm land designated as prime, unique or exceptional by the U.S. Soil Conservation Service; k) Clustering is allowed if the overall density for the parcel being developed remains at one unit per acre; and l) All development must maintain an open space ratio of 50% of the land parcel.

ENVIRONMENTAL SERVICES ELEMENT

OBJECTIVE 1: Calhoun County shall improve and enhance the design and construction of stormwater drainage systems through the adoption of land development regulations which contain design criteria and site plan review procedures.

Policy 1.1: The County hereby adopts the following level of service for drainage. This LOS standard will be modified based on a grant funded storm water plan/study to be conducted by the County by 1996.

Drainage: FACILITY TYPE LEVEL OF SERVICE STANDARDS

Retention Pond Standards as specified in Chapters 17-25, Florida Administrative Code as amended by the Florida Department of Environmental Regulation. In addition, the development shall conform for Chapter 17-3 and 17- 302 F.A.C., regarding water quality standards for development and redevelopment. Any development or re-development exempt from Chapter 17 as cited above, and which is not served by an existing approved drainage system and is adjacent to, or drains into a surface water, canal or stream, or which enters a ditch which empties into a sinkhole, shall first allow the run-off to enter a grassed swale designed to percolate 80 percent of the run-off from a three year, one hour design storm within 72 hours after a storm event.

Policy 1.3: The County's land development regulations shall require the construction of roads within new plats or re-plats to be arranged so that the grades of streets shall conform as closely as possible to the original topography to prevent the interruption of natural drainage flows, including sheet flow and flow to isolated wetland systems.

OBJECTIVE 2: Land development regulations to be adopted by the statutory deadline shall specify regulatory programs to control loss of life and property in flood hazard areas.

Policy 2.1: The County shall incorporate into its Flood Plain Ordinance the provision that any filling activity within the 100-year flood elevation must be mitigated by compensating storage on-site.

Policy 2.2: The County shall continue its participation in the FEMA program.

OBJECTIVE 3: Drainage deficiencies will be identified during the annual capital facilities budgeting program.

Policy 3.1: Projects shall be undertaken in accordance with the schedule provided in the Capital Improvements Element of this plan.

Objective 3.2: The County shall improve the management of stormwater and the protection of water resources by initiating a stormwater assessment of the County, by conducting a grant funded comprehensive stormwater management study, and by implementing the following policies.

Policy 3.2A: The statutory deadline the County shall develop and implement Land Development Regulations which include provisions for stormwater management.

Policy 3.2B: In the interim, the County shall continue to enforce the existing stormwater provisions of its subdivision ordinance, and shall continue to coordinate with FDER to ensure that all development and redevelopment activity complies with Chapter 17-25 FAC and Section 208 of the Federal Water Pollution Control Act.

Policy 3.2C: By 1996 upon completion of the grant funded stormwater assessment, the County shall have identified causes of specific existing stormwater management deficiencies, shall specify solutions (including intergovernmental mechanisms), shall prioritize a schedule of correcting the deficiencies, shall estimate cost and funding requirements to rectify the existing needs, and shall amend this Comprehensive Plan (including the Capital Improvements Element) such that existing deficiencies can be corrected by 1996.

Policy 3.2D: By the end of the first increment of the planning period, the County shall have begun preparation of a grant funded comprehensive stormwater management study/plan (concentrating on developed/urbanized areas) and shall amend this Plan and all affected regulations to implement the findings. The grant funded stormwater management plan shall at a minimum include provisions for: a. Identification and analysis of existing stormwater management facilities; b. Management of runoff and retention quantity and quality compatible with FDER regulations, and the provisions of this Plan; c. Requirements to assure that new developments abide by the new provisions; d. Erosion and sediment controls to be used during construction; e. Estimated costs of implementing the study/plan; and (Policy ended here.)

Policy 3.3: No permits shall be issued for new development, which would result in an increase in demand on deficient facilities prior to completion of improvements needed to bring the facility up to standard.

Objective 4: The natural functions of drainage features, including wetlands, streams, rivers and floodplains shall be protected at the time of plan adoption by the following development restrictions: Policy 2.2 of the Conservation Element dealing with a Comprehensive Stormwater Management Ordinance; Objective 3 and related policies dealing with protection of the 100-year floodplain (Conservation Element); Objective 4 and related policies dealing with wetland protection measures (Conservation Element); Objective 7 and related policies dealing with soil erosion protection measures (Conservation Element).

CONSERVATION ELEMENT

(No Objective related to this Policy)

Policy 2.3: By 1992, the County shall adopt and implement a comprehensive stormwater management ordinance establishing: a) stream bank and shoreline buffer zones adjacent to surface water bodies to preserve ecological communities and vegetation which provide filtration of stormwater runoff; b) general design and construction standards for on-site stormwater management systems for new development to ensure that post-development runoff rates, volumes, and pollution loads do not exceed pre development conditions; c) BEST management practices for agriculture and silvicultural land uses, consistent with all state and federal recommended standards, to reduce pesticide and fertilizer runoff and soil erosion; and d) standards for all development in river basins, tributaries, estuaries, and coastal areas or development proposing to discharge in an Outstanding Florida Water shall comply with treatment practices and standards adopted by the Water management District and appropriate rules and regulations; e) A set back consistent with BEST management practices shall be required for all new development adjacent to the following creeks: Stafford Creek, Graves Creek, Four Mile Creek, Ten Mile Creek, Juniper Creek, White Water Creek, and Cypress Creek.

OBJECTIVE 3: The County shall protect the natural functions of the 100-year floodplain to the extent that flood-carrying and flood storage capacity are maintained. This will be accomplished by land development regulations adopted by 1992 which contain design criteria for development within flood prone areas. This will be accomplished by requiring developers to minimize dredge and fill activities in order to maintain the natural topography and hydrological functions of the flood plains, preceding incentives for developers to locate and cluster housing on the non-floodprone portion of the site, reduce densities in floodprone areas and prohibit the storage of hazardous waste or materials within the floodplain. The following policies shall be in effect at the time of plan adoption to achieve this objective.

Policy 3.1: Through the site plan review process, developers must demonstrate that contemplated dredge and fill activities are the minimum necessary in order to accomplish the desired development objective and at the same time, maintain the natural functions of the floodplain.

Policy 3.2: Developers will not be required to add extra expense to proposed development in order to floodproof planned structures if the structure is placed on the non-floodprone portion of the site.

Policy 3.3: Building constructed in flood prone areas which are designated as residential land use as shown on the future Land Use Map shall be required to maintain a density 50% less than the underlying land use area density.

Policy 3.4: Use and storage of hazardous shall be prohibited.

Policy 3.5: The County shall identify and recommend to the state and the NFWFMD floodplains that would warrant acquisition under the conservation and recreation lands (CARL) program or the Save our Rivers (5CR) program.

OBJECTIVE 4: The County's wetlands shall be conserved and protected from functional alterations by the adoption of land development regulations by the statutory deadline, which specify design criteria for new development.

Policy 4.1: The County shall prohibit dredge and fill of wetlands for the purpose of constructing roads to the river berm.

Policy 4.2: Upon adoption of this Comprehensive Plan, the County shall require: a) site plans for new development to identify the location and extent of wetlands located on the property; b) site plans shall provide measures to assure that normal quality of water will be provided to maintain wetlands after development; and c) where alteration of wetlands is necessary in order to allow reasonable use of property, mitigation measures will be consistent with state, regional and federal laws pertaining to wetland alterations; d) Development shall be clustered on the portion of the site not located in wetlands and shall maintain a 50 foot buffer from the wetland; e) For sites (parcels recorded on or before the date of plan adoption) which do not contain sufficient uplands to permit development, fill and clearing of natural vegetation shall be allowed only in conjunction with a minimal accessway and a minimum amount beneath one residential structure, provided the direction and rate of historical surface water flows are not altered. Structures shall be elevated on pilings, and septic systems prohibited; f) Subsequent to plan adoption, the County shall not allow lots or parcels to be created without sufficient uplands. The definition of wetlands to be protected shall be a comprehensive definition encompassing the definitions used by the Northwest Florida Water Management District, the Department of Environmental Regulation and the U.S. Army Corps of Engineers.

Policy 4.3: The County shall cooperate with the Florida DER, Florida DNR, NFWFMD, ARPC, and Army Corp of Engineers to improve compliance with dredge and fill state permitting process.

Policy 4.6: The County shall prohibit the construction commercial and industrial development within freshwater stream to sink water sheds as a means to protect the natural functions of sinks.

(No Objective was listed related to this policy.)

Policy 8.4: The natural functions of wetlands, floodplains and the Apalachicola River shall be protected by prohibiting mining in 100-year floodplain areas, wetlands and within 100 feet of the Apalachicola River.

OBJECTIVE 9: By 1992, the County shall include within the land development regulations, best management practices for the conservation, use and protection of fisheries, wildlife and wildlife habitats.

Policy 9.4: The County shall address during the development review process the mitigation of development activities within environmentally sensitive areas, to ensure that the possible impacts created by the proposed development activity will not significantly alter the natural functions of these significant natural resources. All new development will maintain the natural functions of environmentally sensitive areas including but not limited to wetlands and 100-year floodplain so that the long term environmental integrity of these areas is maintained. Development restriction activities may include, but are not limited to: maintaining a 50 foot buffer for all new development adjacent to wetlands and water bodies; maintaining an open space ratio for development occurring in Agriculture I and II areas; and, requesting site plan review assistance from U.S. Fish and Wildlife, the Florida Freshwater Fish and Game Commission and DER.

CAPITAL FACILITIES ELEMENT

OBJECTIVE 1: The County through the adoption of this Comprehensive Plan and Land Development Regulations, shall require developers, via the site Plan review process and concurrency management system (see Appendix 10 for concurrency management system) to certify that the proposed development will be served by sanitary sewer, potable water, drainage, solid waste, recreation and traffic services at the levels of services adopted by this comprehensive Plan (see Appendix 2 for adopted levels of Service).

Policy 1.5: Calhoun County will continue to coordinate with Altha and area volunteer fire departments to ensure fire protection is provided to all areas of the County.