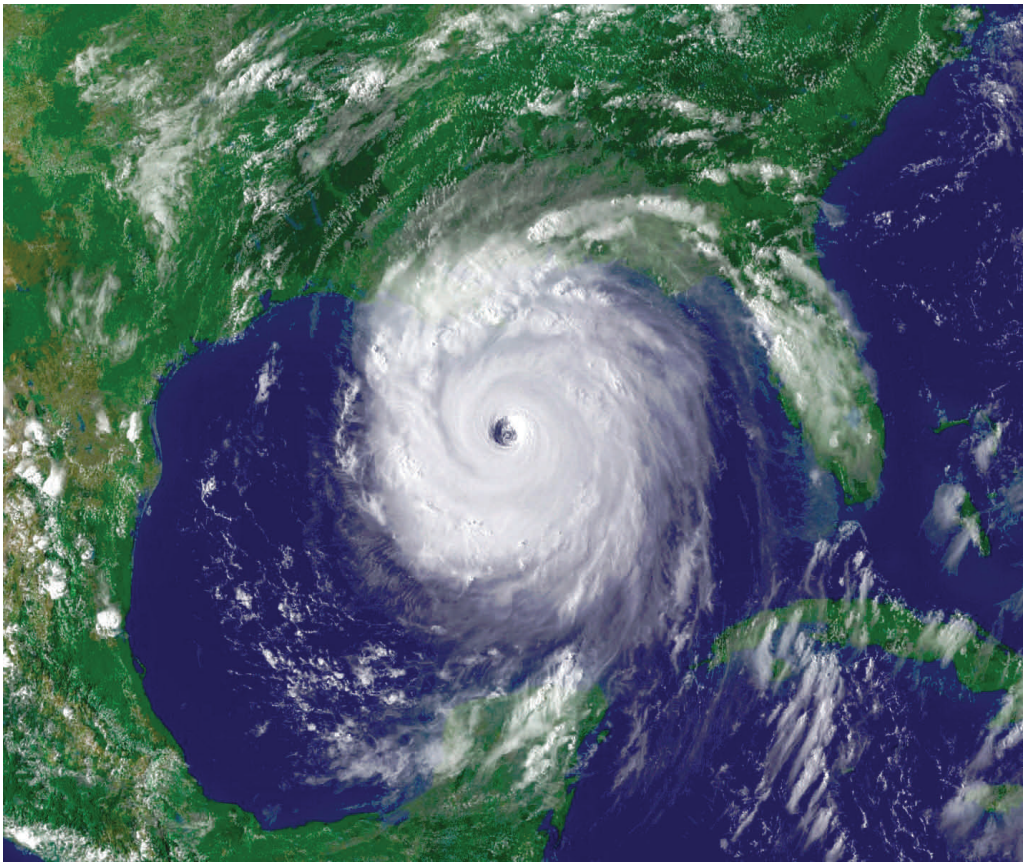
North Central Florida Economic and Disaster Resiliency Study

October 2011

North Central Florida
Regional Planning Council



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Executive Summary

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EXECUTIVE SUMMARY

A. Introduction

In August of 2008, seven of the Region's 11 counties, Alachua, Bradford, Dixie, Hamilton, Suwannee, Taylor, and Union, sustained significant property damage caused by Tropical Storm Fay and were declared eligible for federal disaster relief funding. In order to prepare the North Central Florida Region to rebound economically from future natural disasters and to aid in a more rapid recovery effort, funding was requested by the North Central Florida Regional Planning Council from the U.S. Department of Commerce, Economic Development Administration to conduct an economic and disaster resiliency study.

The study was completed in two phases. The first phase of the study developed a regionwide report detailing maps of Census Block Groups with employment by industry, housing by decade built, critical infrastructures and staging areas. Phase one identifies which industries are densely located in hurricane/flooding prone areas allowing users to make better decisions.

The second phase of the study consisted of an economic analysis of the effects of a catastrophic event on the North Central Florida Region. The report details the effects of the positive impacts (reconstruction, spending, cleanup activity, influx of federal funds) and the negative impacts (employment, population loss, ad valorem tax loss) and their associated ripple effects across the Region.

The impacts of two Saffir-Simpson Category Five hurricanes were modeled using Federal Emergency Management Agency Hazus Multi-Hazard 2.0 computer program. Two hurricane paths were used to evaluate catastrophic damage resulting in the 11 counties of the Region. Next, Policy Insight, an econometric model of the regional economy published by Regional Economic Models, Incorporated. was used to forecast the economic impacts of these two catastrophic hurricanes. An in-depth analysis of the results is presented in this study.

B. Regional Hazards Analysis

The Sea, Lake and Overland Surges from Hurricanes computer model was used to analyze the expected hazards from potential hurricanes affecting the study area. The Sea, Lake and Overland Surges model predicts the surge heights resulting from hypothetical hurricanes with selected various combinations of pressure, size, forward speed, track and winds. Output from the Sea, Lake and Overland Surges from Hurricanes computer model was used for several key hazard and vulnerability analyses.

C. Regional Vulnerability Analysis

A regionwide map series is included to identify areas vulnerable to a catastrophic hurricane or have a high flood risk. A series of maps and tables provide a detailed report tabulated by United States Census Block Group data (See Figures III-3 through 24). United States 2010 Census data in conjunction with County property appraiser data was used to identify residential, commercial, industrial and essential services located throughout the North Central Florida Region.

Economic activity is dependent on the number of occupied commercial and industrial parcels within a region. Any commercial and industrial parcels that are at a high risk from flooding or coastal storm surge can potentially weaken the economy of that particular region (See Tables III-13 through III-24 and Figures III-37 through III-48). Identifying commercial and industrial parcels vulnerable to one-percent-annual chance flood events is vital in gauging potential economic loss.

Although storms are inevitable in Florida, being prepared for them can save millions of dollars and reduce potential loss of life. The proper identification of critical infrastructures, schools, shelters and staging areas provides the tools necessary for planning for major storms and flooding events (See Tables III-25 through III-70 and Figures III-49 through III-94).

D. Regional Economic Analysis

The South Track hurricane, which traverses the southern portion of the Region, is estimated to cause a 46.6 percent loss to regional capital structure (building damage), a 38.8 percent job loss, and 34.0 percent loss of population of the Region. The North Track hurricane, which passes through a less populated area of the Region, results in the loss of 9.9 percent of regional capital structure, a 13.9 percent job loss, and a population decline of 13.5 percent.

Hurricane recovery times from the direct impacts of building damage, basic industry job and population loss, as well as population loss due to residential building damage varies significantly from county to county depending on the amount and severity of property damage. The longest hurricane recovery period for these direct impacts is six years in Alachua County for the South Track hurricane, six years in Dixie County for the South Track hurricane, and six years in Taylor County for the North Track hurricane. The shortest hurricane recovery time is one year for Hamilton County for the South Track hurricane.

Although the Region recovers from some of the impacts of the Category Five hurricanes within the study period, most of the Region does not return to levels of jobs, population, county gross domestic product, or combined personal income projected to otherwise occur without the hurricanes within the study period.

Federal Emergency Management Agency disaster and debris cleanup assistance has a notably positive, but brief, impact on regional employment, gross domestic product and combined personal income. The net impacts of Federal Emergency Management Agency assistance dissipate by 2013. However, the temporary increases occur during the years (2011 - 2013) when the Region experiences the worst of the economic impacts. The greatest impact of Federal Emergency Management Agency assistance on a percentage basis occurs with regional employment.

E. Economic Resiliency

Almost 40.0 percent of small businesses that close due to a disaster event never re-open. Every year emergencies take their toll on business and industry, in both lives and dollars. But something can be done. Business and industry can limit injuries and damages and return more quickly to normal operations if they plan ahead.

The Florida Division of Emergency Management has made available a "Florida Business Disaster Survival Kit" to help businesses become more resilient to the adverse economic impacts from a hurricane.

F. Conclusions

A Category Five hurricane is anticipated to cause significant physical damage to the North Central Florida Region with correspondingly significant impacts to the regional economy. Although damages caused by the South Track and North Track hurricanes generally lessen as they move inland, they nevertheless cause significant damage to inland portions of the North Central Florida Region. While several north central Florida counties return to pre-hurricane levels of population and employment within the study period, the majority of the counties do not reach projected population and employment levels during the study period which would have occurred had the hurricanes not taken place.

The information provided in this study should assist local government, businesses and emergency management personnel better prepare to mitigate and recover from the impacts of a catastrophic hurricane.

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Chapter I
Introduction

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CHAPTER I
INTRODUCTION

A. Study Purpose

In August of 2008, seven of the Region's 11 counties, Alachua, Bradford, Dixie, Hamilton, Suwannee, Taylor, and Union, sustained significant property damage caused by Tropical Storm Fay and were declared eligible for federal disaster relief funding. In order to prepare the North Central Florida Region to rebound economically from future natural disasters and to aid in a more rapid recovery effort, funding was requested by the North Central Florida Regional Planning Council from the U.S. Department of Commerce, Economic Development Administration to conduct an economic and disaster resiliency study.

These counties were already suffering from the effects of long-term economic stagnation. Many of these counties lagged the state and nation in economic measures such as per capita income. Private investment, already sluggish prior to Tropical Storm Fay, has been slow to rebuild and local and state government funds are not available. The North Central Florida Region faces annual threats to its infrastructure, economy, and human capital from tropical storms and hurricanes. While significant funding is directed towards disaster recovery once a major storm has passed, better preparation will yield a Region with a more resilient economy, leading to more rapid and efficient recoveries.

B. Study Area

The investment region of the project is the North Central Florida Economic Development District, which is comprised of the counties of Alachua, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Madison, Suwannee, Taylor, and Union, and which are the same 11 counties that are represented by the North Central Florida Regional Planning Council.

North Central Florida is the second largest of the eleven planning regions in the State of Florida, with a total area of almost 4.5 million acres (7,000 square miles). It is bounded on the east by the Northeast Region, on the north by Georgia, on the west by the Gulf of Mexico and on the south by the Withlacoochee Region. The North Central Florida Region is home to an estimated resident population of approximately one-half million in 2010, with about half living in Alachua County. The City of Gainesville is home to approximately one quarter of the Region's residents and the University of Florida, the major research university in the state.

The North Central Florida Region is one of the least populous regions in Florida, with 2.7 percent of the total state population, it also experienced some of the least absolute growth in the state over the past ten years. The Region includes the following inland counties: Alachua, Bradford, Columbia, Gilchrist, Hamilton, Lafayette, Madison, Suwannee and Union. Dixie and Taylor Counties comprise the coastal counties and they are sparsely populated with only 0.2 percent of the state's population.

Sensitive environmental areas located within the Region include the Gulf of Mexico, the coastal marshes of Dixie and Taylor Counties, the Suwannee and Santa Fe Rivers, and areas with high rates groundwater recharge to the Floridan Aquifer. Land use patterns include urban development centered around municipalities with a majority of the Region classified as rural. Groundwater is the almost exclusive source of potable water.

The transportation system consists of primarily highway and rail systems. Interstate Highways 10 and 75 provide ground transportation to south Florida, Jacksonville, Tallahassee, and Atlanta. U.S. Highway 27 connects Gainesville and Perry through the heart of the Region and continues to Tallahassee. U.S. 90 follows an east-west route parallel to Interstate 10 and U.S. Highway 98 parallels the Gulf coast. U.S. Highway 301 is a major north-south highway through the eastern portion of the Region, providing access between the Gainesville and Jacksonville areas. State Roads 51 and 349 connect Live Oak with the Gulf coast. State Road 100 passes through Lake City and Starke in its route to the Atlantic Ocean. Overall, the regional road network consists of 1,101 miles of rural and 130 miles of urban roadways. Included in this total are 177 miles of interstate highways and 1,054 miles of state and county roads.

C. Study Scope

The study was completed in two phases. The first phase of the study included a regionwide report detailing maps of Census Block Groups with employment by industry, housing by decade built, critical infrastructures and staging areas. Phase one also included an identification of industries that are densely located in hurricane/flooding prone areas allowing users to make better decisions.

Phase two included an economic analysis of the effects of a catastrophic event. The study details the effects of the positive impacts (reconstruction, spending, cleanup activity, influx of federal funds) and the negative impacts (employment, population loss, ad valorem tax loss) and their associated ripple effects across the Region.

The impacts of two Saffir-Simpson Category Five hurricanes were modeled using Federal Emergency Management Agency Hazus Multi-Hazard 2.0 software. Two hurricane tracks (a North Track and a South Track) were modeled. Next, Policy Insight, an econometric model of the regional economy published by Regional Economic Models, Incorporated, was used to forecast the economic impacts of these two catastrophic hurricanes. An in-depth analysis of the results is presented in this study

Due to the multitude of potential hurricane tracks and storm intensities, it would be difficult to precisely predict all associated economic impacts. However, this report is a useful tool for local governments and businesses to assess possible economic impacts of a catastrophic disaster, and effectively plan for recovery.

Chapter II
Regional Hazards Analysis

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CHAPTER II
REGIONAL HAZARDS ANALYSIS

A. Hurricanes and Coastal Storms

1. Hurricane Hazard Profile

A hurricane is defined as a weather system with a closed circulation developing around a low pressure center over tropical waters. The winds rotate counterclockwise in the Northern Hemisphere (clockwise in the Southern Hemisphere). Tropical storms and hurricanes act as safety valves that limit the build-up of heat and energy in the tropical regions by maintaining the atmospheric heat and moisture balance between the tropics and the pole-ward latitudes. Tropical cyclones are named when their winds reach the tropical storm strength of sustained 39 miles per hour.

- **Tropical Depression**: The formative stages of a tropical cyclone in which the maximum sustained (one-minute mean) surface wind is <39 miles per hour.
- **Tropical Storm:** A warm core tropical cyclone in which the maximum sustained surface wind (one-minute mean) ranges from 39 to <74 miles per hour.
- **Hurricane:** A warm core tropical cyclone in which the maximum sustained surface wind (one-minute mean) is at least 74 miles per hour.

The Saffir-Simpson Scale, shown in the table below, is used to define and describe the intensity of hurricanes. The central pressure of the hurricanes is measured in millibars or inches. The wind speed is currently the indicator in determining the category of the storm. The wind speed is tied to both wind damage, potential storm surge and resulting coastal flooding damages.

It should be noted that the range of storm surge is highly dependent upon the configuration of the continental shelf (narrow or wide), the depth of the ocean bottom (bathymetry), the strength, size and structure of the storm, its angle of approach, and shape of coastline. A narrow shelf produces a lower surge than a wider shelf if all other factors are held constant. Of the total storm surge, there is a greater contribution from wave run up/setup in situations with a narrow shelf. This is the situation along Florida's Atlantic coast. However, the Gulf Coast of Florida, with a long gently sloping shelf and shallow water depths, can expect a higher surge but smaller waves. In this instance, a hurricane has a larger area to "pileup" water in advance of its landfall. In the state of Florida, the Apalachee Bay region has the most prevalent threat of storm surge. The Big Bend region of the state extends out into the Gulf of Mexico creating a naturally enclosed pocket resulting in some the highest computer projected storm surge heights in the entire nation.

Hurricanes Dennis, Katrina and Ike also demonstrated that the size of the hurricane can significantly impact the potential storm surge. These storms which had particularly large radii of maximum winds produced storm surge comparable to much more intense categories of storm if measured using only wind speeds.

Table II-1: Saffir-Simpson Hurricane Scale

CATEGORY		CENTRAL PRESSURE		DAMAGE POTENTIAL
		MILLIBARS	INCHES	
1		>980	>28.94	Damage primarily to trees & foliage, signs, unanchored mobile homes, flooding in low-lying areas, minor pier damage, some small craft torn from moorings.
2		965-979	28.50-28.91	Considerable damage to foliage & trees; major damage to mobile homes, signs, roofing materials of buildings; windows; coastal roads and low-lying areas cut off by rising water; considerable damage to piers and marinas.
Major Hurricanes	3	945-964	27.91-28.41	Foliage torn from trees; large trees uprooted; Signs down; roofing, window and door damage; Some structural damage to buildings. Mobile homes destroyed. Serious flooding at coast with structures damaged by battering waves and floating debris.
	4	920-944	27.17-27.88	Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows and doors. Complete roof failure on many residences. Complete destruction of mobile homes. Major destruction of coastal structures and erosion of beaches.
	5	<920	<27.17	Shrubs and trees blown down; considerable damage to roofs of buildings; all signs down. Very severe and extensive damage to windows and doors. Complete failure of many residences and industrial buildings. Extensive shattering of glass. Complete destruction of mobile homes. Major / complete destruction of coastal structures.

Source: National Hurricane Center

2. Hurricane Hazards

The five major hazards produced by a hurricane are storm surge, high winds, tornadoes and rainfall (freshwater flooding) and the potential for hazardous material incidents. The storm surge is the abnormal rise in water level, often 50-100 miles wide, caused by the wind and pressure forces of a hurricane or tropical storm. Storm surge can range from 4-6 feet for a minimal hurricane to greater than 20 feet for intense hurricanes. It produces most of the flood damage and drowning associated with storms that make landfall or that closely approach the coastline. The destruction along the coastline is not only caused by the flooding resulting from storm surge, but also the impact from waves.

Of the hurricane hazards, the storm surge has historically been considered to be the most dangerous as nine out of ten hurricane-related deaths were attributed to drowning from coastal storm surge. However, over the past two decades, as evacuation plans and warning systems have become more sophisticated, the number of deaths attributed to storm surge has decreased and the greatest number of hurricane related deaths was caused by inland flooding and cleanup accidents. That was until Hurricane Katrina (2005). The total number of fatalities directly related to the forces of Katrina is estimated to be about 1500 spread across four states, with about 1,300 of these in Louisiana, about 200 in Mississippi, 6 in Florida, and one in Georgia. Presumably, most of the deaths in Louisiana were directly caused by the widespread storm surge-induced flooding and its miserable aftermath in the New Orleans area.

The high winds also can have a devastating effect on persons outside, in mobile homes, in unsound, substandard structures or in structures with unprotected windows or glass exposures. High winds impact coastal and inland areas by impeding traffic movement, damaging structures and producing tornadoes. Evacuation movement becomes hazardous when wind speeds reach 30-40 miles per hour. Sustained gale-force winds of 40 miles per hour will render traffic movement practically impossible and life threatening.

Rainfall associated with hurricanes varies with hurricane size, forward speed and other meteorological factors. Hurricane related rainfall ranges from 6-12 inches on average, with higher amounts common. While freshwater flooding has historically not been considered a life-threatening hazard, freshwater flooding along rivers and streams causes significant property damage and has the potential of causing personal injury and deaths. Over the past 20 years, freshwater flooding had become the leading cause of death related to hurricanes. This is due in part to the successful evacuation planning efforts in United States which had significantly reduced the number of deaths in the United States related to storm surge until 2005. However, it is also recognized that many coastal and inland residents do not recognize the risk associated with freshwater flooding, especially when driving. In response, a national program, *"Turn Around, Don't Drown"* was implemented in 2002.

The freshwater flooding associated with a hurricane may also inundate potential evacuation routes and prevent persons from evacuating areas vulnerable to storm surge. Tropical Storm Fay in 2008 impacted the North Central Florida region with over 27 inches of rain in some areas, flooding roadways and homes with 3-5 feet of water.

Hurricanes can also produce tornadoes that add to the destructive power of a storm. Tornadoes are most likely to occur in the right-front quadrant of the hurricane. However, they are also often found elsewhere embedded in the rain bands well away from the center of the hurricane. Some hurricanes produce no tornadoes, while others develop multiple ones. Studies have shown that more than half of the landfalling hurricanes produce at least one tornado. In 1967, Hurricane Buelah spawned 141 according to one study.

Currently, there is no way to predict exactly which storms will spawn tornadoes or where they will touch down. The Doppler radar system have greatly improved the forecaster's warning capability, but the technology usually provides lead times from only a few minutes up to about 30 minutes. Consequently, early warning systems and preparedness actions are critical.

Like Murphy's Law, sometimes one emergency event can trigger another. Facilities which generate or store quantities of potentially hazardous materials, propane storage facilities, natural gas pipeline terminals, fuel storage facilities and tank farms all pose additional potential threats in a hurricane.

3. Storm Surge: The Sea, Lake and Overland Surges from Hurricane Model

The principal tool utilized in this study for analyzing the expected hazards from potential hurricanes affecting the study area is the Sea, Lake and Overland Surges from Hurricane numerical storm surge prediction model. The Sea, Lake and Overland Surges from Hurricane computerized model predicts the surge heights resulting from hypothetical hurricanes with selected various combinations of pressure, size, forward speed, track and winds. Originally developed for use by the National Hurricane Center as a tool to give geographically specific warnings of expected surge heights during the approach of hurricanes, the Sea, Lake and Overland Surges from Hurricane model is utilized in regional studies for several key hazard and vulnerability analyses.

The Sea, Lake and Overland Surges from Hurricane modeling system consists of the model source code and model basin or grid. Sea, Lake and Overland Surges from Hurricane model grids must be developed for each specific geographic coastal area individually, incorporating the unique local bay and river configuration, water depths, bridges, roads and other physical features. In addition to open coastline heights, one of the most valuable outputs of the Sea, Lake and Overland Surges from Hurricane model for evacuation planning is its predictions of surge heights over land, thus predicting the degree of propagation of the surge into inland areas.

The model basin was developed by the Techniques Development Lab of the National Oceanic and Atmospheric Administration under the direction of the late Dr. Chester P. Jelesnianski. A major improvement to the model was the incorporation of wind speed degradation overland as the simulated storms moved inland. This duplicated the pressure "filling" and increases in the radii of maximum winds as the hurricanes weaken after making landfall. The grid configuration also provided more detail and additional information including storm surge projections.

The Maximum Envelope of Winds provides information to the emergency managers in evacuation decision making. However, in order to determine a s cenario which may confront the county in a hurricane threat 24-48 hours before a storm is expected, a further compositing of the Maximum Envelope of Winds into Maximums of the Maximums is usually required. The Maximum of the Maximums represent the maximum surge expected to occur at any given location, regardless of the specific storm track/direction of the hurricane. The only variable is the intensity of the hurricane represented by category strength (Category 1-5).

The Maximum of the Maximum surge heights, which were furnished by the National Hurricane Center, have two values, mean tide and high tide. Mean tide has zero feet tide correction. High tide has a one-foot tide correction added to it. All elevations are now referenced to the North American Vertical Datum 88 datum. The range of maximum surge heights (high and low) for each county in the region based upon the model is provided for each category of storm on Table II-2. It should be noted again that these surge heights represent the maximum surge height recorded in the county including inland and back bay areas where the surge can be magnified dependent upon storm parameters.

Table II-2: Potential Storm Tide Heights by County (In feet above Sea Level)

*Storm Strength	Dixie	Taylor	Gilchrist	Lafayette
Category 1	Up to 10.6	Up to 11.1	Up to 5.7	Up to 5.4
Category 2	Up to 17.4	Up to 19.5	Up to 14.9	Up to 8.5
Category 3	Up to 23.6	Up to 27.7	Up to 21.7	Up to 19.3
Category 4	Up to 29.3	Up to 33.5	Up to 26.5	Up to 28.1
Category 5	Up to 34.2	Up to 38.5	Up to 31.8	Up to 33.8

Source: Statewide Regional Evacuation Study and North Central Florida Regional Planning Council

a. Determining Storm Tide Height and Flooding Depth

Figure II-1 through II-5 present a compilation of the storm tides for the region and counties. Sea, Lake and Overland Surges from Hurricane model and Sea, Lake and Overland Surges from Hurricane model related products reference storm tide heights relative to the model vertical datum, in this case North American Vertical Datum 88. In order to determine the inundation depth of storm tide flooding at a particular location must be subtracted from the potential surge height. It is important to note that one must use a consistent vertical datum when post-processing Sea, Lake and Overland Surge from Hurricane model the ground elevation (relative to North American Vertical Datum 88) at that s surge values.

Figure II-1: Storm Tide Limits for the North Central Florida Region

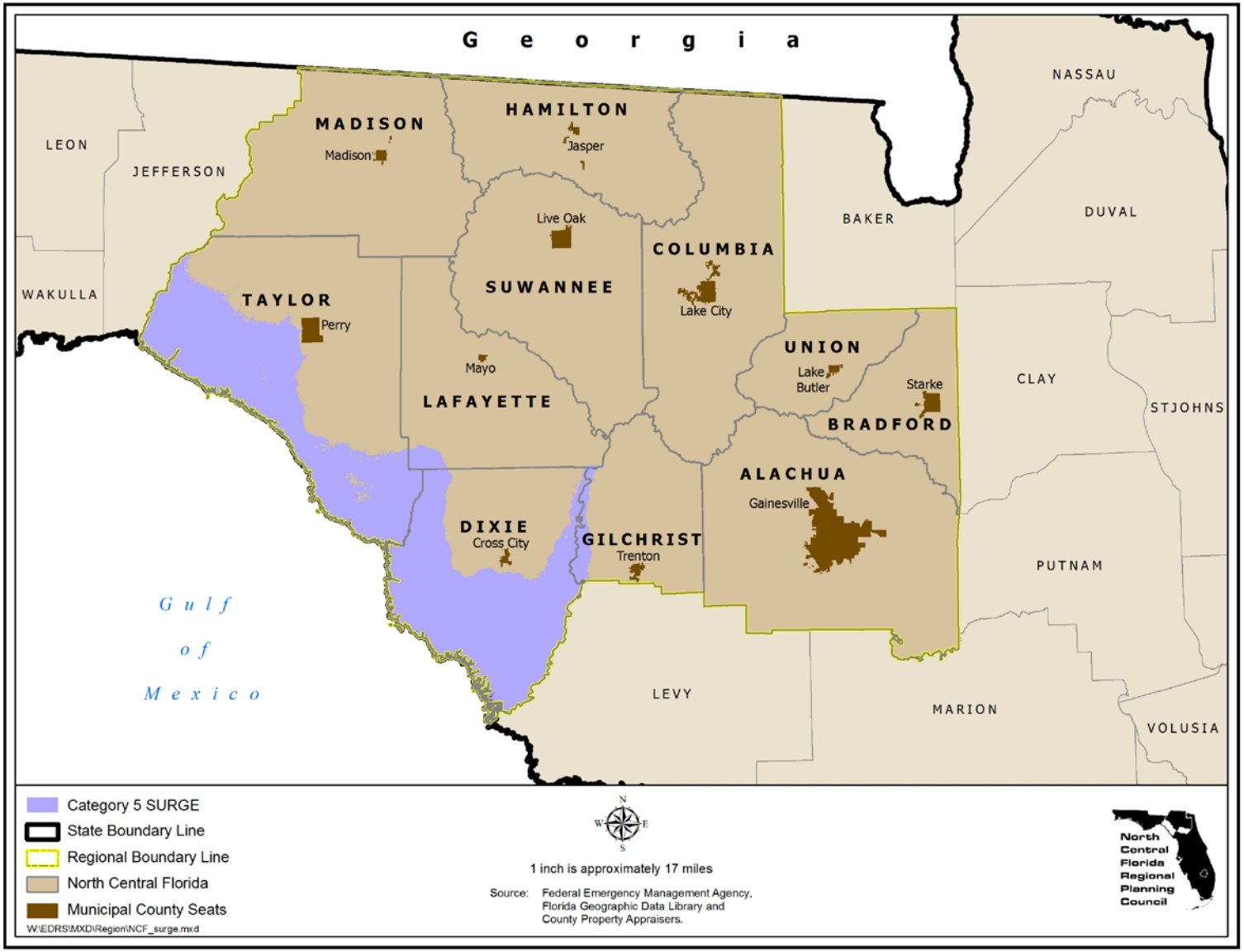


Figure II-2: Storm Tide Limits for Dixie County

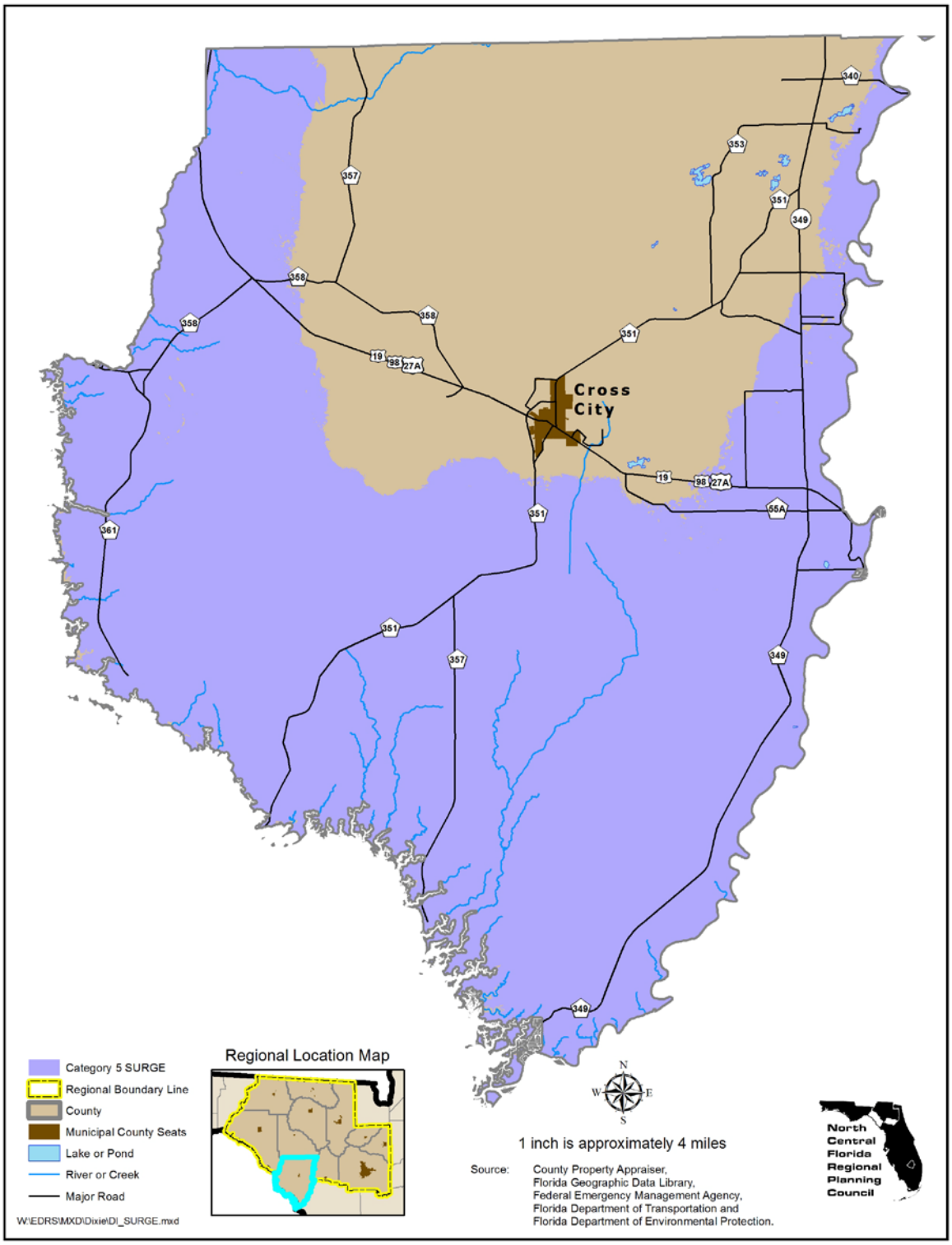


Figure II-3: Storm Tide Limits for Gilchrist County

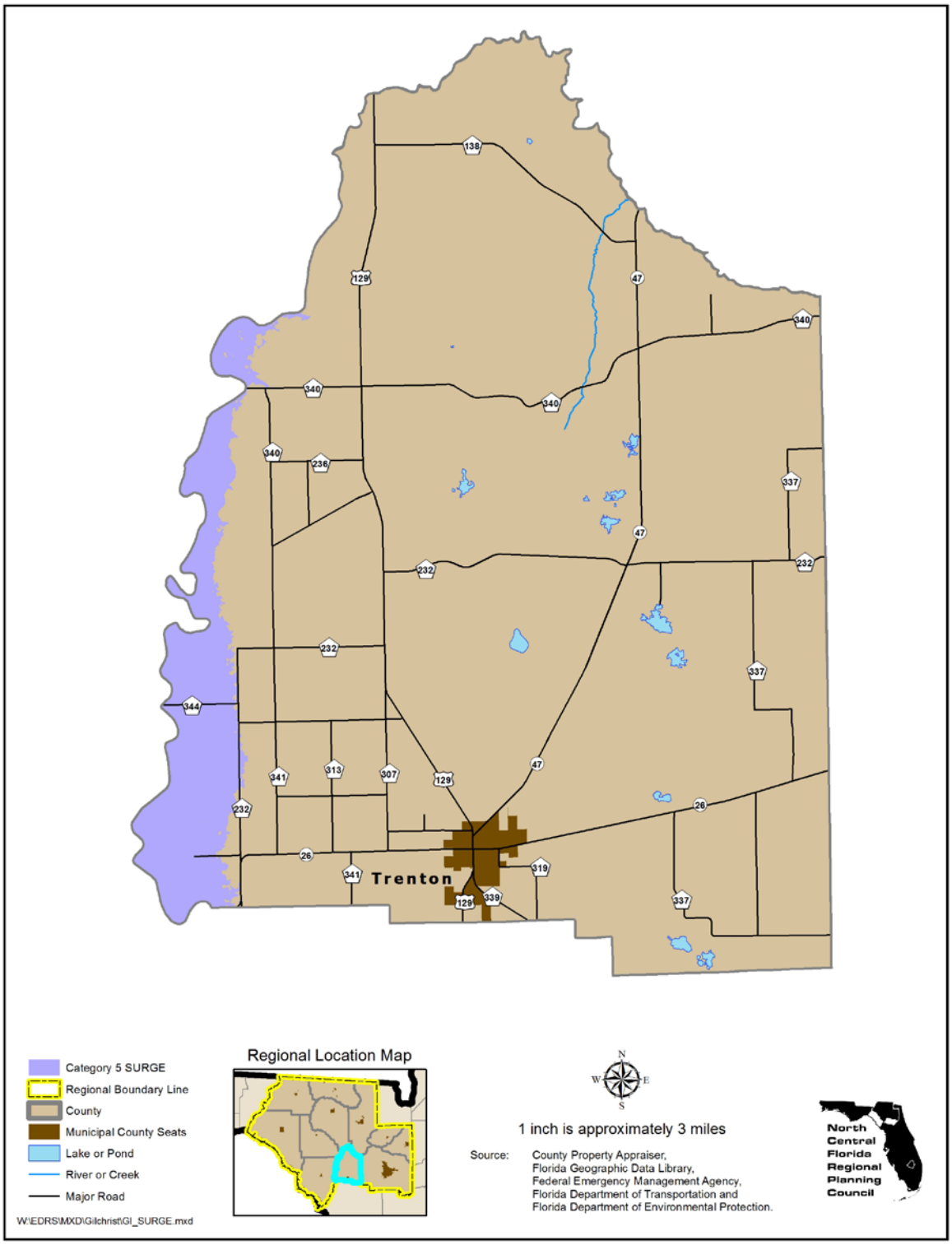


Figure II-4: Storm Tide Limits for Lafayette County

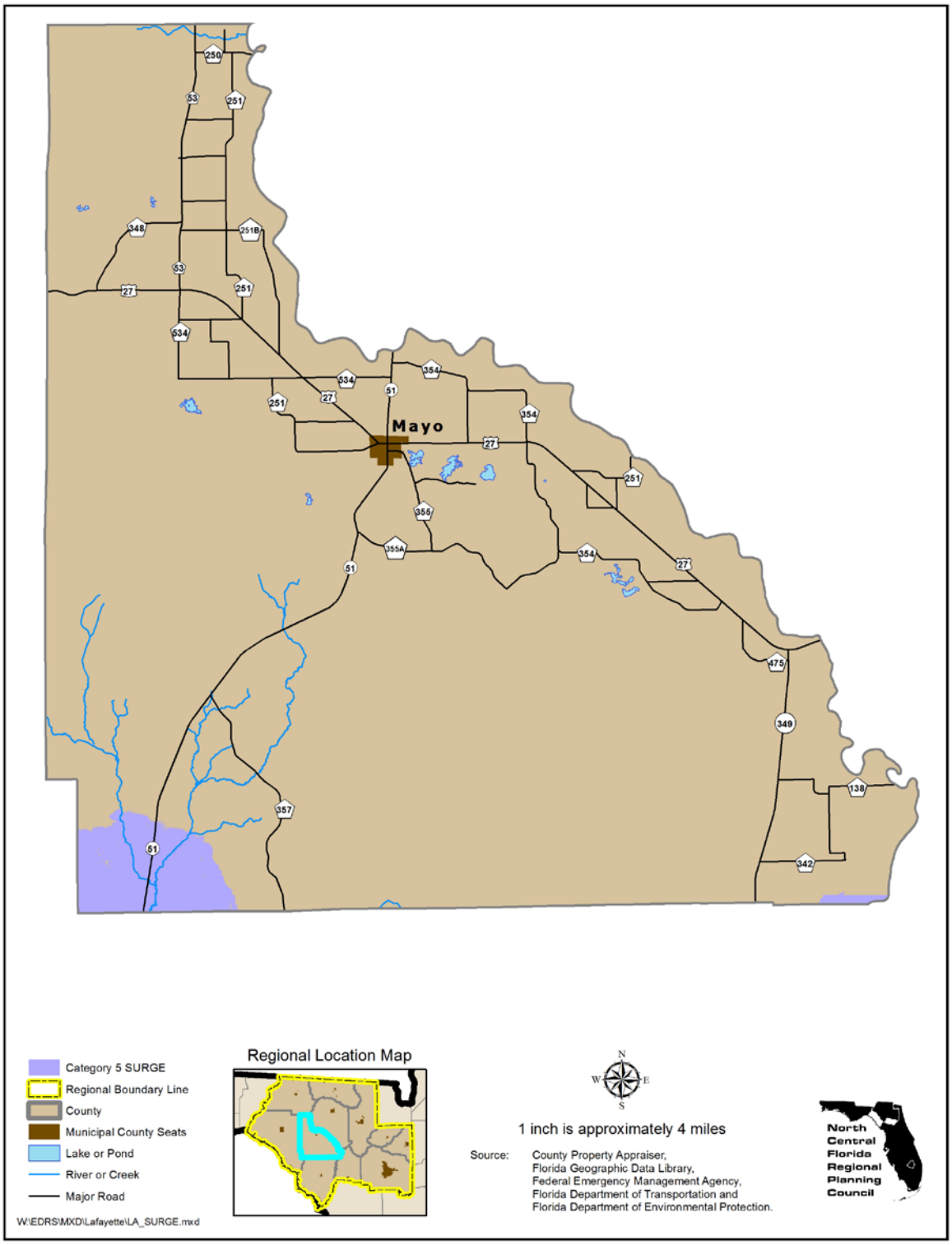
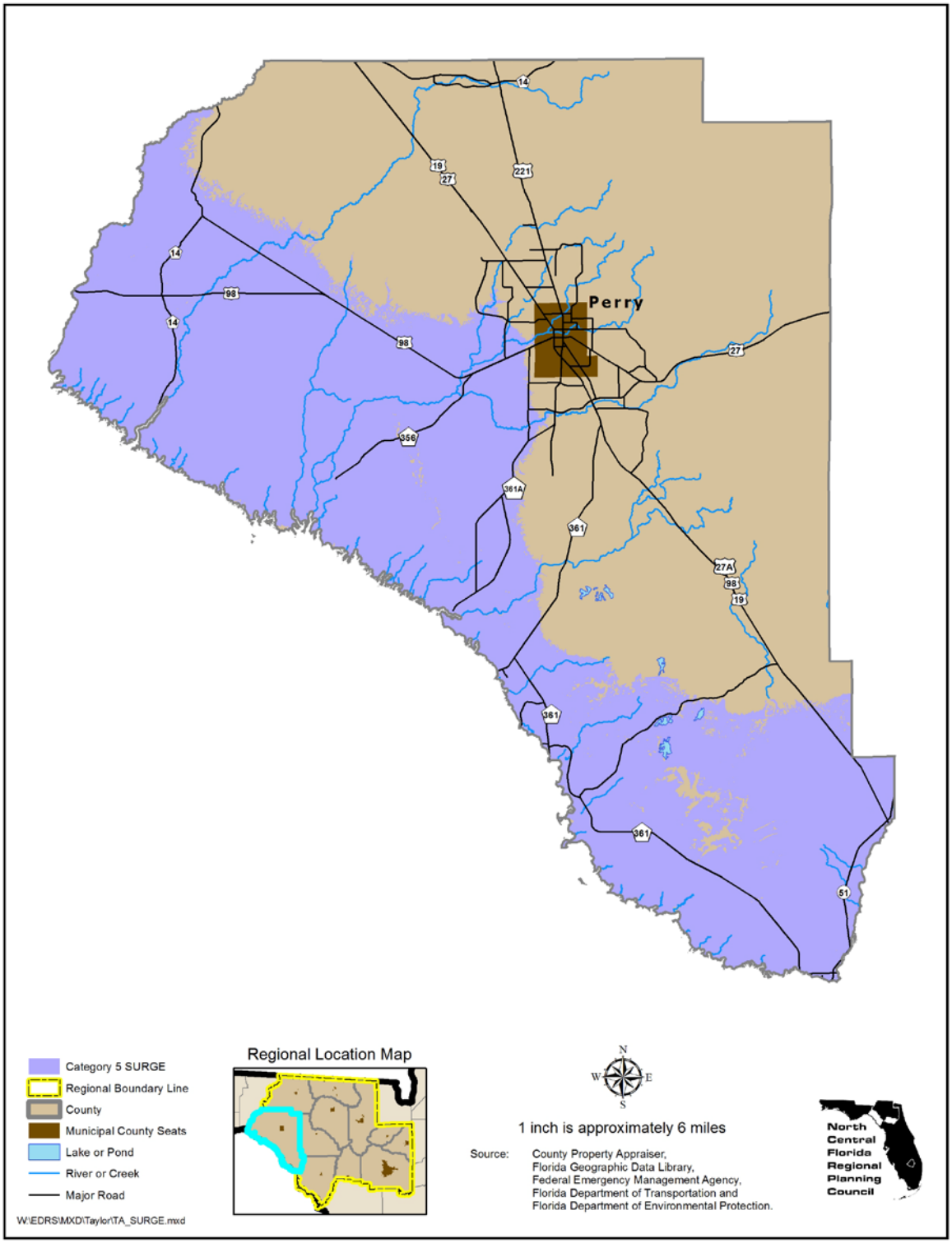


Figure II-5: Storm Tide Limits for Taylor County



b. Factors Influencing Model Accuracy

The purpose of this analysis is to reflect a worst-probable scenario of the hurricane storm surge inundation and to provide a basis for the economic and disaster resiliency study analyses. While the storm tide delineations include the addition of an astronomical mean high tide and tidal anomaly, it should be noted that the data reflects only still water saltwater flooding.

4. Hurricane Wind Analysis

As discussed previously, hurricane winds are a devastating element of the hurricane hazard. Based on the Saffir-Simpson Hurricane Scale (see Table II-1), hurricane-force winds range from sustained winds of 74 miles per hour to more than 155 miles per hour.

The intensity of a landfalling hurricane is expressed in terms of categories that relate wind speeds and potential damage. According to the Saffir-Simpson Hurricane Scale, a Category 1 hurricane has lighter winds compared to storms in higher categories. A Category 4 hurricane would have winds between 131 and 155 miles per hour and, on the average, would usually be expected to cause 100 times the damage of the Category 1 storm. Depending on circumstances, less intense storms may still be strong enough to produce damage, particularly in areas that have not prepared in advance.

Tropical storm-force winds are dangerous as well. For this reason, emergency managers plan for their evacuations to be complete and their personnel sheltered before the onset of tropical storm-force winds, not hurricane-force winds.

Hurricane-force winds can easily destroy poorly constructed buildings and mobile homes. Debris such as signs, roofing material and small items left outside become flying missiles in hurricanes. Extensive damage to trees, towers, water and underground utility lines, from uprooted trees, and fallen poles cause considerable disruption.

The strongest winds usually occur in the right side of the eyewall of the hurricane. Wind speed usually decreases significantly within 12 hours after landfall. Nonetheless, winds can stay above hurricane strength well inland. Hurricane Hugo (1989), for example, battered Charlotte, North Carolina, 175 miles inland, with gusts to nearly 100 miles per hour. Tropical Storm Fay turned northeastward on August 19, 2008, making landfall early that day on the southwestern coast of the Florida peninsula at Cape Romano with maximum winds of 60 miles per hour. Even after moving inland, Fay strengthened, exhibiting what resembled a classical eye in radar and satellite imagery, and reached its peak intensity of about 65 miles per hour as it passed over the western shores of Lake Okeechobee. During August 20-23, 2008 however, Fay continued interaction with the landmass of northern Florida causing the cyclone to weaken slightly. Maximum winds of Fay remained 50-60 miles per hour during most of that period.

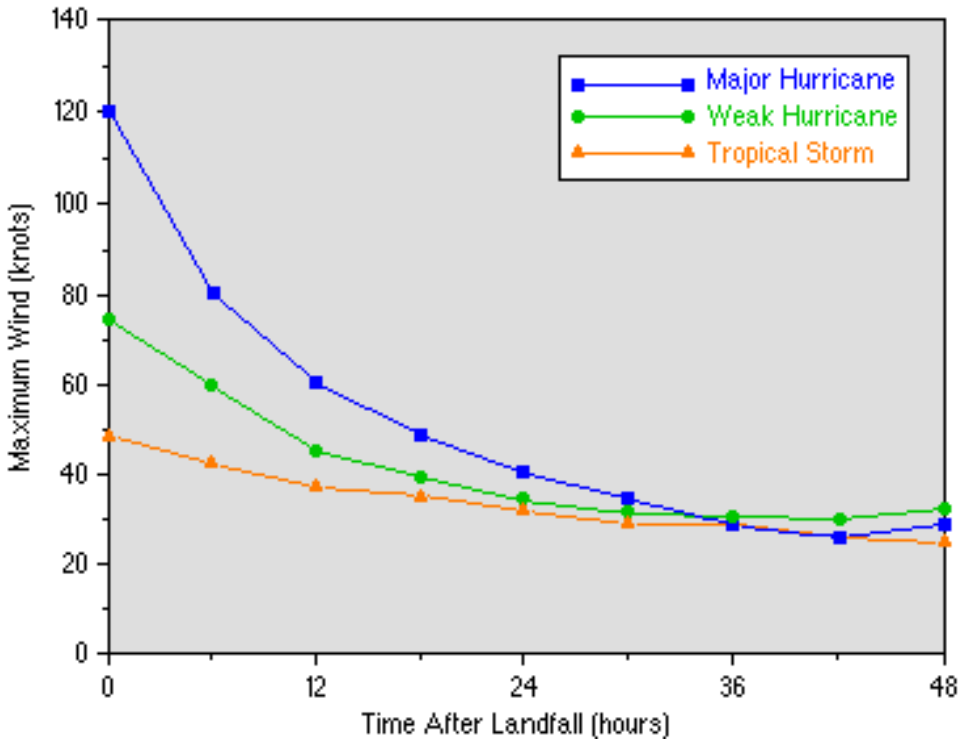
There is evidence that gusts, rather than sustained winds, cause the majority of damage associated with severe weather. The methodology described above does not specifically address wind gusts, and does not address building codes/standards or construction practices.

a. Wind Risk Assessment: Inland Wind Model

The Inland High Wind Model can be used by emergency managers to estimate how far inland strong winds extend. The inland wind estimates can only be made shortly before landfall when the windfield forecast errors are relatively small. This information is most useful in the decision-making process to decide which people might be most vulnerable to high winds at inland locations.

Figure II-2 shows how wind speed rapidly decreases once a tropical cyclone reaches land. Part of the reason for this is that the roughness of the terrain increases friction, slowing the air. Another reason is that, once the storm is over land, it is usually cut off from the heat and moisture sources that sustain it. However, wind gusts (as opposed to the sustained winds shown in the graph) may actually increase because the greater turbulence over land mixes faster air to the surface in short bursts. It also illustrates how the sustained winds in a hurricane will decrease at a relatively constant rate (approximately half the wind speed in the first 24 hours). Therefore, the faster the forward speed of a landfalling hurricane, the further the inland penetration of hurricane force winds.

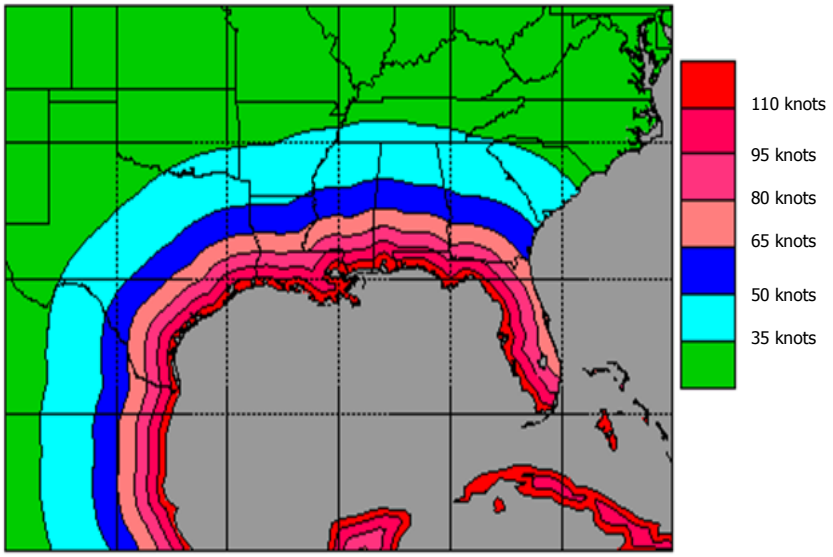
Figure II-6: Inland Wind Decay



Source: National Hurricane Center

Hazards United States-Multi Hazards software includes a vulnerability analysis incorporating other factors such as housing stock, vegetation and friction coefficients based on land cover. Figure II-3 shows the inland wind hazards for a catastrophic Category 5 hurricane.

Figure II-7: Category 5 Hurricane Inland Wind Hazards



Source: National Hurricane Center

5. Freshwater Flooding

Inland riverine and freshwater flooding often becomes a significant factor as a result of tropical storms and hurricanes. Typically, the rainfall associated with, and in advance of, a hurricane does not in itself necessitate the emergency evacuation of residents during the passage of a hurricane unlike storm surge. Following a storm however, the coastal flooding and rainfall – particularly from slow moving storms - necessitates an evacuation of flooded inland residents days after as swollen rivers and streams breach their bank or levees.

As noted previously, due to Tropical Storm Fay's very slow motion, storm-total rainfall amounts in some areas were staggering including a few locations in North Central Florida which received more than two feet of rain. Fay's rain-induced floods caused significant damage and were directly responsible for numerous deaths in the Dominican Republic, Haiti and Florida.

Rainwater inundation of evacuation routes must be addressed in an evacuation plan. The planning strategy to address this problem is to plan for the passage of all vehicles over such roadways before substantial rainfall from the hurricane is expected. Hourly records of rainfall rates and accumulation from past hurricanes indicate that rates high enough to surpass drainage capabilities normally parallel the arrival of sustained tropical storm-force winds. Utilizing this as an assumption of the timing of freshwater roadway inundation, the pre-landfall hazards time quantification for sustained tropical storm-force winds will also compensate for early rainfall inundation of evacuation routes.

6. History of Hurricanes in the North Central Florida Region

Hurricanes are a natural yet very dangerous phenomenon and one for which the North Central Florida region must always be prepared. Packing 74-200 miles per hour winds and extensive storm surge, hurricanes represent a serious threat to the safety of residents and visitors and economic health of this region.

Emergency management and atmospheric scientists agree that global weather patterns have moved back into a period of increased tropical storm activity, including increased frequency of major hurricanes, a Category 3 or higher on the Saffir-Simpson Hurricane Scale, particularly in the state of Florida. An analysis of hurricane activity since the 1920's demonstrates that hurricane activity appears cyclical and after a time of relative inactivity since the early 1960's, the state of Florida and the North Central region are in a more active period.

Until the 1840's, Florida hurricanes were only experienced in cities and ports along the east coast, the northwest panhandle and the Keys. Then new settlements along the southwest coast soon began to confront devastating hurricanes. In 1848, the "small village" of Tampa was hit by a major hurricane causing the tide in the bay to rise 15 feet above normal. The massive flood completely inundated Fort Brooke as well as the stores and homes along Tampa Bay.

Historians identify a flurry of major hurricane activity in the late 1920's, the 1930's and 1940's. The 1920's were forever marked with tragedy. There was the devastating hurricane in 1926 that made landfall in Miami and the 1928 storm which caused the banks of Lake Okeechobee to rise 15 feet and drown 1,200 people.

Florida and the Gulf coast states were hit hard in the 1930's by both the Great Depression and hurricanes. Many seniors still remember the horrifying storm of 1935 which swept across the Florida Keys killing 400 people.

In the 1940's, Florida was the target of seven major hurricanes. The October 18-19, 1944 hurricane, later known as the Havana-Florida hurricane, tracked over the Dry Tortugas after destroying entire villages in Cuba and Grand Cayman Island. Warnings from the new weather forecast office, later to become the National Hurricane Center, helped to evacuate low-lying areas along the coast and were credited with saving many lives. The large storm was felt over much of the state as it moved up the Gulf coast and inland near Sarasota. Tampa and Orlando reported wind gusts over 100 miles per hour and Miami experienced winds of 65 miles per hour.

While not a major hurricane when it made landfall on the Florida coast near Bradenton, the hurricane of October 7, 1946, caused significant damage especially to Florida's citrus crop (approximately $5 million). In 1950, Hurricane Easy parked itself over the west coast of Florida, drenching residents with record-breaking rains. The storm's double-loop track caused it to strike the Tampa Bay region twice in one day. According to an Associated Press report, *"Tides from six and a half to eight feet above normal swept the pretty resort area from Clearwater to Sarasota, washing out roads, toppling beachfront houses, sinking a few small boats, putting a tug in distress and piling sea water like lakes around homes and hotels."*

In the 1950's, the pattern shifted with hurricanes directing their fury on the eastern Atlantic coast. Hurricane Donna (1960) was the only major hurricane to make landfall in Florida in the decade. The brunt of the hurricane was felt in the Keys, Collier and Lee counties. However, gusts were recorded at 120 miles per hour in Manatee County.

In the 1960's and 1970's, hurricane activity decreased and concentrated along the western Gulf coast of Texas, Louisiana and Mississippi. Even with Hurricanes David (a glancing blow along the east coast) and Frederic- both of which made landfall in 1979 - the 1970's still had the lowest number of hurricanes (12) and the lowest number of major hurricanes (4) to make landfall in the United States of any decade in the 20th century. Meanwhile, the state experienced explosive population growth along the coast.

Hurricane Dora crossed Florida from east to west during September 9-12, 1964 before turning to southern Georgia. On September 13-16, 1964, Dora produced over 20 inches of rainfall and caused flooding throughout one-third of the State of Florida, extensively affecting the St. Mary's, Santa Fe and Steinhatchee River basins. An estimated $150 million in losses were reported, affecting residential, commercial and agricultural operations.

Tropical Storm Josephine impacted Florida's West Coast with 70 miles per hour winds before exiting through the northeast portion of the state. Sixteen counties experienced extensive damage, with losses estimated near $45 million. The state of Florida was spared the direct hit of a major hurricane in the 1980's, although 1985 had the most named storms to hit the United States since 1916, a total of six hurricanes and two tropical storms. During the 1985 season, at one time or another, some portion of every coastal state from Texas to Maine was placed under a hurricane warning.

On Labor Day weekend 1985, **Hurricane Elena** approached within 80 miles of the west coast of Florida. Evacuations in Louisiana, Mississippi, Alabama and Florida were of unprecedented proportions. Almost one million residents and visitors were affected in the initial evacuation orders in the Florida panhandle and coastal region of Alabama, Mississippi and Louisiana. As the storm turned and the warnings shifted, ten additional Florida counties were ordered to evacuate. After stalling off the coast for two days, Hurricane Elena turned toward the Florida Panhandle again, forcing the evacuation of thousands of coastal residents just returning after the earlier round of evacuations, ultimately making landfall near Biloxi, Mississippi.

In the 1985 season, Hurricane Kate, a rare landfalling November storm, was considered the first direct hit of a hurricane in Florida in ten years. The 1990's went down in history as an extremely costly and deadly decade of hurricane activity. The last decade of the millennium brought several flooding events including Tropical Storm Josephine (1996) and the 1998 Hurricane Georges. Hurricane Andrew struck the east coast near Homestead on August 24, 1992 and Hurricane Opal struck the panhandle in 1995. Hurricane Mitch (1998) made landfall in Honduras and killed tens of thousands of people.

Hurricane Andrew, a Category 5 hurricane**,** affected the entire state in many ways. Only two other hurricanes in history, both Category 5 storms - the Labor Day storm of 1935, Camille in 1969 - were stronger than Hurricane Andrew when they made landfall in the United States. Hurricane Andrew struck South Florida with a storm surge of over 16 feet and winds gusting over 175 miles per hour. The scale of the disaster was enormous and the massive recovery was of epic proportions. The damages surpassed $50 billion, affecting emergency management policies and procedures, insurance industry and land development regulations, including the statewide building code.

Hurricane forecasters and scientists had warned with Hurricane Hugo (1989) that the strengthening of *El Nino* and rainfall patterns in the African Sahel desert were signaling increased patterns of hurricane activity. The 1995 hurricane season certainly gave credence to those predictions with two tropical storms and two hurricanes striking the state of Florida, the most since 1953 - Hurricanes Opal (October) and Erin (August) and Tropical Storms Jerry (August) and Allison (June).

Hurricane activity has indeed increased, but it has been in the last decade that the deadly predictions have come to fruition. The region has experienced both evacuations and impacts from exiting storms. In addition, the experiences in other parts of Florida as well as the other states have resulted in a greater awareness of the challenges and obstacles facing this region.

a. The 2004 Hurricane Season

In 2004, the state of Florida was hit by an unprecedented four hurricanes: Charley, Frances, Ivan, and Jeanne.

August 9-14, 2004 - Hurricane Charley crossed central Florida on August 14, 2004 and passed through the Orlando area with a maximum sustained winds of 75 knots and a reported gust of 91 knots. The storm moved off shore near Daytona Beach two hours later with winds between 65 and 70 knots. Charley was the strongest hurricane to hit the United States since Andrew in 1992 and, although small in size, it caused catastrophic wind damage throughout North Central Florida. Hurricane Charley resulted in approximately five inches (gauges) to six to eight inches (radar estimated) of rain in the Central Florida area. The storm produced nine tornadoes in Florida, three of which occurred in the Central Florida region (one in Osceola County and two in Volusia County). The strongest of all tornadoes was in south Daytona Beach producing a quarter mile of F1 storm damage. Ten total deaths in the United States were associated with Hurricane Charley, one in Orange County. The estimated total damage resulting from the storm was approximately 14 billion dollars (6.7 billion in Florida), making Charley the second costliest hurricane in United States history.

August 25-September 8, 2004 - Hurricane Frances was a Cape Verde-type hurricane reaching a peak intensity of Category 4 on the Saffir-Simpson Hurricane Scale. It affected the Bahamas as a Category 3 hurricane and the Florida east coast as a Category 2 hurricane. Landfall occurred over the southern end of Hutchinson Island, Florida on September 5, 2004 as a Category 2 after a slight weakening after it passed over the Gulf Stream. Wind gauges in Fort Pierce, Florida reported sustained winds of 70 knots with a gust of 94 knots. As the hurricane moved slowly west-northwest over Florida, it continued to weaken to tropical storm winds before moving offshore near New Port Richey on the morning of September 6, 2004. The storm then made another and final landfall in the Florida Big Bend area on September 6, 2004 and moved over Alabama, western Georgia, Virginia and into the Northeastern U.S.

Hurricane Frances produced a recorded storm surge of 5.89 feet above mean sea level at the St. Lucie Lock on the east coast and an estimated six-foot storm surge around Cocoa Beach, Florida. Heavy rains and freshwater flooding associated with the hurricane were widespread throughout the eastern United States with 15.08 inches in Port Orange. Hurricane Frances was directly responsible for five deaths in Florida and an estimated nine billion dollars in damage. Space and military facilities in Cape Canaveral reported over $100 million in damage.

September 2-4, 2004 - Hurricane Ivan was a classical, long-lived Cape Verde hurricane that reached Category 5 strength on the Saffir-Simpson Hurricane Scale three times. It was also the strongest hurricane on record that far southeast of the Lesser Antilles. Ivan caused considerable damage and loss of life as it passed through the Caribbean Sea. Despite the unfavorable environmental conditions, the presence of cooler shelf water just offshore and eyewall replacement cycles, Ivan weakened only slowly and made landfall as a 105 knots hurricane (Category 3 on the Saffir-Simpson Hurricane Scale) on September 16, 2004, just west of Gulf Shores, Alabama. By this time, the eye diameter had increased to 40-50 nautical miles resulting in some of the strongest winds occurring over a narrow area near the southern Alabama-western Florida panhandle border. The forces of Ivan were directly responsible for 92 deaths. The deaths in the United States were caused by: tornado 7, storm surge 5, fresh water floods 4, mud slides 4, wind 3, and surf 2.

Ivan caused extensive damage to coastal and inland areas of the United States. Portions of the Interstate 10 bridge system across Pensacola Bay, Florida were severely damaged in several locations as a result of severe wave action on top of the 10-15 feet storm surge. As much as a quarter-mile of the bridge collapsed into the bay. The U.S. Highway 90 Causeway across the northern part of the bay was also heavily damaged. To the south of Pensacola, Florida, Perdido Key bore the brunt of Ivan's fury and was essentially leveled. Extensive beach erosion caused severe damage to or the destruction of numerous beachfront homes, apartment and condominium buildings. Thousands of homes in the three-county coastal area of Baldwin, Escambia, and Santa Rosa were damaged or destroyed. Cleanup efforts alone in Escambia County resulted in debris piles that were more than three-quarters of a mile long and 70 feet high. In all, Ivan was the most destructive hurricane to affect this area in more than 100 years. Strong winds

spread well inland damaging homes and downing tress and power lines. At one point, more than 1.8 million people were without power in nine states.

September 13-28, 2004 - Hurricane Jeanne produced heavy rain over Guadeloupe, Puerto Rico and the Dominican Republic causing major flooding in Haiti resulting in more than 3,000 deaths. The storm then moved over the Bahamas and finally strengthened to a Category 3 hurricane with 100 knots winds. Jeanne crossed central Florida while weakening and began to recurve around the western periphery of the migratory ridge.

The swath of hurricane winds stretched for 90 nautical miles, affecting the east coast of Florida from Cape Canaveral south to Stuart, Florida. Fort Pierce reported the highest wind gust of 111 knots. Sustained hurricane force winds reached inland across half of the peninsula, while tropical force winds were felt around the remainder of central Florida. Hurricane Jeanne weakened to a tropical storm while centered about 30 nautical miles north of Tampa on September 26, 2004 and weakened to a tropical depression about 24 hours later while moving northward across central Georgia.

East Central Florida experienced upward of eight inches of rainfall from Hurricane Jeanne, with Osceola, Broward and Indian River Counties reporting 11 to 13 inches. Port Canaveral (Trident Pier) reported a storm surge of 3.8 feet above normal tides levels an hour after land fall while the east coast from Melbourne south to Ft. Pierce most likely experienced a storm surge flooding of up to 6 feet. Areas still flooded from Frances (three weeks prior) received additional flood waters.

b. The 2005 Hurricane Season

The impact of the 2005 Atlantic hurricane season and the resulting death, injury, destruction, and population displacement were unprecedented in United States history. During 2005, 15 tropical storms became hurricanes. For the first time, four major hurricanes made landfall in the United States; three reaching Category 5 intensity.

The worst effects were felt from Hurricanes Katrina and Rita. These storms did not seriously impact the state of Florida; however, they have had a significant impact on emergency management and hurricane planning at the national, state and local levels.

On August 29, 2005, Hurricane Katrina struck the U.S. Gulf Coast, causing severe damage from a two-story storm surge, powerful winds and heavy rains. Approximately 80 percent of New Orleans was flooded after the surge from the Gulf of Mexico forced breaks in a levee, releasing water from Lake Pontchartrain into the city. Katrina became the deadliest United States hurricane since 1928 and likely the costliest natural disaster on record in the United States.

On September 24, 2005, response and recovery activities in the wake of Katrina were interrupted when Hurricane Rita struck the Gulf Coast. Rita rendered more homes uninhabitable causing thousands more to seek shelter. More than 200,000 persons were displaced by the hurricanes and dispersed to evacuee shelters in 18 states. The economic and health consequences of Hurricanes Katrina and Rita extended far beyond the Gulf region and ultimately affected states and communities throughout the United States.

August 23-30, 2005 - Hurricane Katrina was a large and intense hurricane that struck a vulnerable portion of the United States coastline along the northern Gulf of Mexico, leading to loss of life and property damage of immense proportions. The scope of human suffering inflicted by Hurricane Katrina in the United States has been greater than that of any hurricane to strike this country in several generations.

The total number of fatalities known, as of this writing, to be either directly or indirectly related to Katrina is 1,336, based on reports to date from state and local officials in five states: 1,090 fatalities in Louisiana, 228 in Mississippi, 14 in Florida, 2 in Georgia, and 2 in Alabama. Especially for Louisiana and Mississippi, the number of direct fatalities is highly uncertain and the true number might not ever be known.

Presumably, most of the deaths in Louisiana were directly caused by the widespread storm surge-induced flooding and its miserable aftermath in the New Orleans area. The vast majority of the fatalities in Mississippi probably were directly caused by the storm surge in the three coastal counties. In Florida, three of the direct fatalities were caused by downed trees in Broward County, and the three others were due to drowning in Miami-Dade County. Two deaths were also reported in Georgia, with one directly caused by a tornado and the other occurring in an automobile accident indirectly related to the storm. Alabama reported two indirect fatalities in an automobile accident during the storm. Despite the fact that inland fresh water floods produced the majority of fatalities due to tropical cyclones during the past few decades, Katrina provides a grim reminder that storm surge poses the greatest potential cause for large loss of life in a single hurricane in this country.

Where Katrina ranks among the deadliest hurricanes on record in the United States is somewhat uncertain, due to the unknown number of fatalities caused directly by this hurricane and by some others in the past. Katrina is surpassed by the Galveston, Texas hurricane in 1900 that claimed at least 8,000 lives, and it appears to be surpassed by the 1928 Lake Okeechobee, Florida hurricane with over 2,500 fatalities. If the assumption is correct that most of the Katrina-related fatalities were caused directly by the storm, then Katrina ranks as the third deadliest hurricane in the United States since 1900, and the deadliest in 77 years. However, two hurricanes in 1893 might each have been directly responsible for more fatalities in the United States than Katrina. One of these struck the southeastern Louisiana barrier island of Cheniere Caminanda and killed about 2,000 people, while another struck Georgia and South Carolina and claimed somewhere between 1,000 and 2,000 lives. As a result, Katrina ranks fourth or fifth on the list of the deadliest hurricanes on record in the United States.

The extent, magnitude, and impacts of the damage caused by Katrina are staggering. Thousands of homes and businesses throughout entire neighborhoods in the New Orleans metropolitan area were destroyed by flood. Strong winds caused damage in the New Orleans area, including downtown where windows in some high rise buildings were blown out and the roof of the Louisiana Superdome was partially peeled away. The storm surge of Katrina struck the Mississippi coastline with such ferocity that entire coastal communities were obliterated, some left with little more than the foundations upon which homes, businesses, government facilities, and other historical buildings once stood. Despite being more distant from the eye of Katrina, the storm surge over Dauphin Island, Alabama destroyed or damaged dozens of beachfront homes and cut a new canal through the western end of the island. Many of the most severely impacted areas along the northern Gulf coast could take years to completely rebuild. Katrina's heavy rains in southern Florida flooded some neighborhoods, primarily in Miami-Dade County. Many other structures from Florida and Georgia westward to Louisiana that avoided surge or fresh water floods, including some areas well inland, were damaged by strong winds and tornadoes. Considerable damage to some homes and agricultural facilities was caused by several tornadoes in Georgia. Strong winds caused significant tree damage throughout much of Mississippi and Alabama. Katrina left approximately three million people without electricity, some for several weeks.

The economic and environmental ramifications of Katrina have been widespread and could in some respects be long-lasting due to impacts on large population and tourism centers, the oil and gas industry and transportation. The hurricane severely impacted or destroyed workplaces in New Orleans and other heavily populated areas of the northern Gulf coast, resulting in thousands of lost jobs and millions of dollars in lost tax revenues for the impacted communities and states. Along the Mississippi coast, several large casinos on floating barges were damaged or destroyed when the surge pushed them onshore. Large numbers of evacuees have not returned home, producing a shortage of workers for those businesses that have reopened. Major beach erosion occurred along the tourism-dependent coasts of Mississippi and Alabama. A significant percentage of United States oil refining capacity was disrupted after the storm due to flooded refineries, crippled pipelines, and several oil rigs and platforms damaged, adrift or capsized. An oil rig under construction along the Mobile River in Alabama was dislodged, floated 1.5 miles northward, and struck the Cochrane Bridge just north of downtown Mobile. An offshore oil rig washed up near the beach of Dauphin Island, Alabama. Several million gallons of oil were spilled from damaged facilities scattered throughout southeastern Louisiana. Key transportation arteries were disrupted or cut off by the hurricane. Traffic along the Mississippi River was below normal capacity for at least two weeks following the storm. Major highways into and through New Orleans were blocked by floods and major bridges along the northern Gulf coast were destroyed, including several in Mississippi and the Interstate 10 Twin Span Bridge connecting New Orleans and Slidell, Louisiana.

Estimates of the insured property losses caused by Katrina vary considerably and range between about $20 billion and $60 billion. The American Insurance Services Group estimates that Katrina is responsible for $38.1 billion of insured losses in the United States. A preliminary estimate of the total damage cost of Katrina is assumed to be roughly twice the insured losses (using the estimate), or about $75 billion. This figure would make Katrina far and away the costliest hurricane in United States history. Even after adjusting for inflation, the estimated total damage cost of Katrina is roughly double that of Hurricane Andrew (1992). Normalizing for inflation and for increases in population and wealth, only the 1926 hurricane that struck southern Florida surpasses Katrina in terms of damage cost. However, this would not be the case if the values on the higher end of the range of Katrina estimates are later found to be the most accurate. The Insurance Information Institute reports that, mostly due to Katrina, but combined with significant impacts from the other hurricanes striking the United States that year, 2005 was by a large margin the costliest year ever for insured catastrophic losses in this country.

Data provided by the Federal Emergency Management Agency indicate that over 1.2 million people along the northern Gulf coast from southeastern Louisiana to Alabama were under some type of evacuation order, but it is not clear how many people actually evacuated. Media reports indicate that many displaced residents have moved either temporarily or permanently to other areas in the United States. A large number of these people might never return to live in their pre-Katrina homes or cities. Thousands of people are still living in hotels and temporary shelters.

September 18-26, 2005 - Hurricane Rita was an intense hurricane that reached Category 5 strength (on the Saffir-Simpson Hurricane Scale) over the central Gulf of Mexico, where it had the fourth-lowest central pressure on record in the Atlantic basin. Although it weakened prior to making landfall as a Category 3 hurricane near the Texas/Louisiana border, Rita produced significant storm surge, devastating coastal communities in southwestern Louisiana. Its winds, rain and tornadoes caused fatalities and a wide swath of damage from eastern Texas to Alabama. Additionally, Rita caused floods due to storm surge in portions of the Florida Keys.

The approach of Rita provoked one the largest evacuations in United States history. Just weeks after the country watched in horror the devastation of Hurricane Katrina, media reports indicate that the number of evacuees in Texas could have exceeded two million. Additional evacuations involving smaller numbers took place in Louisiana.

October 15-25, 2005 - Hurricane Wilma formed and became an extremely intense hurricane over the northwestern Caribbean Sea. It had the all-time lowest central pressure for an Atlantic basin hurricane and devastated the northeastern Yucatan Peninsula as a category 4 hurricane. Wilma also inflicted extensive damage over southern Florida.

Despite the strong shear in its surroundings, Wilma strengthened over the southeastern Gulf of Mexico and its winds reached about 110 knots as it approached Florida. Maximum sustained winds were estimated to be near 105 knots (category 3 intensity) when landfall occurred in southwestern Florida near Cape Romano on October 24, 2005. Continuing to accelerate and now moving at a forward speed of 20 to 25 knots, the hurricane crossed the southern Florida peninsula in 4.5 hours with the center emerging into the Atlantic just southeast of Jupiter, Florida. Maximum winds had decreased to near 95 knots (Category 2) during the crossing of Florida. Twenty-two deaths have been directly attributed to Wilma: 12 in Haiti, 1 in Jamaica, 4 in Mexico and 5 in Florida.

Damage was reported to have been very severe in portions of the northeastern Yucatan Peninsula where Wilma dealt a major blow to the tourist industry. In southern Florida, damage was unusually widespread, including numerous downed trees, substantial crop losses, downed power lines and poles, broken windows, extensive roof damage and destruction of mobile homes. Wilma caused the largest disruption to electrical service ever experienced in Florida. A preliminary estimate of total insured damage compiled by the Property Claims Service is $6.1 billion. Using a doubling of insured losses to obtain the total damage gives a current estimate of Wilma's U.S. damage to be $12.2 billion.

B. Freshwater Flooding

1. Inland/Riverine Flooding Profile

Flooding refers to the general or temporary conditions of partial or complete inundation of normally dry land areas by surface water runoff from any source. The State of Florida and the North Central Florida region are affected by a large number of weather systems which result in flooding.

Flooding can be divided into two major categories: Coastal and Riverine. As indicated previously, interrelated hazards, such as hurricanes and severe storms, can result in both types of flooding, sometimes in difference locations. Many areas of Florida are susceptible to flooding from both storm surge and watershed runoff.

Coastal flooding is usually the result of a severe weather system such as a tropical cyclone, hurricane, tropical storm or "northeaster" which contains the element of wind. The damaging effects of coastal floods are caused by a combination of higher water levels of the storm surge, the winds, rains, erosion and battering by debris. Loss of life and property damage are often more severe since it involves velocity wave action and accompanying winds.

Riverine flooding is associated with the watershed of a river, which is the natural drainage basin that conveys water runoff from rain. Riverine flooding occurs when the flow of runoff is greater than the carrying capacities of the natural drainage systems. Rain water not absorbed by soil or vegetation seeks surface drainage lines following natural topography lines. These lines merge to form a hierarchical system of creeks, streams and rivers. Generally, floods can be slow or fast rising depending on the size of the river or stream. The rivers in north Florida drain portions of Alabama and Georgia and excessive rainfall in these states often cause flood conditions in Florida.

Flash floods are much more dangerous and flow faster than riverine floods. They can result from tropical storms, dam failures or excessive rain and snow. Flash floods pose more significant safety risks because of the rapid onset, the high water velocity, the potential for channel scour and the debris load.

The variations of flooding, including severe thunderstorms, hurricanes, seasonal rain and other weather-related conditions, are a natural part of the hydrologic system of the

earth. When buildings and infrastructure are constructed within the natural drainage system, there are significant losses. Based on frequency, floods are the most destructive category of natural hazards in the United States. The loss of life, property, crops, business facilities, utilities and transportation are major impacts of flooding. Economic losses from impacts to major transportation routes and modes, public health and other environmental hazards are key factors in long-term recovery.

2. Probability of Flooding: Flood Insurance Rate Maps

The probability of freshwater flooding has been quantified by the Federal Emergency Management Agency through the National Flood Insurance Program. Areas subject to flooding, the Velocity Zone, 100-year flood plain and the 500-year floodplain, have been delineated on Flood Insurance Rate Maps for jurisdictions in the region. High risk areas include zones A, AE, AH, AO, and AR. High risk coastal areas include the Velocity zones (Zones V, VE, V1-V30) and undetermined risk areas (Zone D).

The 100-year flood zones are derived from the one-percent-annual chance flood event as calculated by the Federal Emergency Management Agency for the Digital Flood Insurance Rate Maps (See Table II-3 and Figure II-8). The zones identified in the Flood Insurance Study for the counties and communities in the North Central Florida region are: Zone A, corresponds to the one-percent annual chance floodplains, Zone AE, corresponds to the one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses, Zone AH, corresponds to the areas of one-percent annual chance shallow flooding with constant water-surface elevations where average depths are between one and three feet, Zone AO, corresponds to the areas of one-percent shallow flooding; usually sheet flow on sloping terrain, where average depths are between one and three feet and Zone VE, corresponds to areas within the one-percent annual chance coastal floodplain that have additional hazards associated with storm waves.

The model used to determine the flood plain, like the Sea Land and Overland Surges from Hurricane model, Maximum Envelope of Winds or Maximums of Maximums and the Inland Wind model, is a cumulative model. It is based on several storm events as no one storm will inundate all the areas within the flood zone. In addition, because there is a return interval (one percent or greater chance of flooding in any given year) associated with the flood level, there is a basis for planning and cost-benefit analysis.

While the 6-12 inches of rain typically associated with a hurricane is not considered life-threatening, freshwater flooding along rivers and streams can and does cause significant property damage and has the potential of causing personal injury and death. Hurricane Floyd (September 1999) c aused billions of dollars in property damage in North Carolina alone. Over the past two decades, freshwater flooding has become a leading cause of death in hurricane events with most of those deaths the result of driving or walking in flood waters.

In order to identify the potential magnitude of inland flooding, the 100-year floodplain was delineated using Federal Emergency Management Agency's most recent digital files. Within the flood zone, it is recognized that there are properties which have sustained repeated damage from flooding and are extremely susceptible to flood damage.

a. Alachua County

There are approximately 146,784 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-9). The County contains approximately 118,000 acres of Zone A, one-percent annual chance floodplains located mainly in the eastern portions of the County (See Figure II-9). There are approximately 28,622 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Santa Fe River on the northern boundary line of the County (See Figure II-9). The County contains approximately 162 acres of Zone AO, one-percent shallow flooding; usually sheet flow on sloping terrain, where average depths are between one and three feet (See Figure II-9).

b. Bradford County

There are approximately 40,390 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-10). The Federal Emergency Management Agency has not updated the Flood Insurance Rate Maps for Bradford County as of the date of this study. This study used a digitized version of the November 15, 1989 Flood Insurance Rate Map issued by the Federal Emergency Management Agency. When the November 15, 1989 Flood Insurance Rate Map was digitized all zones that were one-percent annual chance floodplains were categorized as flood prone areas. Therefore, in Bradford County there are approximately 40,390 acres of high-risk, flood prone areas (See Figure II-10). Zone AE, one-percent annual chance floodplains with base elevations derived from detailed hydraulic analyses is located primarily along the Santa Fe River on the southern boundary of the County (See Figure II-10).

c. Columbia County

There are approximately 200,836 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-11). The County contains approximately 179,573 acres of Zone A, one-percent annual chance floodplains located mainly in the Osceola National Forest located in the northern portion of the County (See Figure II-11). There are approximately 19,090 acres of Zone AE,

one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Suwannee River on the northwestern boundary line of the County and the Santa Fe River located along the southern boundary line of the County (See Figure II-11). The County contains approximately 2,173 acres of Zone AH, one-percent shallow flooding with constant water-surface elevations where average depths are between one and three feet, located mainly in and around Alligator Lake (See Figure II-11).

d. Dixie County

There are approximately 316,791 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-12). The County contains approximately 182,237 acres of Zone A, one-percent annual chance floodplains located mainly in the interior northwest and southeast portions of the County (See Figure II-12). There are approximately 26,370 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Suwannee River on the eastern boundary line of the County and the Steinhatchee River on the northwestern boundary line of the County (See Figure II-12). The County contains approximately 101 acres of Zone AH, one-percent shallow flooding with constant water-surface elevations where average depths are between one and three feet, located mainly in and around the Town of Cross City (See Figure II-12). The County contains approximately 108,083 acres of Zone VE, one-percent annual chance coastal floodplain that have additional hazards associated with storm waves located along the coastline (See Figure II-12).

e. Gilchrist County

There are approximately 62,246 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-13). The County contains approximately 46,235 acres of Zone A, one-percent annual chance floodplains located mainly in the Waccasassa Flats located in the central portion of the County (See Figure II-13). There are approximately 16,011 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Santa Fe River on the northern boundary line of the County and the Suwannee River on the western boundary line of the County (See Figure II-13).

f. Hamilton County

There are approximately 127,255 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-14). The County contains approximately 92,871 acres of Zone A, one-percent annual chance floodplains located mainly in the interior portions of the County (See Figure II-14). There are approximately 34,384 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Suwannee River along the eastern and southern boundary line of the County, the Withlacoochee River along the western boundary line of the County and along the Alapaha River (See Figure II-14).

g. Lafayette County

There are approximately 233,266 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-15). The County contains approximately 206,090 acres of Zone A, one-percent annual chance floodplains located mainly Mallory Swamp (See Figure II-15). There are approximately 27,176 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Suwannee River which forms the northeasterly boundary line of the County (See Figure II-15).

h. Madison County

There are approximately 205,900 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-16). The County contains approximately 184,799 acres of Zone A, one-percent annual chance floodplains located mainly in the San Pedro Bay Wildlife Management Area and the Hixtown Swamp (See Figure II-16). There are approximately 21,101 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily the along the Suwannee River and the Withlacoochee River which forms the eastern boundary line of the County and the Aucilla River along the sowestern boundary line of the County (See Figure II-16).

i. Suwannee County

There are approximately 59,129 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-17). The County contains approximately 24,258 acres of Zone A, one-percent annual chance floodplains located mainly in the northeastern portions of the County (See Figure II-17). There are approximately 34,871 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Suwannee River which forms the northern, western, southwestern and southern boundary line of the County (See Figure II-17).

j. Taylor County

There are approximately 501,378 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-18). The County contains approximately 364,133 acres of Zone A, one-percent annual chance floodplains located throughout the County (See Figure II-18). T here are approximately 66,589 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Aucilla River which forms the northwestern boundary line of the County and the Steinhatchee River which forms the southeastern boundary line of the County (See Figure II-18). The County contains approximately 782 acres of Zone AH, one-percent shallow flooding with constant water-surface elevations where average depths are between one and three feet, located mainly in the City of Perry (See Figure II-18). T he County contains approximately 69,874 acres of

Zone VE, one-percent annual chance coastal floodplain that have additional hazards associated with storm waves located along the coastline (See Figure II-18).

k. Union County

There are approximately 60,643 acres of 100-year high risk flood prone land within the County (See Table II-3 and Figure II-19). The County contains approximately 59,435 acres of Zone A, one-percent annual chance floodplains located throughout the County (See Figure II-19). There are approximately 1,208 acres of Zone AE, one-percent annual chance floodplains with base flood elevations derived from detailed hydraulic analyses located primarily along the Santa Fe River which forms the southern boundary line of the County(See Figure II-19).

Figure II-8: North Central Florida 100-year Flood Zones

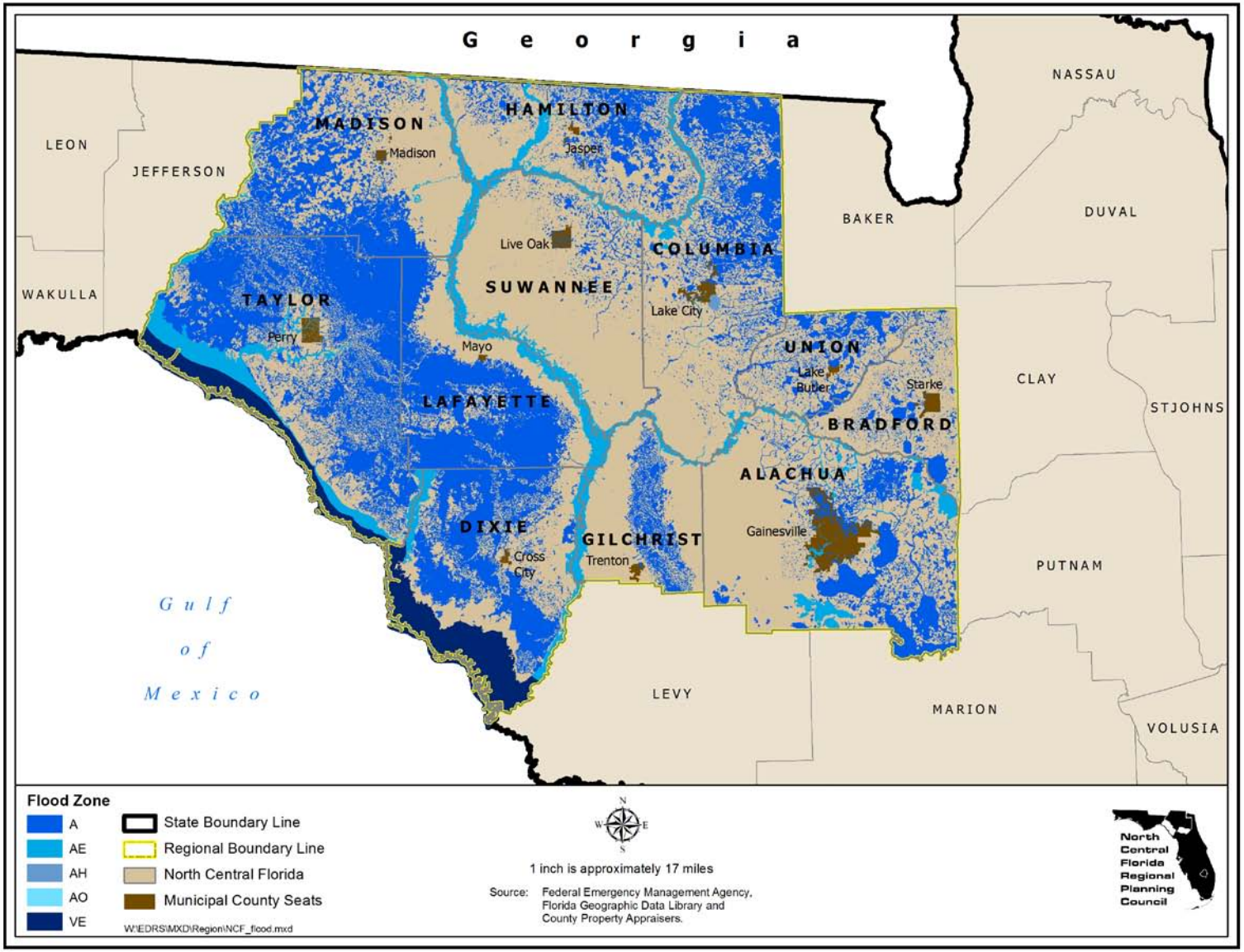


Figure II-9: Alachua County 100-year Flood Zones

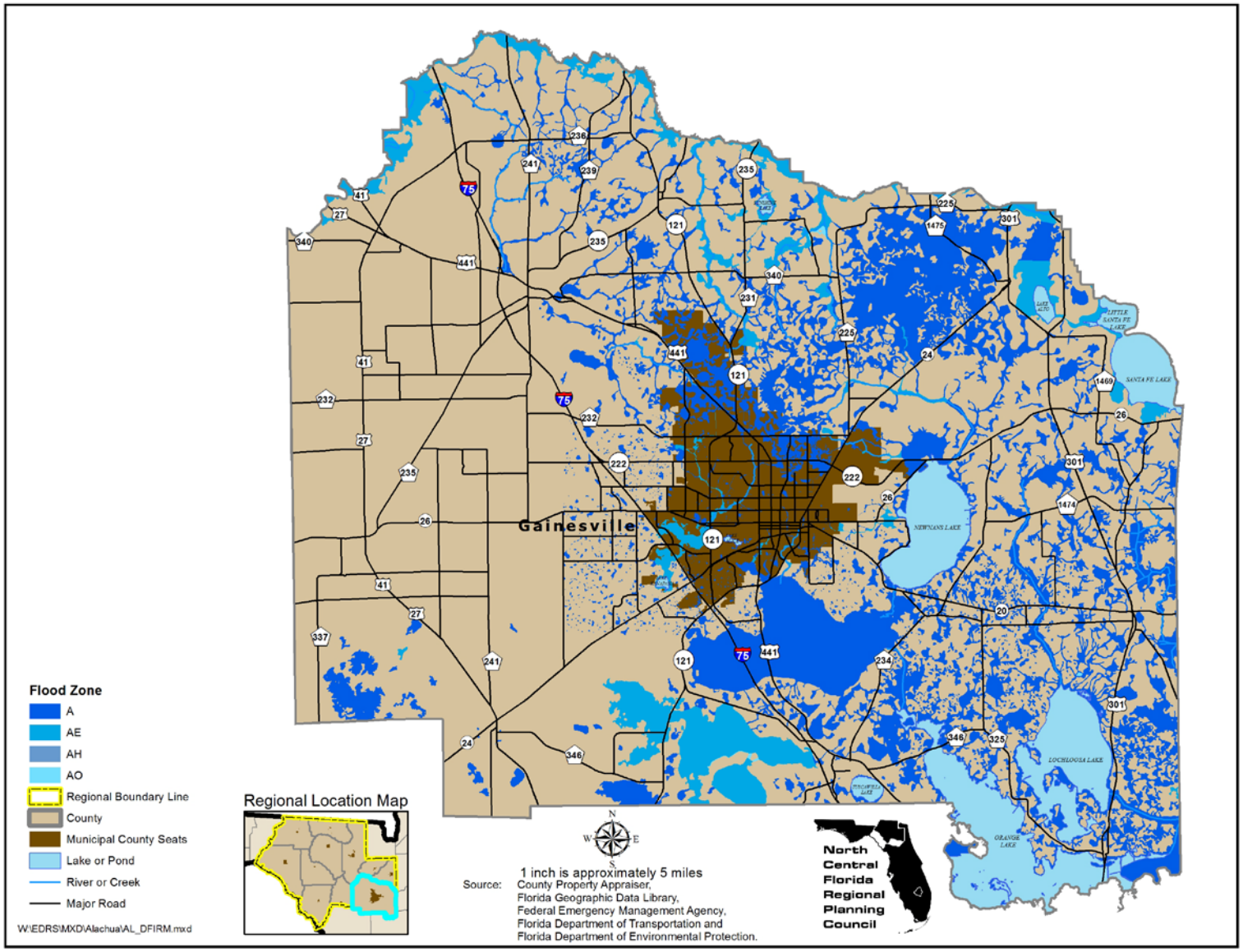


Figure II-10: Bradford County 100-year Flood Zones

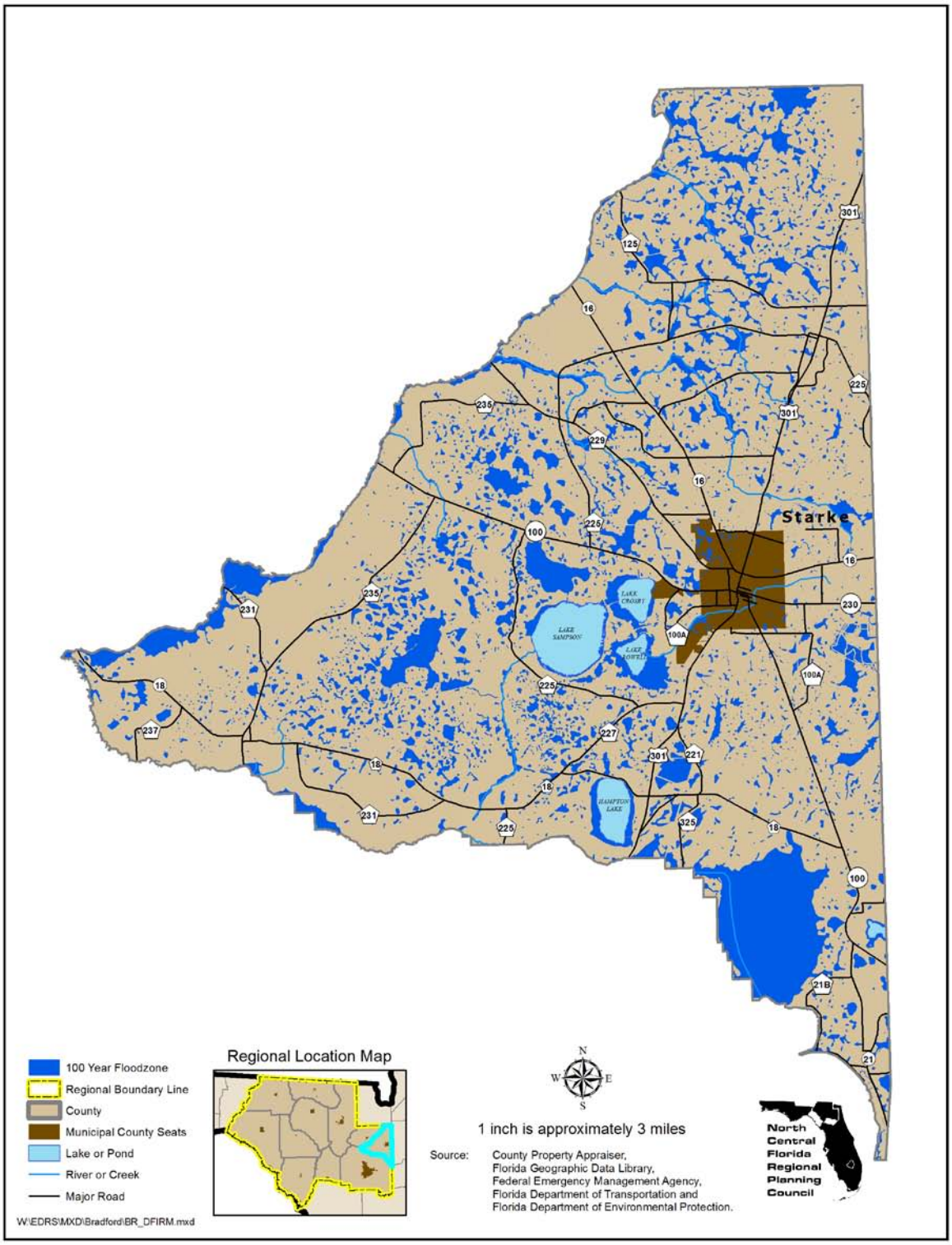


Figure II-11: Columbia County 100-year Flood Zones

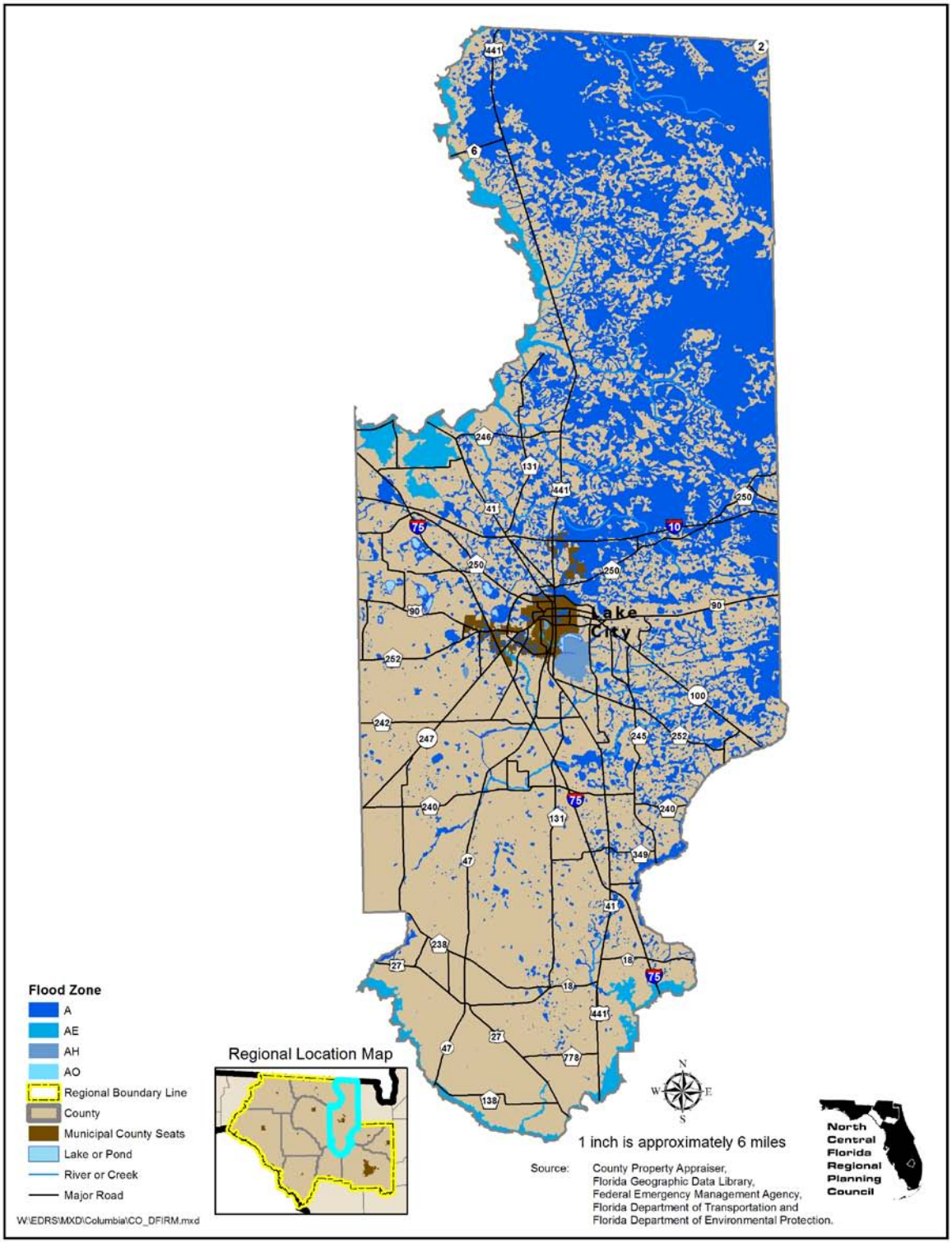


Figure II-12: Dixie County 100-year Flood Zones

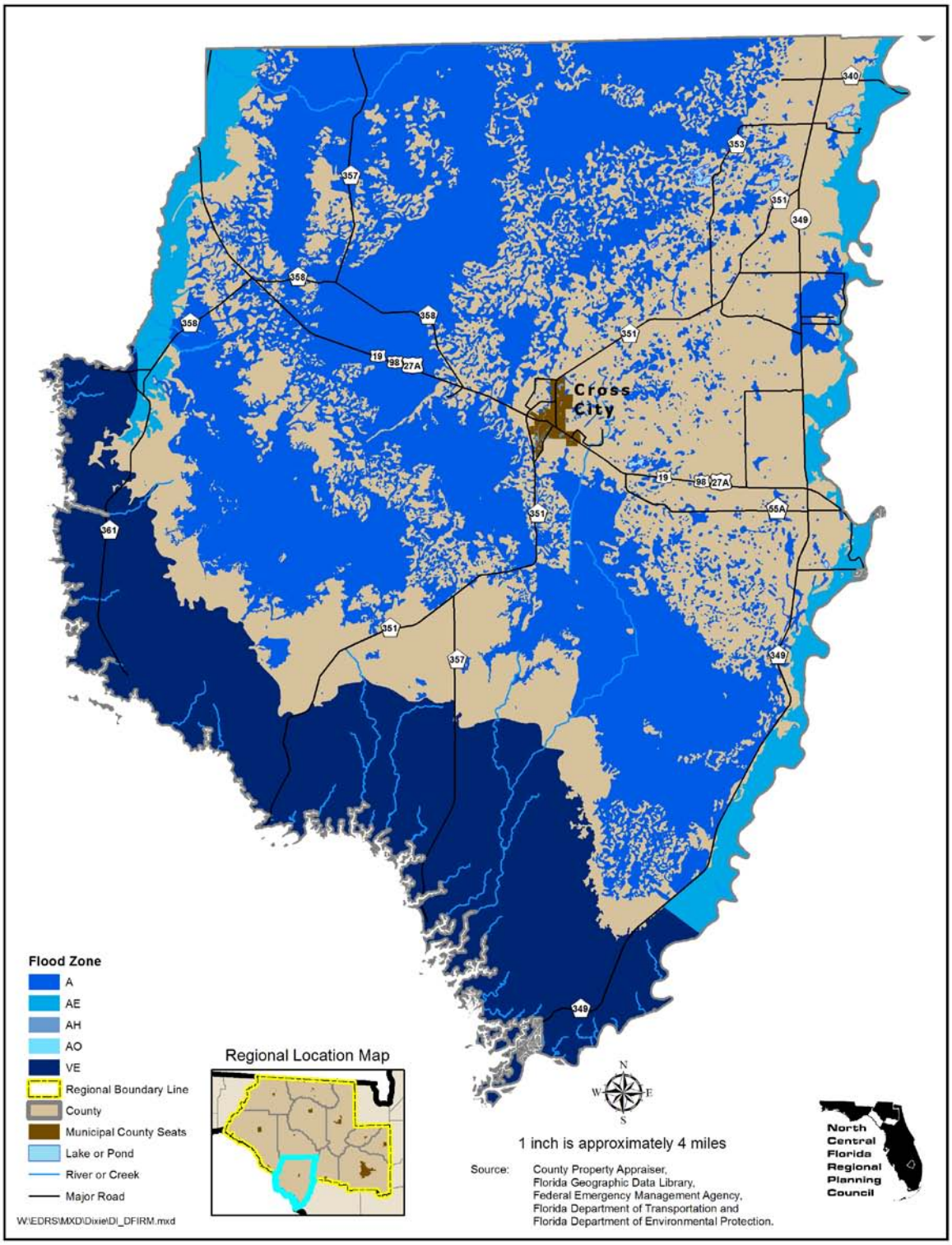


Figure II-13: Gilchrist County 100-year Flood Zones

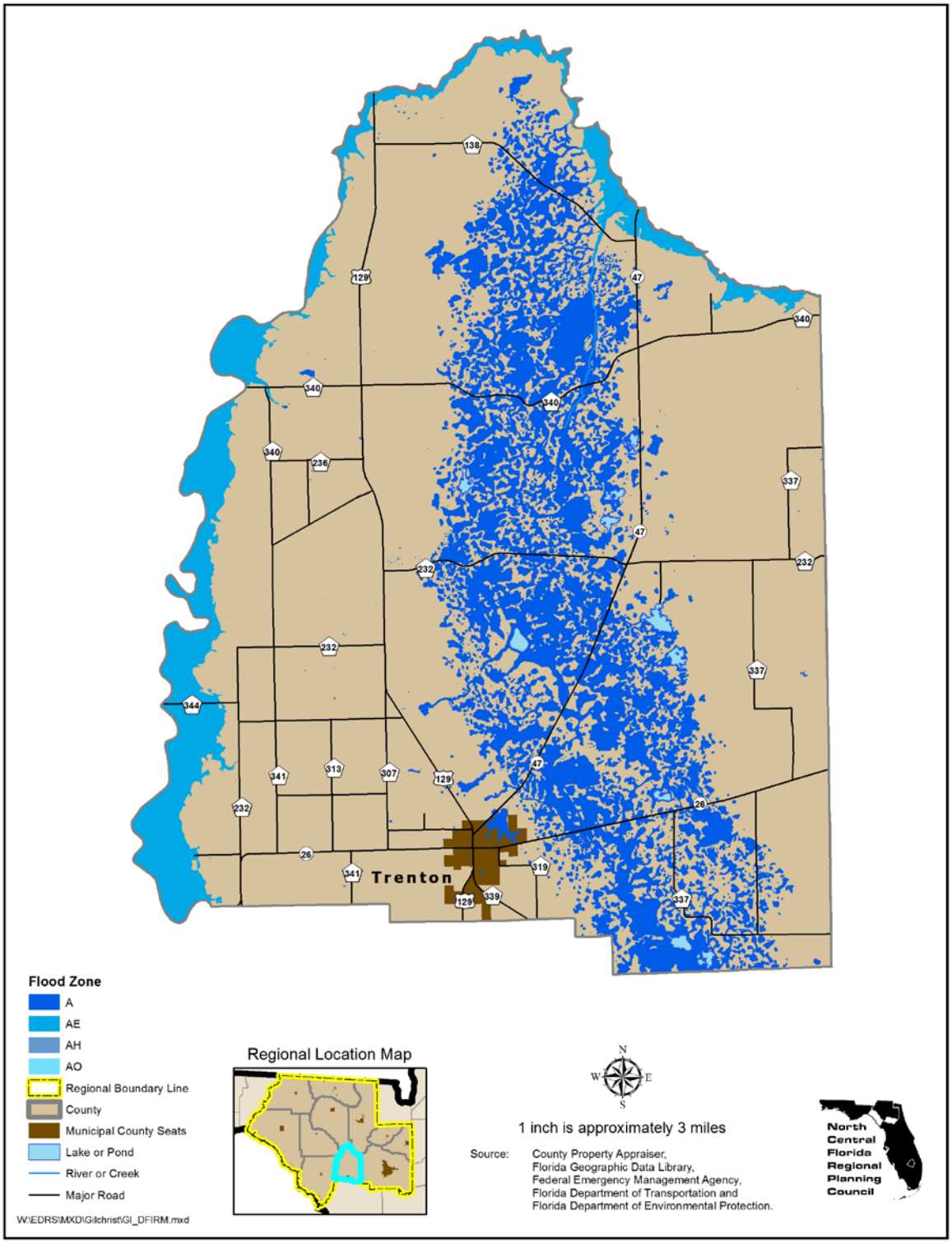


Figure II-14: Hamilton County 100-year Flood Zones

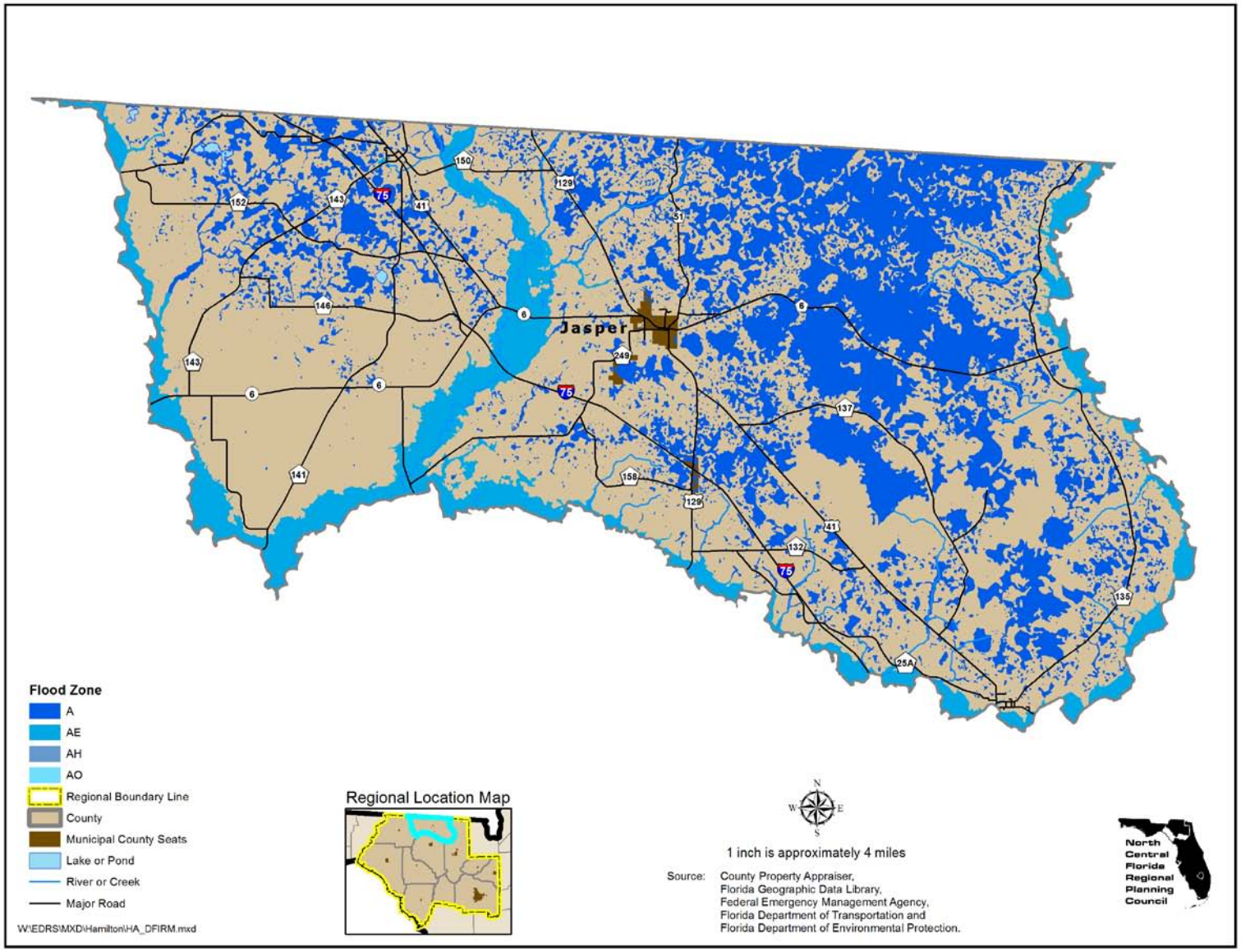


Figure II-15: Lafayette County 100-year Flood Zones

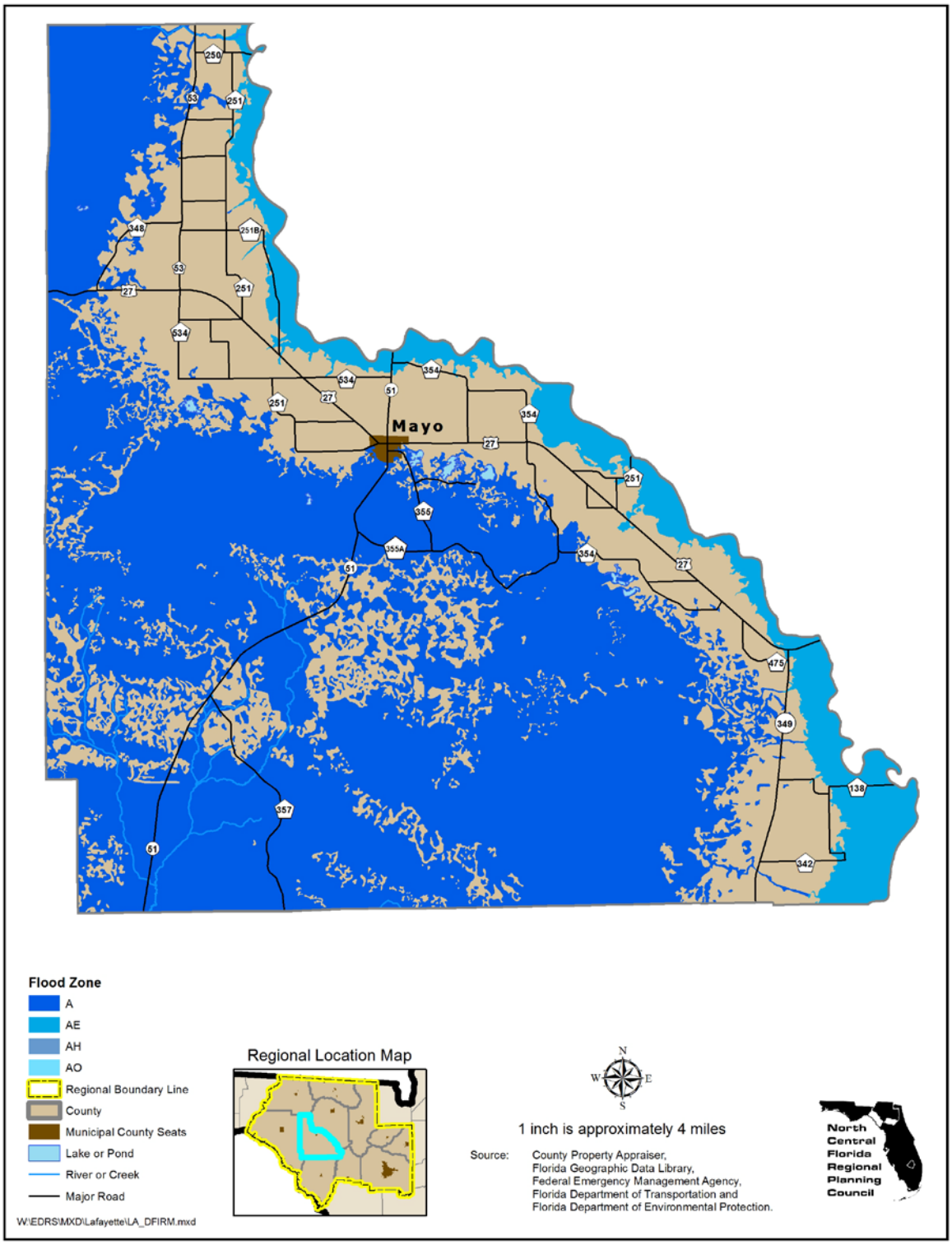


Figure II-16: Madison County 100-year Flood Zones

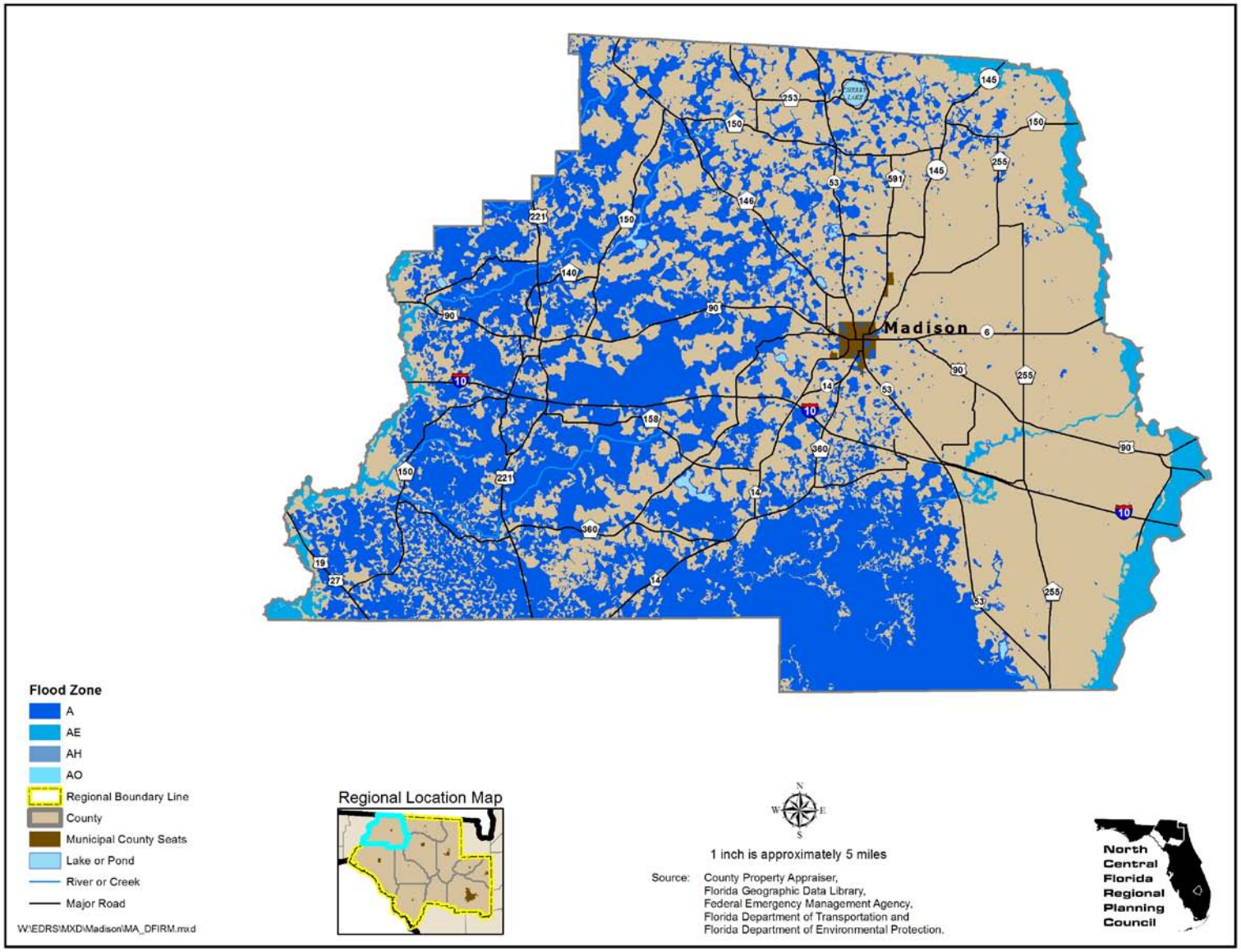


Figure II-17: Suwannee County 100-year Flood Zones

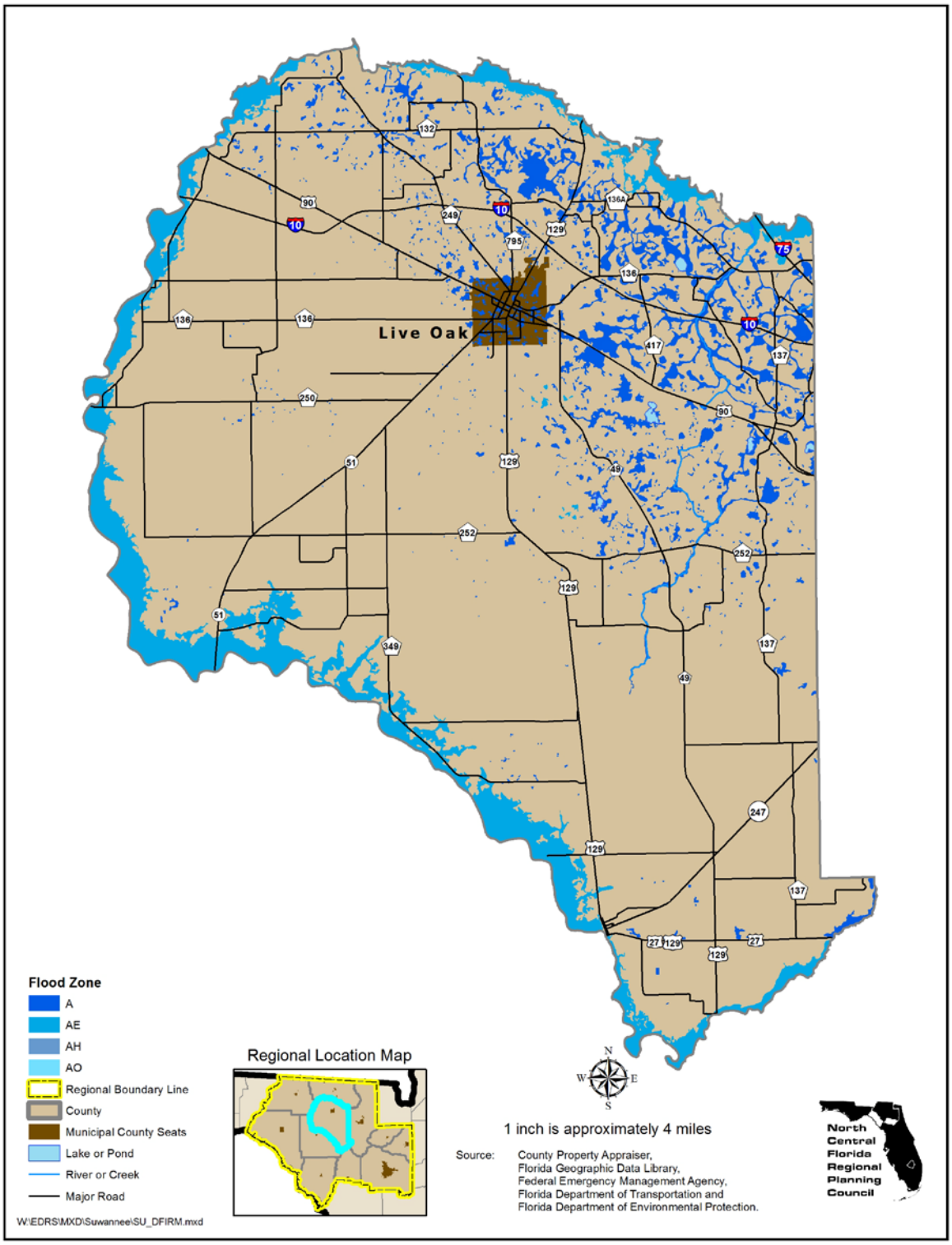
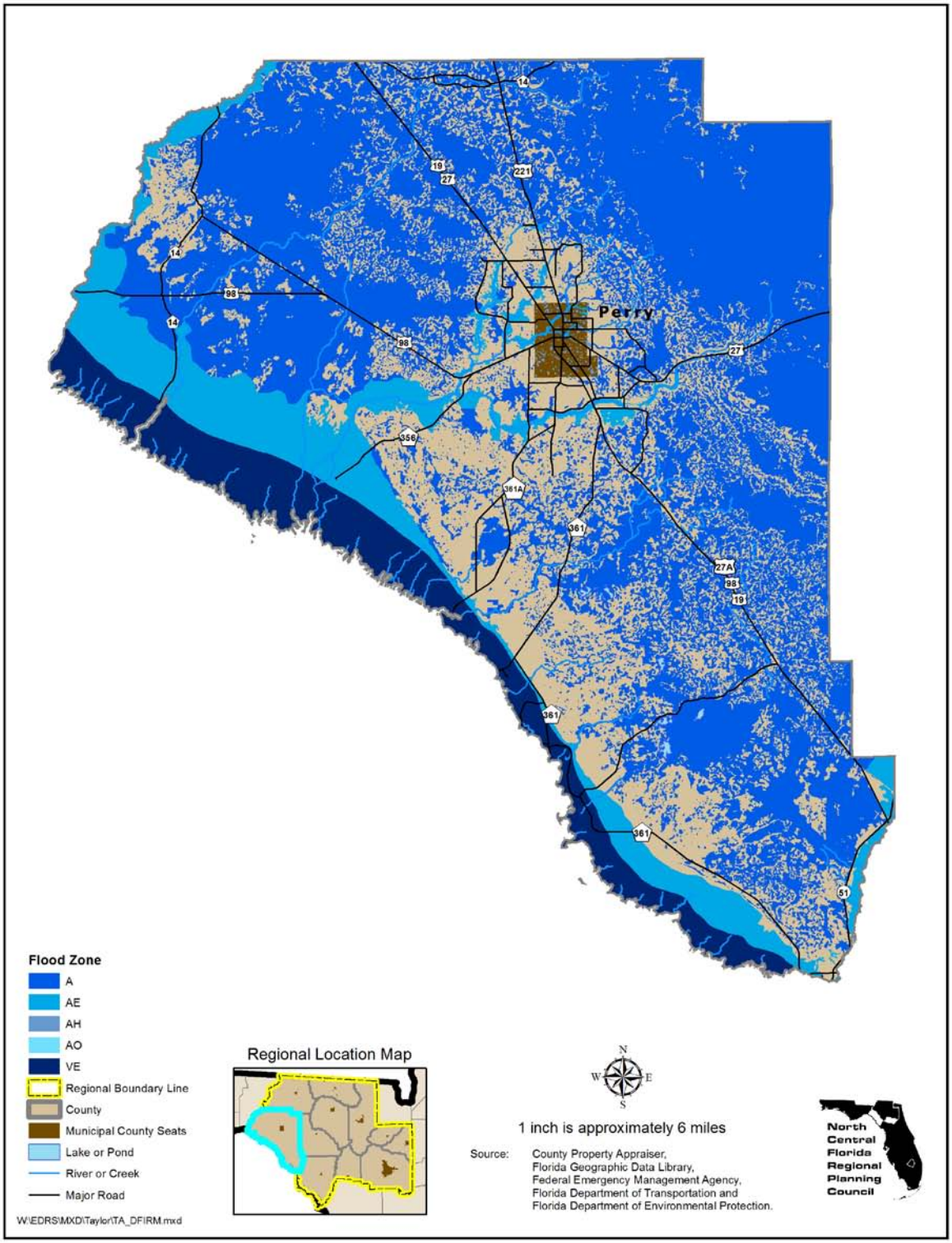


Figure II-18: Taylor County 100-year Flood Zones


Perry
14
19
27
221
98
356
361A
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27A
88
51
Flood Zone
A
AE
AH
AO
VE
Regional Boundary Line
County
Municipal County Seats
Lake or Pond
River or Creek
Major Road
W:\EDRS\MXD\Taylor\TA_DFIRM.mxd
Regional Location Map
N
W
E
S
1 inch is approximately 6 miles
Source: County Property Appraiser, Florida Geographic Data Library, Federal Emergency Management Agency, Florida Department of Transportation and Florida Department of Environmental Protection.
North Central Florida Regional Planning Council

Figure II-19: Union County 100-year Flood Zones

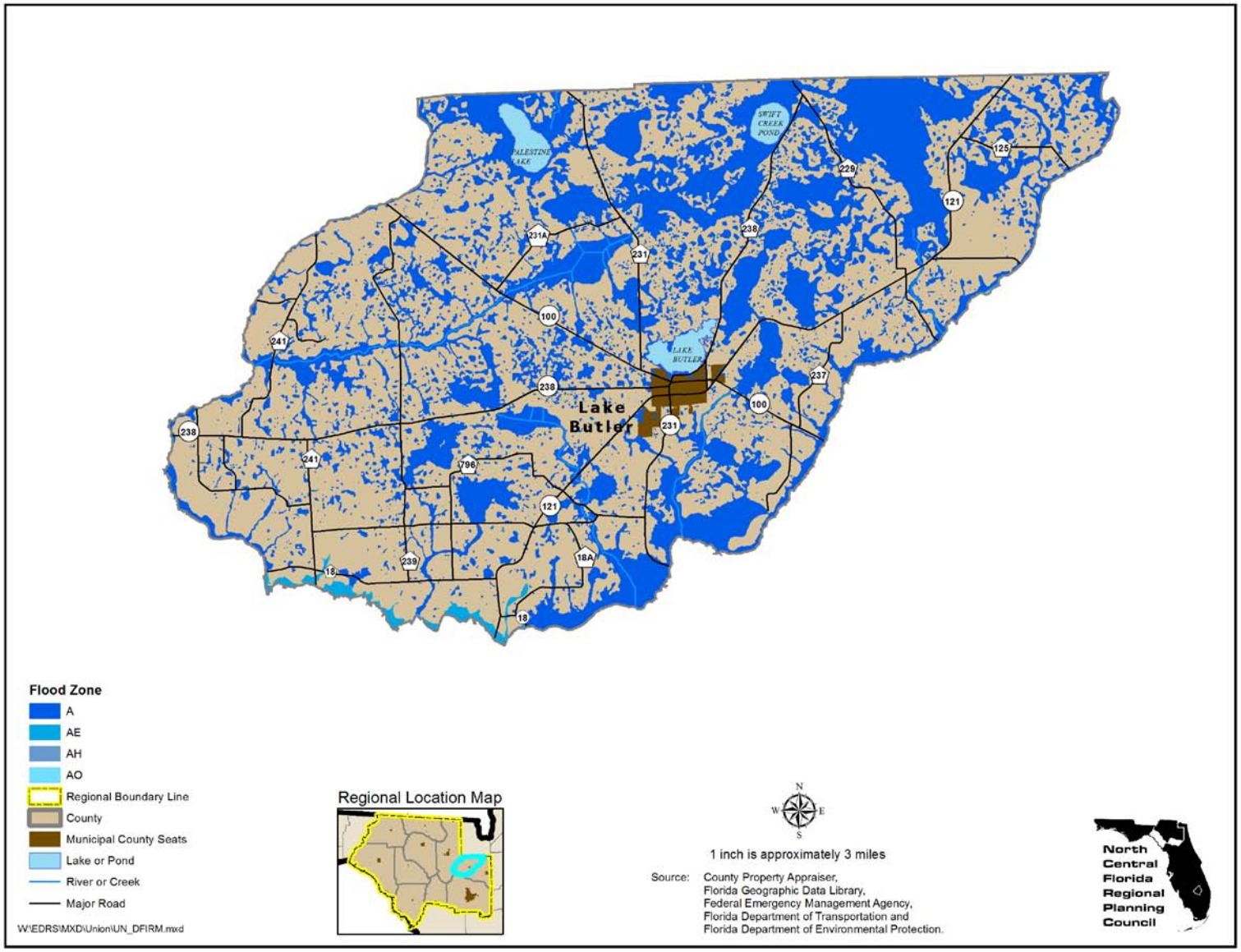


Table II-3: North Central Florida 100-year Floodzones

COUNTY	TOTAL ACREAGE	FLOODPLAIN ACREAGE	PERCENTAGE OF ACREAGE IN FLOODPLAIN
Alachua	620,000	146,784	23%
Bradford	192,000	40,390	21%
Columbia	512,000	200,836	39%
Dixie	454,000	316,791	69%
Gilchrist	227,000	62,246	27%
Hamilton	332,000	127,255	38%
Lafayette	350,000	233,266	66%
Madison	458,000	205,900	44%
Suwannee	443,000	59,129	13%
Taylor	671,000	501,378	74%
Union	159,000	60,643	38%
Region	4,418,000	1,954,618	44%

Source: Federal Emergency Management Agency

3. History of Inland Flooding

Based on data collected by the National Climatic Data Center, there were 914 flooding events in Florida between 1993 and 2006, for an average of 70 flooding events per year. Total property damages were estimated at $1.278 billion with an additional $947.081 million in crop-related damages. These estimates do not include those of Tropical Storm Fay, 2008, which caused damages upward of $560 million.

Below is a summary of the major flooding events in the North Central Region from 1993-2008.

March 1998: In 1998, the inland flood caused an overall property damage estimate of $367 million.

In **Lafayette County**, the Suwannee River crested near 33.9 feet at Branford and 14.9 feet at Wilcox on March 9, 1998. Floodwaters engulfed High Smith Park and portions of Dowling Park as well as railroad tracks and a municipal park in Branford.

In **Madison County**, water covered some unpaved roads where the Withlacoochee and Suwannee Rivers merge. The Withlacoochee River crested near 82 feet at Pinetta on March 15, 1998. The Suwannee River crested near 61.7 feet at Ellaville on March 18, 1998. Portions of the Suwannee River State Park were closed due to high water.

In **Taylor County**, lowland flooding was observed in Perry where three to five inches of rain fell within a 48-hour period.

March 1998, El Nino Effect: On March 1, 1998, Alachua, Baker, Bradford, Citrus, Clay, Columbia, DeSoto, Duval, Flagler, Gilchrist, Hamilton, Hillsborough, Marion, Nassau, Pasco, Putnam, St. Johns, Suwannee, Union Counties were flooded. More than 2,800 homes and over 175 businesses were destroyed and property damage totaled $25.5 million. Flooding was claimed to be related to the El Nino effect.

March 4, 2003, Flooding: Periods of heavy rainfall, which ranged from three to six inches in Leon County to 14 inches in Taylor County, flooded many roads, homes and poor drainage areas. Residents along Munson Slough in northern Wakulla County were forced to evacuate as floodwaters seeped into their homes. Widespread flooding forced many families in Taylor County to evacuate to motels, while others were isolated by the rising floodwaters. Many septic tanks and water wells were damaged. Some residents along the swollen Apalachicola and Ocklockonee Rivers in Liberty County experienced minor flooding. Minor to moderate flooding occurred near the Aucilla and Suwannee River basins. Floodwaters seeping into homes in Steinhatchee Springs forced residents to evacuate to higher ground. Local states of emergencies were declared in Leon, Wakulla, Taylor, Liberty and Lafayette counties. Total property damages were estimated at $1.0 million.

June 23, 2003: A series of severe thunderstorms swept through southwest Central Florida during June 21-24, 2007. Precipitation associated with these storms resulted in flooding in parts of several Florida counties including Charlotte, Citrus, DeSoto, Dixie, Hardee, Levy, Manatee, Sarasota, and Taylor. Floodwater from these thunderstorms caused damage to public and private property amounting to more than $11 million and damaged or destroyed more than 100 homes.

A federal disaster declaration allowed the affected state and local governments to apply for aid. The relief aid would pay up to 75 percent of the approved costs for debris removal, emergency services related to the disaster, and the repair or replacement of damaged public facilities. The aid was authorized under a major disaster declaration issued by President Bush following a r eview of Federal Emergency Management Agency's analysis of the request by the state for federal relief. The declaration covers damage to public property from severe storms and flooding beginning on June 13, 2003.

C. Wildfires and the Urban Interface

Florida is home to over 18 million residents who enjoy the state's beautiful scenery and warm climate of the state. But few people realize that these qualities also create severe wildfire conditions. Each year, thousands of acres of wildland and many homes are destroyed by fires that can erupt at any time of the year from a variety of causes, including arson, lightning and debris burning. Adding to the fire hazard is the growing number of people living in new communities built in areas that were once wildland. This growth places even greater pressure on the wildland firefighters of the state.

1. Wildfire Hazard Profile

A wildfire is any fire occurring in the wildlands (i.e. grasslands, forest, brushland, etc). They have burned across the woodlands of Florida for centuries and are part of the natural management of much of Florida's ecosystems. There are four types of forest fires:

- Surface fires are the most common type of wildfire and burns along the floor of the forest, moving slowly killing or damaging trees.
- Ground fires (muck fires) that burn on or below the forest floor. These fires are hard to detect and even harder to extinguish.
- Crown fires are spread rapidly by the wind and move the fastest of all types of fires by jumping along tree tops.
- Wildland-Urban Interface fires are in a geographical area where structures and other human development meet or intermingle with wildlands or vegetative fuels.

Florida's typical fire season is from January to May. During relatively dry months, the potential for wildfires increases dramatically. The driest months (January, February and March), with the combination of low humidity and high wind, have the highest number of reported fires. During these months, fine fuels (grass, leaves, pine needles) are in optimal burning condition. The largest number of lightning-caused fires occurs in July, coinciding with the peak of the thunderstorm season. However, lightning accounts for only 11.7 percent of the fires started during 1974-1990. Other sources are manmade, including arson, carelessness, debris/trash burning, and operating equipment which may emit sparks. Because so much of the state is comprised of timber lands, a major portion of the state is vulnerable to forest fires, although the threat to the population at large is not considered significant.

Each wildfire, especially near development, has the potential to threaten human life, structures and natural resources. Urban development has moved into wildland areas where the hazard is more severe and fire control is more difficult.

1. History of Wildfire in the North Central Florida Region

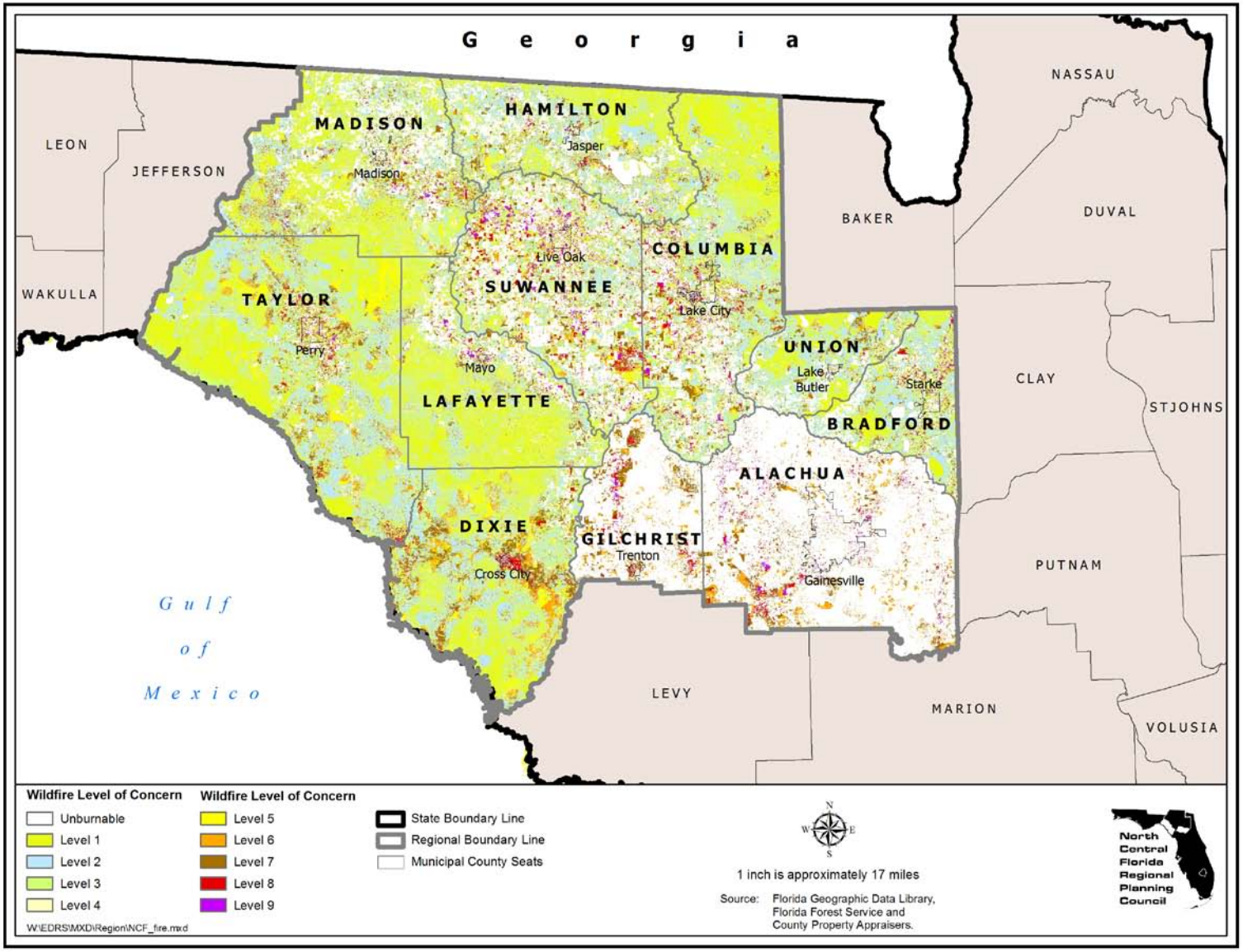
From 1981 through 1996, an average of 6,080 wildfires occurred per year, burning 219,725 acres. Because of changing weather conditions, the yearly figures range from a low of 3,985 wildfires (86,944 acres burned) in 1991 to a record high of 14,042 wildfires (587,400 acres burned) in 1981. Florida experienced a record high (645,326 acres burned) in 1989 as a result of drought conditions around the state.

The beginning months of 1998 brought widespread flooding. After the rain stopped, severe drought conditions developed and lasted from April thru June of 1998. As a result of the extreme drought conditions, high temperatures and buildup of flammable wildland fuels, the 1998 wildfires began. The first fire broke out on May 25, 1998 in the Apalachicola National Forest. In a two-month period, almost 500,000 acres of the state had burned in approximately 2,300 separate wildfires. The cost of this event reached over $160 million. The wildfires of 1998

damaged or destroyed over 300 homes and the value of lost timber exceeded $300 million.

Spring/Summer 2007 - The wildfires that put much of Florida in a several weeks-long smoky haze were started May 5, 2007 by a lightning strike on Bugaboo Island in the Okefenokee National Wildlife Refuge located in southern Georgia. Thick smoke from area wildfires forced officials to close stretches of I-10 and I-75 in northern Florida. A section of I-95 in Duval County, from Pecan Park to State Road A1A, was also closed due to smoke, as was a section of I-75 in Broward County, near fire-ravaged Collier County in southern Florida. The fires scorched at least 212,000 acres, according to the joint information center, a coalition of state and federal agencies. Of those acres, 101,000 were in Florida and about 111,000 were in Georgia. Interstate 75 was closed from Valdosta, Georgia, south to Lake City, Florida and Interstate 10 was closed from Sanderson, Florida, eastward to Live Oak.

Figure II-20: Wildfire Level of Concern



Chapter III
Regional Vulnerability Analysis

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CHAPTER III
REGIONAL VULNERABILITY ANALYSIS

A. General Description

1. North Central Florida

Located along the Big Bend coastline of Florida, the north central Florida region includes 11 counties and 33 municipalities (See Figure III-1 and Figure III-2). The region encompasses approximately 7,000 square miles of area, characterized by an abundance of natural resources most notable the Suwannee River, cypress swamps and natural springs.

2. Alachua County

There are approximately 968 square miles or 620,000 acres of land within the County. The County contains nine incorporated areas, totaling approximately 191 square miles or 122,510 acres. The most populated of these incorporated areas is the City of Gainesville, also the municipal county seat with approximately 39,500 acres.

3. Bradford County

There are approximately 300 square miles or 192,000 acres of land within the County. The County contains four incorporated areas, totaling approximately 10 square miles or 6,680 acres. The most populated of these incorporated areas is the City of Starke, also the municipal county seat with approximately 4,580 acres.

4. Columbia County

There are approximately 800 square miles or 512,000 acres of land within the County. The County contains two incorporated areas, totaling approximately 14 square miles or 9,380 acres. The most populated of these incorporated areas is the City of Lake City, also the municipal county seat with approximately 7,820 acres.

5. Dixie County

There are approximately 709 square miles or 454,000 acres of land within the County. The County contains two incorporated areas, totaling approximately 2.5 square miles or 1,650 acres. The most populated of these incorporated areas is the Town of Cross City, also the municipal county seat with approximately 1,390 acres.

6. Gilchrist County

There are approximately 354 square miles or 227,000 acres of land within the County. The County contains three incorporated areas, totaling approximately nine square miles or 6,240 acres. The most populated of these incorporated areas is the City of Trenton, also the municipal county seat with approximately 2,160 acres.

7. Hamilton County

There are approximately 518 square miles or 332,000 acres of land within the County. The County contains three incorporated areas, totaling approximately seven square miles or 4,480 acres. The most populated of these incorporated areas is the City of Jasper, also the municipal county seat with approximately 1,500 acres.

8. Lafayette County

There are approximately 564 square miles or 350,000 acres of land within the County. The County contains one incorporated area, totaling approximately one square mile or 650 acres. The most populated of these incorporated areas is the Town of Mayo, also the municipal county seat with approximately 650 acres.

9. Madison County

There are approximately 715 square miles or 458,000 acres of land within the County. The County contains three incorporated areas, totaling approximately six square miles or 4,130 acres. The most populated of these incorporated areas is the City of Madison, also the municipal county seat with approximately 1,830 acres.

10. Suwannee County

There are approximately 692 square miles or 443,000 acres of land within the County. The County contains two incorporated areas, totaling approximately eight square miles or 5,550 acres. The most populated of these incorporated areas is the City of Live Oak, also the municipal county seat with approximately 4,860 acres.

11. Taylor County

There are approximately 1,048 square miles or 671,000 acres of land within the County. The County contains one incorporated area, totaling approximately nine square miles or 5,980 acres. This incorporated area is the City of Perry, also the municipal county seat with approximately 5,980 acres.

12. Union County

There are approximately 248 square miles or 159,000 acres of land within the County. The County contains three incorporated areas, totaling approximately three square miles or 2,400 acres. The most populated of these incorporated areas is the City of Lake Butler, also the municipal county seat with approximately 1,460 acres.

Figure III-1: North Central Region in relation to the State of Florida

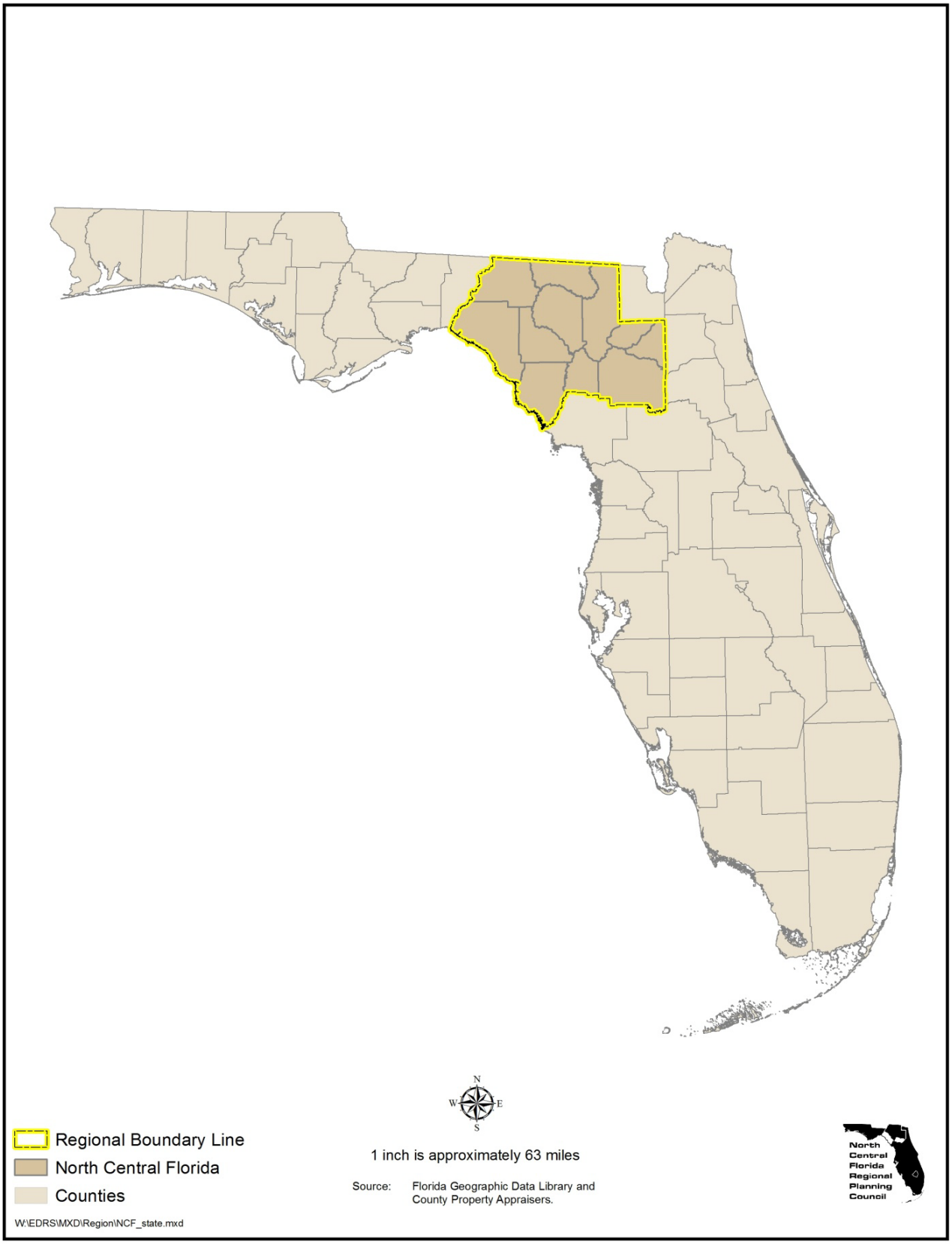


Figure III-2: North Central Florida Region

B. Census Data

1. North Central Florida

United States 2010 Census data was used as a base layer to report the location of residential, commercial, industrial and essential services impacted by high risk flood prone areas as well as two simulated Category 5 hurricanes. United States Census Block Groups were used to identify residential, commercial, industrial and essential services. There are 324 Census Block Groups within the North Central Florida region with nearly half of the Block Groups, 155 located in Alachua County.

2. Alachua County

The County contains 155 United States Census Block Groups (See Figure III-3 and Figure III-4). The largest being Tract Number 210, Block Group 1 containing approximately 54,000 acres (See Figure III-3). Although Tract Number 210, Block Group 1 may be the largest, it is mostly comprised of Orange Lake and Paynes Prairie State Preserve (See Figure III-3). The smallest being Tract Number 200, Block Group 5 contains approximately 21 acres (See Figure III-4). Tract Number 200, Block Group 5 is located in the City of Gainesville east of the University of Florida and is comprised mainly of students (See Figure III-4).

3. Bradford County

The County contains 18 United States Census Block Groups (See Figure III-5 and Figure III-6). The largest being Tract Number 300, Block Group 5 containing approximately 48,000 acres (See Figure III-5). Although Tract Number 300, Block Group 5 may be the largest, it is located in the western portion of the County which has minimal residential, commercial and industrial activity (See Figure III-5). The smallest being Tract Number 100, Block Group 4 contains approximately 867 acres. Tract Number 100, Block Group 4 is located along the eastern side of United States Highway 301, in the City of Starke (See Figure III-5 and Figure III-6).

4. Columbia County

The County contains 40 United States Census Block Groups (See Figure III-7 and Figure III-8). The largest being Tract Number 110300, Block Group 1 containing approximately 203,000 acres (See Figure III-7). Although Tract Number 110300, Block Group 1 may be the largest, it is mostly comprised of the Osceola National Forest (See Figure III-7). The smallest being Tract Number 110400, Block Group 4 contains approximately 182 acres. Tract Number 110400, Block Group 4 is located in the downtown portion of the City of Lake City (See Figure III-8).

5. Dixie County

The County contains 12 United States Census Block Groups (See Figure III-9 and Figure III-10). T he largest being Tract Number 970200, Block Group 1 containing approximately 128,000 acres (See Figure III-9). Although Tract Number 970200, Block Group 1 may be the largest, it is mostly comprised of Perpetual Wildlife Management Area and the Suwannee National Wildlife Refuge (See Figure III-9). The smallest being Tract Number 970101, Block Group 3 contains approximately 4,280 acres (See Figure III-9 and Figure III-10). A portion of Tract Number 970101, Block Group 3 is located within the southern portion of the Town of Cross City, but is comprised mainly of forest land (See Figure III-9 and Figure III-10).

6. Gilchrist County

The County contains 13 United States Census Block Groups (See Figure III-11 and Figure III-12). T he largest being Tract Number 950100, Block Group 1 containing approximately 34,000 acres (See Figure III-11). Although Tract Number 950100, Block Group 1 may be the largest, it is mostly comprised of the Waccasassa Flats (See Figure III-11). T he smallest being Tract Number 950204, Block Group 3 contains approximately 4,433 acres (See Figure III-11 and Figure III-12). Although a portion of Tract Number 950204, Block Group 3 is located in the City of Trenton this census Block Group is comprised mainly of forest land (See Figure III-11 and Figure III-12).

7. Hamilton County

The County contains 10 United States Census Block Groups (See Figure III-13 and Figure III-14). T he largest being Tract Number 960100, Block Group 1 containing approximately 106,000 acres (See Figure III-13). Although Tract Number 960100, Block Group 1 may be the largest, it is mostly comprised of Bee Haven Bay and phosphate mining pits (See Figure III-13). The smallest being Tract Number 960100, Block Group 4 contains approximately 207 acres (See Figure III-14). Tract Number 960100, Block Group 4 is located in the southern portion of the City of Jasper (See Figure III-13).

8. Lafayette County

The County contains six United States Census Block Groups (See Figure III-15 and Figure III-16). T he largest being Tract Number 960200, Block Group 3 containing approximately 147,000 acres (See Figure III-15). Although Tract Number 960200, Block Group 3 may be the largest, it is mostly comprised of Mallory Swamp (See Figure III-15). T he smallest being Tract Number 960100, Block Group 2 contains approximately 18,000 acres (See Figure III-15). Tract Number 960100, Block Group 2 is located in the northern portion of the County just west of the Suwannee River (See Figure III-15).

9. Madison County

The County contains 16 United States Census Block Groups (See Figure III-17 and Figure III-18). The largest being Tract Number 110400, Block Group 2 containing approximately 95,000 acres (See Figure III-17). Although Tract Number 110400, Block Group 2 may be the largest, it is mostly comprised of San Pedro Bay Wildlife Management Area (See Figure III-17). The smallest being Tract Number 110302, Block Group 4 contains approximately 251 acres (See Figure III-18). Tract Number 110302, Block Group 4 is centrally located in the City of Madison (See Figure III-18).

10. Suwannee County

The County contains 26 United States Census Block Groups (See Figure III-19 and Figure III-20). The largest being Tract Number 970200, Block Group 1 containing approximately 43,000 acres, located in the northern portion of the County (See Figure III-19). The smallest being Tract Number 970400, Block Group 3 contains approximately 274 acres (See Figure III-20). Tract Number 970400, Block Group 3 is centrally located in the City of Live Oak (See Figure III-20).

11. Taylor County

The County contains 19 United States Census Block Groups (See Figure III-21 and Figure III-22). The largest being Tract Number 950400, Block Group 4 containing approximately 197,000 acres (See Figure III-21). Although Tract Number 950400, Block Group 4 may be the largest, it is mostly comprised of San Pedro Bay, Big Bend Wildlife Management Area and Warrior Swamp (See Figure III-21). The smallest being Tract Number 950300, Block Group 3 contains approximately 211 acres (See Figure III-22). Tract Number 950300, Block Group 3 is located in the west central portion of the City of Perry (See Figure III-21).

12. Union County

The County contains nine United States Census Block Groups (See Figure III-23 and Figure III-24). The largest being Tract Number 960200, Block Group 1 containing approximately 50,000 acres (See Figure III-23). Although Tract Number 960200, Block Group 1 may be the largest, it is mostly comprised of Lake Butler Wildlife Management Area (See Figure III-23). The smallest being Tract Number 960200, Block Group 3 contains approximately 1,940 acres (See Figure III-23 and Figure III-24). The western portion of Tract Number 960200, Block Group 3 is located in the City of Lake Butler while the rest is located in the unincorporated portion of the County just northeast of the City of Lake Butler (See Figure III-23 and Figure III-24).

Figure III-3: Alachua County Census Block Groups

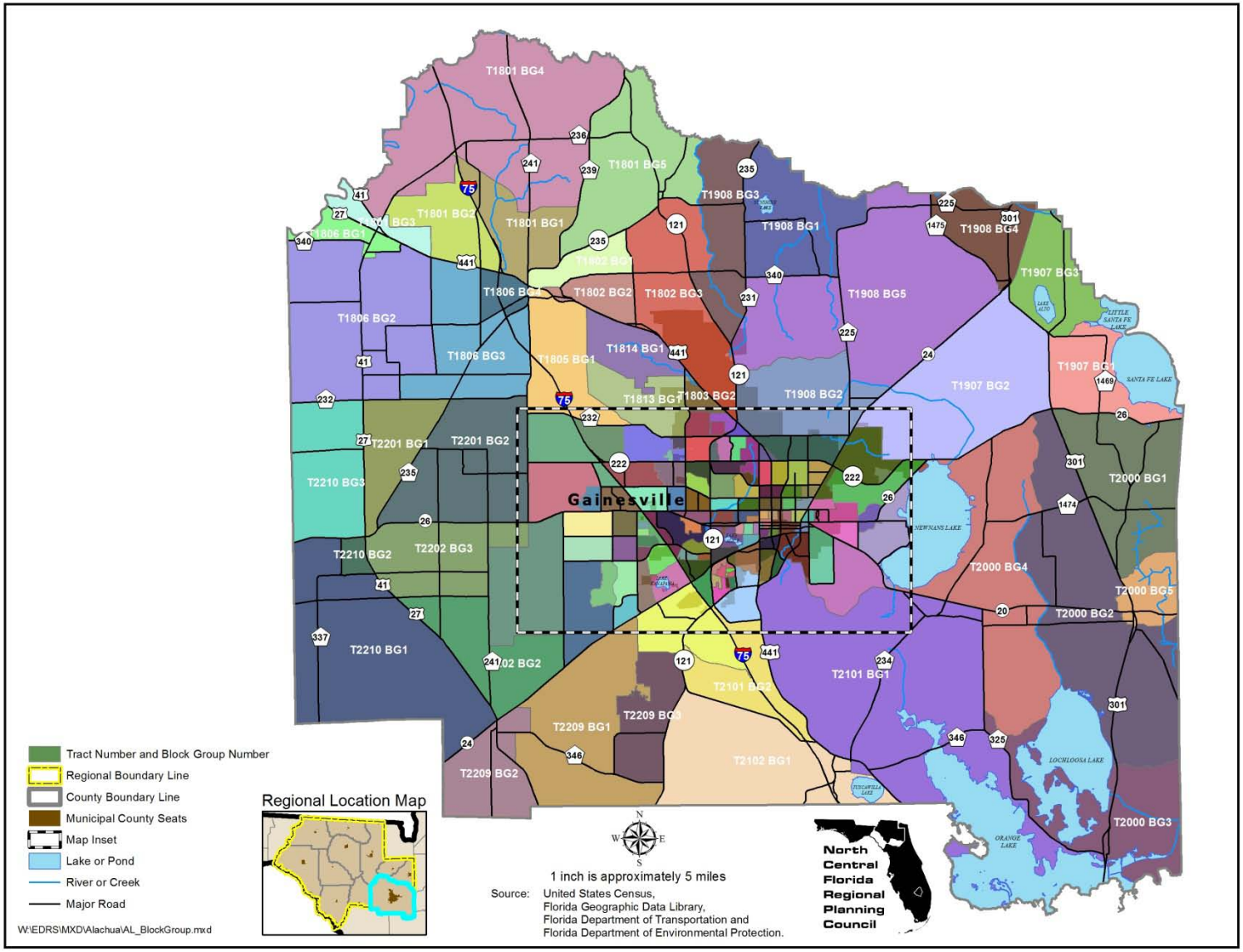


Figure III-4: City of Gainesville, Alachua County Census Block Groups

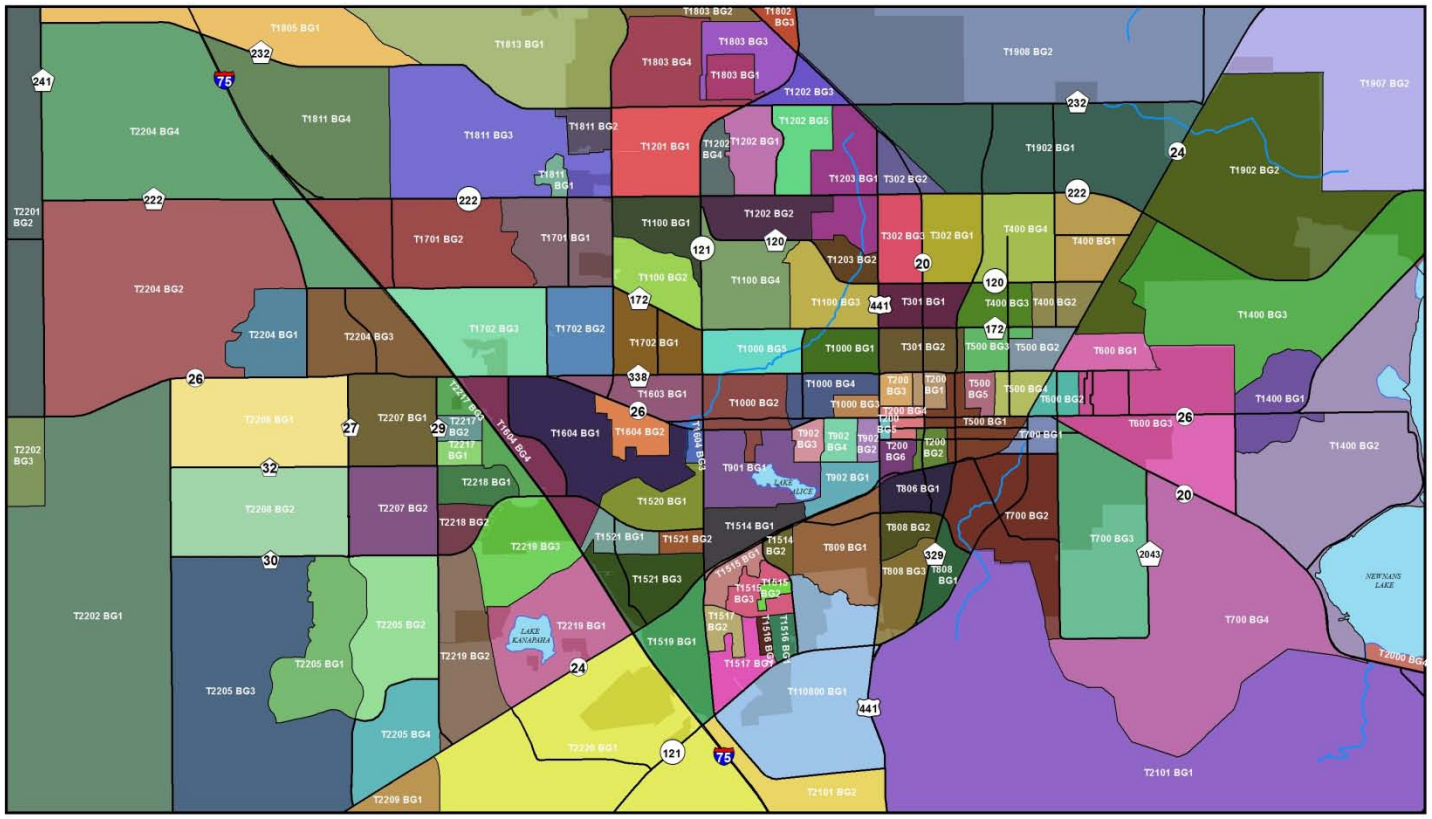


Figure III-5: Bradford County Census Block Groups

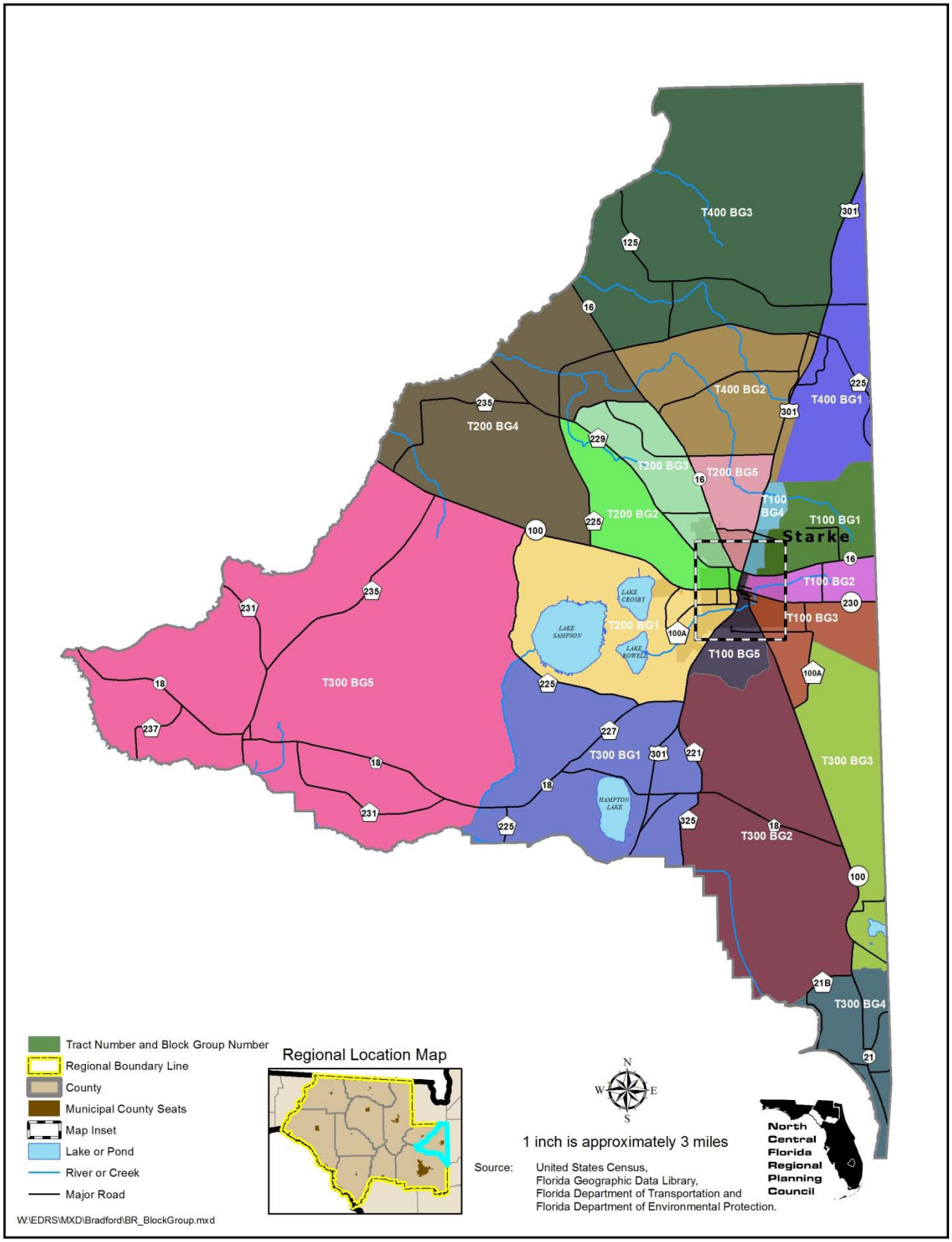


Figure III-6: City of Starke, Bradford County Census Block Groups

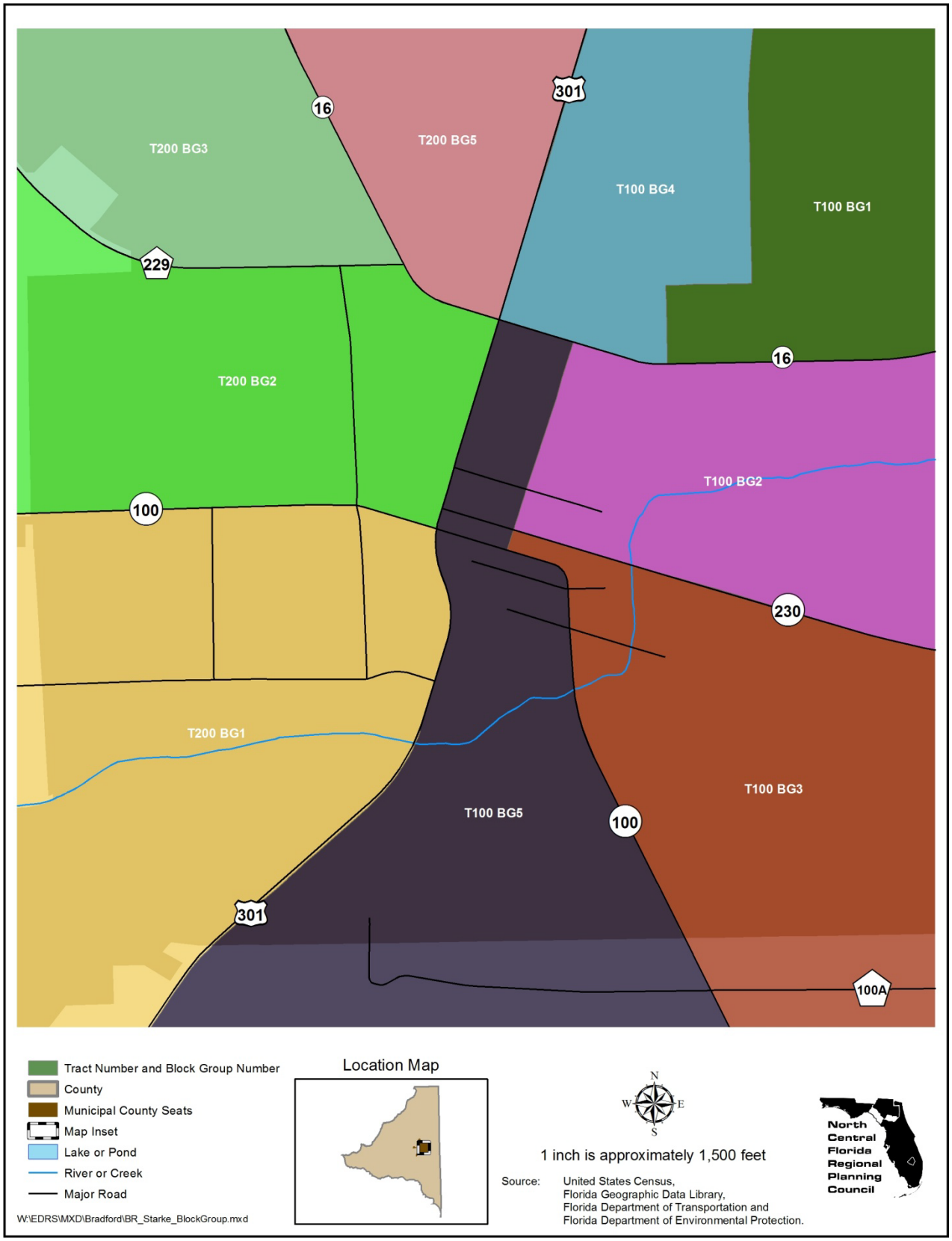


Figure III-7: Columbia County Census Block Groups

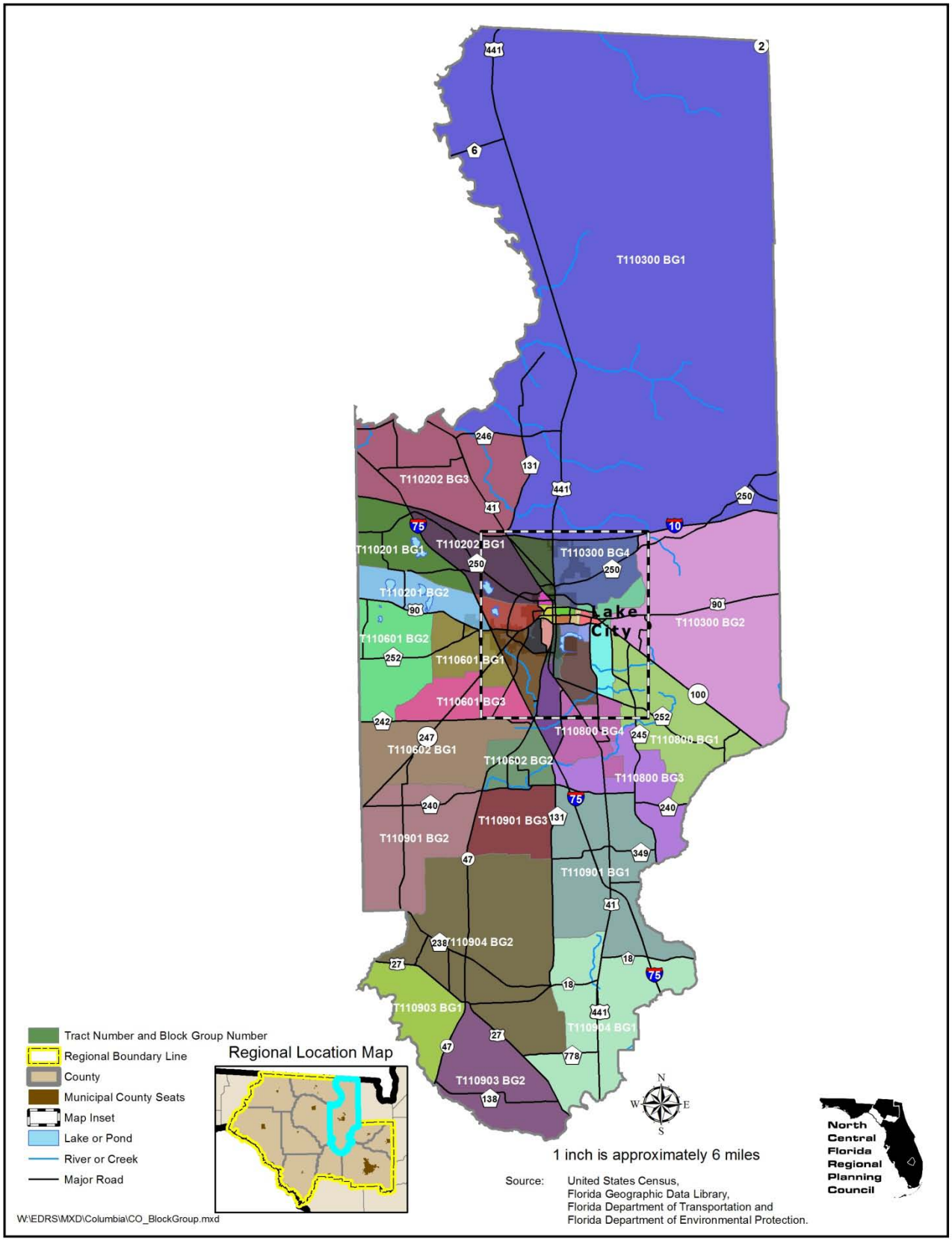


Figure III-8: City of Lake City, Columbia County Census Block Groups

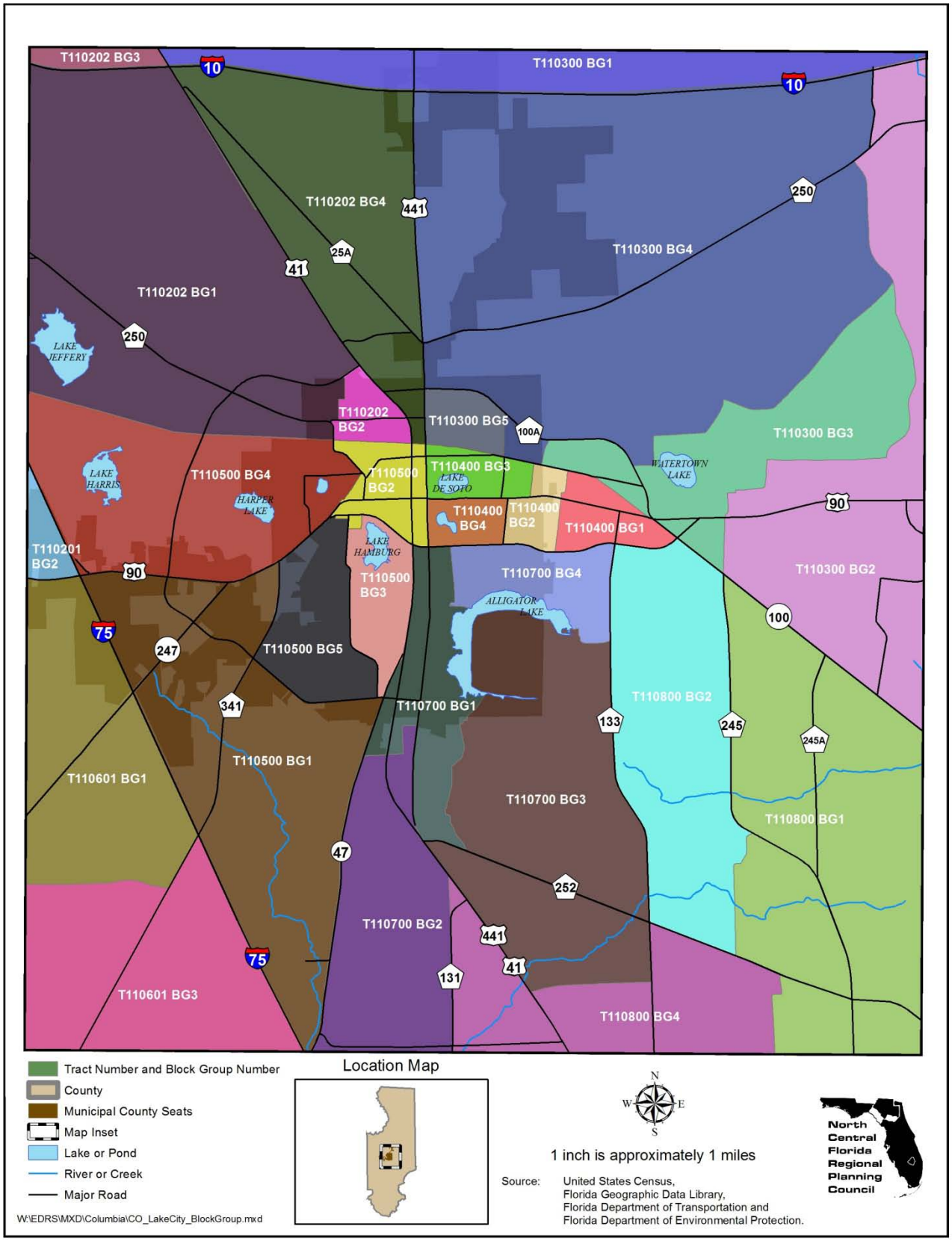


Figure III-9: Dixie County Census Block Groups

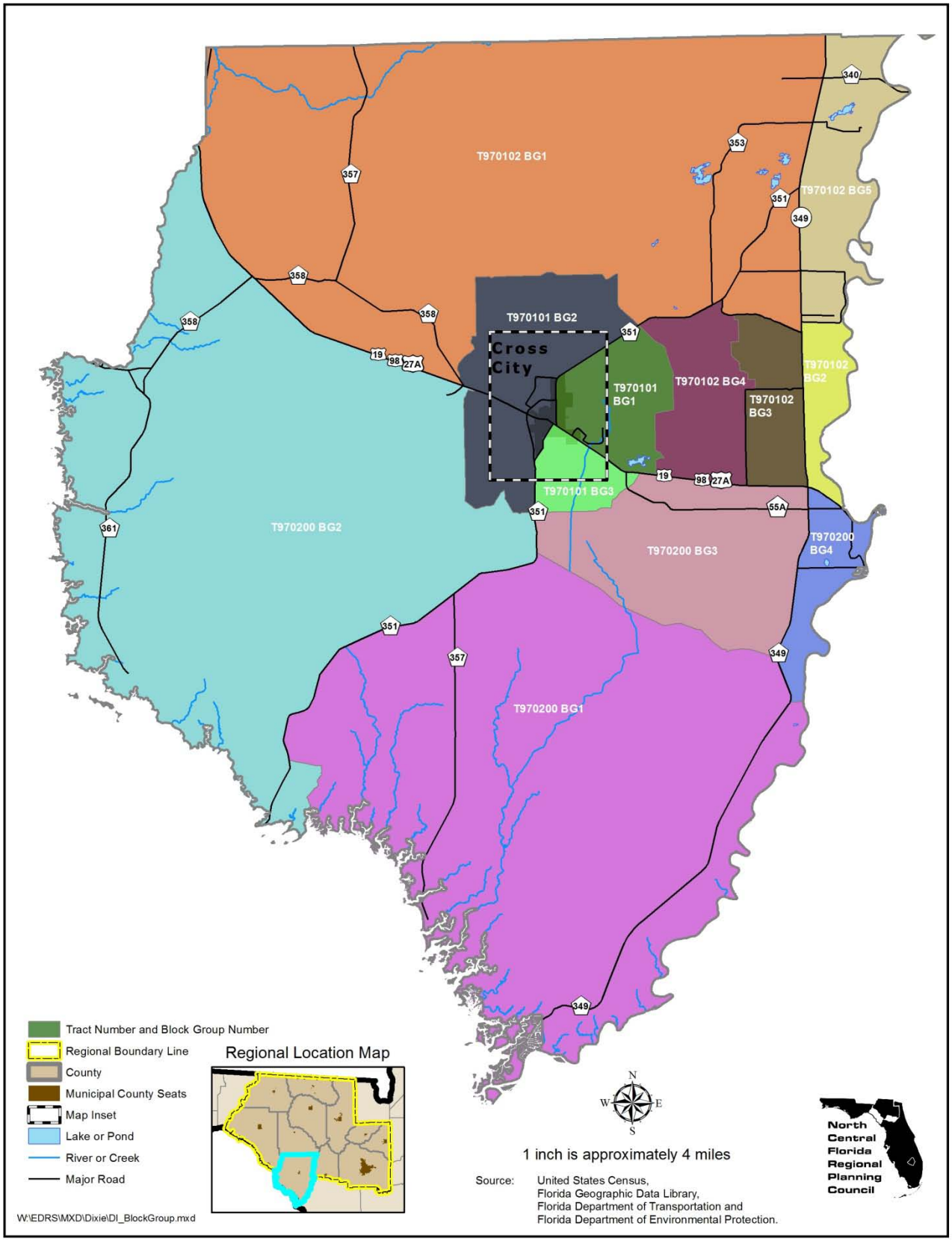


Figure III-10: Town of Cross City, Dixie County Census Block Groups

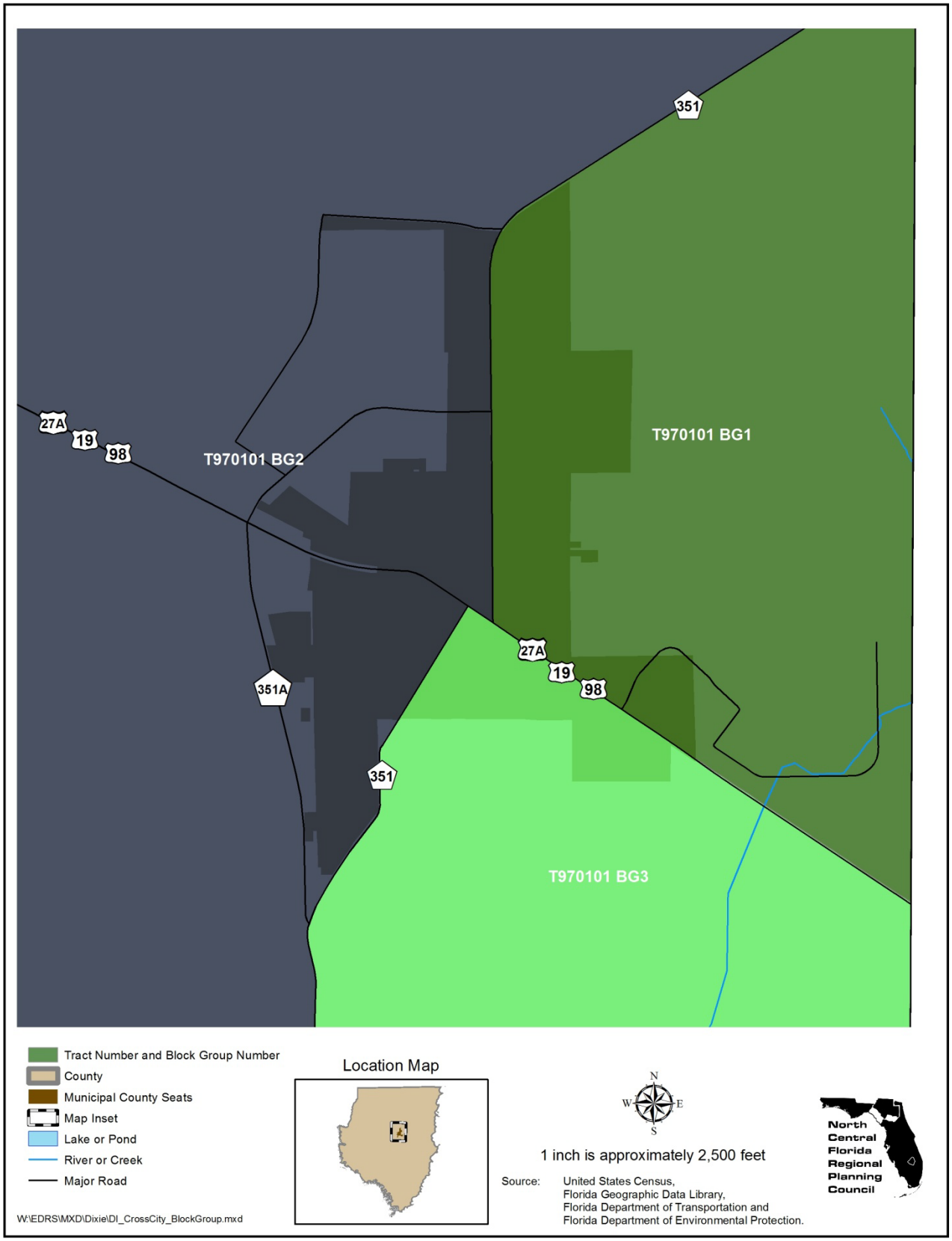


Figure III-11: Gilchrist County Census Block Groups

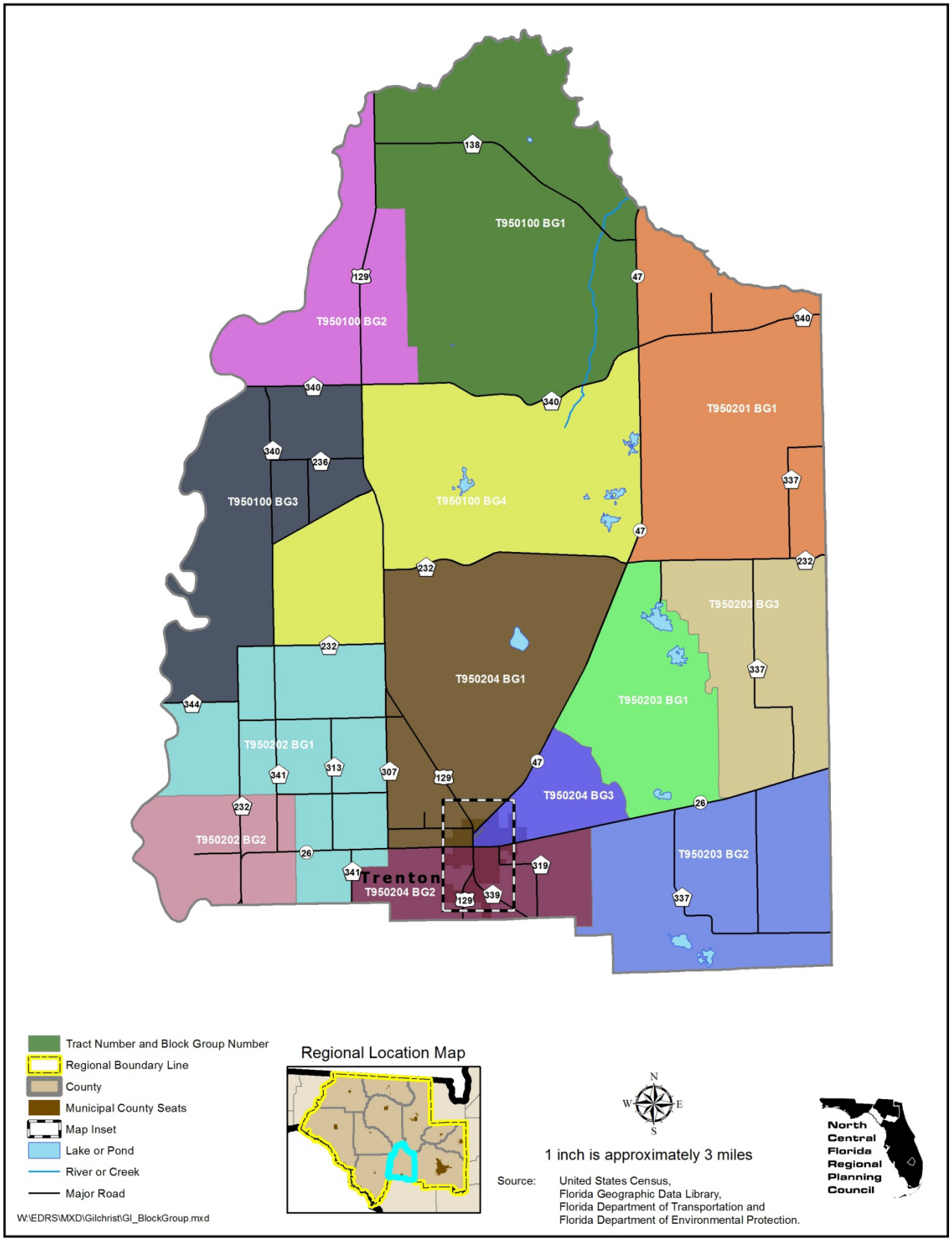
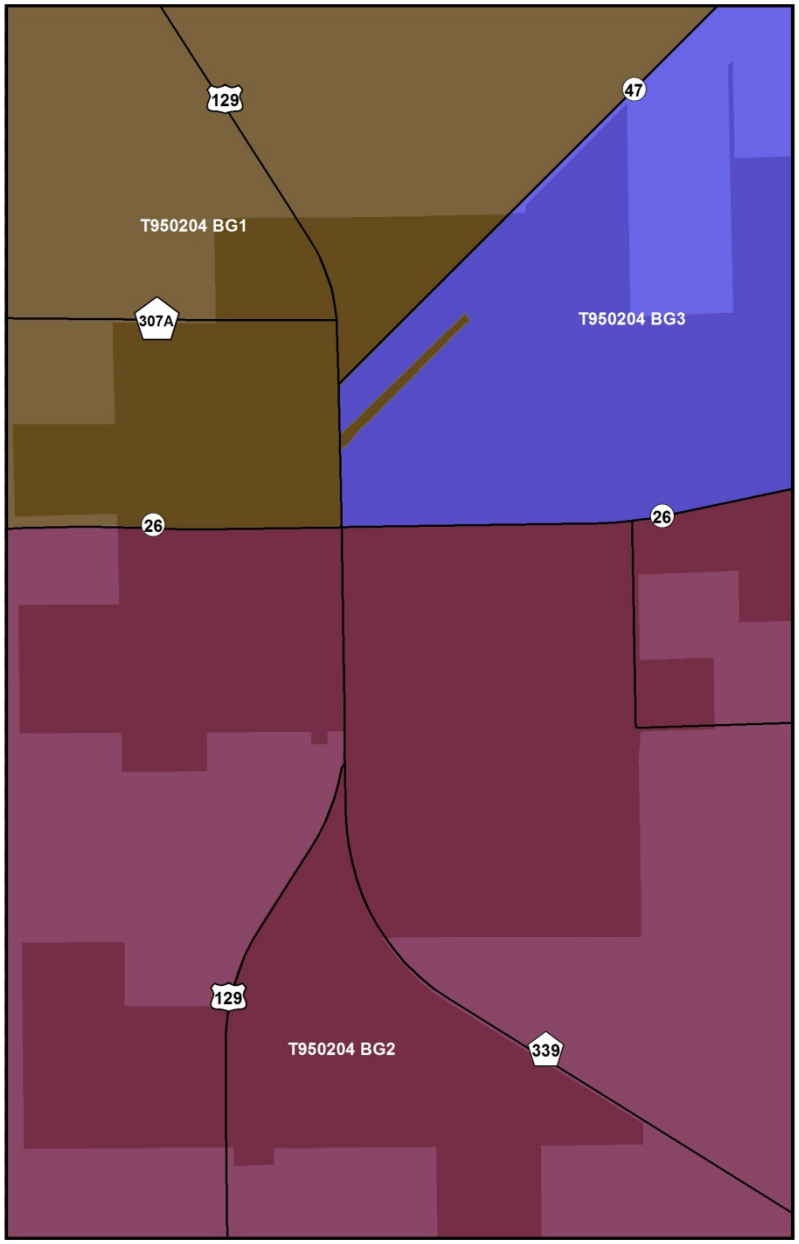


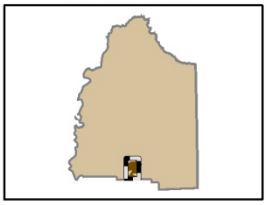
Figure III-12: City of Trenton, Gilchrist County Census Block Groups



Tract Number and Block Group Number
County
Municipal County Seats
Map Inset
Lake or Pond
River or Creek
Major Road

W:\EDRS\MXD\Gilchrist\GI_Trenton_BlockGroup.mxd

Location Map



N
W E
S

1 inch is approximately 2,000 feet

Source: United States Census,
Florida Geographic Data Library,
Florida Department of Transportation and
Florida Department of Environmental Protection.

North Central Florida Regional Planning Council

Figure III-13: Hamilton County Census Block Groups

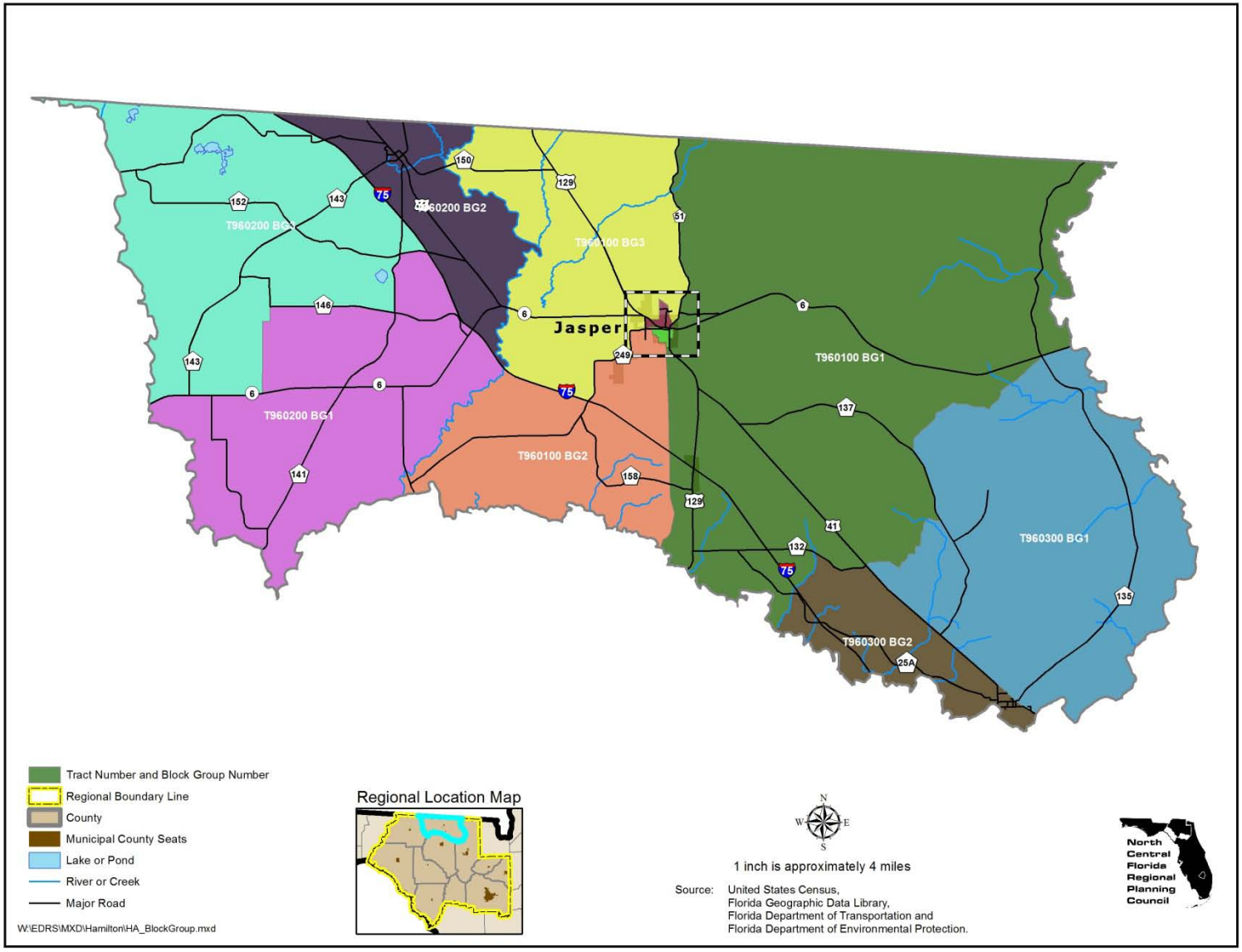
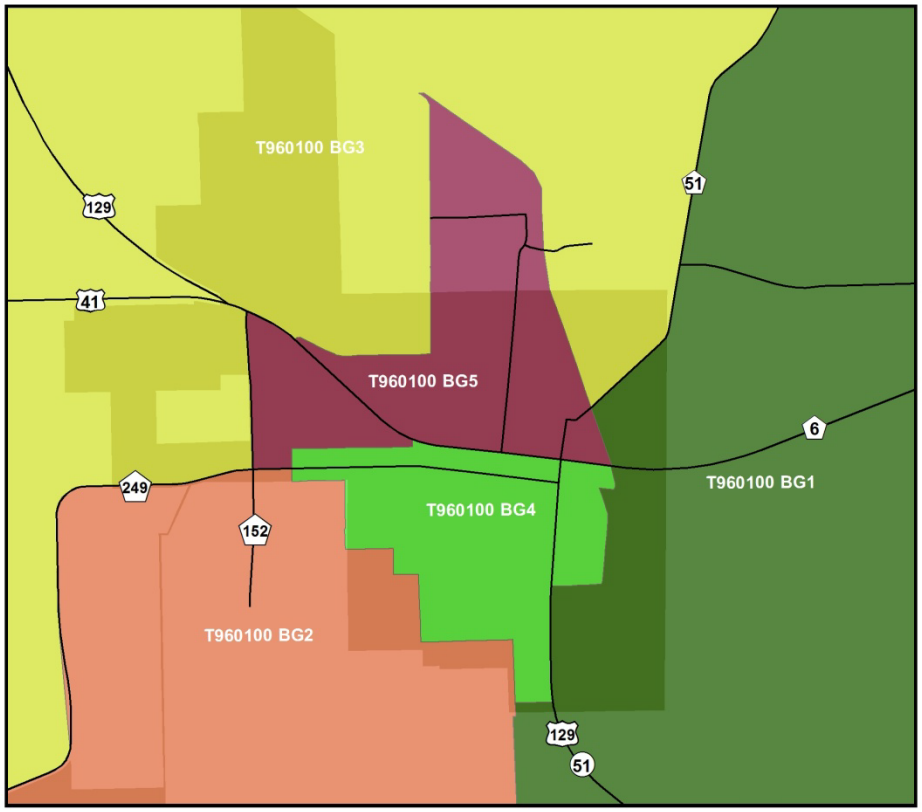


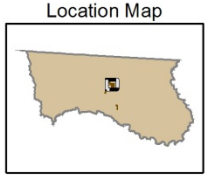
Figure III-14: City of Jasper, Hamilton County Census Block Groups



Tract Number and Block Group Number
County
Municipal County Seats
Map Inset
Lake or Pond
River or Creek
Major Road

W:\EDRS\MXD\Hamilton\HA_Jasper_BlockGroup.mxd

Location Map



N W E S

1 inch is approximately 2,000 feet

Source: United States Census,
Florida Geographic Data Library,
Florida Department of Transportation and
Florida Department of Environmental Protection.

North Central Florida Regional Planning Council

Figure III-15: Lafayette County Census Block Group

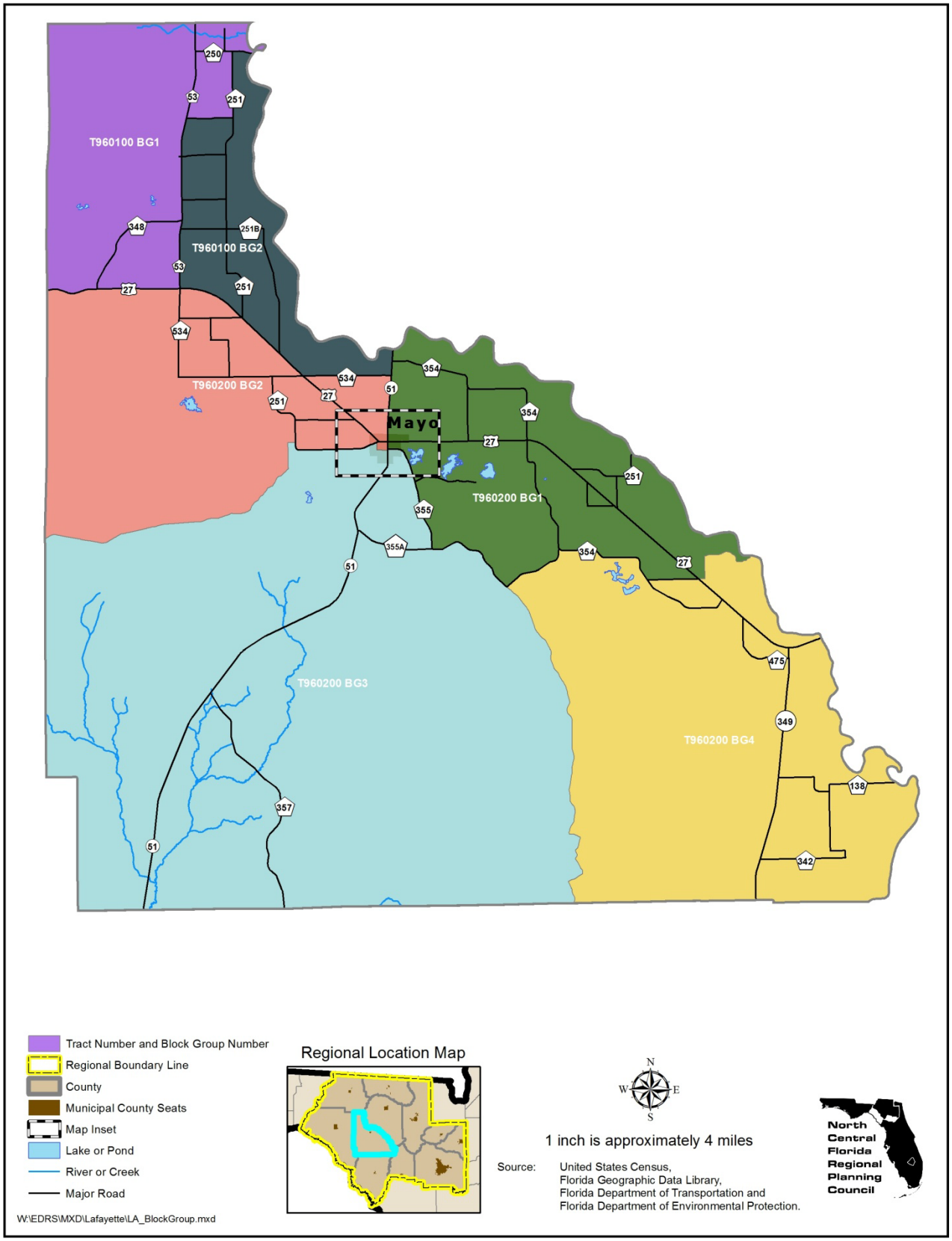
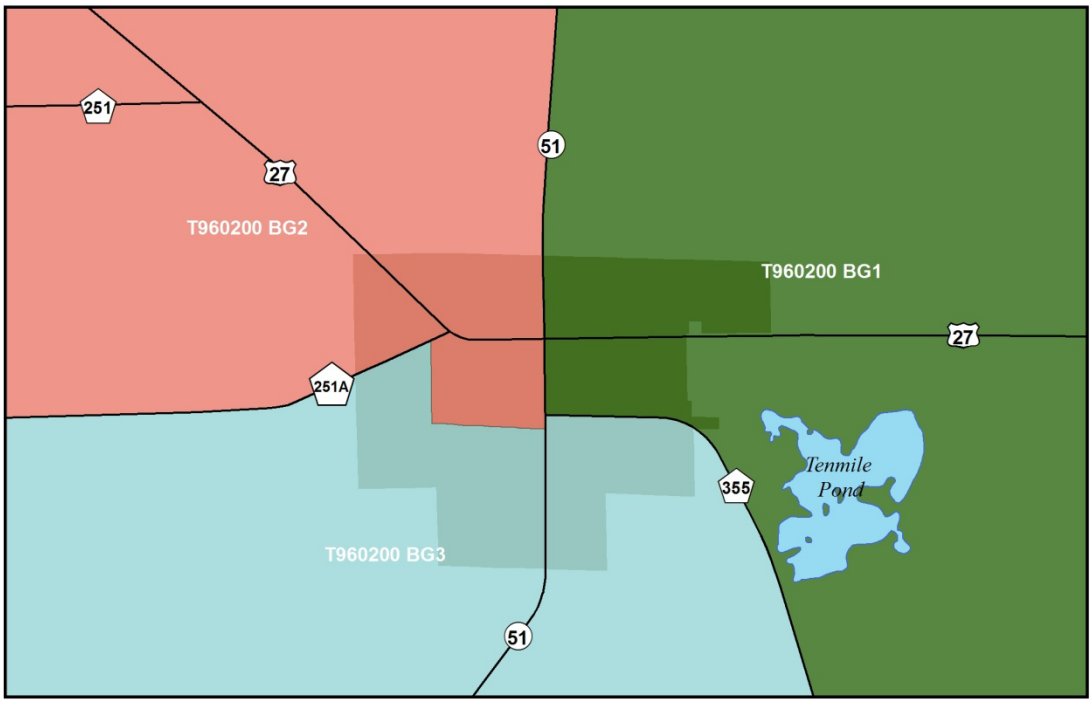


Figure III-16: Town of Mayo, Lafayette County Census Block Group



Tract Number and Block Group Number
County
Municipal County Seats
Map Inset
Lake or Pond
River or Creek
Major Road

W:\EDRS\MXD\Lafayette\LA_Mayo_BlockGroup.mxd

Location Map

N
W E
S

1 inch is approximately 2,640 feet

Source: United States Census,
Florida Geographic Data Library,
Florida Department of Transportation and
Florida Department of Environmental Protection.

North Central Florida Regional Planning Council

Figure III-17: Madison County Census Block Groups

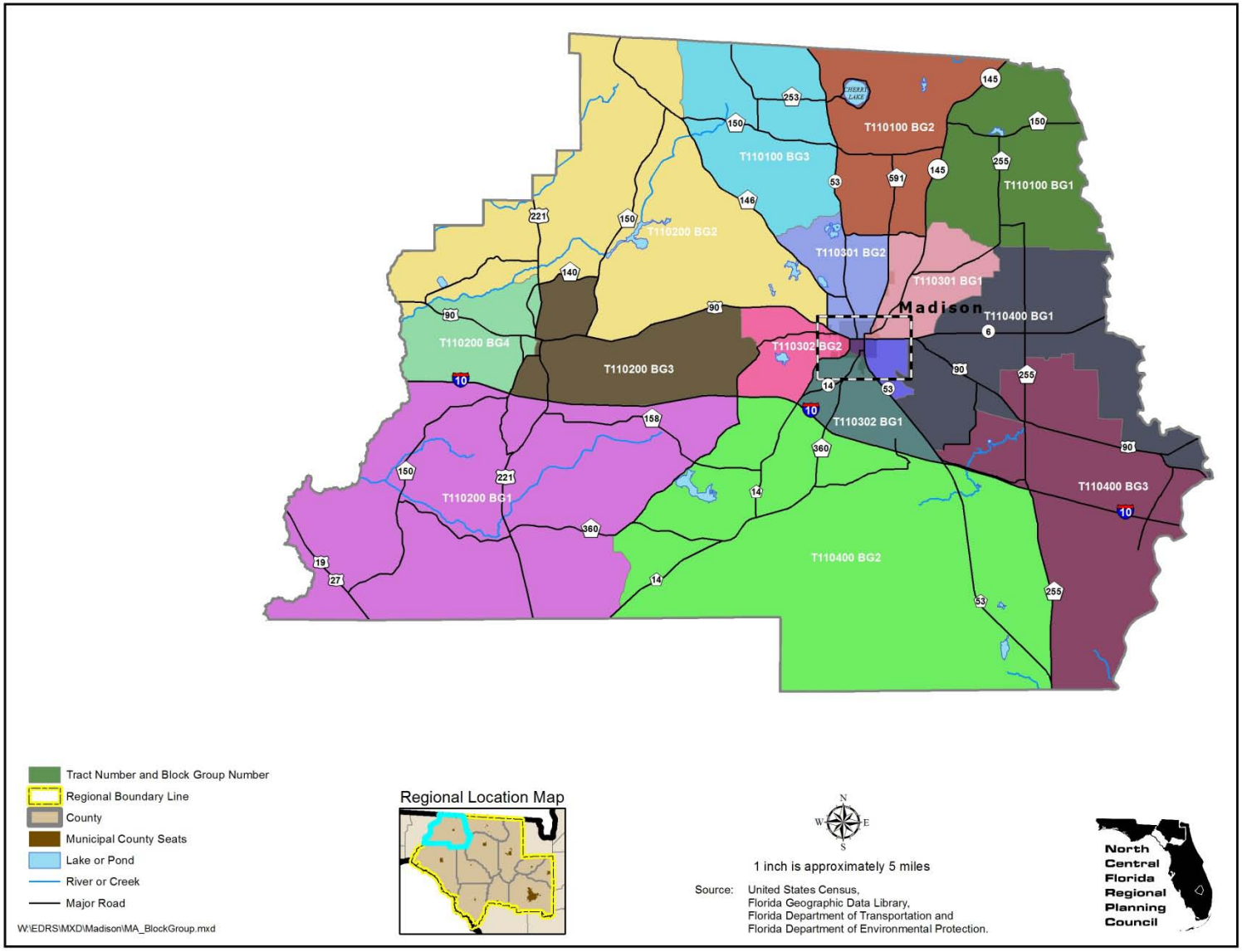


Figure III-18: City of Madison, Madison County Census Block Groups

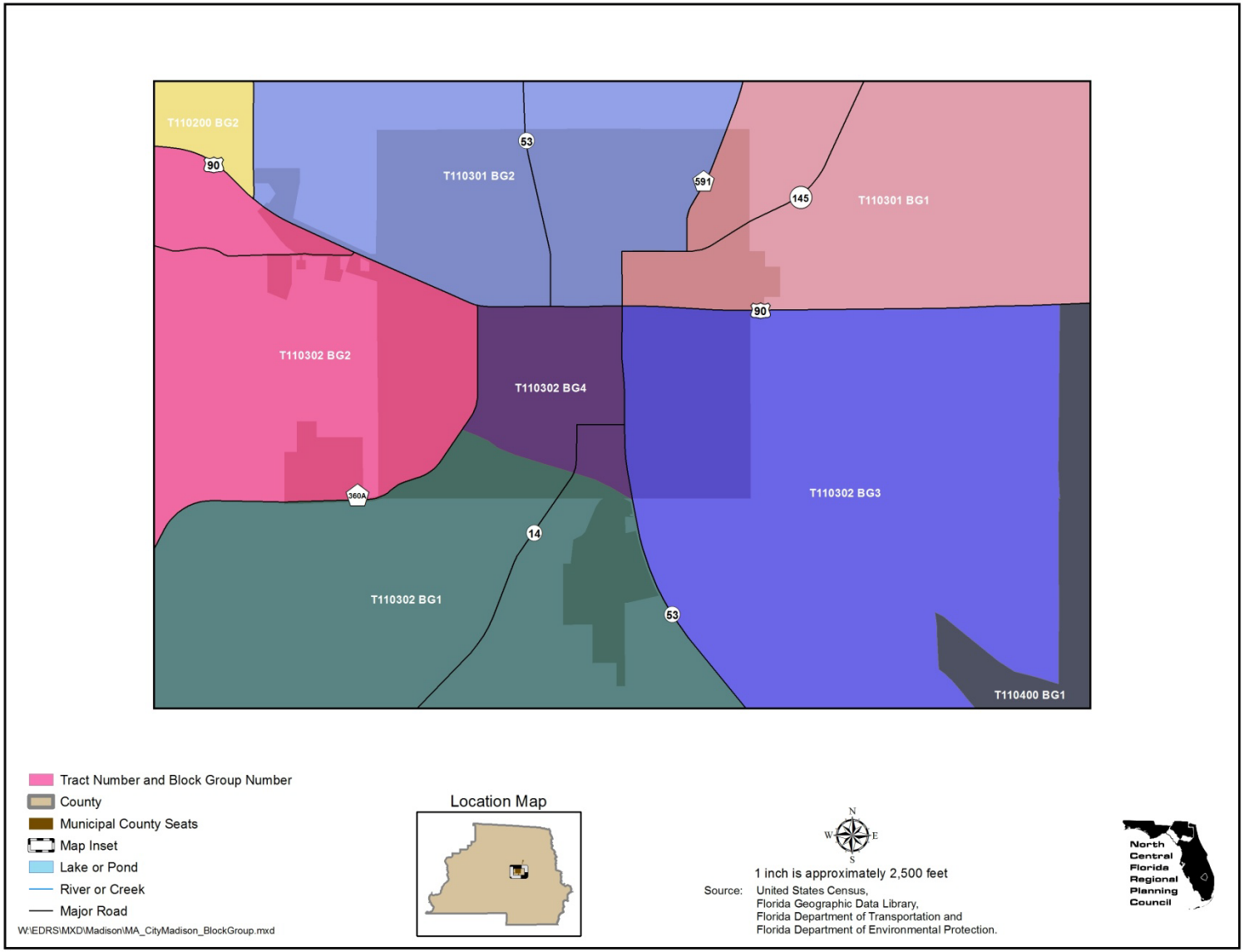


Figure III-19: Suwannee County Census Block Group

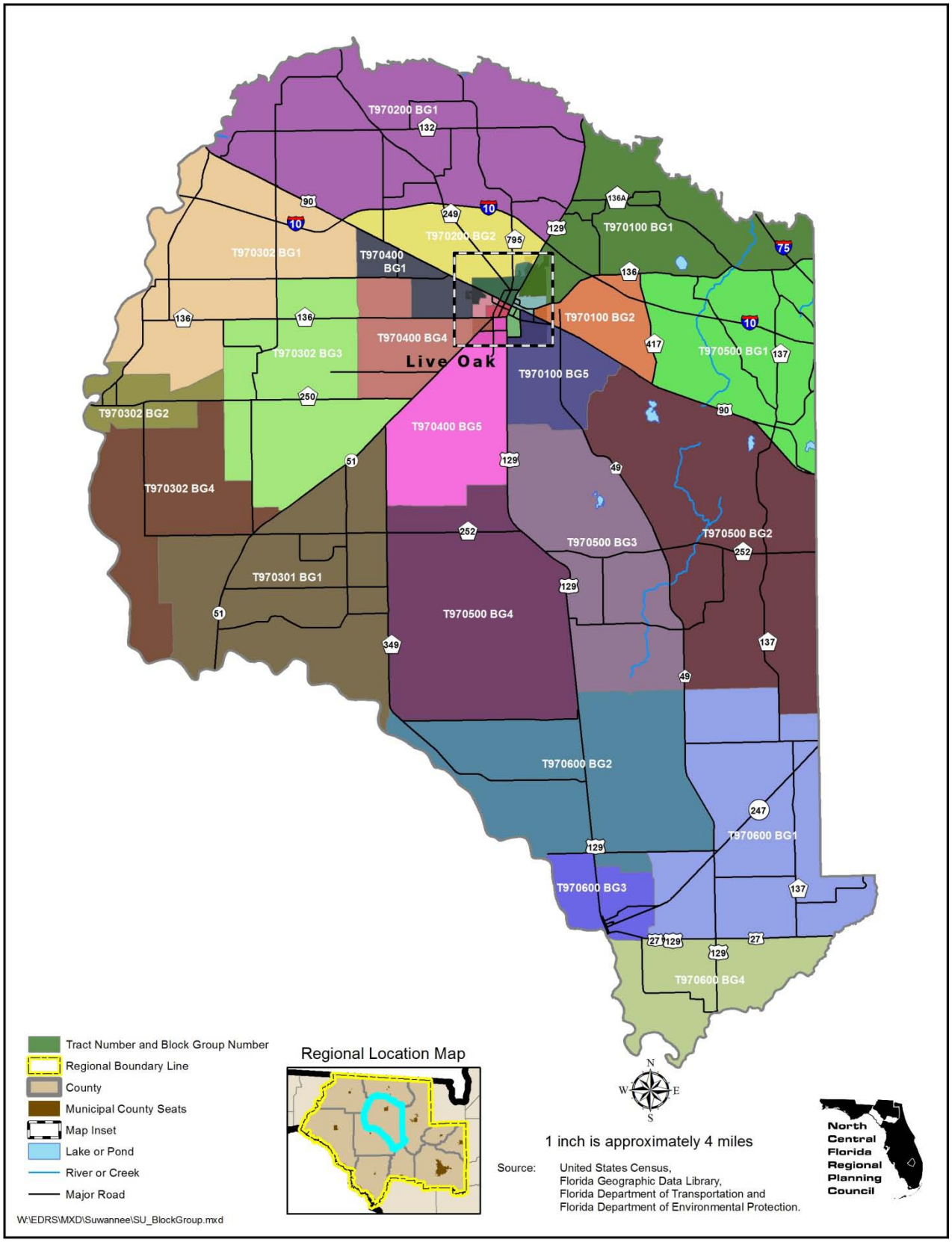


Figure III-20: City of Live Oak, Suwannee County Census Block Group

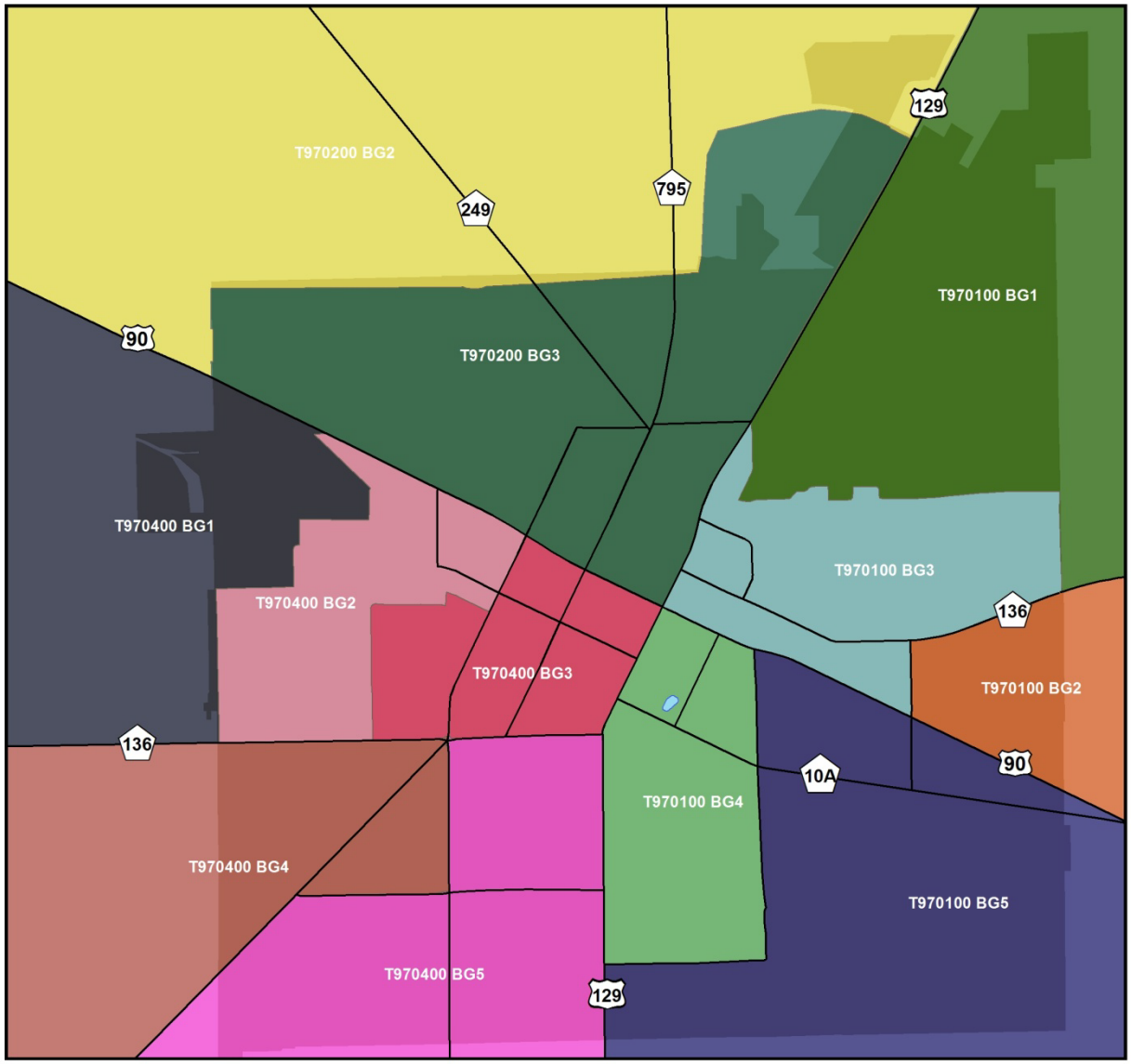


Figure III-21: Taylor County Census Block Group

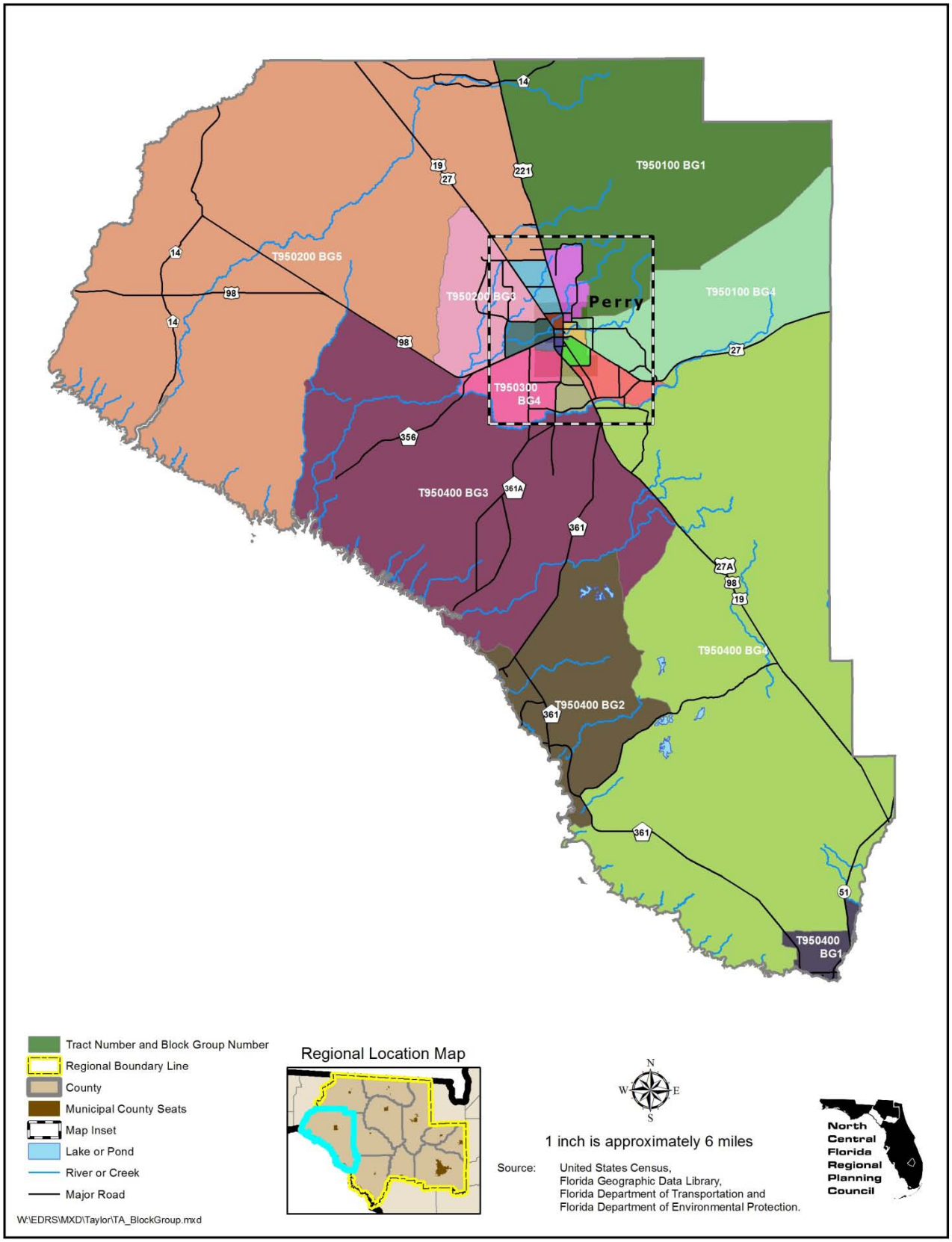


Figure III-22: City of Perry, Taylor County Census Block Group

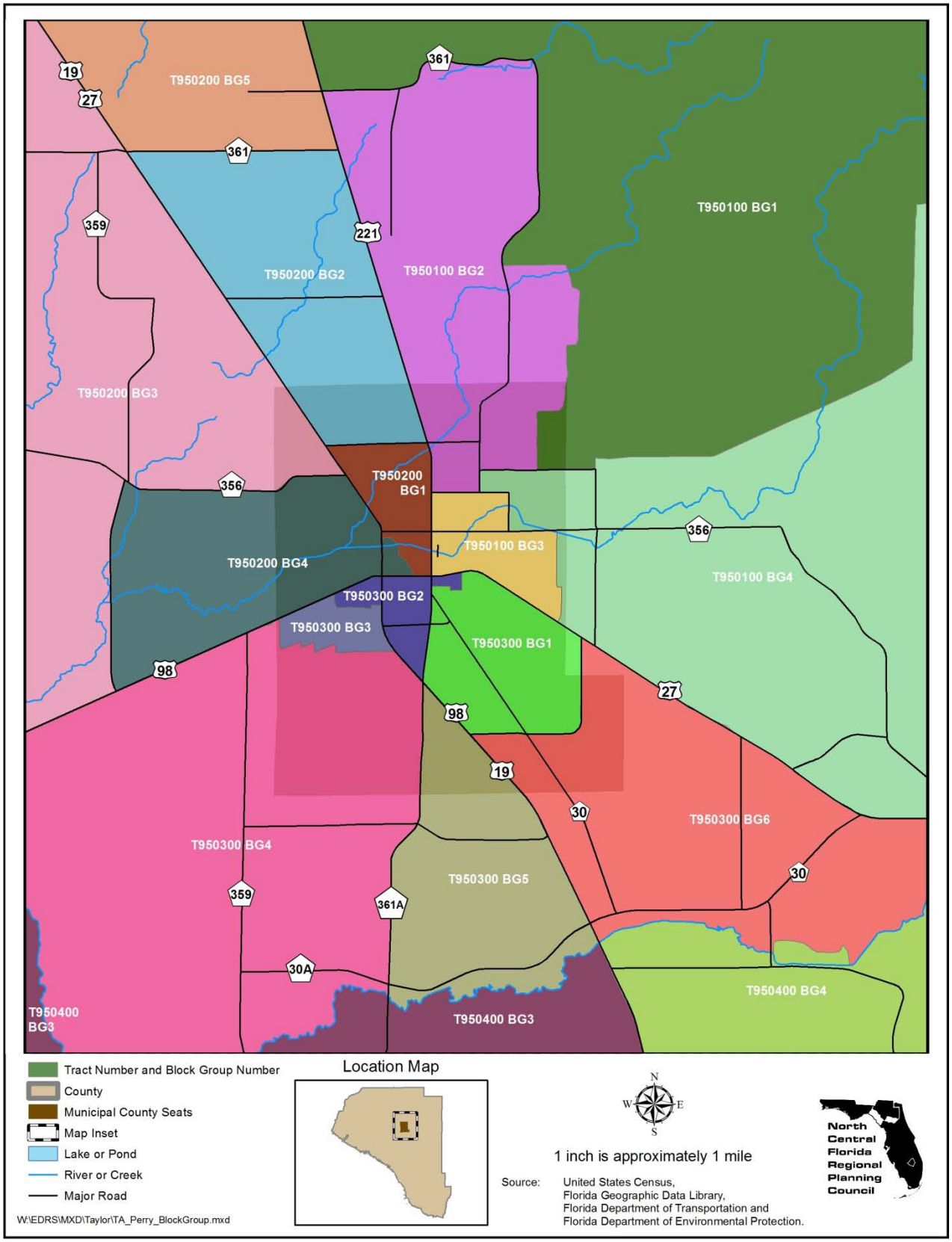


Figure III-23: Union County Census Block Groups

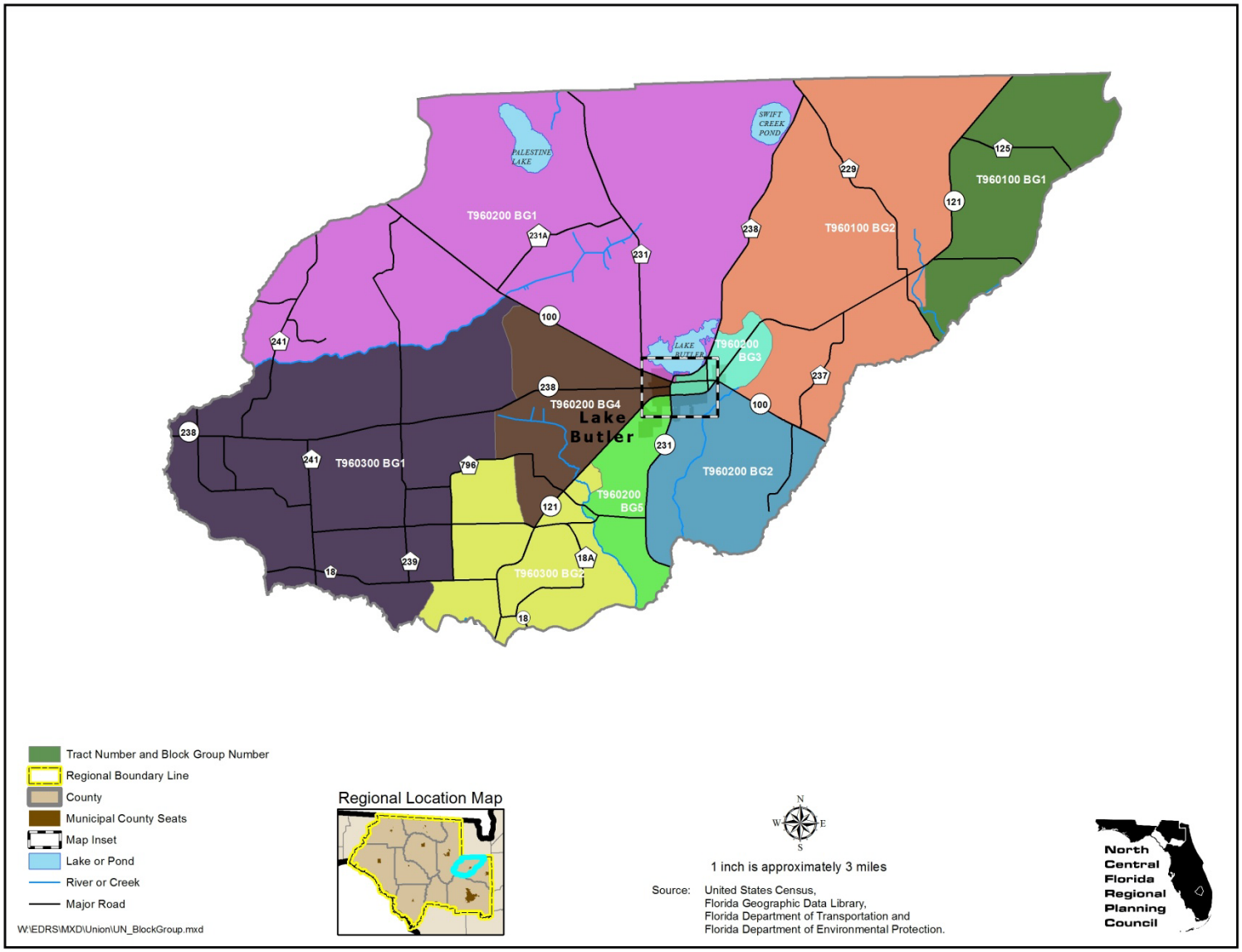
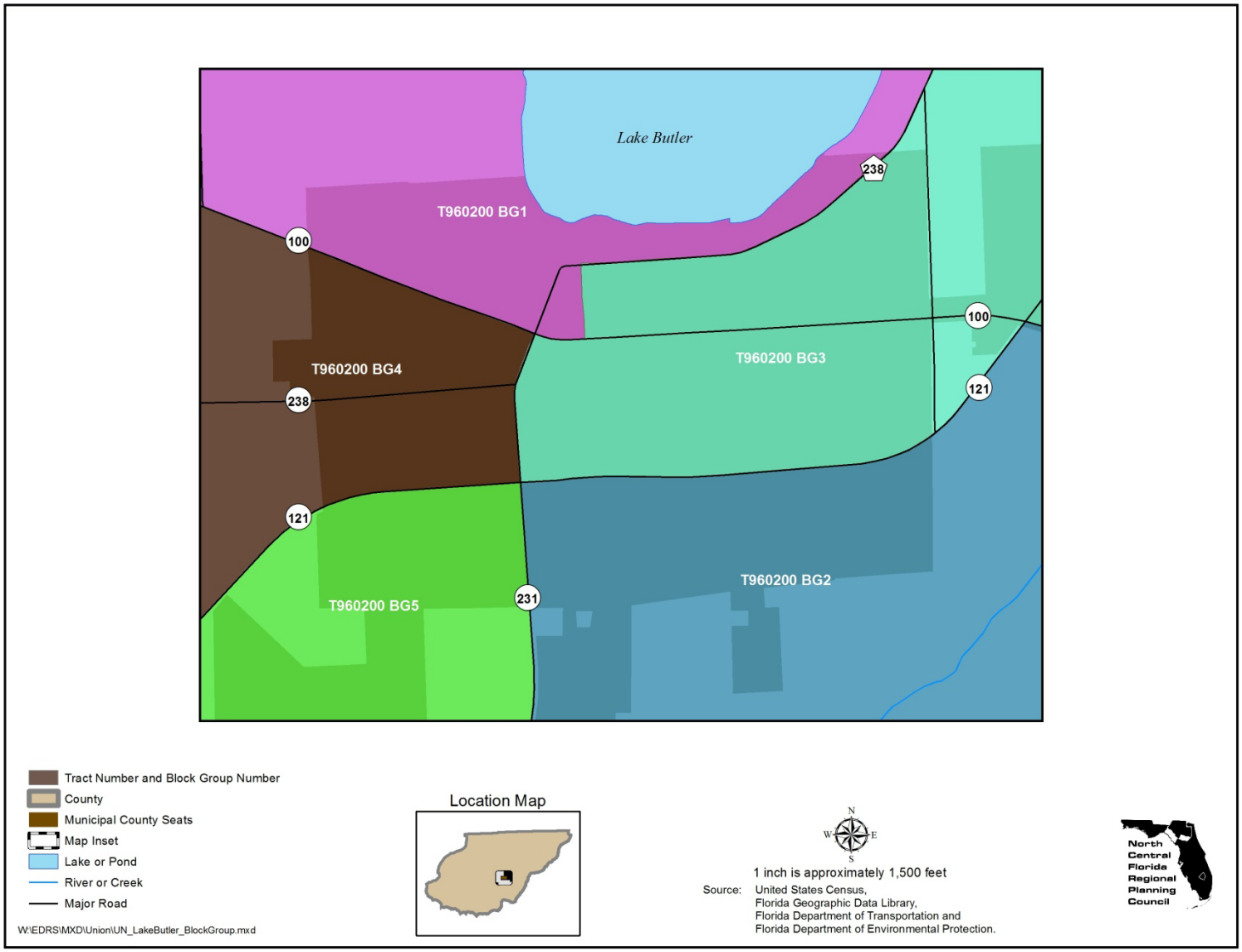


Figure III-24: City of Lake Butler, Union County Census Block Groups



C. Residential Parcels by Year Built

1. North Central Florida

Employees and consumers are vital for maintaining economic prosperity within the market place. The potential loss of residential structures, wherein the employees and consumers reside, could be devastating to the market place. Parcel data maintained by the individual County Property Appraisers was obtained from the Florida Department of Revenue to establish the location and actual year built of residential structures. Only parcels categorized according to Florida Administrative Code Rule 12D-8.007, as defined by the Department of Revenue as being residential were used in the analysis. The location of the parcels was used to identify the appropriate United States Census Block Group. The actual year built of a structure is useful in identifying structures built prior to the 2001 F lorida Building Code, a statewide unified code developed and maintained by the Florida Building Commission. The State of Florida first mandated building codes during the 1970s, but these minimum building codes proved inadequate when impacted by major hurricane events.

Alachua County had the highest number of residential structures built by decade (See Table III-1 and Figure III-25).

2. Alachua County

According to the County Property Appraiser data, there are approximately 71,141 residential structures located within the County. Tract Number 2204, Block Group 2 contains the highest number of residential structures, located west of the City of Gainesville, south of the City of Alachua and east of the City of Newberry in the unincorporated portion of the County (See Table III-2, Figure III-4 and Figure III-26).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 500, Block Group 5, located in the downtown portion of the City of Gainesville (See Table III-2, Figure III-4 and Figure III-26). The highest number of structures built between 1940 and 1949 can be found in Tract Number 1000, Block Group 4, located north of the University of Florida in the City of Gainesville (See Table III-2, Figure III-4 and Figure III-26). The highest number of structures built between 1950 and 1959 can be found in Tract Number 400, Block Group 3, located just north of the downtown portion of the City of Gainesville (See Table III-2, Figure III-4 and Figure III-26). The highest number of structures built between 1960 and 1969 can be found in Tract Number 1702, Block Group 1, located in the western portion of the City of Gainesville (See Table III-2, Figure III-4 and Figure III-26).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 1202, Block Group 1, located in the northwestern portion of the City of Gainesville (See Table III-2, Figure III-4 and Figure III-26). The highest number of structures built between 1980 and 1989 can be found in Tract Number 1701, Block Group 1, located in the unincorporated portion of the County just west of the City of

Gainesville (See Table III-2, Figure III-4 and Figure III-26). The highest number of structures built between 1990 and 1999 can be found in Tract Number 2205, Block Group 1, located in the unincorporated portion of the County, southwest of the City of Gainesville (See Table III-2, Figure III-4 and Figure III-26). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 2209, Block Group 1, located in the unincorporated portion of the County, southwest of the City of Gainesville and northeast of the City of Archer (See Table III-2, Figure III-3, Figure III-4 and Figure III-26).

3. Bradford County

According to the County Property Appraiser data, there are approximately 7,806 residential structures located within the County. Tract Number 300, Block Group 4 contains the highest number of residential structures, located in the southeast portion of the County, adjacent to the City of Keystone Heights, located in Clay County (See Table III-3, Figure III-5 and Figure III-27).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 100, Block Group 5, located south of the City of Starke as well as in the southern portion of the City of Starke (See Table III-3, Figure III-5, Figure III-6 and Figure III-27). The highest number of structures built between 1940 and 1949 can be found in Tract Number 200, Block Group 1, located west-southwest of the City of Starke as well as in the southwest portion of the City of Starke (See Table III-3, Figure III-5, Figure III-6 and Figure III-27). The highest number of structures built between 1950 and 1959 can be found in Tract Number 200, Block Group 2, located west-northwest of the City of Starke as well as in the western portion of the City of Starke (See Table III-3, Figure III-5, Figure III-6 and Figure III-27). The highest number of structures built between 1960 and 1969 can be found in Tract Number 300, Block Group 4, located in the southeast portion of the County, adjacent to the City of Keystone Heights, located in Clay County (See Table III-3, Figure III-5 and Figure III-27).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 300, Block Group 4, located in the southeast portion of the County, adjacent to the City of Keystone Heights, located in Clay County (See Table III-3, Figure III-5 and Figure III-27). The highest number of structures built between 1980 and 1989 can be found in Tract Number 300, Block Group 4, located in the southeast portion of the County, adjacent to the City of Keystone Heights, located in Clay County (See Table III-3, Figure III-5 and Figure III-27). The highest number of structures built between 1990 and 1999 can be found in Tract Number 300, Block Group 4, located in the southeast portion of the County, adjacent to the City of Keystone Heights, located in Clay County (See Table III-3, Figure III-5 and Figure III-27). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 300, Block Group 4, located in the southeast portion of the County, adjacent to the City of Keystone Heights, located in Clay County (See Table III-3, Figure III-5 and Figure III-27).

4. Columbia County

According to the County Property Appraiser data, there are approximately 20,034 residential structures located within the County. Tract Number 110601, Block Group 1 contains the highest number of residential structures, located southwest of the City of Lake City in the unincorporated portion of the County (See Table III-4, Figure III-7, Figure III-8 and Figure III-28).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 110400, Block Group 4, located in the downtown portion of the City of Lake City (See Table III-4, Figure III-8 and Figure III-28). The highest number of structures built between 1940 and 1949 can be found in Tract Number 110400, Block Group 4, located in the downtown portion of the City of Lake City (See Table III-4, Figure III-8 and Figure III-28). The highest number of structures built between 1950 and 1959 can be found in Tract Number 110400, Block Group 2, located in and along the eastern portion of the City of Lake City (See Table III-4, Figure III-8 and Figure III-28). The highest number of structures built between 1960 and 1969 can be found in Tract Number 110800, Block Group 2, located in the unincorporated portion of the County just southeast of the City of Lake City (See Table III-4, Figure III-7, Figure III-8 and Figure III-28).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 110601, Block Group 3, located in the unincorporated portion of the County south-southwest of the City of Lake City (See Table III-4, Figure III-7, Figure III-8 and Figure III-28). The highest number of structures built between 1980 and 1989 can be found in Tract Number 110700, Block Group 3, located in the unincorporated portion of the County just south of Alligator Lake (See Table III-4, Figure III-7, Figure III-8 and Figure III-28). The highest number of structures built between 1990 and 1999 can be found in Tract Number 110601, Block Group 1, located southwest of the City of Lake City in the unincorporated portion of the County (See Table III-4, Figure III-7, Figure III-8 and Figure III-28). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 110601, Block Group 1, located southwest of the City of Lake City in the unincorporated portion of the County (See Table III-4, Figure III-7, Figure III-8 and Figure III-28).

5. Dixie County

According to the County Property Appraiser data, there are approximately 5,291 residential structures located within the County. Tract Number 970200, Block Group 1 contains the highest number of residential structures, contains the unincorporated coastal community of Suwannee and is located in the southern portion of the County (See Table III-5, Figure III-9 and Figure III-29).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 970101, Block Group 1, located east of the Town of Cross City as well as in the eastern portion of the Town of Cross City (See Table III-5, Figure III-9, Figure III-10 and Figure III-29). The highest number of structures built between 1940 and 1949 can be found in Tract Number 1970101, Block Group 1, located east of the Town

of Cross City as well as in the eastern portion of the Town of Cross City (See Table III-5, Figure III-9, Figure III-10 and Figure III-29). The highest number of structures built between 1950 and 1959 can be found in Tract Number 970101, Block Group 1, located east of the Town of Cross City as well as in the eastern portion of the Town of Cross City (See Table III-5, Figure III-9, Figure III-10 and Figure III-29). The highest number of structures built between 1960 and 1969 can be found in Tract Number 970200, Block Group 1, contains the unincorporated coastal community of Suwannee and is located in the southern portion of the County (See Table III-5, Figure III-9 and Figure III-29).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 970200, Block Group 1, contains the unincorporated coastal community of Suwannee and is located in the southern portion of the County (See Table III-5, Figure III-9 and Figure III-29). The highest number of structures built between 1980 and 1989 can be found in Tract Number 970200, Block Group 4, located in the eastern portion of the County just as well as the southeastern portion of the unincorporated community of Old Town (See Table III-5, Figure III-9 and Figure III-29). The highest number of structures built between 1990 and 1999 can be found in Tract Number 970102, Block Group 5, located in the northeastern portion of the County, along the Suwannee River (See Table III-5, Figure III-9 and Figure III-29). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 970200, Block Group 2, contains the unincorporated coastal community of Jena and is located in the western portion of the County (See Table III-5, Figure III-9 and Figure III-29).

6. Gilchrist County

According to the County Property Appraiser data, there are approximately 5,100 residential structures located within the County. Tract Number 950201, Block Group 1 contains the highest number of residential structures, located in the northeastern portion of the County (See Table III-6, Figure III-11 and Figure III-30).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 950204, Block Group 3, located northeast of the City of Trenton as well as in the northeastern portion of the City of Trenton (See Table III-6, Figure III-11, Figure III-12 and Figure III-30). The highest number of structures built between 1940 and 1949 can be found in Tract Number 950204, Block Group 2, located to the east and west of the City of Trenton as well as the southern portion of the City of Trenton (See Table III-6, Figure III-11, Figure III-12 and Figure III-30). The highest number of structures built between 1950 and 1959 can be found in Tract Number 950100, Block Group 3, located in the western portion of the County as well as in the western portion of the Town of Bell (See Table III-6, Figure III-11, and Figure III-30). The highest number of structures built between 1960 and 1969 can be found in Tract Number 950100, Block Group 3, located in the western portion of the County as well as in the western portion of the Town of Bell (See Table III-6, Figure III-11, and Figure III-30).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 950203, Block Group 2, located in the southeastern portion of the County (See

Table III-6, Figure III-11, and Figure III-30). The highest number of structures built between 1980 and 1989 can be found in Tract Number 950203, Block Group 2, located in the southeastern portion of the County (See Table III-6, Figure III-11, and Figure III-30). The highest number of structures built between 1990 and 1999 can be found in Tract Number 950201, Block Group 1, located in the northeastern portion of the County (See Table III-6, Figure III-11, and Figure III-30). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 950201, Block Group 1, located in the northeastern portion of the County (See Table III-6, Figure III-11, and Figure III-30).

7. Hamilton County

According to the County Property Appraiser data, there are approximately 3,826 residential structures located within the County. Tract Number 960100, Block Group 3 contains the highest number of residential structures, located north-northwest of the City of Jasper as well as the northwestern portion of the City of Jasper (See Table III-7, Figure III-13, Figure III-14 and Figure III-31).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 960100, Block Group 5, located just north of the City of Jasper as well as in the northern portion of the City of Jasper (See Table III-7, Figure III-13, Figure III-14 and Figure III-31). The highest number of structures built between 1940 and 1949 can be found in Tract Number 960200, Block Group 2, an area of land west and southwest of the Town of Jennings as well as the Town of Jennings (See Table III-7, Figure III-13 and Figure III-31). The highest number of structures built between 1950 and 1959 can be found in Tract Number 960200, Block Group 2, an area of land west and southwest of the Town of Jennings as well as the Town of Jennings (See Table III-7, Figure III-13 and Figure III-31). The highest number of structures built between 1960 and 1969 can be found in Tract Number 960100, Block Group 3, located north-northwest of the City of Jasper as well as the northwestern portion of the City of Jasper (See Table III-7, Figure III-13, Figure III-14 and Figure III-31).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 960100, Block Group 3, located north-northwest of the City of Jasper as well as the northwestern portion of the City of Jasper (See Table III-7, Figure III-13, Figure III-14 and Figure III-31). The highest number of structures built between 1980 and 1989 can be found in Tract Number 960200, Block Group 1, located in the southwestern of the County (See Table III-7, Figure III-13 and Figure III-31). The highest number of structures built between 1990 and 1999 can be found in Tract Number 960200, Block Group 3, located in the northwestern portion of the County (See Table III-7, Figure III-13 and Figure III-31). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 960200, Block Group 3, located in the northwestern portion of the County (See Table III-7, Figure III-13 and Figure III-31).

8. Lafayette County

According to the County Property Appraiser data, there are approximately 1,718 residential structures located within the County. Tract Number 960200, Block Group 4 contains the highest number of residential structures, located in the southeastern portion of the County (See Table III-8, Figure III-15 and Figure III-32).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 960200, Block Group 1, located east of the Town of Mayo as well as the northeastern portion of the Town of Mayo (See Table III-8, Figure III-15, Figure III-16 and Figure III-32). The highest number of structures built between 1940 and 1949 can be found in Tract Number 960200, Block Group 1, located east of the Town of Mayo as well as the northeastern portion of the Town of Mayo (See Table III-8, Figure III-15, Figure III-16 and Figure III-32). The highest number of structures built between 1950 and 1959 can be found in Tract Number 960200, Block Group 1, located east of the Town of Mayo as well as the northeastern portion of the Town of Mayo (See Table III-8, Figure III-15, Figure III-16 and Figure III-32). The highest number of structures built between 1960 and 1969 can be found in Tract Number 960200, Block Group 1, located east of the Town of Mayo as well as the northeastern portion of the Town of Mayo (See Table III-8, Figure III-15, Figure III-16 and Figure III-32).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 960200, Block Group 4, located in the southeastern portion of the County (See Table III-8, Figure III-15 and Figure III-32). The highest number of structures built between 1980 and 1989 can be found in Tract Number 960200, Block Group 4, located in the southeastern portion of the County (See Table III-8, Figure III-15 and Figure III-32). The highest number of structures built between 1990 and 1999 can be found in Tract Number 960200, Block Group 4, located in the southeastern portion of the County (See Table III-8, Figure III-15 and Figure III-32). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 960200, Block Group 1, located east of the Town of Mayo as well as the northeastern portion of the Town of Mayo (See Table III-8, Figure III-15, Figure III-16 and Figure III-32).

9. Madison County

According to the County Property Appraiser data, there are approximately 4,861 residential structures located within the County. Tract Number 110100, Block Group 2 contains the highest number of residential structures, located in the north central portion of the County, north of the City of Madison (See Table III-9, Figure III-17 and Figure III-33).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 110302, Block Group 4, located in the central portion of the City of Madison (See Table III-9, Figure III-18 and Figure III-33). The highest number of structures built between 1940 and 1949 can be found in Tract Number 110302, Block Group 4, located in the central portion of the City of Madison (See Table III-9, Figure III-18 and Figure III-33). The highest number of structures built between 1950 and 1959 can be found in Tract Number 110302, Block Group 1, located south of the City of

Madison as well as the southern portion of the City of Madison (See Table III-9, Figure III-17, Figure III-18 and Figure III-33). The highest number of structures built between 1960 and 1969 can be found in Tract Number 110301, Block Group 2, located just north of the City of Madison as well as in the northern portion of the City of Madison (See Table III-9, Figure III-17, Figure III-18 and Figure III-33).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 110302, Block Group 3, located just southeast of the City of Madison as well the southeastern portion of the City of Madison (See Table III-9, Figure III-17, Figure III-18 and Figure III-33). The highest number of structures built between 1980 and 1989 can be found in Tract Number 110100, Block Group 2, located in the north central portion of the County, north of the City of Madison (See Table III-9, Figure III-17 and Figure III-33). The highest number of structures built between 1990 and 1999 can be found in Tract Number 110301, Block Group 1, located just north of the City of Madison as well as in the northern portion of the City of Madison (See Table III-9, Figure III-17, Figure III-18 and Figure III-33). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 110400, Block Group 1, located in the south central portion of the County, south of the City of Madison (See Table III-9, Figure III-17 and Figure III-33).

10. Suwannee County

According to the County Property Appraiser data, there are approximately 11,569 residential structures located within the County. Tract Number 970500, Block Group 2 contains the highest number of residential structures, located along the eastern portion of the County (See Table III-10, Figure III-19 and Figure III-34).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 970200, Block Group 3, located in the northern portion of the City of Live Oak (See Table III-10, Figure III-20 and Figure III-34). The highest number of structures built between 1940 and 1949 can be found in Tract Number 970100, Block Group 4, located in the central portion of the City of Live Oak (See Table III-10, Figure III-20 and Figure III-34). The highest number of structures built between 1950 and 1959 can be found in Tract Number 970100, Block Group 4, located in the central portion of the City of Live Oak (See Table III-10, Figure III-20 and Figure III-34). The highest number of structures built between 1960 and 1969 can be found in Tract Number 970100, Block Group 4, located in the central portion of the City of Live Oak (See Table III-10, Figure III-20 and Figure III-34).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 970400, Block Group 4, located southwest of the City of Live oak as well as the southwest portion of the City of Live Oak (See Table III-10, Figure III-19, Figure III-20 and Figure III-34). The highest number of structures built between 1980 and 1989 can be found in Tract Number 970302, Block Group 1, located in the southwestern portion of the County (See Table III-10, Figure III-19 and Figure III-34). The highest number of structures built between 1990 and 1999 can be found in Tract Number 970500, Block Group 2, located along the eastern portion of the County (See Table III-10, Figure III-19 and Figure III-34). The highest number of recently built residential

structures are; built between 2000 and 2010, are located in Tract Number 970500, Block Group 2, located along the eastern portion of the County (See Table III-10, Figure III-19 and Figure III-34).

11. Taylor County

According to the County Property Appraiser data, there are approximately 7,652 residential structures located within the County. Tract Number 950400, Block Group 1 contains the highest number of residential structures, is located in the unincorporated coastal community of Steinhatchee (See Table III-11, Figure III-21 and Figure III-35).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 950200, Block Group 1, located in the northwest portion of the City of Perry (See Table III-11, Figure III-22 and Figure III-35). The highest number of structures built between 1940 and 1949 can be found in Tract Number 950200, Block Group 1, located in the northwest portion of the City of Perry (See Table III-11, Figure III-22 and Figure III-35). The highest number of structures built between 1950 and 1959 can be found in Tract Number 950200, Block Group 1, located in the northwest portion of the City of Perry (See Table III-11, Figure III-22 and Figure III-35). The highest number of structures built between 1960 and 1969 can be found in Tract Number 950400, Block Group 1, located in the unincorporated coastal community of Steinhatchee (See Table III-11, Figure III-21 and Figure III-35).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 950100, Block Group 2, located northeast of the City of Perry as well as in the northeastern portion of the City of Perry (See Table III-11, Figure III-21, Figure III-22 and Figure III-35). The highest number of structures built between 1980 and 1989 can be found in Tract Number 950400, Block Group 1, located in the unincorporated coastal community of Steinhatchee (See Table III-11, Figure III-21 and Figure III-35). The highest number of structures built between 1990 and 1999 can be found in Tract Number 950400, Block Group 1, located in the unincorporated coastal community of Steinhatchee (See Table III-11, Figure III-21 and Figure III-35). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 950400, Block Group 2, located in the southern portion of the County and contains the unincorporated coastal communities of Dekle Beach and Keaton Beach (See Table III-11, Figure III-21 and Figure III-35).

12. Union County

According to the County Property Appraiser data, there are approximately 1,793 residential structures located within the County. Tract Number 960300, Block Group 1 contains the highest number of residential structures, located in the southwestern portion of the County (See Table III-12, Figure III-23 and Figure III-36).

The oldest number of residential structures; built between 1853 and 1939, are located in Tract Number 960200, Block Group 3, located northeast of the City of Lake Butler as well as the northeastern portion of the City of Lake Butler (See Table III-12, Figure III-23, Figure III-24 and Figure III-36). The highest number of structures built between

1940 and 1949 can be found in Tract Number 960200, Block Group 3, located northeast of the City of Lake Butler as well as the northeastern portion of the City of Lake Butler (See Table III-12, Figure III-23, Figure III-24 and Figure III-36). The highest number of structures built between 1950 and 1959 can be found in Tract Number 960200, Block Group 3, located northeast of the City of Lake Butler as well as the northeastern portion of the City of Lake Butler (See Table III-12, Figure III-23, Figure III-24 and Figure III-36). The highest number of structures built between 1960 and 1969 can be found in Tract Number 960200, Block Group 3, located northeast of the City of Lake Butler as well as the northeastern portion of the City of Lake Butler (See Table III-12, Figure III-23, Figure III-24 and Figure III-36).

The highest number of structures built between 1970 and 1979 can be found in Tract Number 960200, Block Group 3, located northeast of the City of Lake Butler as well as the northeastern portion of the City of Lake Butler (See Table III-12, Figure III-23, Figure III-24 and Figure III-36). The highest number of structures built between 1980 and 1989 can be found in Tract Number 960300, Block Group 1, located in the southwestern portion of the County (See Table III-12, Figure III-23 and Figure III-36). The highest number of structures built between 1990 and 1999 can be found in Tract Number 960300, Block Group 1, located in the southwestern portion of the County (See Table III-12, Figure III-23 and Figure III-36). The highest number of recent built residential structures are; built between 2000 and 2010, are located in Tract Number 960300, Block Group 1, located in the southwestern portion of the County (See Table III-12, Figure III-23 and Figure III-36).

Figure III-25: North Central Florida Residential Parcels by Year Built

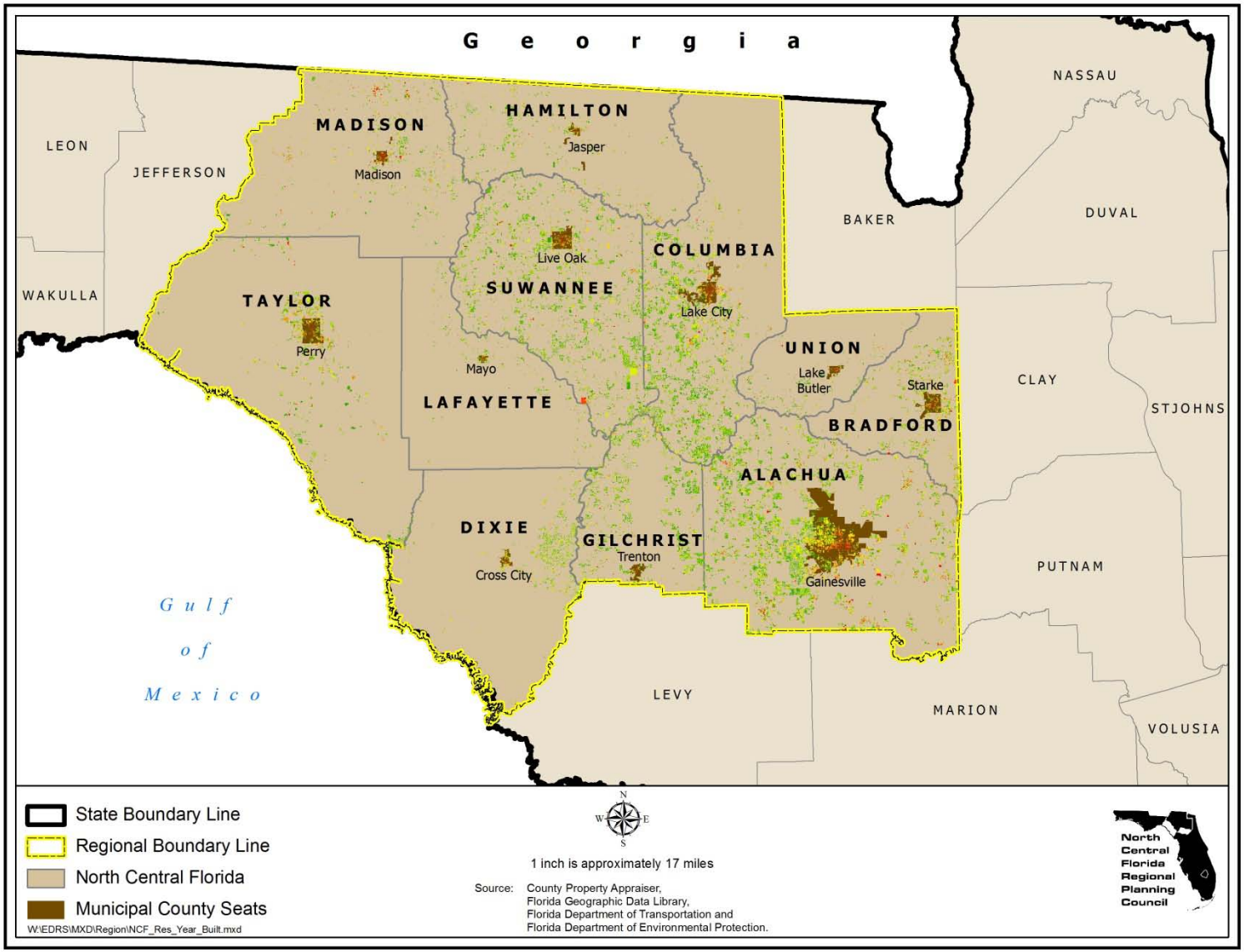


Table III-1: North Central Florida Regional Parcels by Year Built

Census Block Group	Residential structures by decade built							
County	1900-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
ALACHUA	2,632	2,499	5,157	7,620	11,910	15,112	12,496	13,715
	46.57%	45.67%	52.15%	52.57%	53.71%	52.93%	43.74%	52.77%
BRADFORD	273	575	766	916	1,351	1,531	1,299	1,095
	4.83%	10.51%	7.75%	6.32%	6.09%	5.36%	4.55%	4.21%
COLUMBIA	653	766	1,134	1,854	2,858	3,444	5,055	4,270
	11.55%	14.00%	11.47%	12.79%	12.89%	12.06%	17.69%	16.43%
DIXIE	41	67	190	1,075	954	1,268	1,198	498
	0.73%	1.22%	1.92%	7.42%	4.30%	4.44%	4.19%	1.92%
GILCHRIST	113	111	116	284	855	1,096	1,323	1,202
	2.00%	2.03%	1.17%	1.96%	3.86%	3.84%	4.63%	4.62%
HAMILTON	167	233	295	374	678	620	880	579
	2.95%	4.26%	2.98%	2.58%	3.06%	2.17%	3.08%	2.23%
LAFAYETTE	86	64	80	83	160	592	371	282
	1.52%	1.17%	0.81%	0.57%	0.72%	2.07%	1.30%	1.08%
MADISON	489	399	477	545	782	750	842	577
	8.65%	7.29%	4.82%	3.76%	3.53%	2.63%	2.95%	2.22%
SUWANNEE	442	364	561	756	1,544	2,464	3,160	2,278
	7.82%	6.65%	5.67%	5.22%	6.96%	8.63%	11.06%	8.76%
TAYLOR	618	341	1,002	804	838	1,539	1,500	1,010
	10.93%	6.23%	10.13%	5.55%	3.78%	5.39%	5.25%	3.89%
UNION	138	53	110	185	244	133	445	485
	2.44%	0.97%	1.11%	1.28%	1.10%	0.47%	1.56%	1.87%
Total number of residential structures by decade built	5,652	5,472	9,888	14,496	22,174	28,549	28,569	25,991
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser and North Central Florida Regional Planning Council.

Figure III-26: Alachua County Residential Parcels by Year Built

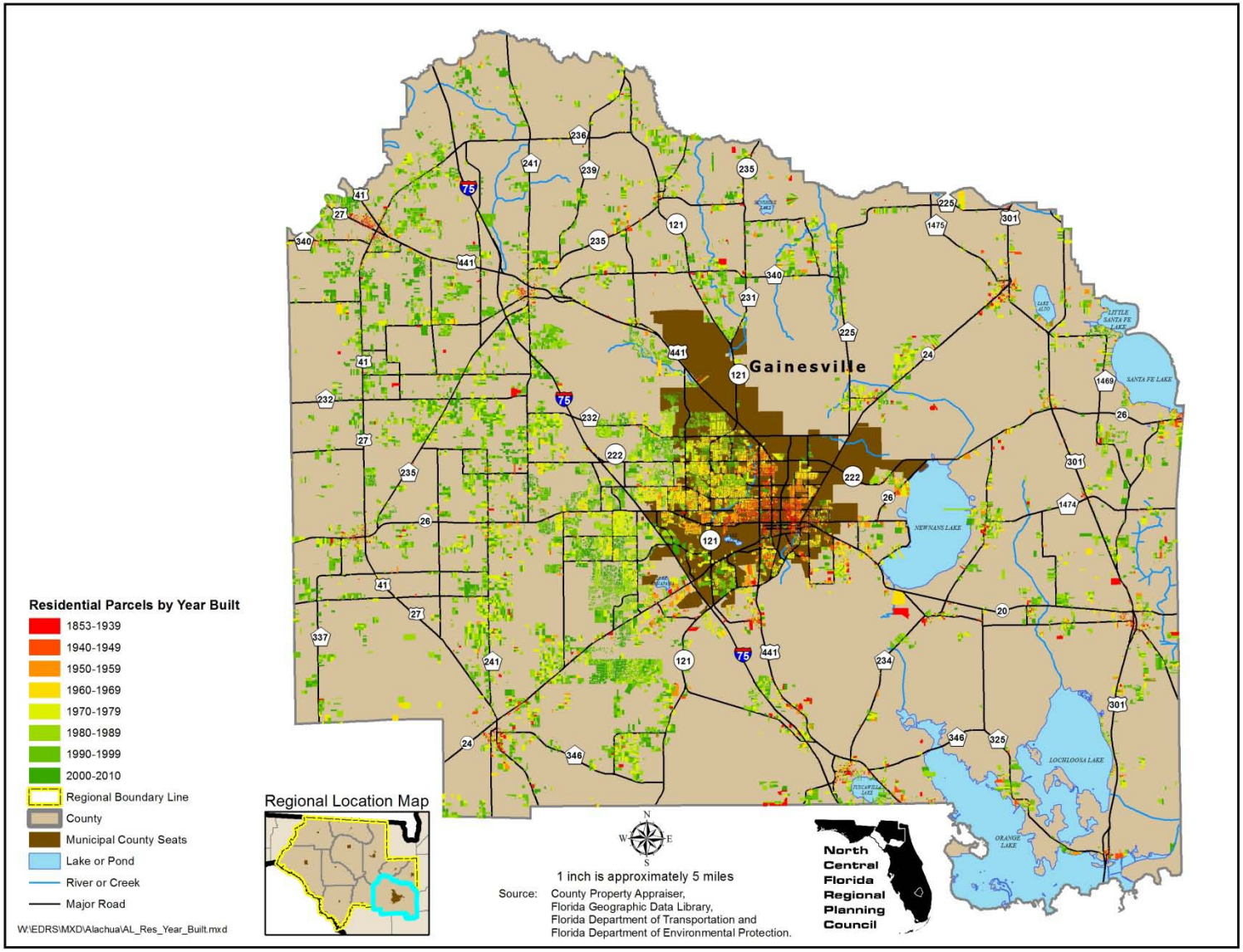


Table III-2: Alachua County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T1000 BG1	3	61	201	47	25	5	3	7
	0.11%	2.44%	3.90%	0.62%	0.21%	0.03%	0.02%	0.05%
T1000 BG2	61	110	169	78	88	43	16	16
	2.32%	4.40%	3.28%	1.02%	0.74%	0.28%	0.13%	0.12%
T1000 BG3	51	21	9	12	7	12	11	145
	1.94%	0.84%	0.17%	0.16%	0.06%	0.08%	0.09%	1.06%
T1000 BG4	83	201	148	34	11	9	9	6
	3.15%	8.04%	2.87%	0.45%	0.09%	0.06%	0.07%	0.04%
T1000 BG5	1	3	65	115	50	88	14	1
	0.04%	0.12%	1.26%	1.51%	0.42%	0.58%	0.11%	0.01%
T1100 BG1	0	0	8	102	350	87	6	7
	0.00%	0.00%	0.16%	1.34%	2.94%	0.58%	0.05%	0.05%
T1100 BG2	0	0	7	127	68	418	21	63
	0.00%	0.00%	0.14%	1.67%	0.57%	2.77%	0.17%	0.46%
T1100 BG3	1	0	40	218	203	200	39	51
	0.04%	0.00%	0.78%	2.86%	1.70%	1.32%	0.31%	0.37%
T1100 BG4	2	1	20	251	206	186	22	19
	0.08%	0.04%	0.39%	3.29%	1.73%	1.23%	0.18%	0.14%
T110800 BG1	3	22	137	99	130	20	28	74
	0.11%	0.88%	2.66%	1.30%	1.09%	0.13%	0.22%	0.54%
T1201 BG1	0	2	19	174	339	43	250	165
	0.00%	0.08%	0.37%	2.28%	2.85%	0.28%	2.00%	1.20%
T1202 BG1	0	0	0	1	484	348	31	17
	0.00%	0.00%	0.00%	0.01%	4.06%	2.30%	0.25%	0.12%
T1202 BG2	1	3	5	15	140	201	70	160
	0.04%	0.12%	0.10%	0.20%	1.18%	1.33%	0.56%	1.17%
T1202 BG3	1	0	1	0	100	31	8	0
	0.04%	0.00%	0.02%	0.00%	0.84%	0.21%	0.06%	0.00%
T1202 BG4	0	1	1	60	302	4	0	1
	0.00%	0.04%	0.02%	0.79%	2.54%	0.03%	0.00%	0.01%
T1202 BG5	0	0	8	63	70	67	279	186
	0.00%	0.00%	0.16%	0.83%	0.59%	0.44%	2.23%	1.36%
T1203 BG1	21	42	146	192	222	167	25	21
	0.80%	1.68%	2.83%	2.52%	1.86%	1.11%	0.20%	0.15%
T1203 BG2	0	0	0	1	178	96	1	52
	0.00%	0.00%	0.00%	0.01%	1.49%	0.64%	0.01%	0.38%

Table III-2: Alachua County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T1400 BG1	1	5	175	89	69	2	1	98
	0.04%	0.20%	3.39%	1.17%	0.58%	0.01%	0.01%	0.71%
T1400 BG2	5	15	105	115	59	33	13	20
	0.19%	0.60%	2.04%	1.51%	0.50%	0.22%	0.10%	0.15%
T1400 BG3	2	2	15	47	13	21	18	22
	0.08%	0.08%	0.29%	0.62%	0.11%	0.14%	0.14%	0.16%
T1514 BG1	0	0	0	1	3	0	168	0
	0.00%	0.00%	0.00%	0.01%	0.03%	0.00%	1.34%	0.00%
T1514 BG2	0	0	1	1	0	1	0	1
	0.00%	0.00%	0.02%	0.01%	0.00%	0.01%	0.00%	0.01%
T1515 BG1	1	1	7	5	1	304	212	9
	0.04%	0.04%	0.14%	0.07%	0.01%	2.01%	1.70%	0.07%
T1515 BG2	0	0	1	0	29	22	1	1
	0.00%	0.00%	0.02%	0.00%	0.24%	0.15%	0.01%	0.01%
T1515 BG3	0	1	2	3	61	109	1	177
	0.00%	0.04%	0.04%	0.04%	0.51%	0.72%	0.01%	1.29%
T1516 BG1	0	0	2	0	0	19	151	63
	0.00%	0.00%	0.04%	0.00%	0.00%	0.13%	1.21%	0.46%
T1516 BG2	0	0	1	0	0	208	181	2
	0.00%	0.00%	0.02%	0.00%	0.00%	1.38%	1.45%	0.01%
T1517 BG1	0	0	0	5	3	235	64	95
	0.00%	0.00%	0.00%	0.07%	0.03%	1.56%	0.51%	0.69%
T1517 BG2	0	0	0	2	7	113	96	119
	0.00%	0.00%	0.00%	0.03%	0.06%	0.75%	0.77%	0.87%
T1519 BG1	0	0	19	9	3	4	4	3
	0.00%	0.00%	0.37%	0.12%	0.03%	0.03%	0.03%	0.02%
T1520 BG1	0	0	1	9	23	105	73	128
	0.00%	0.00%	0.02%	0.12%	0.19%	0.69%	0.58%	0.93%
T1521 BG1	1	0	1	2	1	372	0	150
	0.04%	0.00%	0.02%	0.03%	0.01%	2.46%	0.00%	1.09%
T1521 BG2	2	2	0	1	19	0	0	1
	0.08%	0.08%	0.00%	0.01%	0.16%	0.00%	0.00%	0.01%
T1521 BG3	0	0	0	5	7	2	0	1
	0.00%	0.00%	0.00%	0.07%	0.06%	0.01%	0.00%	0.01%
T1603 BG1	3	2	269	152	125	18	38	40
	0.11%	0.08%	5.22%	1.99%	1.05%	0.12%	0.30%	0.29%
T1604 BG1	1	4	32	69	74	282	113	67

Table III-2: Alachua County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
	0.04%	0.16%	0.62%	0.91%	0.62%	1.87%	0.90%	0.49%
T1604 BG2	2	0	122	146	35	8	5	2
	0.08%	0.00%	2.37%	1.92%	0.29%	0.05%	0.04%	0.01%
T1604 BG3	0	0	0	4	1	0	0	0
	0.00%	0.00%	0.00%	0.05%	0.01%	0.00%	0.00%	0.00%
T1604 BG4	0	0	0	0	160	228	96	24
	0.00%	0.00%	0.00%	0.00%	1.34%	1.51%	0.77%	0.17%
T1701 BG1	2	3	21	64	166	524	203	15
	0.08%	0.12%	0.41%	0.84%	1.39%	3.47%	1.62%	0.11%
T1701 BG2	1	3	3	1	137	210	205	26
	0.04%	0.12%	0.06%	0.01%	1.15%	1.39%	1.64%	0.19%
T1702 BG1	0	3	152	492	163	68	30	2
	0.00%	0.12%	2.95%	6.46%	1.37%	0.45%	0.24%	0.01%
T1702 BG2	2	0	15	264	229	87	23	82
	0.08%	0.00%	0.29%	3.46%	1.92%	0.58%	0.18%	0.60%
T1702 BG3	0	0	19	178	150	51	54	11
	0.00%	0.00%	0.37%	2.34%	1.26%	0.34%	0.43%	0.08%
T1801 BG1	6	2	5	19	72	31	55	88
	0.23%	0.08%	0.10%	0.25%	0.60%	0.21%	0.44%	0.64%
T1801 BG2	4	1	12	36	56	40	83	154
	0.15%	0.04%	0.23%	0.47%	0.47%	0.26%	0.66%	1.12%
T1801 BG3	115	68	67	54	58	80	108	140
	4.37%	2.72%	1.30%	0.71%	0.49%	0.53%	0.86%	1.02%
T1801 BG4	11	3	10	28	66	98	170	143
	0.42%	0.12%	0.19%	0.37%	0.55%	0.65%	1.36%	1.04%
T1801 BG5	22	11	11	34	58	73	111	77
	0.84%	0.44%	0.21%	0.45%	0.49%	0.48%	0.89%	0.56%
T1802 BG1	13	5	24	65	59	94	38	83
	0.49%	0.20%	0.47%	0.85%	0.50%	0.62%	0.30%	0.61%
T1802 BG2	2	4	4	10	87	91	91	23
	0.08%	0.16%	0.08%	0.13%	0.73%	0.60%	0.73%	0.17%
T1802 BG3	8	5	9	25	8	29	27	24
	0.30%	0.20%	0.17%	0.33%	0.07%	0.19%	0.22%	0.17%
T1803 BG1	0	0	0	0	437	8	0	0
	0.00%	0.00%	0.00%	0.00%	3.67%	0.05%	0.00%	0.00%
T1803 BG2	0	0	0	0	80	361	25	4

Table III-2: Alachua County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
	0.00%	0.00%	0.00%	0.00%	0.67%	2.39%	0.20%	0.03%
T1803 BG3	0	0	0	0	283	371	14	7
	0.00%	0.00%	0.00%	0.00%	2.38%	2.46%	0.11%	0.05%
T1803 BG4	0	0	1	0	48	256	776	19
	0.00%	0.00%	0.02%	0.00%	0.40%	1.69%	6.21%	0.14%
T1805 BG1	9	10	45	37	72	98	193	98
	0.34%	0.40%	0.87%	0.49%	0.60%	0.65%	1.54%	0.71%
T1806 BG1	100	27	47	112	116	129	127	172
	3.80%	1.08%	0.91%	1.47%	0.97%	0.85%	1.02%	1.25%
T1806 BG2	16	8	14	45	83	161	221	426
	0.61%	0.32%	0.27%	0.59%	0.70%	1.07%	1.77%	3.11%
T1806 BG3	7	6	10	23	103	136	223	158
	0.27%	0.24%	0.19%	0.30%	0.86%	0.90%	1.78%	1.15%
T1806 BG4	63	13	34	55	50	20	58	74
	2.39%	0.52%	0.66%	0.72%	0.42%	0.13%	0.46%	0.54%
T1811 BG1	0	0	0	0	0	13	17	7
	0.00%	0.00%	0.00%	0.00%	0.00%	0.09%	0.14%	0.05%
T1811 BG2	0	0	0	0	0	2	38	114
	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.30%	0.83%
T1811 BG3	3	2	3	7	197	395	360	392
	0.11%	0.08%	0.06%	0.09%	1.65%	2.61%	2.88%	2.86%
T1811 BG4	0	0	0	1	22	86	24	7
	0.00%	0.00%	0.00%	0.01%	0.18%	0.57%	0.19%	0.05%
T1813 BG1	1	0	2	23	161	303	381	312
	0.04%	0.00%	0.04%	0.30%	1.35%	2.01%	3.05%	2.27%
T1814 BG1	1	2	2	10	142	178	281	574
	0.04%	0.08%	0.04%	0.13%	1.19%	1.18%	2.25%	4.19%
T1902 BG1	0	0	0	0	86	63	0	72
	0.00%	0.00%	0.00%	0.00%	0.72%	0.42%	0.00%	0.52%
T1902 BG2	0	2	3	3	5	6	1	1
	0.00%	0.08%	0.06%	0.04%	0.04%	0.04%	0.01%	0.01%
T1907 BG1	34	24	64	60	92	73	87	88
	1.29%	0.96%	1.24%	0.79%	0.77%	0.48%	0.70%	0.64%
T1907 BG2	33	14	25	20	39	69	61	43
	1.25%	0.56%	0.48%	0.26%	0.33%	0.46%	0.49%	0.31%
T1907 BG3	15	8	26	23	95	73	55	34
	0.57%	0.32%	0.50%	0.30%	0.80%	0.48%	0.44%	0.25%

Table III-2: Alachua County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T1908 BG1	7	7	13	19	60	65	62	44
	0.27%	0.28%	0.25%	0.25%	0.50%	0.43%	0.50%	0.32%
T1908 BG2	11	9	28	44	47	77	59	55
	0.42%	0.36%	0.54%	0.58%	0.39%	0.51%	0.47%	0.40%
T1908 BG3	16	4	10	14	30	121	93	55
	0.61%	0.16%	0.19%	0.18%	0.25%	0.80%	0.74%	0.40%
T1908 BG4	38	29	18	25	22	25	18	16
	1.44%	1.16%	0.35%	0.33%	0.18%	0.17%	0.14%	0.12%
T1908 BG5	13	12	11	31	96	79	125	59
	0.49%	0.48%	0.21%	0.41%	0.81%	0.52%	1.00%	0.43%
T200 BG1	144	67	14	11	3	5	19	3
	5.47%	2.68%	0.27%	0.14%	0.03%	0.03%	0.15%	0.02%
T200 BG2	56	25	8	4	1	34	58	8
	2.13%	1.00%	0.16%	0.05%	0.01%	0.22%	0.46%	0.06%
T200 BG3	114	35	21	8	2	16	8	5
	4.33%	1.40%	0.41%	0.10%	0.02%	0.11%	0.06%	0.04%
T200 BG4	83	24	4	3	1	1	10	35
	3.15%	0.96%	0.08%	0.04%	0.01%	0.01%	0.08%	0.26%
T200 BG5	7	1	1	3	2	0	0	30
	0.27%	0.04%	0.02%	0.04%	0.02%	0.00%	0.00%	0.22%
T200 BG6	46	22	23	68	2	3	8	186
	1.75%	0.88%	0.45%	0.89%	0.02%	0.02%	0.06%	1.36%
T2000 BG1	17	17	23	39	53	79	106	59
	0.65%	0.68%	0.45%	0.51%	0.45%	0.52%	0.85%	0.43%
T2000 BG2	27	33	40	65	105	128	106	85
	1.03%	1.32%	0.78%	0.85%	0.88%	0.85%	0.85%	0.62%
T2000 BG3	22	19	15	40	53	43	36	14
	0.84%	0.76%	0.29%	0.52%	0.45%	0.28%	0.29%	0.10%
T2000 BG4	25	8	25	55	77	97	94	43
	0.95%	0.32%	0.48%	0.72%	0.65%	0.64%	0.75%	0.31%
T2000 BG5	70	46	26	74	82	58	57	54
	2.66%	1.84%	0.50%	0.97%	0.69%	0.38%	0.46%	0.39%
T2101 BG1	48	32	48	71	99	82	63	31
	1.82%	1.28%	0.93%	0.93%	0.83%	0.54%	0.50%	0.23%
T2101 BG2	12	13	12	29	40	69	56	27
	0.46%	0.52%	0.23%	0.38%	0.34%	0.46%	0.45%	0.20%

Table III-2: Alachua County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T2102 BG1	59	11	34	74	53	61	60	48
	2.24%	0.44%	0.66%	0.97%	0.45%	0.40%	0.48%	0.35%
T2201 BG1	4	2	11	14	37	76	129	86
	0.15%	0.08%	0.21%	0.18%	0.31%	0.50%	1.03%	0.63%
T2201 BG2	7	3	15	26	109	172	182	518
	0.27%	0.12%	0.29%	0.34%	0.92%	1.14%	1.46%	3.78%
T2202 BG1	7	4	9	27	175	76	229	356
	0.27%	0.16%	0.17%	0.35%	1.47%	0.50%	1.83%	2.60%
T2202 BG2	4	5	11	28	114	122	127	78
	0.15%	0.20%	0.21%	0.37%	0.96%	0.81%	1.02%	0.57%
T2202 BG3	7	4	24	23	96	92	94	177
	0.27%	0.16%	0.47%	0.30%	0.81%	0.61%	0.75%	1.29%
T2204 BG1	0	0	0	39	27	18	239	171
	0.00%	0.00%	0.00%	0.51%	0.23%	0.12%	1.91%	1.25%
T2204 BG2	0	5	3	18	53	462	497	1025
	0.00%	0.20%	0.06%	0.24%	0.45%	3.06%	3.98%	7.47%
T2204 BG3	0	1	0	9	66	102	171	166
	0.00%	0.04%	0.00%	0.12%	0.55%	0.67%	1.37%	1.21%
T2204 BG4	1	0	2	16	98	48	50	155
	0.04%	0.00%	0.04%	0.21%	0.82%	0.32%	0.40%	1.13%
T2205 BG1	0	0	0	0	0	51	895	639
	0.00%	0.00%	0.00%	0.00%	0.00%	0.34%	7.16%	4.66%
T2205 BG2	0	0	2	3	81	309	145	168
	0.00%	0.00%	0.04%	0.04%	0.68%	2.04%	1.16%	1.22%
T2205 BG3	2	1	4	3	42	156	335	181
	0.08%	0.04%	0.08%	0.04%	0.35%	1.03%	2.68%	1.32%
T2205 BG4	0	0	1	1	92	355	214	279
	0.00%	0.00%	0.02%	0.01%	0.77%	2.35%	1.71%	2.03%
T2207 BG1	1	0	0	17	304	157	12	10
	0.04%	0.00%	0.00%	0.22%	2.55%	1.04%	0.10%	0.07%
T2207 BG2	0	0	0	14	204	202	218	290
	0.00%	0.00%	0.00%	0.18%	1.71%	1.34%	1.74%	2.11%
T2208 BG1	0	3	5	6	148	131	55	83
	0.00%	0.12%	0.10%	0.08%	1.24%	0.87%	0.44%	0.61%
T2208 BG2	1	0	2	12	77	91	154	188
	0.04%	0.00%	0.04%	0.16%	0.65%	0.60%	1.23%	1.37%

Table III-2: Alachua County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T2209 BG1	8	7	13	25	151	282	396	1,071
	0.30%	0.28%	0.25%	0.33%	1.27%	1.87%	3.17%	7.81%
T2209 BG2	66	18	29	69	62	97	82	42
	2.51%	0.72%	0.56%	0.91%	0.52%	0.64%	0.66%	0.31%
T2209 BG3	5	2	3	3	64	120	121	52
	0.19%	0.08%	0.06%	0.04%	0.54%	0.79%	0.97%	0.38%
T2210 BG1	10	7	3	23	57	72	130	65
	0.38%	0.28%	0.06%	0.30%	0.48%	0.48%	1.04%	0.47%
T2210 BG2	16	9	27	21	131	65	101	201
	0.61%	0.36%	0.52%	0.28%	1.10%	0.43%	0.81%	1.47%
T2210 BG3	40	17	24	28	56	84	119	176
	1.52%	0.68%	0.47%	0.37%	0.47%	0.56%	0.95%	1.28%
T2217 BG1	0	0	0	0	284	219	1	182
	0.00%	0.00%	0.00%	0.00%	2.38%	1.45%	0.01%	1.33%
T2217 BG2	0	0	0	0	2	3	1	18
	0.00%	0.00%	0.00%	0.00%	0.02%	0.02%	0.01%	0.13%
T2217 BG3	0	0	0	1	1	130	0	1
	0.00%	0.00%	0.00%	0.01%	0.01%	0.86%	0.00%	0.01%
T2218 BG1	0	0	0	0	29	68	0	1
	0.00%	0.00%	0.00%	0.00%	0.24%	0.45%	0.00%	0.01%
T2218 BG2	0	0	0	0	0	447	30	6
	0.00%	0.00%	0.00%	0.00%	0.00%	2.96%	0.24%	0.04%
T2219 BG1	3	3	16	5	10	26	194	4
	0.11%	0.12%	0.31%	0.07%	0.08%	0.17%	1.55%	0.03%
T2219 BG2	2	3	8	55	80	471	73	94
	0.08%	0.12%	0.16%	0.72%	0.67%	3.12%	0.58%	0.69%
T2219 BG3	1	0	1	1	3	1	1	68
	0.04%	0.00%	0.02%	0.01%	0.03%	0.01%	0.01%	0.50%
T2220 BG1	7	11	38	105	138	143	73	67
	0.27%	0.44%	0.74%	1.38%	1.16%	0.95%	0.58%	0.49%
T301 BG1	50	83	95	51	14	2	32	64
	1.90%	3.32%	1.84%	0.67%	0.12%	0.01%	0.26%	0.47%
T301 BG2	94	200	66	9	28	28	3	5
	3.57%	8.00%	1.28%	0.12%	0.24%	0.19%	0.02%	0.04%
T302 BG1	12	37	112	22	5	12	3	15
	0.46%	1.48%	2.17%	0.29%	0.04%	0.08%	0.02%	0.11%

Table III-2: Alachua County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T302 BG2	3	42	108	44	11	2	0	6
	0.11%	1.68%	2.09%	0.58%	0.09%	0.01%	0.00%	0.04%
T302 BG3	58	188	127	37	33	24	4	24
	2.20%	7.52%	2.46%	0.49%	0.28%	0.16%	0.03%	0.17%
T400 BG1	0	0	0	185	46	0	0	0
	0.00%	0.00%	0.00%	2.43%	0.39%	0.00%	0.00%	0.00%
T400 BG2	11	12	150	280	7	0	4	2
	0.42%	0.48%	2.91%	3.67%	0.06%	0.00%	0.03%	0.01%
T400 BG3	1	2	351	7	0	5	1	0
	0.04%	0.08%	6.81%	0.09%	0.00%	0.03%	0.01%	0.00%
T400 BG4	2	3	83	428	162	11	1	6
	0.08%	0.12%	1.61%	5.62%	1.36%	0.07%	0.01%	0.04%
T500 BG1	145	36	16	10	22	25	7	149
	5.51%	1.44%	0.31%	0.13%	0.18%	0.17%	0.06%	1.09%
T500 BG2	0	141	137	4	5	0	0	0
	0.00%	5.64%	2.66%	0.05%	0.04%	0.00%	0.00%	0.00%
T500 BG3	103	117	166	8	4	6	1	8
	3.91%	4.68%	3.22%	0.10%	0.03%	0.04%	0.01%	0.06%
T500 BG4	77	84	118	31	17	4	3	9
	2.93%	3.36%	2.29%	0.41%	0.14%	0.03%	0.02%	0.07%
T500 BG5	157	23	14	6	9	12	3	2
	5.97%	0.92%	0.27%	0.08%	0.08%	0.08%	0.02%	0.01%
T600 BG1	6	16	91	119	85	13	28	116
	0.23%	0.64%	1.76%	1.56%	0.71%	0.09%	0.22%	0.85%
T600 BG2	26	70	44	36	21	12	4	23
	0.99%	2.80%	0.85%	0.47%	0.18%	0.08%	0.03%	0.17%
T600 BG3	16	37	92	104	58	20	16	70
	0.61%	1.48%	1.78%	1.36%	0.49%	0.13%	0.13%	0.51%
T700 BG1	43	80	71	40	8	4	6	14
	1.63%	3.20%	1.38%	0.52%	0.07%	0.03%	0.05%	0.10%
T700 BG2	62	15	129	182	50	10	18	24
	2.36%	0.60%	2.50%	2.39%	0.42%	0.07%	0.14%	0.17%
T700 BG3	18	22	71	414	82	28	14	74
	0.68%	0.88%	1.38%	5.43%	0.69%	0.19%	0.11%	0.54%
T700 BG4	15	16	50	322	256	68	20	61
	0.57%	0.64%	0.97%	4.23%	2.15%	0.45%	0.16%	0.44%

Table III-2: Alachua County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T806 BG1	1	8	21	11	40	186	2	40
	0.04%	0.32%	0.41%	0.14%	0.34%	1.23%	0.02%	0.29%
T808 BG1	0	0	0	26	18	104	5	20
	0.00%	0.00%	0.00%	0.34%	0.15%	0.69%	0.04%	0.15%
T808 BG2	0	5	18	17	26	9	2	7
	0.00%	0.20%	0.35%	0.22%	0.22%	0.06%	0.02%	0.05%
T808 BG3	0	11	20	8	11	6	3	4
	0.00%	0.44%	0.39%	0.10%	0.09%	0.04%	0.02%	0.03%
T809 BG1	5	7	5	7	185	241	2	13
	0.19%	0.28%	0.10%	0.09%	1.55%	1.59%	0.02%	0.09%
T901 BG1	6	2	12	0	2	1	0	0
	0.23%	0.08%	0.23%	0.00%	0.02%	0.01%	0.00%	0.00%
T902 BG1	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T902 BG2	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T902 BG3	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T902 BG4	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total number of residential structures by decade built	2,632	2,499	5,157	7,620	11,910	15,112	12,496	13,715
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-27: Bradford County Residential Parcels by Year Built

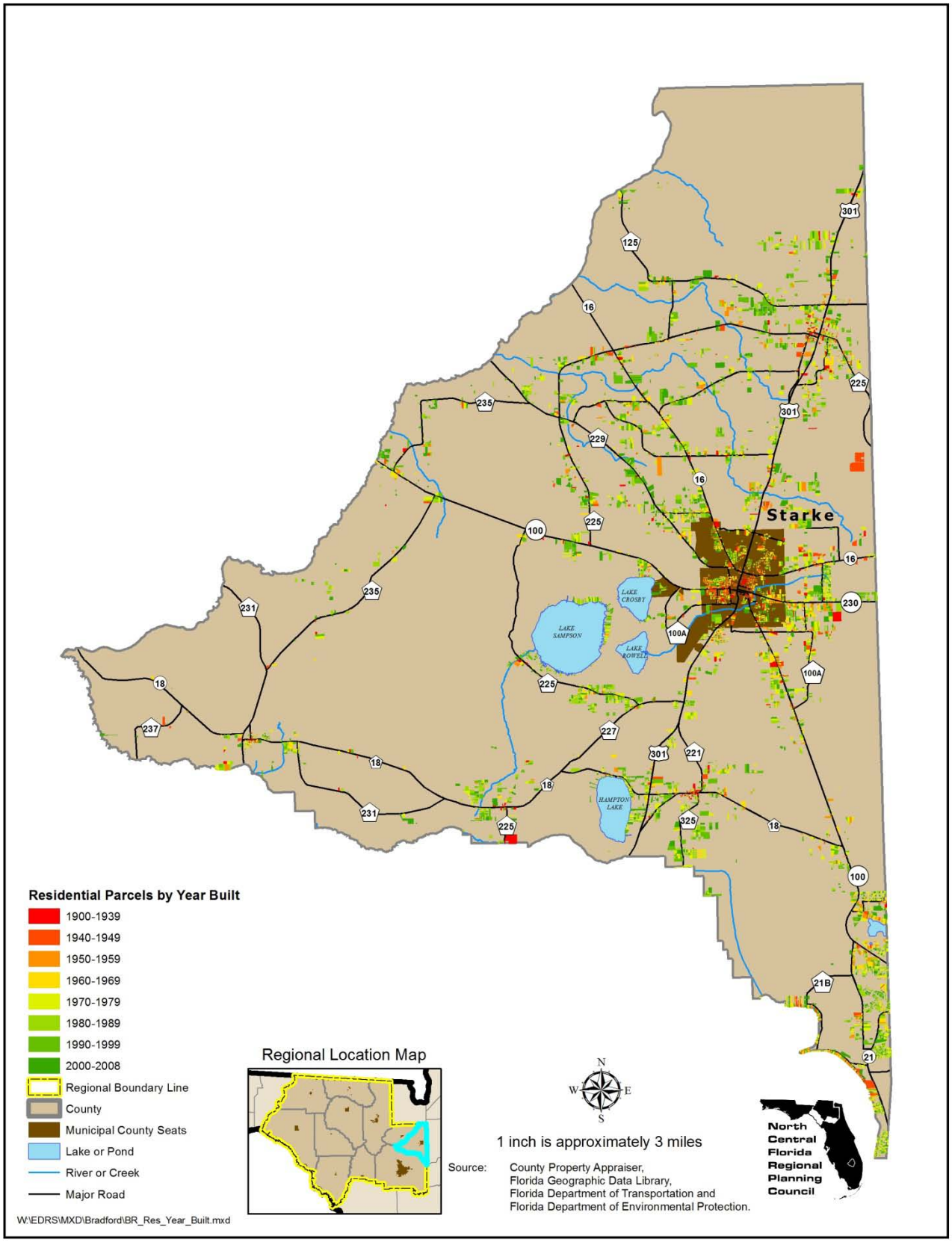


Table III-3: Bradford County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1900-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T100 BG1	9	36	38	44	65	60	40	31
	3.30%	6.26%	4.96%	4.80%	4.81%	3.92%	3.08%	2.83%
T100 BG2	17	68	57	58	74	65	53	42
	6.23%	11.83%	7.44%	6.33%	5.48%	4.25%	4.08%	3.84%
T100 BG3	20	43	63	74	89	52	50	63
	7.33%	7.48%	8.22%	8.08%	6.59%	3.40%	3.85%	5.75%
T100 BG4	3	29	45	32	20	52	21	17
	1.10%	5.04%	5.87%	3.49%	1.48%	3.40%	1.62%	1.55%
T100 BG5	46	63	13	35	49	34	17	26
	16.85%	10.96%	1.70%	3.82%	3.63%	2.22%	1.31%	2.37%
T200 BG1	17	76	49	43	97	117	103	73
	6.23%	13.22%	6.40%	4.69%	7.18%	7.64%	7.93%	6.67%
T200 BG2	17	71	142	55	69	67	40	42
	6.23%	12.35%	18.54%	6.00%	5.11%	4.38%	3.08%	3.84%
T200 BG3	0	18	37	50	80	98	91	84
	0.00%	3.13%	4.83%	5.46%	5.92%	6.40%	7.01%	7.67%
T200 BG4	7	9	7	22	40	64	84	80
	2.56%	1.57%	0.91%	2.40%	2.96%	4.18%	6.47%	7.31%
T200 BG5	8	23	27	36	34	83	44	21
	2.93%	4.00%	3.52%	3.93%	2.52%	5.42%	3.39%	1.92%
T300 BG1	44	25	30	64	117	159	141	114
	16.12%	4.35%	3.92%	6.99%	8.66%	10.39%	10.85%	10.41%
T300 BG2	6	14	34	43	77	86	104	53
	2.20%	2.43%	4.44%	4.69%	5.70%	5.62%	8.01%	4.84%
T300 BG3	3	10	50	79	87	49	50	57
	1.10%	1.74%	6.53%	8.62%	6.44%	3.20%	3.85%	5.21%
T300 BG4	6	21	63	136	216	213	180	143
	2.20%	3.65%	8.22%	14.85%	15.99%	13.91%	13.86%	13.06%
T300 BG5	23	15	19	43	59	89	63	59
	8.42%	2.61%	2.48%	4.69%	4.37%	5.81%	4.85%	5.39%
T400 BG1	14	23	31	31	59	86	56	51
	5.13%	4.00%	4.05%	3.38%	4.37%	5.62%	4.31%	4.66%
T400 BG2	17	19	37	40	65	75	63	62
	6.23%	3.30%	4.83%	4.37%	4.81%	4.90%	4.85%	5.66%
T400 BG3	16	12	24	31	54	82	99	77

Table III-3: Bradford County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1900-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
	5.86%	2.09%	3.13%	3.38%	4.00%	5.36%	7.62%	7.03%
Total number of residential structures by decade built	273	575	766	916	1,351	1,531	1,299	1,095
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-28: Columbia County Residential Parcels by Year Built

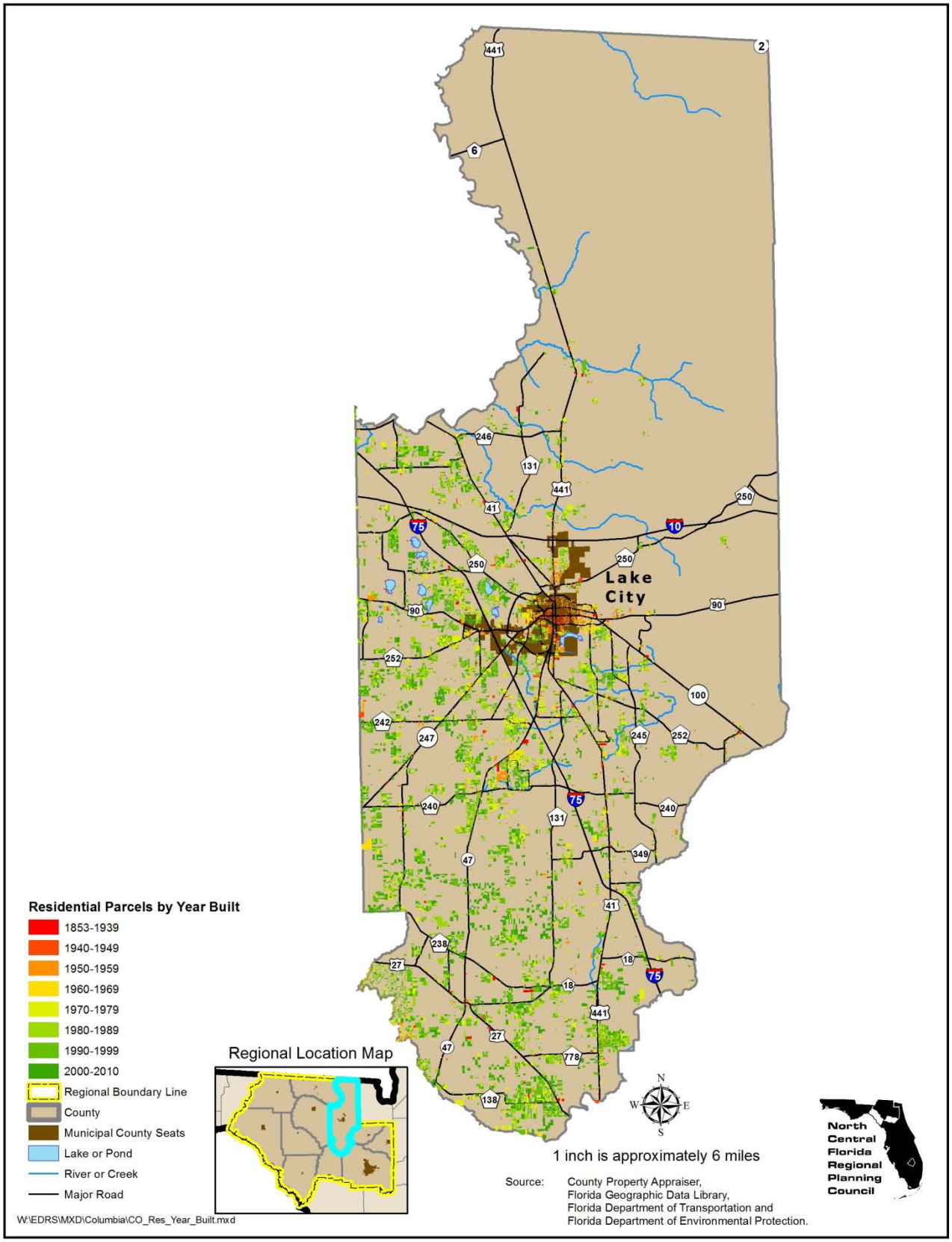


Table III-4: Columbia County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T110201 BG1	6	3	5	13	64	92	103	94
	0.92%	0.39%	0.44%	0.70%	2.24%	2.67%	2.04%	2.20%
T110201 BG2	3	3	12	19	77	132	247	282
	0.46%	0.39%	1.06%	1.02%	2.69%	3.83%	4.89%	6.60%
T110202 BG1	5	5	12	14	62	122	197	160
	0.77%	0.65%	1.06%	0.76%	2.17%	3.54%	3.90%	3.75%
T110202 BG2	63	27	28	29	62	21	29	13
	9.65%	3.52%	2.47%	1.56%	2.17%	0.61%	0.57%	0.30%
T110202 BG3	5	7	17	33	93	133	200	133
	0.77%	0.91%	1.50%	1.78%	3.25%	3.86%	3.96%	3.11%
T110202 BG4	33	41	52	28	28	37	30	18
	5.05%	5.35%	4.59%	1.51%	0.98%	1.07%	0.59%	0.42%
T110300 BG1	6	18	19	26	54	86	89	64
	0.92%	2.35%	1.68%	1.40%	1.89%	2.50%	1.76%	1.50%
T110300 BG2	12	11	14	46	32	34	30	14
	1.84%	1.44%	1.23%	2.48%	1.12%	0.99%	0.59%	0.33%
T110300 BG3	18	20	21	70	39	14	13	7
	2.76%	2.61%	1.85%	3.78%	1.36%	0.41%	0.26%	0.16%
T110300 BG4	22	70	50	48	45	66	64	29
	3.37%	9.14%	4.41%	2.59%	1.57%	1.92%	1.27%	0.68%
T110300 BG5	18	75	50	52	28	22	26	24
	2.76%	9.79%	4.41%	2.80%	0.98%	0.64%	0.51%	0.56%
T110400 BG1	11	24	92	88	16	10	10	3
	1.68%	3.13%	8.11%	4.75%	0.56%	0.29%	0.20%	0.07%
T110400 BG2	24	42	101	58	15	16	11	3
	3.68%	5.48%	8.91%	3.13%	0.52%	0.46%	0.22%	0.07%
T110400 BG3	75	67	33	13	8	10	18	5
	11.49%	8.75%	2.91%	0.70%	0.28%	0.29%	0.36%	0.12%
T110400 BG4	130	93	62	22	8	6	15	12
	19.91%	12.14%	5.47%	1.19%	0.28%	0.17%	0.30%	0.28%
T110500 BG1	7	3	17	26	66	71	179	160
	1.07%	0.39%	1.50%	1.40%	2.31%	2.06%	3.54%	3.75%
T110500 BG2	88	72	50	17	5	4	2	0
	13.48%	9.40%	4.41%	0.92%	0.17%	0.12%	0.04%	0.00%
T110500 BG3	3	25	67	133	17	20	19	4
	0.46%	3.26%	5.91%	7.17%	0.59%	0.58%	0.38%	0.09%
T110500 BG4	3	3	67	157	134	114	49	34

Table III-4: Columbia County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
	0.46%	0.39%	5.91%	8.47%	4.69%	3.31%	0.97%	0.80%
T110500 BG5	4	16	14	46	58	46	54	175
	0.61%	2.09%	1.23%	2.48%	2.03%	1.34%	1.07%	4.10%
T110601 BG1	2	4	6	50	108	137	557	418
	0.31%	0.52%	0.53%	2.70%	3.78%	3.98%	11.02%	9.79%
T110601 BG2	0	5	17	22	89	136	196	147
	0.00%	0.65%	1.50%	1.19%	3.11%	3.95%	3.88%	3.44%
T110601 BG3	1	3	11	20	305	133	152	372
	0.15%	0.39%	0.97%	1.08%	10.67%	3.86%	3.01%	8.71%
T110602 BG1	1	6	11	31	139	138	315	154
	0.15%	0.78%	0.97%	1.67%	4.86%	4.01%	6.23%	3.61%
T110602 BG2	3	1	13	51	174	76	125	109
	0.46%	0.13%	1.15%	2.75%	6.09%	2.21%	2.47%	2.55%
T110700 BG1	19	16	77	70	11	30	10	38
	2.91%	2.09%	6.79%	3.78%	0.38%	0.87%	0.20%	0.89%
T110700 BG2	7	7	13	45	143	51	28	15
	1.07%	0.91%	1.15%	2.43%	5.00%	1.48%	0.55%	0.35%
T110700 BG3	1	4	1	6	181	272	96	32
	0.15%	0.52%	0.09%	0.32%	6.33%	7.90%	1.90%	0.75%
T110700 BG4	11	24	47	128	7	19	24	15
	1.68%	3.13%	4.14%	6.90%	0.24%	0.55%	0.47%	0.35%
T110800 BG1	9	7	11	13	74	75	83	94
	1.38%	0.91%	0.97%	0.70%	2.59%	2.18%	1.64%	2.20%
T110800 BG2	3	0	3	215	94	132	238	208
	0.46%	0.00%	0.26%	11.60%	3.29%	3.83%	4.71%	4.87%
T110800 BG3	4	8	5	9	25	42	105	41
	0.61%	1.04%	0.44%	0.49%	0.87%	1.22%	2.08%	0.96%
T110800 BG4	5	6	20	43	55	83	73	65
	0.77%	0.78%	1.76%	2.32%	1.92%	2.41%	1.44%	1.52%
T110901 BG1	6	8	17	27	74	114	162	118
	0.92%	1.04%	1.50%	1.46%	2.59%	3.31%	3.20%	2.76%
T110901 BG2	3	4	4	21	85	190	307	190
	0.46%	0.52%	0.35%	1.13%	2.97%	5.52%	6.07%	4.45%
T110901 BG3	2	1	4	7	26	49	67	57
	0.31%	0.13%	0.35%	0.38%	0.91%	1.42%	1.33%	1.33%

Table III-4: Columbia County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1853-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T110903 BG1	5	9	56	89	133	234	289	231
	0.77%	1.17%	4.94%	4.80%	4.65%	6.79%	5.72%	5.41%
T110903 BG2	9	8	5	19	91	127	250	160
	1.38%	1.04%	0.44%	1.02%	3.18%	3.69%	4.95%	3.75%
T110904 BG1	7	9	16	27	68	179	243	157
	1.07%	1.17%	1.41%	1.46%	2.38%	5.20%	4.81%	3.68%
T110904 BG2	19	11	14	23	65	171	350	415
	2.91%	1.44%	1.23%	1.24%	2.27%	4.97%	6.92%	9.72%
Total number of residential structures by decade built	653	766	1,134	1,854	2,858	3,444	5,055	4,270
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-29: Dixie County Residential Parcels by Year Built

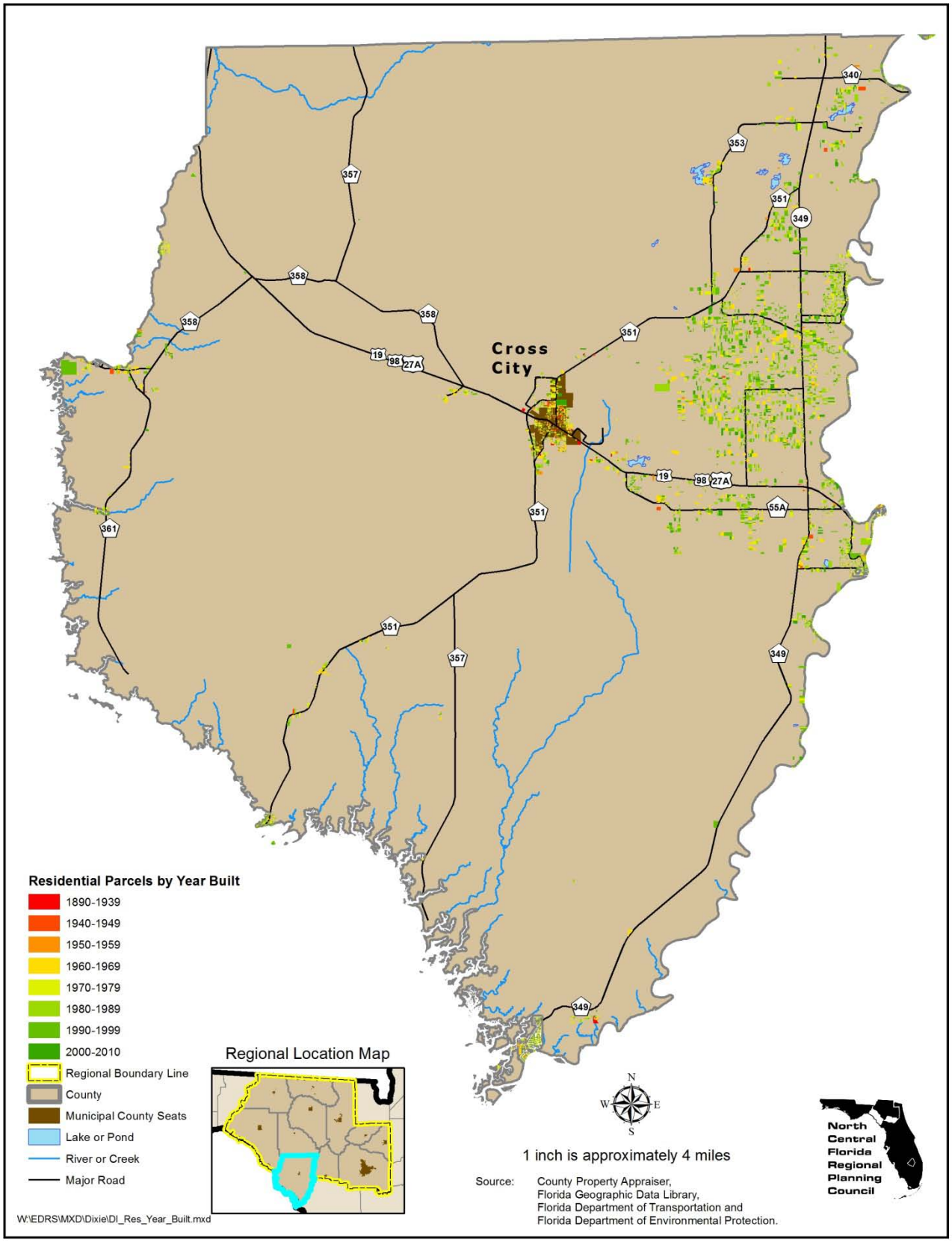


Table III-5: Dixie County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1890-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T970101 BG1	14	19	35	83	46	34	24	15
	34.15%	28.36%	18.42%	7.72%	4.82%	2.68%	2.00%	3.01%
T970101 BG2	9	12	33	154	111	76	46	19
	21.95%	17.91%	17.37%	14.33%	11.64%	5.99%	3.84%	3.82%
T970101 BG3	7	8	30	53	29	28	47	12
	17.07%	11.94%	15.79%	4.93%	3.04%	2.21%	3.92%	2.41%
T970102 BG1	1	3	17	69	51	74	96	38
	2.44%	4.48%	8.95%	6.42%	5.35%	5.84%	8.01%	7.63%
T970102 BG2	0	0	5	34	39	95	76	22
	0.00%	0.00%	2.63%	3.16%	4.09%	7.49%	6.34%	4.42%
T970102 BG3	4	1	4	101	45	123	164	65
	9.76%	1.49%	2.11%	9.40%	4.72%	9.70%	13.69%	13.05%
T970102 BG4	0	1	4	85	54	104	142	60
	0.00%	1.49%	2.11%	7.91%	5.66%	8.20%	11.85%	12.05%
T970102 BG5	0	2	6	30	102	193	177	41
	0.00%	2.99%	3.16%	2.79%	10.69%	15.22%	14.77%	8.23%
T970200 BG1	2	2	18	159	220	160	122	56
	4.88%	2.99%	9.47%	14.79%	23.06%	12.62%	10.18%	11.24%
T970200 BG2	3	8	23	134	119	125	103	105
	7.32%	11.94%	12.11%	12.47%	12.47%	9.86%	8.60%	21.08%
T970200 BG3	0	7	7	68	34	60	86	23
	0.00%	10.45%	3.68%	6.33%	3.56%	4.73%	7.18%	4.62%
T970200 BG4	1	4	8	105	104	196	115	42
	2.44%	5.97%	4.21%	9.77%	10.90%	15.46%	9.60%	8.43%
Total number of residential structures by decade built	41	67	190	1,075	954	1,268	1,198	498
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-30: Gilchrist County Residential Parcels by Year Built

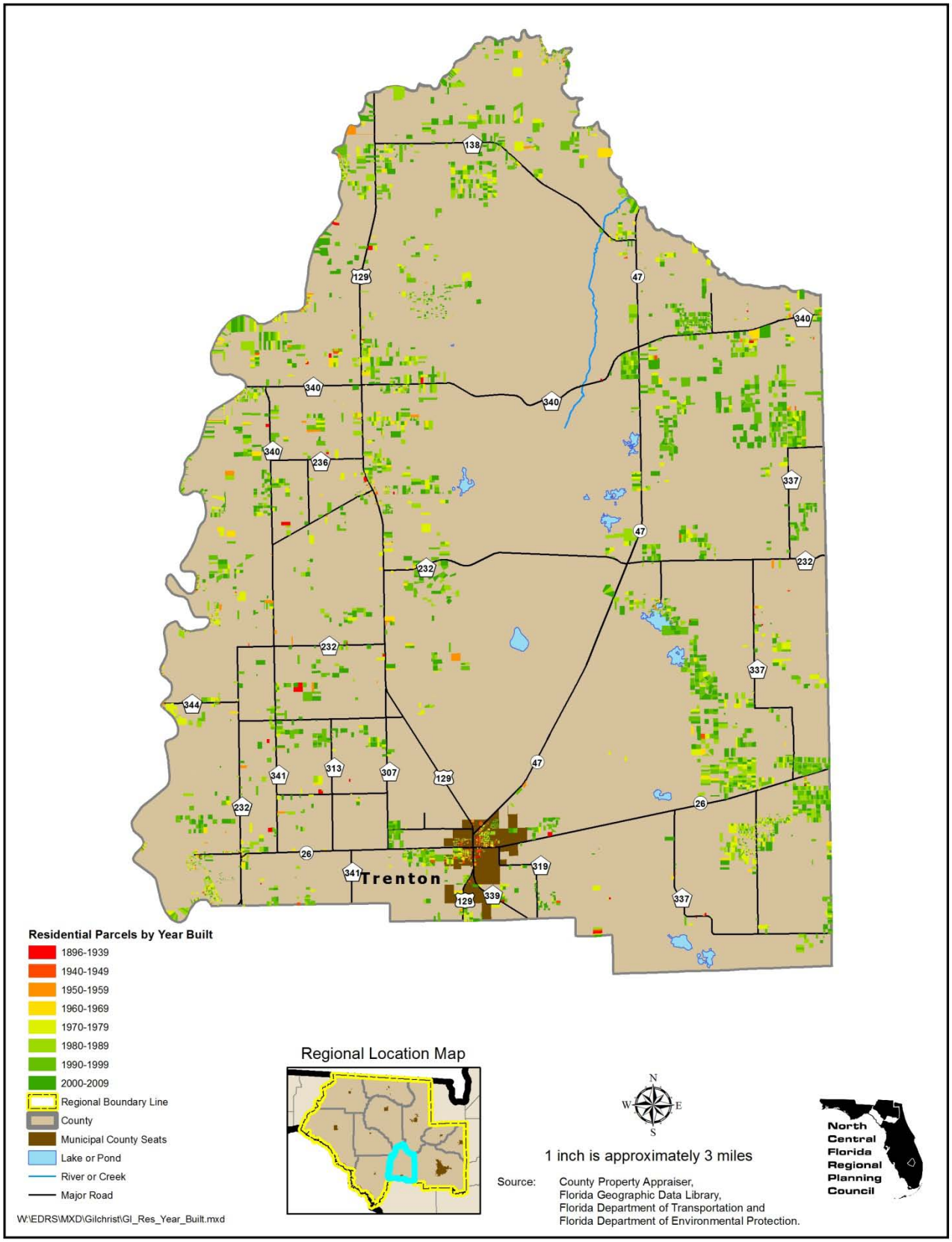


Table III-6: Gilchrist County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1896-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T950100 BG1	4	2	9	30	89	117	153	126
	3.54%	1.80%	7.76%	10.56%	10.41%	10.68%	11.56%	10.48%
T950100 BG2	7	6	8	28	80	100	77	83
	6.19%	5.41%	6.90%	9.86%	9.36%	9.12%	5.82%	6.91%
T950100 BG3	10	4	21	40	80	114	121	92
	8.85%	3.60%	18.10%	14.08%	9.36%	10.40%	9.15%	7.65%
T950100 BG4	3	4	9	29	61	103	113	107
	2.65%	3.60%	7.76%	10.21%	7.13%	9.40%	8.54%	8.90%
T950201 BG1	2	4	7	10	56	102	220	235
	1.77%	3.60%	6.03%	3.52%	6.55%	9.31%	16.63%	19.55%
T950202 BG1	7	1	5	9	24	39	71	58
	6.19%	0.90%	4.31%	3.17%	2.81%	3.56%	5.37%	4.83%
T950202 BG2	5	5	13	32	104	95	76	75
	4.42%	4.50%	11.21%	11.27%	12.16%	8.67%	5.74%	6.24%
T950203 BG1	1	3	2	9	21	49	79	73
	0.88%	2.70%	1.72%	3.17%	2.46%	4.47%	5.97%	6.07%
T950203 BG2	5	3	5	33	110	133	107	90
	4.42%	2.70%	4.31%	11.62%	12.87%	12.14%	8.09%	7.49%
T950203 BG3	3	2	2	6	45	74	106	70
	2.65%	1.80%	1.72%	2.11%	5.26%	6.75%	8.01%	5.82%
T950204 BG1	11	13	10	18	21	38	66	48
	9.73%	11.71%	8.62%	6.34%	2.46%	3.47%	4.99%	3.99%
T950204 BG2	22	41	10	20	104	52	53	101
	19.47%	36.94%	8.62%	7.04%	12.16%	4.74%	4.01%	8.40%
T950204 BG3	33	23	15	20	60	80	81	44
	29.20%	20.72%	12.93%	7.04%	7.02%	7.30%	6.12%	3.66%
Total number of residential structures by decade built	113	111	116	284	855	1,096	1,323	1,202
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-31: Hamilton County Residential Parcels by Year Built

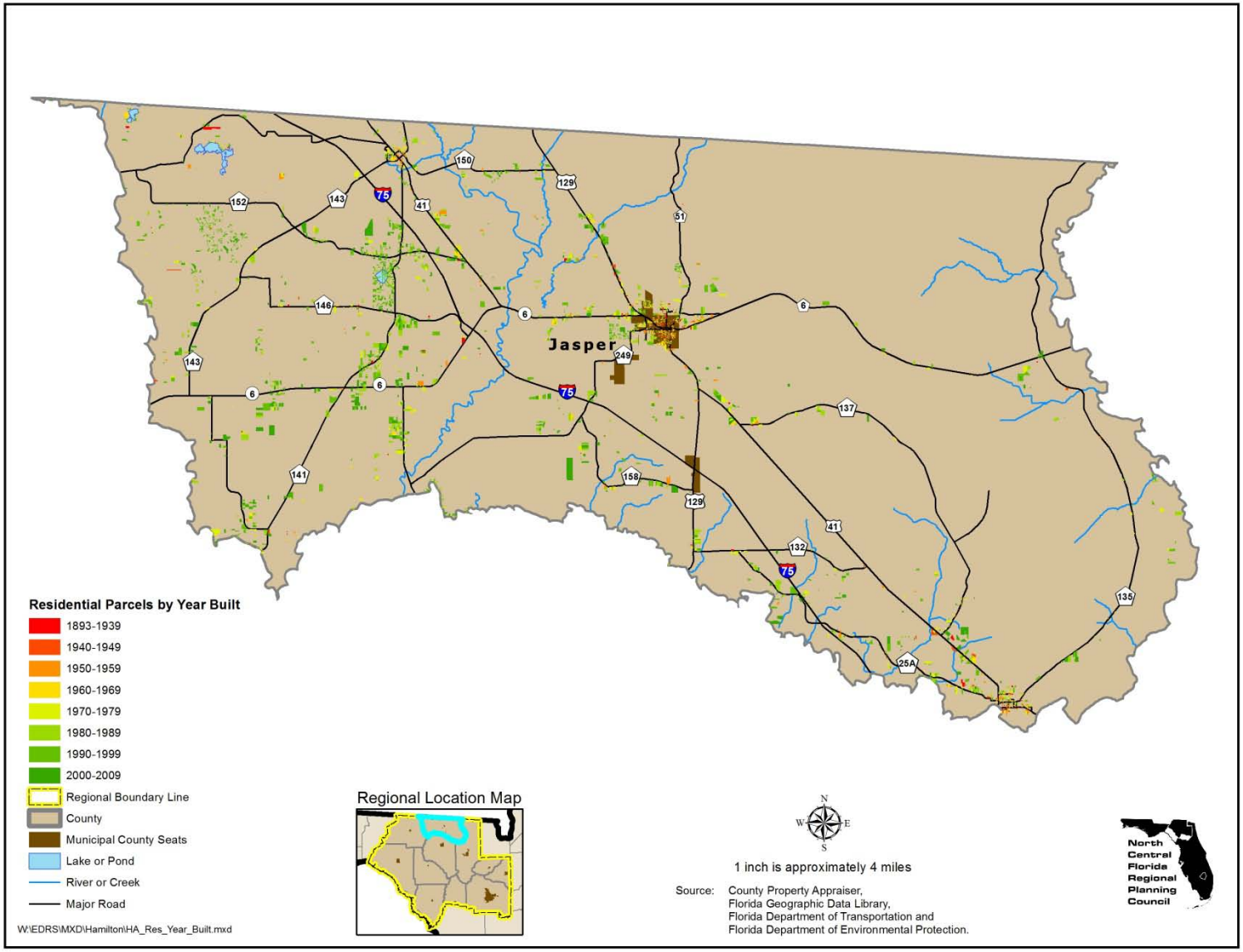


Table III-7: Hamilton County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1893-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T960200 BG2	24	62	55	52	82	65	62	26
	14.37%	26.61%	18.64%	13.90%	12.09%	10.48%	7.05%	4.49%
T960300 BG1	12	9	13	23	34	39	36	29
	7.19%	3.86%	4.41%	6.15%	5.01%	6.29%	4.09%	5.01%
T960200 BG3	7	6	10	32	55	103	252	202
	4.19%	2.58%	3.39%	8.56%	8.11%	16.61%	28.64%	34.89%
T960100 BG5	34	35	22	30	87	19	11	5
	20.36%	15.02%	7.46%	8.02%	12.83%	3.06%	1.25%	0.86%
T960300 BG2	30	34	41	44	64	59	60	48
	17.96%	14.59%	13.90%	11.76%	9.44%	9.52%	6.82%	8.29%
T960100 BG3	11	15	36	69	163	106	164	62
	6.59%	6.44%	12.20%	18.45%	24.04%	17.10%	18.64%	10.71%
T960200 BG1	13	7	16	29	78	112	165	114
	7.78%	3.00%	5.42%	7.75%	11.50%	18.06%	18.75%	19.69%
T960100 BG4	18	43	50	39	42	16	17	7
	10.78%	18.45%	16.95%	10.43%	6.19%	2.58%	1.93%	1.21%
T960100 BG2	4	8	15	24	23	50	46	42
	2.40%	3.43%	5.08%	6.42%	3.39%	8.06%	5.23%	7.25%
T960100 BG1	14	14	37	32	50	51	67	44
	8.38%	6.01%	12.54%	8.56%	7.37%	8.23%	7.61%	7.60%
Total number of residential structures by decade built	167	233	295	374	678	620	880	579
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-32: Lafayette County Residential Parcels by Year Built

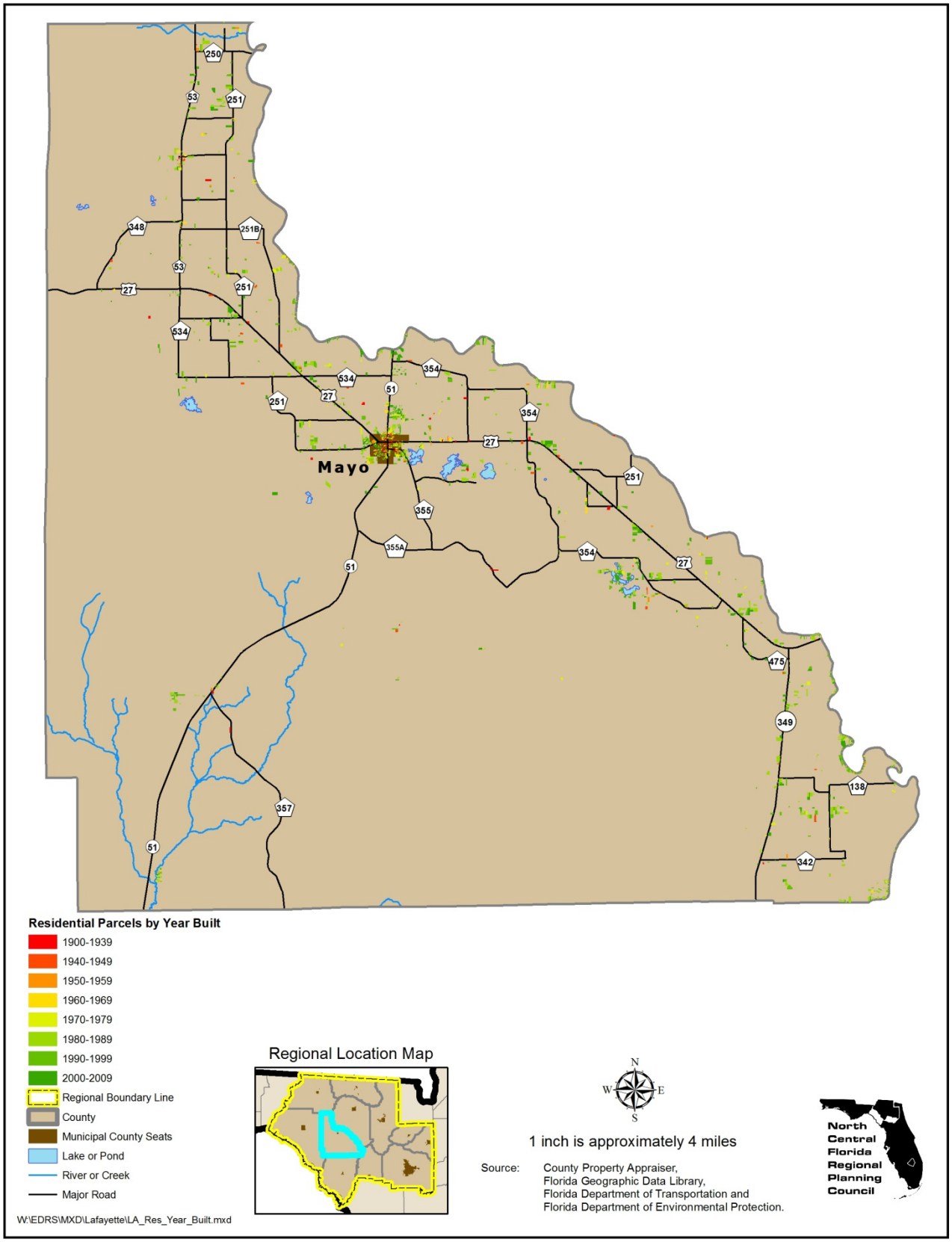


Table III-8: Lafayette County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1900-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T960100 BG1	3	3	11	5	4	39	17	14
	3.49%	4.69%	13.75%	6.02%	2.50%	6.59%	4.58%	4.96%
T960100 BG2	6	7	4	12	14	65	30	24
	6.98%	10.94%	5.00%	14.46%	8.75%	10.98%	8.09%	8.51%
T960200 BG1	32	25	21	21	39	113	104	97
	37.21%	39.06%	26.25%	25.30%	24.38%	19.09%	28.03%	34.40%
T960200 BG2	29	9	20	12	22	74	56	45
	33.72%	14.06%	25.00%	14.46%	13.75%	12.50%	15.09%	15.96%
T960200 BG3	14	12	12	20	26	98	47	35
	16.28%	18.75%	15.00%	24.10%	16.25%	16.55%	12.67%	12.41%
T960200 BG4	2	8	12	13	55	203	117	67
	2.33%	12.50%	15.00%	15.66%	34.38%	34.29%	31.54%	23.76%
Total number of residential structures by decade built	86	64	80	83	160	592	371	282
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-33: Madison County Residential Parcels by Year Built

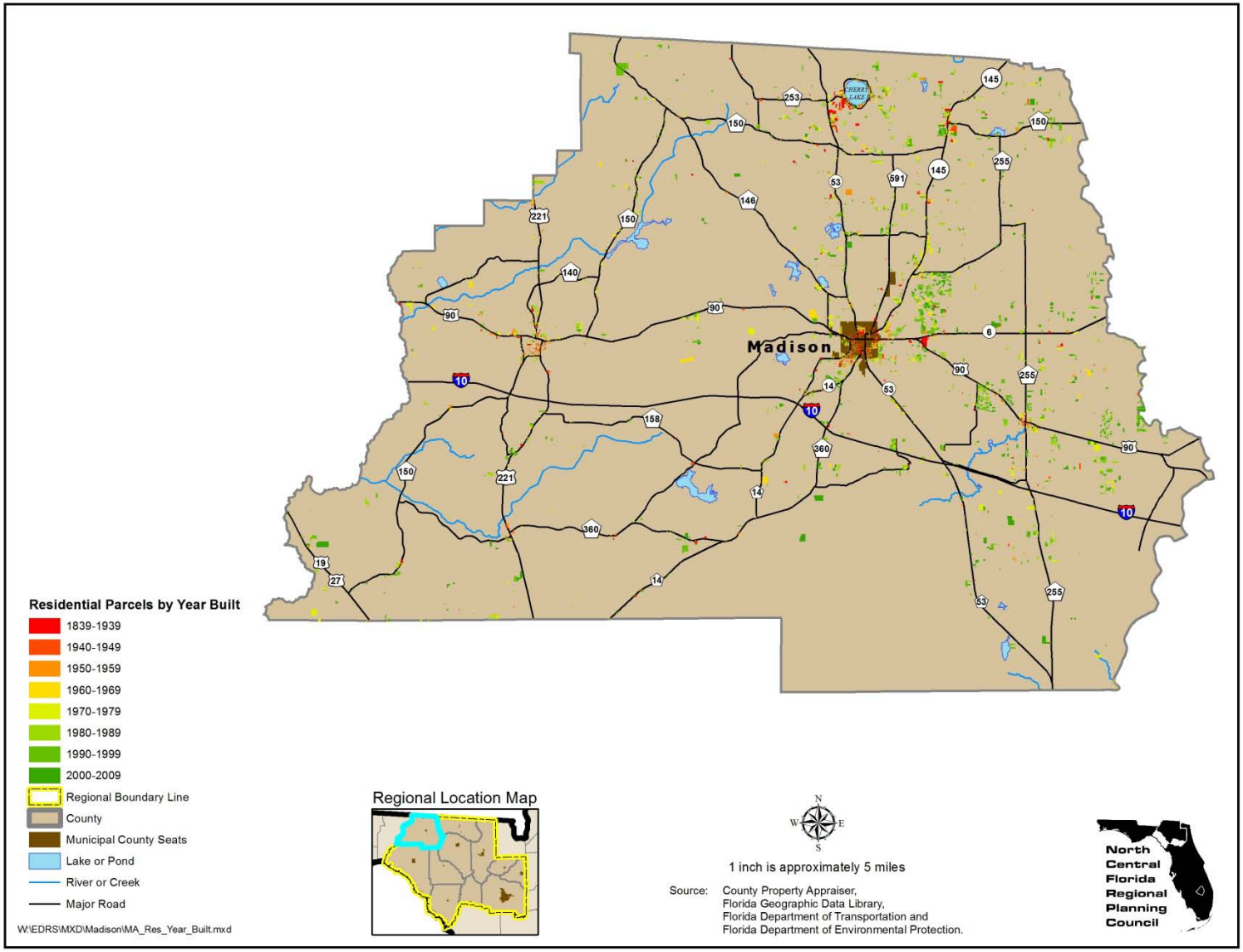


Table III-9: Madison County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1839-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T110100 BG1	15	7	13	26	32	45	40	33
	3.07%	1.75%	2.73%	4.77%	4.09%	6.00%	4.75%	5.72%
T110100 BG2	63	14	41	55	89	128	108	72
	12.88%	3.51%	8.60%	10.09%	11.38%	17.07%	12.83%	12.48%
T110100 BG3	13	6	5	10	24	22	28	20
	2.66%	1.50%	1.05%	1.83%	3.07%	2.93%	3.33%	3.47%
T110200 BG1	11	10	13	22	29	47	34	26
	2.25%	2.51%	2.73%	4.04%	3.71%	6.27%	4.04%	4.51%
T110200 BG2	7	5	9	29	45	44	32	18
	1.43%	1.25%	1.89%	5.32%	5.75%	5.87%	3.80%	3.12%
T110200 BG3	30	27	48	22	29	21	22	15
	6.13%	6.77%	10.06%	4.04%	3.71%	2.80%	2.61%	2.60%
T110200 BG4	27	41	44	41	32	34	30	11
	5.52%	10.28%	9.22%	7.52%	4.09%	4.53%	3.56%	1.91%
T110301 BG1	22	31	36	61	62	58	139	74
	4.50%	7.77%	7.55%	11.19%	7.93%	7.73%	16.51%	12.82%
T110301 BG2	78	14	27	65	63	30	30	15
	15.95%	3.51%	5.66%	11.93%	8.06%	4.00%	3.56%	2.60%
T110302 BG1	25	65	88	59	57	70	73	27
	5.11%	16.29%	18.45%	10.83%	7.29%	9.33%	8.67%	4.68%
T110302 BG2	4	12	13	12	83	17	7	9
	0.82%	3.01%	2.73%	2.20%	10.61%	2.27%	0.83%	1.56%
T110302 BG3	36	63	79	54	103	43	50	29
	7.36%	15.79%	16.56%	9.91%	13.17%	5.73%	5.94%	5.03%
T110302 BG4	109	78	20	31	20	10	17	7
	22.29%	19.55%	4.19%	5.69%	2.56%	1.33%	2.02%	1.21%
T110400 BG1	13	8	14	15	35	79	101	100
	2.66%	2.01%	2.94%	2.75%	4.48%	10.53%	12.00%	17.33%
T110400 BG2	8	5	12	16	15	36	40	42
	1.64%	1.25%	2.52%	2.94%	1.92%	4.80%	4.75%	7.28%
T110400 BG3	28	13	15	27	64	66	91	79
	5.73%	3.26%	3.14%	4.95%	8.18%	8.80%	10.81%	13.69%
Total number of residential structures by decade built	489	399	477	545	782	750	842	577
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-34: Suwannee County Residential Parcels by Year Built

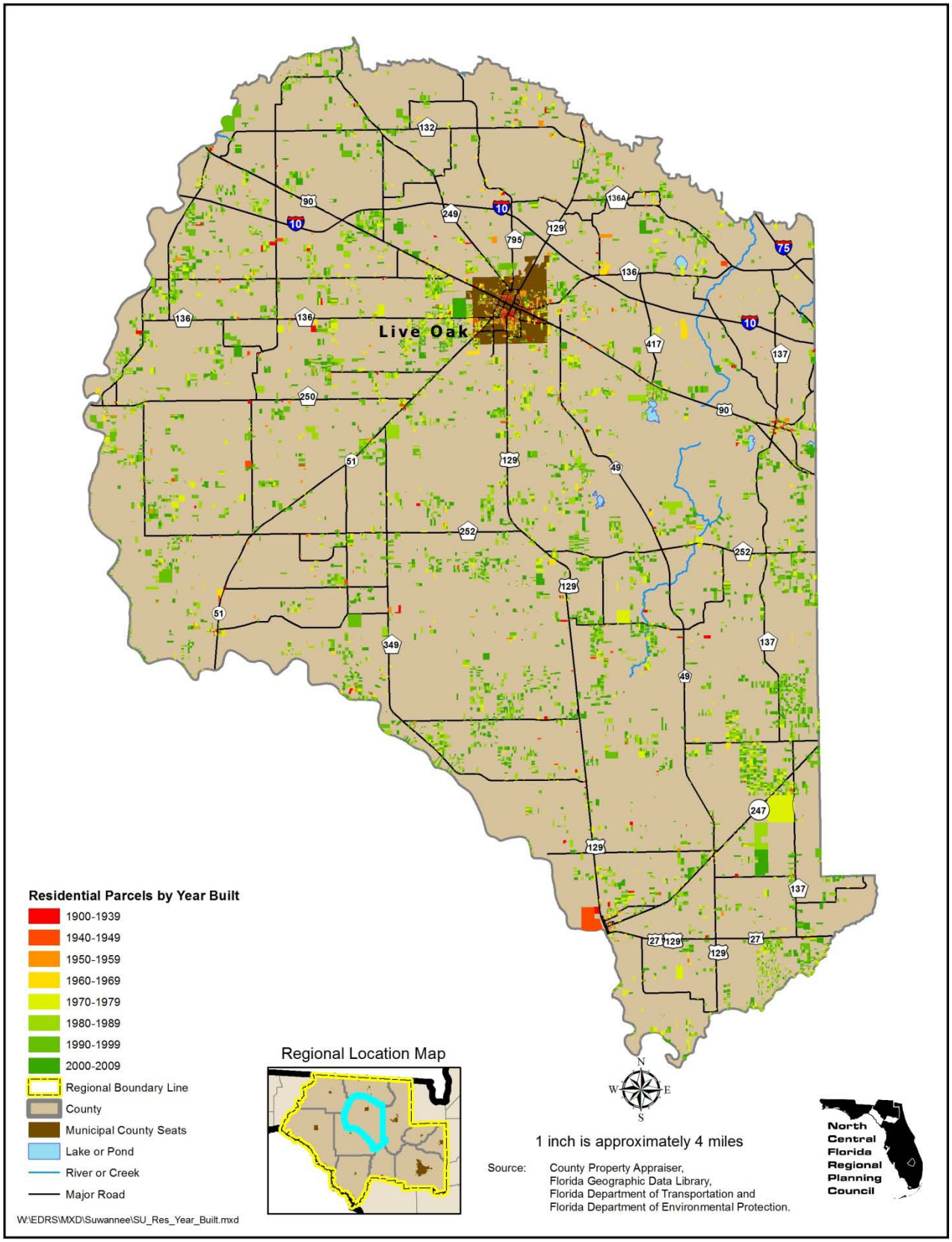


Table III-10: Suwannee County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1900-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T970100 BG1	6	12	15	20	55	106	148	73
	1.36%	3.30%	2.67%	2.65%	3.56%	4.30%	4.68%	3.20%
T970100 BG2	6	6	23	23	85	43	51	20
	1.36%	1.65%	4.10%	3.04%	5.51%	1.75%	1.61%	0.88%
T970100 BG3	49	23	32	18	19	20	20	18
	11.09%	6.32%	5.70%	2.38%	1.23%	0.81%	0.63%	0.79%
T970100 BG4	52	67	95	83	40	34	11	6
	11.76%	18.41%	16.93%	10.98%	2.59%	1.38%	0.35%	0.26%
T970100 BG5	7	11	15	39	86	99	74	36
	1.58%	3.02%	2.67%	5.16%	5.57%	4.02%	2.34%	1.58%
T970200 BG1	8	7	11	27	66	112	190	125
	1.81%	1.92%	1.96%	3.57%	4.27%	4.55%	6.01%	5.49%
T970200 BG2	2	8	6	8	36	103	85	54
	0.45%	2.20%	1.07%	1.06%	2.33%	4.18%	2.69%	2.37%
T970200 BG3	77	33	45	20	18	20	22	19
	17.42%	9.07%	8.02%	2.65%	1.17%	0.81%	0.70%	0.83%
T970301 BG1	7	8	21	22	46	110	162	125
	1.58%	2.20%	3.74%	2.91%	2.98%	4.46%	5.13%	5.49%
T970302 BG1	7	4	9	16	94	204	235	140
	1.58%	1.10%	1.60%	2.12%	6.09%	8.28%	7.44%	6.15%
T970302 BG2	2	6	5	21	35	71	94	61
	0.45%	1.65%	0.89%	2.78%	2.27%	2.88%	2.97%	2.68%
T970302 BG3	10	8	13	18	44	68	134	71
	2.26%	2.20%	2.32%	2.38%	2.85%	2.76%	4.24%	3.12%
T970302 BG4	3	4	6	7	23	57	94	73
	0.68%	1.10%	1.07%	0.93%	1.49%	2.31%	2.97%	3.20%
T970400 BG1	2	4	3	16	82	98	81	55
	0.45%	1.10%	0.53%	2.12%	5.31%	3.98%	2.56%	2.41%
T970400 BG2	17	20	27	27	55	26	33	8
	3.85%	5.49%	4.81%	3.57%	3.56%	1.06%	1.04%	0.35%
T970400 BG3	75	43	38	31	32	20	25	12
	16.97%	11.81%	6.77%	4.10%	2.07%	0.81%	0.79%	0.53%
T970400 BG4	4	10	38	57	134	146	201	188
	0.90%	2.75%	6.77%	7.54%	8.68%	5.93%	6.36%	8.25%
T970400 BG5	16	26	53	70	59	81	96	60
	3.62%	7.14%	9.45%	9.26%	3.82%	3.29%	3.04%	2.63%
T970500 BG1	27	11	23	49	54	68	58	53

Table III-10: Suwannee County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1900-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
	6.11%	3.02%	4.10%	6.48%	3.50%	2.76%	1.84%	2.33%
T970500 BG2	3	7	9	40	56	202	360	216
	0.68%	1.92%	1.60%	5.29%	3.63%	8.20%	11.39%	9.48%
T970500 BG3	5	5	4	10	82	107	225	161
	1.13%	1.37%	0.71%	1.32%	5.31%	4.34%	7.12%	7.07%
T970500 BG4	8	5	7	13	32	128	144	173
	1.81%	1.37%	1.25%	1.72%	2.07%	5.19%	4.56%	7.59%
T970600 BG1	5	5	8	41	116	180	248	189
	1.13%	1.37%	1.43%	5.42%	7.51%	7.31%	7.85%	8.30%
T970600 BG2	7	7	9	15	47	145	148	157
	1.58%	1.92%	1.60%	1.98%	3.04%	5.88%	4.68%	6.89%
T970600 BG3	35	22	38	44	50	80	63	54
	7.92%	6.04%	6.77%	5.82%	3.24%	3.25%	1.99%	2.37%
T970600 BG4	2	2	8	21	98	136	158	131
	0.45%	0.55%	1.43%	2.78%	6.35%	5.52%	5.00%	5.75%
Total number of residential structures by decade built	442	364	561	756	1,544	2,464	3,160	2,278
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-35: Taylor County Residential Parcels by Year Built

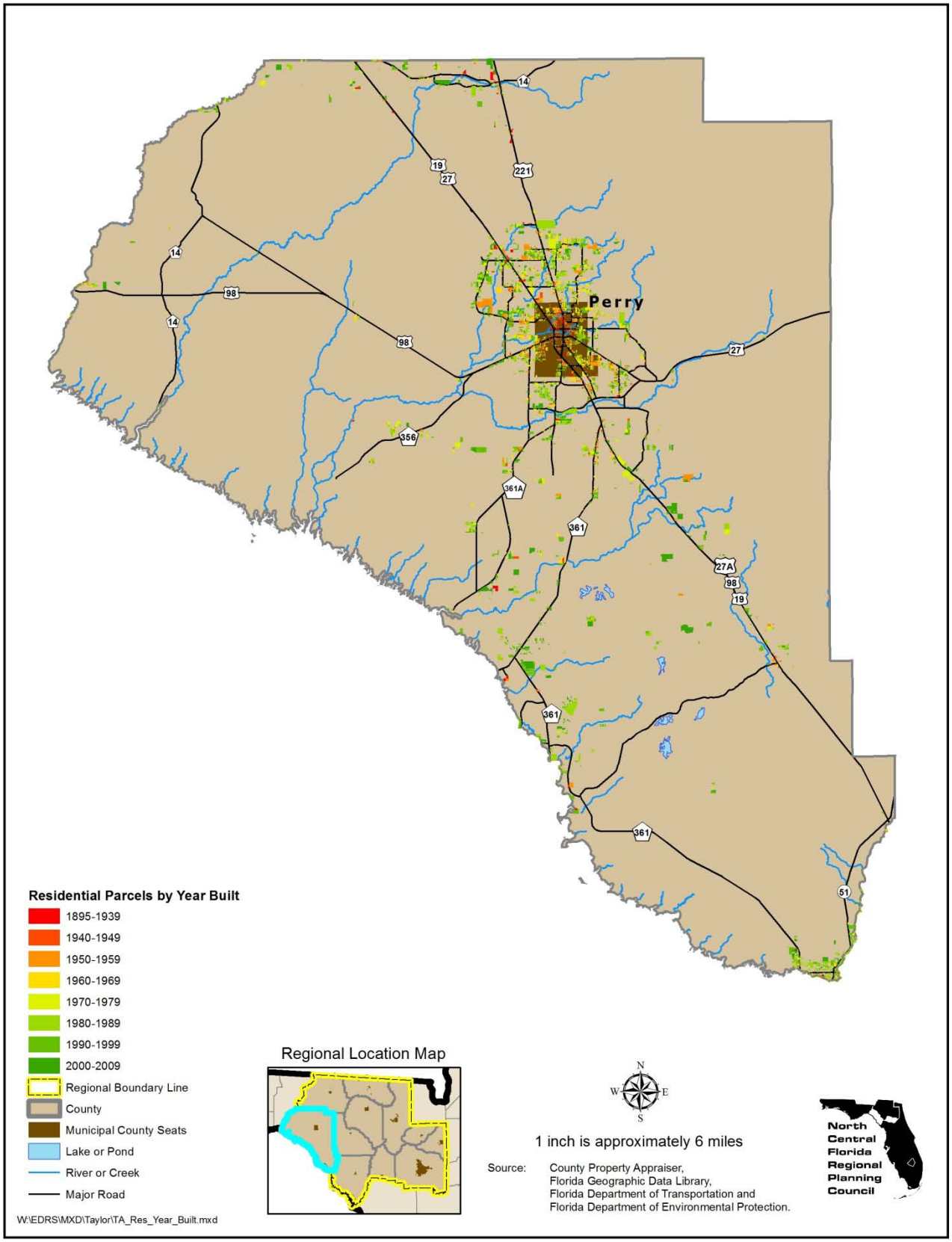


Table III-11: Taylor County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1895-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T950100 BG1	5	3	22	28	26	59	42	14
	0.81%	0.88%	2.20%	3.48%	3.10%	3.83%	2.80%	1.39%
T950100 BG2	43	20	41	70	143	99	66	35
	6.96%	5.87%	4.09%	8.71%	17.06%	6.43%	4.40%	3.47%
T950100 BG3	68	45	74	16	18	48	12	9
	11.00%	13.20%	7.39%	1.99%	2.15%	3.12%	0.80%	0.89%
T950100 BG4	8	8	49	48	27	30	34	14
	1.29%	2.35%	4.89%	5.97%	3.22%	1.95%	2.27%	1.39%
T950200 BG1	116	51	114	32	15	11	7	4
	18.77%	14.96%	11.38%	3.98%	1.79%	0.71%	0.47%	0.40%
T950200 BG2	23	17	58	34	36	24	22	34
	3.72%	4.99%	5.79%	4.23%	4.30%	1.56%	1.47%	3.37%
T950200 BG3	17	10	46	73	51	105	108	65
	2.75%	2.93%	4.59%	9.08%	6.09%	6.82%	7.20%	6.44%
T950200 BG4	63	12	33	27	28	40	38	16
	10.19%	3.52%	3.29%	3.36%	3.34%	2.60%	2.53%	1.58%
T950200 BG5	27	19	53	41	40	103	95	86
	4.37%	5.57%	5.29%	5.10%	4.77%	6.69%	6.33%	8.51%
T950300 BG1	28	16	57	73	47	40	30	32
	4.53%	4.69%	5.69%	9.08%	5.61%	2.60%	2.00%	3.17%
T950300 BG2	58	36	32	19	12	9	9	6
	9.39%	10.56%	3.19%	2.36%	1.43%	0.58%	0.60%	0.59%
T950300 BG3	14	16	51	25	16	29	9	1
	2.27%	4.69%	5.09%	3.11%	1.91%	1.88%	0.60%	0.10%
T950300 BG4	22	15	41	57	70	154	84	39
	3.56%	4.40%	4.09%	7.09%	8.35%	10.01%	5.60%	3.86%
T950300 BG5	4	5	81	10	12	30	31	7
	0.65%	1.47%	8.08%	1.24%	1.43%	1.95%	2.07%	0.69%
T950300 BG6	63	15	113	49	37	67	55	44
	10.19%	4.40%	11.28%	6.09%	4.42%	4.35%	3.67%	4.36%
T950400 BG1	17	21	56	88	105	325	369	195
	2.75%	6.16%	5.59%	10.95%	12.53%	21.12%	24.60%	19.31%
T950400 BG2	13	10	19	61	53	173	207	198
	2.10%	2.93%	1.90%	7.59%	6.32%	11.24%	13.80%	19.60%
T950400 BG3	18	13	40	44	80	137	208	118

Table III-11: Taylor County Residential Parcels by Year Built (Continued)

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1895-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
	2.91%	3.81%	3.99%	5.47%	9.55%	8.90%	13.87%	11.68%
T950400 BG4	11	9	22	9	22	56	74	93
	1.78%	2.64%	2.20%	1.12%	2.63%	3.64%	4.93%	9.21%
Total number of residential structures by decade built	618	341	1,002	804	838	1,539	1,500	1,010
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

Figure III-36: Union County Residential Parcels by Year Built

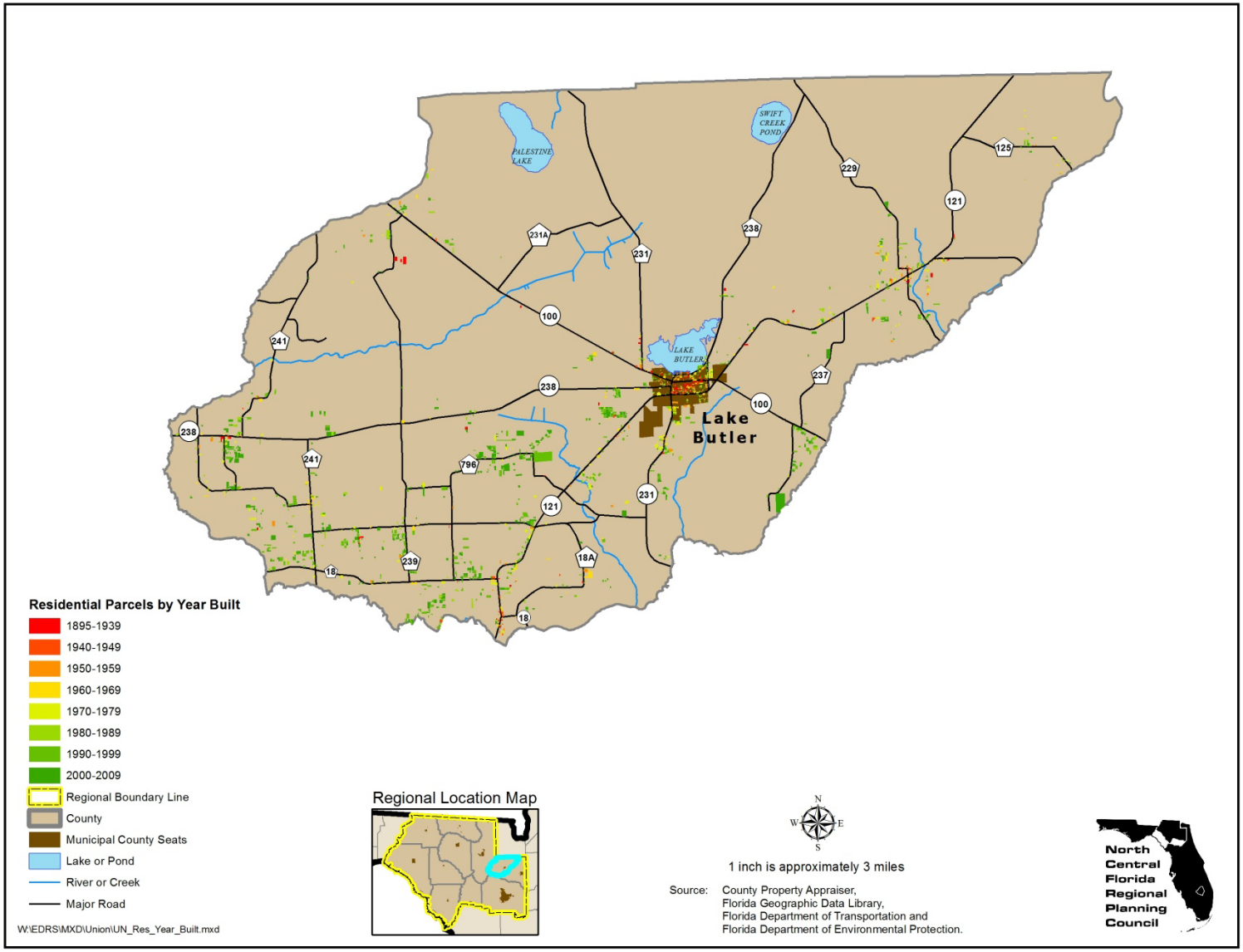


Table III-12: Union County Residential Parcels by Year Built

Census Block Group	Residential structures by decade built							
Track Number and Block Group Number	1895-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010
T960100 BG1	4	3	8	7	12	6	11	7
	2.90%	5.66%	7.27%	3.78%	4.92%	4.51%	2.47%	1.44%
T960100 BG2	11	8	13	32	31	14	36	31
	7.97%	15.09%	11.82%	17.30%	12.70%	10.53%	8.09%	6.39%
T960200 BG1	12	5	11	13	13	16	19	25
	8.70%	9.43%	10.00%	7.03%	5.33%	12.03%	4.27%	5.15%
T960200 BG2	1	2	10	13	43	15	57	47
	0.72%	3.77%	9.09%	7.03%	17.62%	11.28%	12.81%	9.69%
T960200 BG3	78	13	32	43	45	14	20	40
	56.52%	24.53%	29.09%	23.24%	18.44%	10.53%	4.49%	8.25%
T960200 BG4	6	3	7	23	17	6	71	86
	4.35%	5.66%	6.36%	12.43%	6.97%	4.51%	15.96%	17.73%
T960200 BG5	1	0	6	7	13	2	9	4
	0.72%	0.00%	5.45%	3.78%	5.33%	1.50%	2.02%	0.82%
T960300 BG1	11	6	7	30	38	39	140	170
	7.97%	11.32%	6.36%	16.22%	15.57%	29.32%	31.46%	35.05%
T960300 BG2	14	13	16	17	32	21	82	75
	10.14%	24.53%	14.55%	9.19%	13.11%	15.79%	18.43%	15.46%
Total number of residential structures by decade built	138	53	110	185	244	133	445	485
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Property Appraiser.

D. Commercial and Industrial Parcels

1. North Central Florida

The primary source of economic activity for any given market place can be found in the commercial and industrial sectors. Identifying commercial and industrial parcels that are vulnerable to one-percent-annual chance flood events is vital in gauging potential economic loss. Location and identification of businesses was derived from data obtained from the Florida Department of Revenue but maintained by the individual County Property Appraisers. Only parcels categorized according to Florida Administrative Code Rule 12D-8.007, as defined by the Department of Revenue as being either commercial or industrial were used in the analysis. The commercial and industrial parcels where then overlaid with the Federal Emergency Management Agency Flood Insurance Rate Map, 100-year flood zones.

Alachua County had the highest number of commercial and industrial parcels at risk from a 100-year flood event (See Table III-13 and Figure III-37).

2. Alachua County

Tract Number 1603, Block Group 1, located in the western portion of the City of Gainesville, contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-14, Figure III-4 and Figure III-38). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 1811, Block Group 3, located in the unincorporated portion of the County adjacent to the western edge of the City of Gainesville (See Table III-14, Figure III-4 and Figure III-38).

3. Bradford County

Tract Number 200, Block Group 1 and Tract Number 300, Block Group 1 contained the highest number of commercial parcels with potential 100-year flood risk. Tract Number 200, Block Group 1 is located west-southwest of the City of Starke as well as in the southwest portion of the City of Starke (See Table III-15, Figure III-5, Figure III-6 and Figure III-39). Tract Number 300, Block Group 1 is located in the south central portion of the County (See Table III-15, Figure III-5 and Figure III-39). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 300, Block Group 1, located in the south central portion of the County (See Table III-15, Figure III-5 and Figure III-39).

4. Columbia County

Tract Number 110500, Block Group 1, located south of the City of Lake City as well as in the southern portion of the City of Lake City, contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-16, Figure III-7,

Figure III-8 and Figure III-40). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 110202, Block Group 1 and Tract Number 110202, Block Group 4. Tract Number 110202, Block Group 1 is located northwest of the City of Lake City (See Table III-16, Figure III-7, Figure III-8 and Figure III-40). Tract Number 110202, Block Group 4 is located just north of the City of Lake City (See Table III-16, Figure III-8 and Figure III-40).

5. Dixie County

Tract Number 970200, Block Group 2, located in the western portion of the County, contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-17, Figure III-9 and Figure III-41). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 970200, Block Group 2, located in the western portion of the County (See Table III-17, Figure III-9 and Figure III-41).

6. Gilchrist County

Tract Number 950204, Block Group 3, located northeast of the City of Trenton as well as in the northeastern portion of the City of Trenton, contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-18, Figure III-11, Figure III-12 and Figure III-42). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 950204, Block Group 3, located northeast of the City of Trenton as well as in the northeastern portion of the City of Trenton (See Table III-18, Figure III-11, Figure III-12 and Figure III-42).

7. Hamilton County

Tract Number 960200, Block Group 2, located in an area of land west and southwest of the Town of Jennings as well as the Town of Jennings, contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-19, Figure III-13 and Figure III-43). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 960300, Block Group 1, located in the southeastern portion of the County (See Table III-19, Figure III-13 and Figure III-43).

8. Lafayette County

Tract Number 960200, Block Group 1, located east of the Town of Mayo as well as the northeastern portion of the Town of Mayo, contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-20, Figure III-15, Figure III-16 and Figure III-44). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 960200, Block Group 3, located in the southwestern portion of the County (See Table III-20, Figure III-15 and Figure III-44).

9. Madison County

Tract Number 110301, Block Group 1, located northeast of the City of Madison as well as the northeastern portion of the City of Madison contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-21, Figure III-17, Figure III-18 and Figure III-45). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 110100, Block Group 3, Tract Number 110200, Block Group 2 and Tract Number 110302, Block Group 1. Tract Number 110100, Block Group 3 is located in the north central portion of the County (See Table III-21, Figure III-17 and Figure III-45). Tract Number 110200, Block Group 2 is located in the northwestern portion of the County (See Table III-21, Figure III-17 and Figure III-45). Tract Number 110302, Block Group 1 is located south of the City of Madison as well as the southern portion of the City of Madison (See Table III-21, Figure III-17, Figure III-18 and Figure III-45).

10. Suwannee County

Tract Number 970400, Block Group 3, located in the central portion of the City of Live Oak, contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-22, Figure III-20 and Figure III-46). T he highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 970400, Block Group 1 and are located northwest of the City of Live Oak as well as the northwestern portion of the City of Live Oak (See Table III-22, Figure III-19, Figure III-20 and Figure III-46).

11. Taylor County

Tract Number 950400, Block Group 1, located in the unincorporated coastal community of Steinhatchee, contained the highest number of commercial parcels with potential 100-year flood risk (See Table III-23, Figure III-21 and Figure III-47). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 950400, Block Group 3, located in the south central portion of the County, along the coastline (See Table III-23, Figure III-21 and Figure III-47).

12. Union County

Tract Number 960200, Block Group 1 and Tract Number 960300, Block Group 2 contained the highest number of commercial parcels with potential 100-year flood risk. Tract Number 960200, Block Group 1 is located in the north-northwestern portion of the County as well as the northern portion of the City of Lake Butler (See Table III-24, Figure III-23, Figure III-24 and Figure III-48). Tract Number 960300, Block Group 2 is located north of the Town of Worthington Springs as well as the Town of Worthington Springs (See Table III-24, Figure III-23 and Figure III-48). The highest number of industrial parcels that have a potential risk for a 100-year flood event are contained in Tract Number 960200, Block Group 4 and are located west of the City of Lake Butler as well as the western portion of the City of Lake Butler (See Table III-24, Figure III-23, Figure III-24 and Figure III-48).

Figure III-37: North Central Florida Commercial and Industrial Parcels located within 100-year Floodzones and Category 5 SURGE

Table III-13: North Central Florida Commercial and Industrial Parcels located within 100-year Floodzones and Category 5 SURGE

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
County	Commercial	Industrial
ALACHUA	334	135
	37.19%	47.87%
BRADFORD	20	9
	2.23%	3.19%
COLUMBIA	105	43
	11.69%	15.25%
DIXIE	87	18
	9.69%	6.38%
GILCHRIST	8	3
	0.89%	1.06%
HAMILTON	20	12
	2.23%	4.26%
LAFAYETTE	8	4
	0.89%	1.42%
MADISON	16	12
	1.78%	4.26%
SUWANNEE	158	11
	17.59%	3.90%
TAYLOR	137	29
	15.26%	10.28%
UNION	5	6
	0.56%	2.13%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	898	282
	100%	100%

Source: County Property Appraiser.

Figure III-38: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones

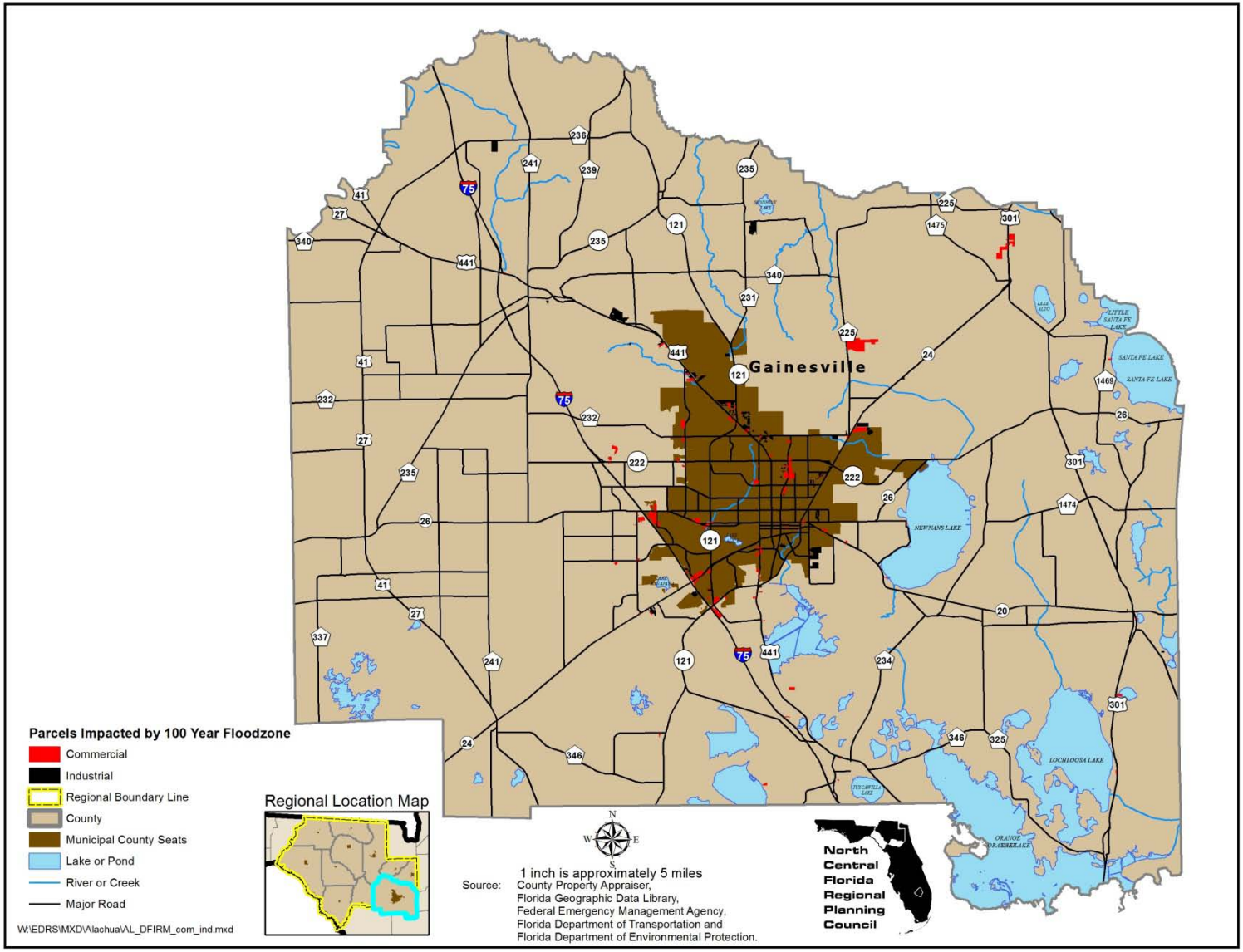


Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
T1000 BG1	0	0
	0.00%	0.00%
T1000 BG2	13	0
	3.89%	0.00%
T1000 BG3	0	0
	0.00%	0.00%
T1000 BG4	0	0
	0.00%	0.00%
T1000 BG5	0	0
	0.00%	0.00%
T1100 BG1	0	0
	0.00%	0.00%
T1100 BG2	0	0
	0.00%	0.00%
T1100 BG3	0	0
	0.00%	0.00%
T1100 BG4	0	0
	0.00%	0.00%
T110800 BG1	3	0
	0.90%	0.00%
T1201 BG1	0	0
	0.00%	0.00%
T1202 BG1	0	0
	0.00%	0.00%
T1202 BG2	0	0
	0.00%	0.00%
T1202 BG3	3	1
	0.90%	0.74%
T1202 BG4	0	0
	0.00%	0.00%
T1202 BG5	0	0
	0.00%	0.00%
T1203 BG1	2	1
	0.60%	0.74%
T1203 BG2	2	0

Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
	0.60%	0.00%
T1400 BG1	0	0
	0.00%	0.00%
T1400 BG2	3	0
	0.90%	0.00%
T1400 BG3	0	0
	0.00%	0.00%
T1514 BG1	1	0
	0.30%	0.00%
T1514 BG2	0	0
	0.00%	0.00%
T1515 BG1	0	0
	0.00%	0.00%
T1515 BG2	0	0
	0.00%	0.00%
T1515 BG3	1	0
	0.30%	0.00%
T1516 BG1	0	0
	0.00%	0.00%
T1516 BG2	0	0
	0.00%	0.00%
T1517 BG1	1	0
	0.30%	0.00%
T1517 BG2	0	0
	0.00%	0.00%
T1519 BG1	16	2
	4.79%	1.48%
T1520 BG1	0	0
	0.00%	0.00%
T1521 BG1	0	0
	0.00%	0.00%
T1521 BG2	0	0
	0.00%	0.00%
T1521 BG3	12	0
	3.59%	0.00%

Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
T1603 BG1	18	7
	5.39%	5.19%
T1604 BG1	5	4
	1.50%	2.96%
T1604 BG2	1	1
	0.30%	0.74%
T1604 BG3	3	3
	0.90%	2.22%
T1604 BG4	3	3
	0.90%	2.22%
T1701 BG1	2	1
	0.60%	0.74%
T1701 BG2	7	6
	2.10%	4.44%
T1702 BG1	0	0
	0.00%	0.00%
T1702 BG2	0	0
	0.00%	0.00%
T1702 BG3	2	2
	0.60%	1.48%
T1801 BG1	4	4
	1.20%	2.96%
T1801 BG2	0	0
	0.00%	0.00%
T1801 BG3	0	0
	0.00%	0.00%
T1801 BG4	0	0
	0.00%	0.00%
T1801 BG5	0	0
	0.00%	0.00%
T1802 BG1	0	0
	0.00%	0.00%
T1802 BG2	0	1
	0.00%	0.74%
T1802 BG3	11	10

Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
	3.29%	7.41%
T1803 BG1	0	0
	0.00%	0.00%
T1803 BG2	2	2
	0.60%	1.48%
T1803 BG3	5	4
	1.50%	2.96%
T1803 BG4	0	0
	0.00%	0.00%
T1805 BG1	0	2
	0.00%	1.48%
T1806 BG1	0	0
	0.00%	0.00%
T1806 BG2	0	0
	0.00%	0.00%
T1806 BG3	0	0
	0.00%	0.00%
T1806 BG4	1	1
	0.30%	0.74%
T1811 BG1	0	0
	0.00%	0.00%
T1811 BG2	1	1
	0.30%	0.74%
T1811 BG3	15	14
	4.49%	10.37%
T1811 BG4	3	3
	0.90%	2.22%
T1813 BG1	4	4
	1.20%	2.96%
T1814 BG1	8	2
	2.40%	1.48%
T1902 BG1	6	6
	1.80%	4.44%
T1902 BG2	1	0
	0.30%	0.00%

Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
T1907 BG1	1	0
	0.30%	0.00%
T1907 BG2	1	0
	0.30%	0.00%
T1907 BG3	0	0
	0.00%	0.00%
T1908 BG1	0	0
	0.00%	0.00%
T1908 BG2	5	4
	1.50%	2.96%
T1908 BG3	0	0
	0.00%	0.00%
T1908 BG4	7	6
	2.10%	4.44%
T1908 BG5	1	0
	0.30%	0.00%
T200 BG1	0	0
	0.00%	0.00%
T200 BG2	0	0
	0.00%	0.00%
T200 BG3	0	0
	0.00%	0.00%
T200 BG4	0	0
	0.00%	0.00%
T200 BG5	0	0
	0.00%	0.00%
T200 BG6	0	0
	0.00%	0.00%
T2000 BG1	0	0
	0.00%	0.00%
T2000 BG2	1	1
	0.30%	0.74%
T2000 BG3	2	0
	0.60%	0.00%
T2000 BG4	1	0

Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
	0.30%	0.00%
T2000 BG5	3	3
	0.90%	2.22%
T2101 BG1	4	5
	1.20%	3.70%
T2101 BG2	5	3
	1.50%	2.22%
T2102 BG1	3	2
	0.90%	1.48%
T2201 BG1	0	0
	0.00%	0.00%
T2201 BG2	0	0
	0.00%	0.00%
T2202 BG1	0	0
	0.00%	0.00%
T2202 BG2	0	0
	0.00%	0.00%
T2202 BG3	0	0
	0.00%	0.00%
T2204 BG1	0	0
	0.00%	0.00%
T2204 BG2	0	0
	0.00%	0.00%
T2204 BG3	0	0
	0.00%	0.00%
T2204 BG4	0	0
	0.00%	0.00%
T2205 BG1	10	9
	2.99%	6.67%
T2205 BG2	4	4
	1.20%	2.96%
T2205 BG3	0	0
	0.00%	0.00%
T2205 BG4	0	0
	0.00%	0.00%

Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
T2207 BG1	7	4
	2.10%	2.96%
T2207 BG2	0	0
	0.00%	0.00%
T2208 BG1	0	0
	0.00%	0.00%
T2208 BG2	0	0
	0.00%	0.00%
T2209 BG1	0	0
	0.00%	0.00%
T2209 BG2	0	0
	0.00%	0.00%
T2209 BG3	1	1
	0.30%	0.74%
T2210 BG1	0	0
	0.00%	0.00%
T2210 BG2	0	0
	0.00%	0.00%
T2210 BG3	0	0
	0.00%	0.00%
T2217 BG1	0	0
	0.00%	0.00%
T2217 BG2	0	0
	0.00%	0.00%
T2217 BG3	8	1
	2.40%	0.74%
T2218 BG1	0	0
	0.00%	0.00%
T2218 BG2	1	0
	0.30%	0.00%
T2219 BG1	1	0
	0.30%	0.00%
T2219 BG2	2	0
	0.60%	0.00%
T2219 BG3	0	0

Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
	0.00%	0.00%
T2220 BG1	4	0
	1.20%	0.00%
T301 BG1	0	0
	0.00%	0.00%
T301 BG2	0	0
	0.00%	0.00%
T302 BG1	13	7
	3.89%	5.19%
T302 BG2	2	0
	0.60%	0.00%
T302 BG3	2	0
	0.60%	0.00%
T400 BG1	14	0
	4.19%	0.00%
T400 BG2	0	0
	0.00%	0.00%
T400 BG3	10	0
	2.99%	0.00%
T400 BG4	12	0
	3.59%	0.00%
T500 BG1	7	0
	2.10%	0.00%
T500 BG2	0	0
	0.00%	0.00%
T500 BG3	0	0
	0.00%	0.00%
T500 BG4	0	0
	0.00%	0.00%
T500 BG5	0	0
	0.00%	0.00%
T600 BG1	1	0
	0.30%	0.00%
T600 BG2	6	0
	1.80%	0.00%

Table III-14: Alachua County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track number and Block Group number	Commercial	Industrial
T600 BG3	3	0
	0.90%	0.00%
T700 BG1	5	0
	1.50%	0.00%
T700 BG2	0	0
	0.00%	0.00%
T700 BG3	0	0
	0.00%	0.00%
T700 BG4	1	0
	0.30%	0.00%
T806 BG1	4	0
	1.20%	0.00%
T808 BG1	0	0
	0.00%	0.00%
T808 BG2	9	0
	2.69%	0.00%
T808 BG3	3	0
	0.90%	0.00%
T809 BG1	11	0
	3.29%	0.00%
T901 BG1	0	0
	0.00%	0.00%
T902 BG1	0	0
	0.00%	0.00%
T902 BG2	0	0
	0.00%	0.00%
T902 BG3	0	0
	0.00%	0.00%
T902 BG4	0	0
	0.00%	0.00%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	334	135
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-39: Bradford County Commercial and Industrial Parcels located within 100-year Floodzones

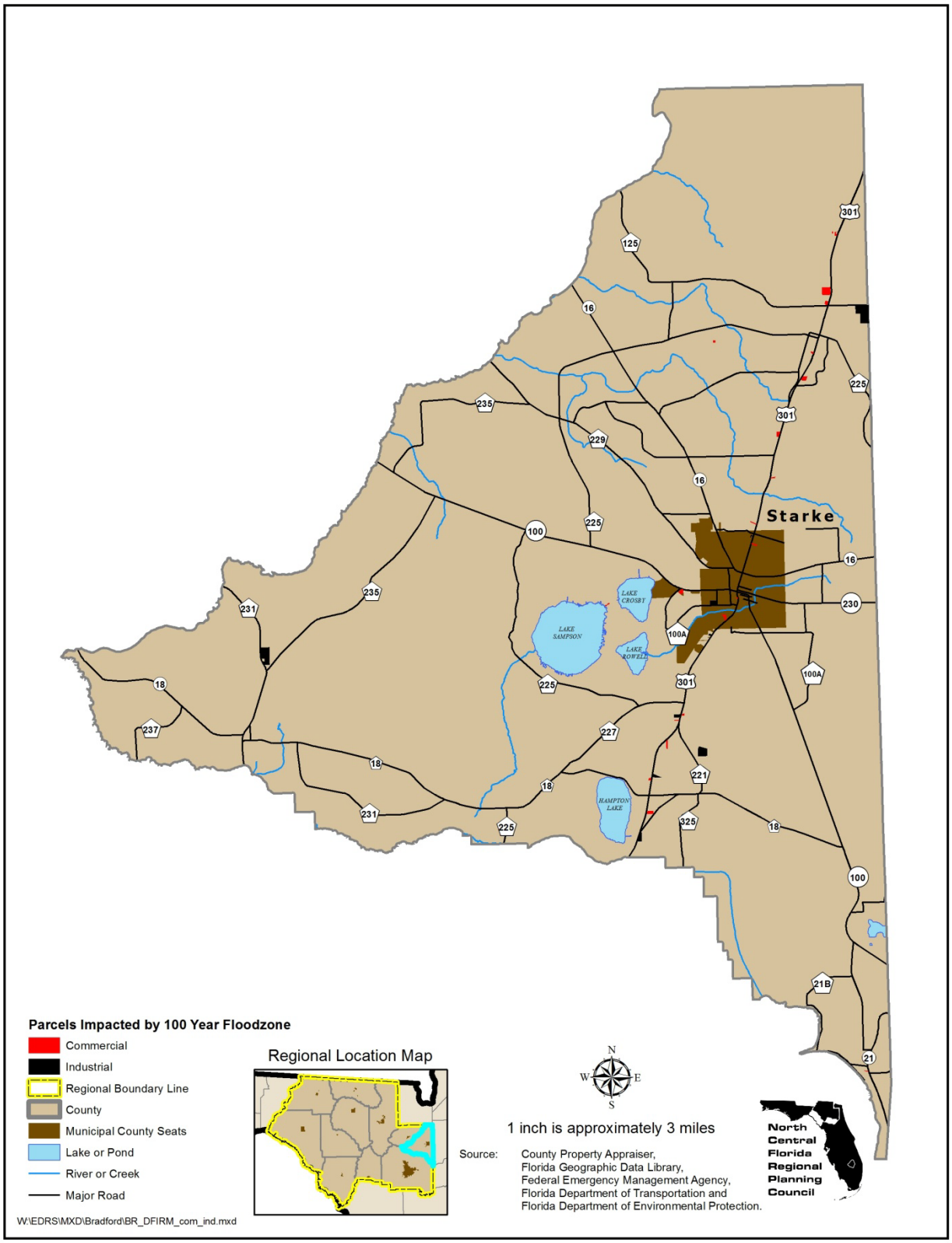


Table III-15: Bradford County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T100 BG1	0	0
	0.00%	0.00%
T100 BG2	0	0
	0.00%	0.00%
T100 BG3	0	0
	0.00%	0.00%
T100 BG4	1	0
	5.00%	0.00%
T100 BG5	0	0
	0.00%	0.00%
T200 BG1	4	2
	20.00%	22.22%
T200 BG2	0	0
	0.00%	0.00%
T200 BG3	0	0
	0.00%	0.00%
T200 BG4	0	0
	0.00%	0.00%
T200 BG5	1	1
	5.00%	11.11%
T300 BG1	4	3
	20.00%	33.33%
T300 BG2	1	1
	5.00%	11.11%
T300 BG3	0	0
	0.00%	0.00%
T300 BG4	1	0
	5.00%	0.00%
T300 BG5	0	1
	0.00%	11.11%
T400 BG1	1	1
	5.00%	11.11%
T400 BG2	4	0
	20.00%	0.00%

Table III-15: Bradford County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T400 BG3	3	0
	15.00%	0.00%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	20	9
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-40: Columbia County Commercial and Industrial Parcels located within 100-year Floodzones

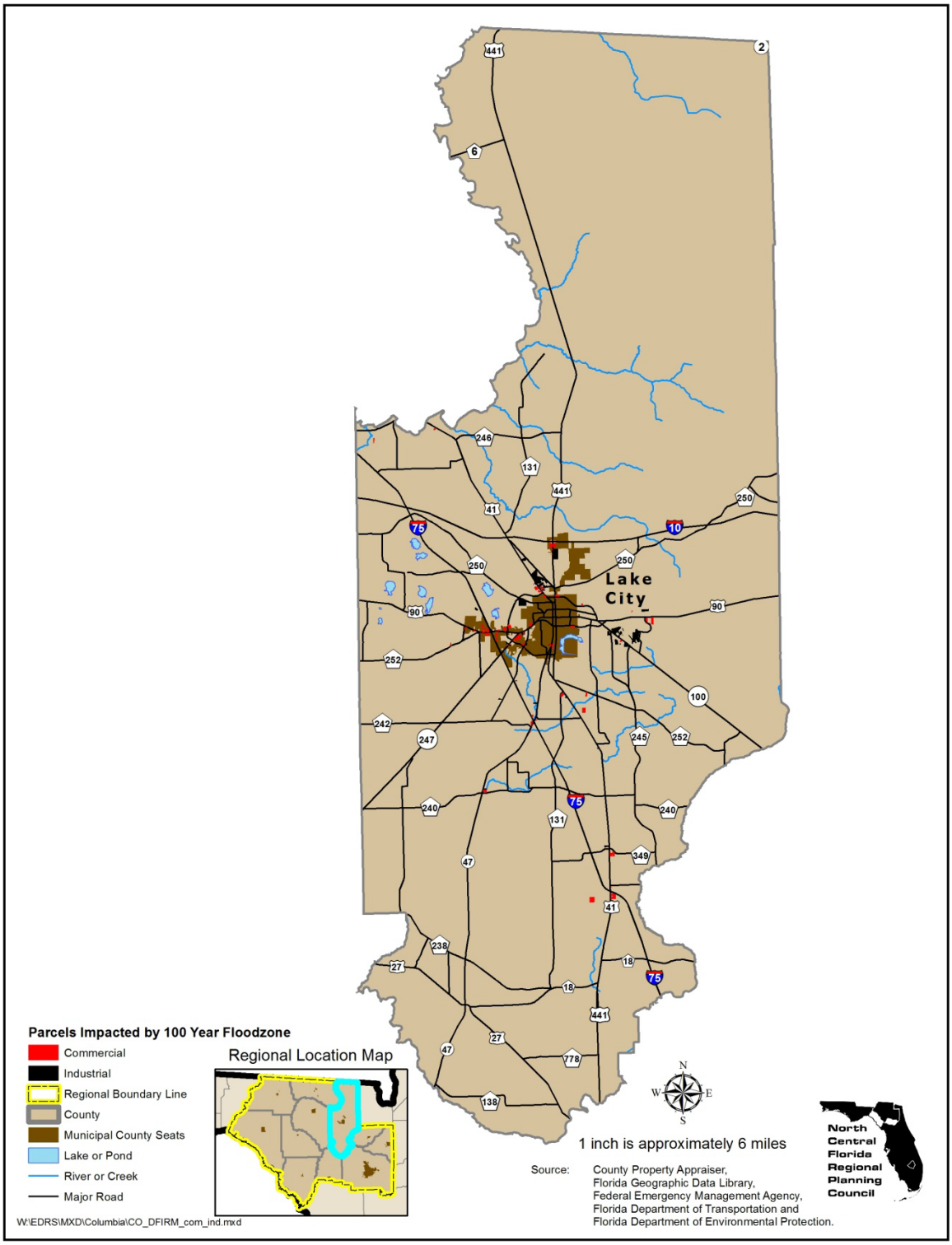


Table III-16: Columbia County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T110201 BG1	0	0
	0.00%	0.00%
T110201 BG2	10	1
	9.52%	2.33%
T110202 BG1	2	8
	1.90%	18.60%
T110202 BG2	1	0
	0.95%	0.00%
T110202 BG3	2	0
	1.90%	0.00%
T110202 BG4	6	8
	5.71%	18.60%
T110300 BG1	1	0
	0.95%	0.00%
T110300 BG2	3	5
	2.86%	11.63%
T110300 BG3	0	0
	0.00%	0.00%
T110300 BG4	4	1
	3.81%	2.33%
T110300 BG5	1	0
	0.95%	0.00%
T110400 BG1	0	0
	0.00%	0.00%
T110400 BG2	0	0
	0.00%	0.00%
T110400 BG3	1	0
	0.95%	0.00%
T110400 BG4	1	0
	0.95%	0.00%
T110500 BG1	22	5
	20.95%	11.63%
T110500 BG2	0	0
	0.00%	0.00%

Table III-16: Columbia County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T110500 BG3	6	1
	5.71%	2.33%
T110500 BG4	8	0
	7.62%	0.00%
T110500 BG5	0	3
	0.00%	6.98%
T110601 BG1	10	0
	9.52%	0.00%
T110601 BG2	1	0
	0.95%	0.00%
T110601 BG3	2	1
	1.90%	2.33%
T110602 BG1	1	0
	0.95%	0.00%
T110602 BG2	4	1
	3.81%	2.33%
T110700 BG1	3	0
	2.86%	0.00%
T110700 BG2	1	0
	0.95%	0.00%
T110700 BG3	2	0
	1.90%	0.00%
T110700 BG4	1	0
	0.95%	0.00%
T110800 BG1	1	3
	0.95%	6.98%
T110800 BG2	0	1
	0.00%	2.33%
T110800 BG3	0	0
	0.00%	0.00%
T110800 BG4	2	3
	1.90%	6.98%
T110901 BG1	8	2
	7.62%	4.65%
T110901 BG2	0	0

Table III-16: Columbia County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
	0.00%	0.00%
T110901 BG3	0	0
	0.00%	0.00%
T110903 BG1	0	0
	0.00%	0.00%
T110903 BG2	0	0
	0.00%	0.00%
T110904 BG1	1	0
	0.95%	0.00%
T110904 BG2	0	0
	0.00%	0.00%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	105	43
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-41: Dixie County Commercial and Industrial Parcels located within 100-year Floodzones and Category 5 SURGE

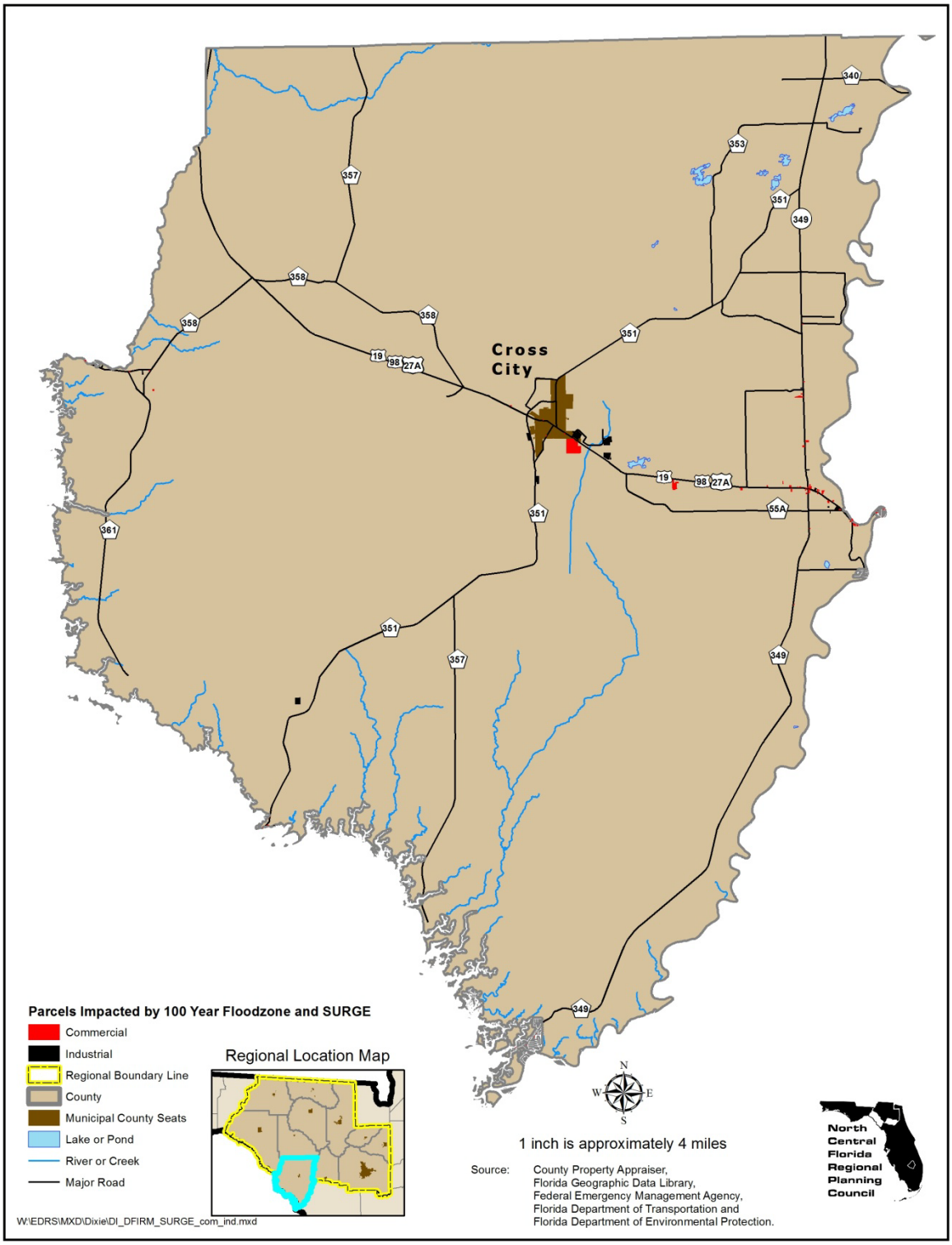


Table III-17: Dixie County Commercial and Industrial Parcels located within 100-year Floodzones and Category 5 SURGE

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T970101 BG1	0	4
	0.00%	22.22%
T970101 BG2	5	1
	5.75%	5.56%
T970101 BG3	3	1
	3.45%	5.56%
T970102 BG1	0	0
	0.00%	0.00%
T970102 BG2	3	1
	3.45%	5.56%
T970102 BG3	0	0
	0.00%	0.00%
T970102 BG4	0	0
	0.00%	0.00%
T970102 BG5	0	0
	0.00%	0.00%
T970200 BG1	11	0
	12.64%	0.00%
T970200 BG2	54	10
	62.07%	55.56%
T970200 BG3	2	0
	2.30%	0.00%
T970200 BG4	9	1
	10.34%	5.56%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	87	18
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-42: Gilchrist County Commercial and Industrial Parcels located within 100-year Floodzones

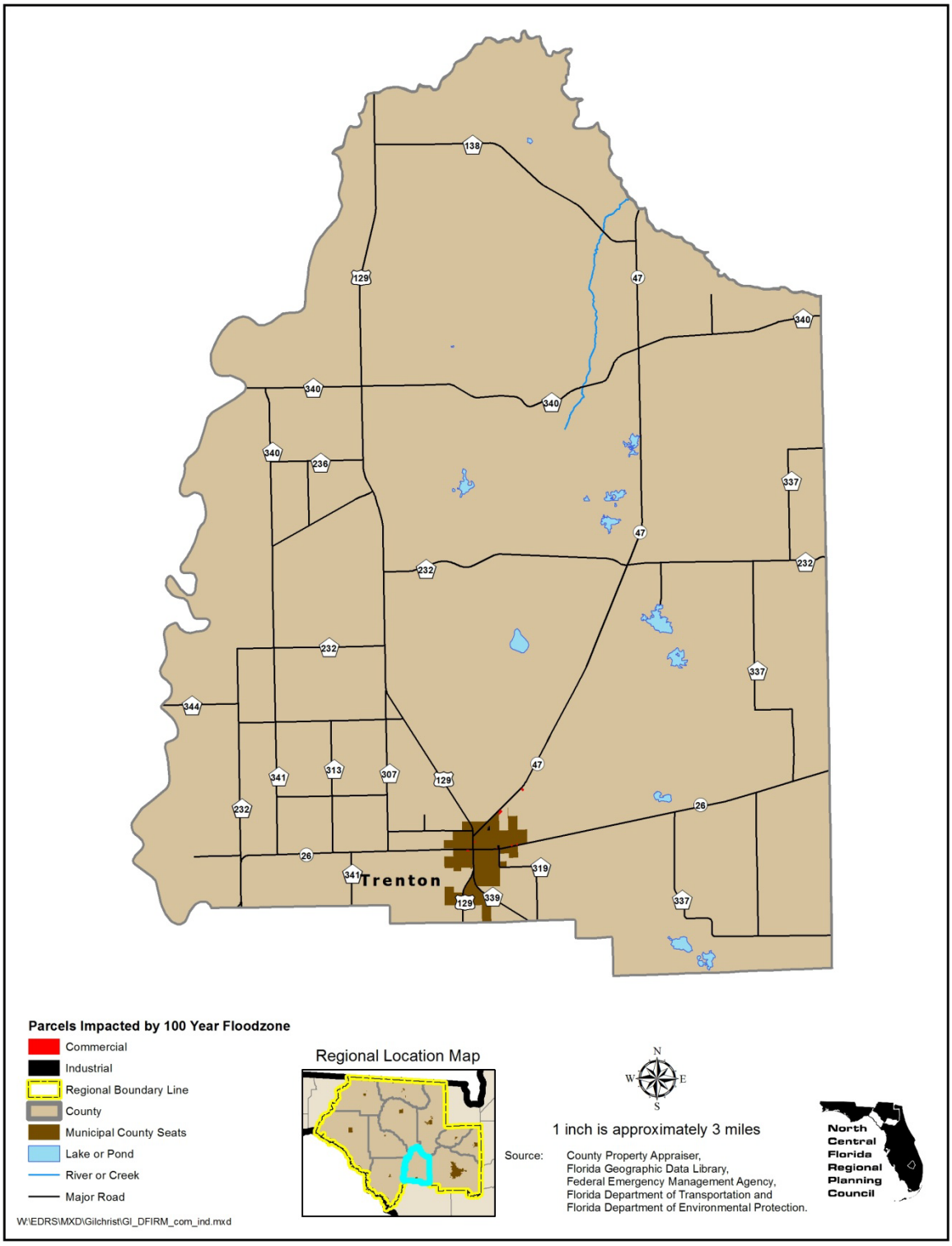


Table III-18: Gilchrist County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T950100 BG1	0 0.00%	0 0.00%
T950100 BG2	0 0.00%	0 0.00%
T950100 BG3	0 0.00%	0 0.00%
T950100 BG4	0 0.00%	0 0.00%
T950201 BG1	0 0.00%	0 0.00%
T950202 BG1	0 0.00%	0 0.00%
T950202 BG2	0 0.00%	0 0.00%
T950203 BG1	0 0.00%	0 0.00%
T950203 BG2	0 0.00%	0 0.00%
T950203 BG3	0 0.00%	0 0.00%
T950204 BG1	0 0.00%	0 0.00%
T950204 BG2	2 25.00%	0 0.00%
T950204 BG3	6 75.00%	3 100.00%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	8 100%	3 100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-43: Hamilton County Commercial and Industrial Parcels located within 100-year Floodzones

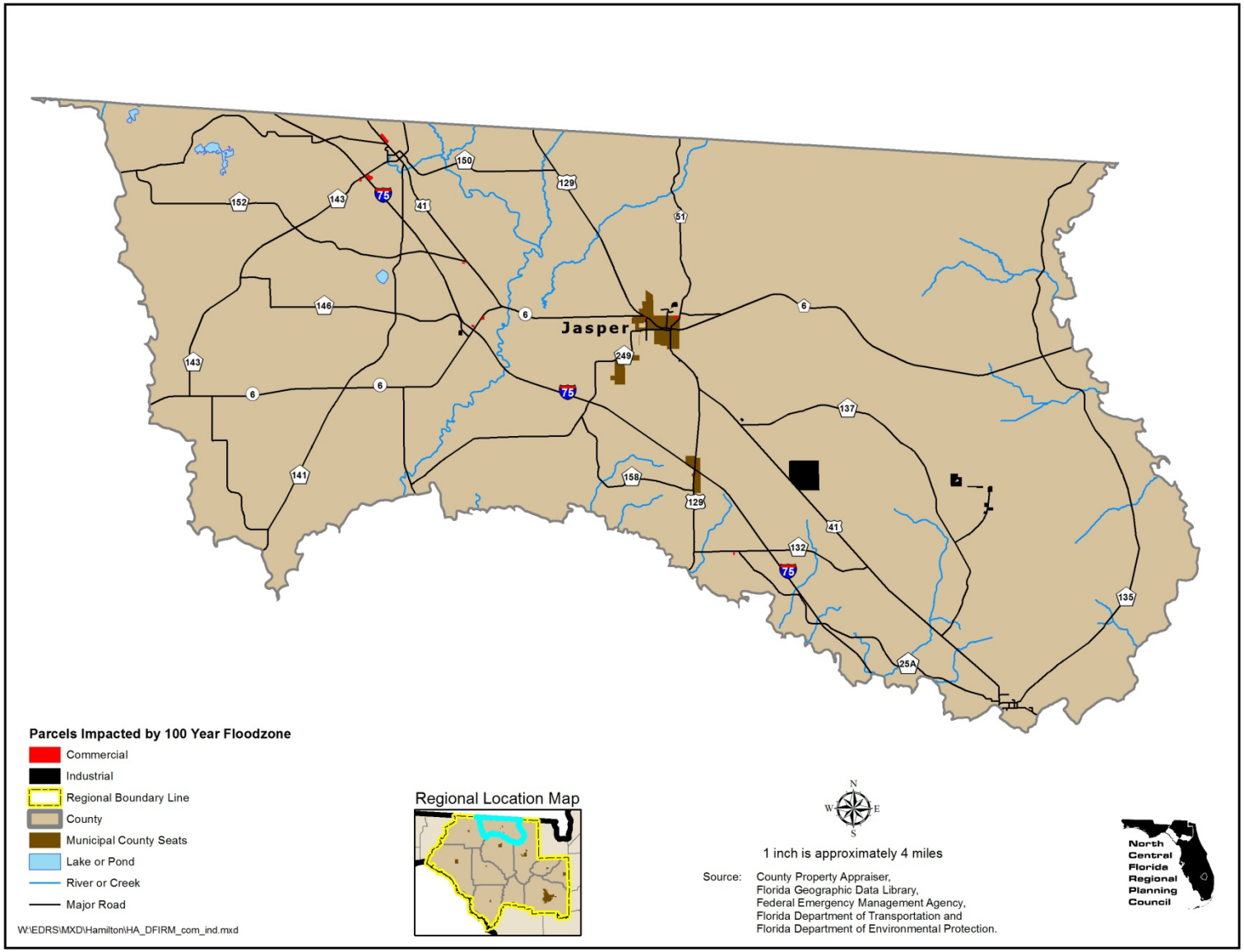


Table III-19: Hamilton County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T960200 BG2	7	0
	35.00%	0.00%
T960300 BG1	0	6
	0.00%	50.00%
T960200 BG3	3	0
	15.00%	0.00%
T960100 BG5	0	0
	0.00%	0.00%
T960300 BG2	1	0
	5.00%	0.00%
T960100 BG3	6	1
	30.00%	8.33%
T960200 BG1	0	1
	0.00%	8.33%
T960100 BG4	0	0
	0.00%	0.00%
T960100 BG2	0	0
	0.00%	0.00%
T960100 BG1	3	4
	15.00%	33.33%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	20	12
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-44: Lafayette County Commercial and Industrial Parcels located within 100-year Floodzones

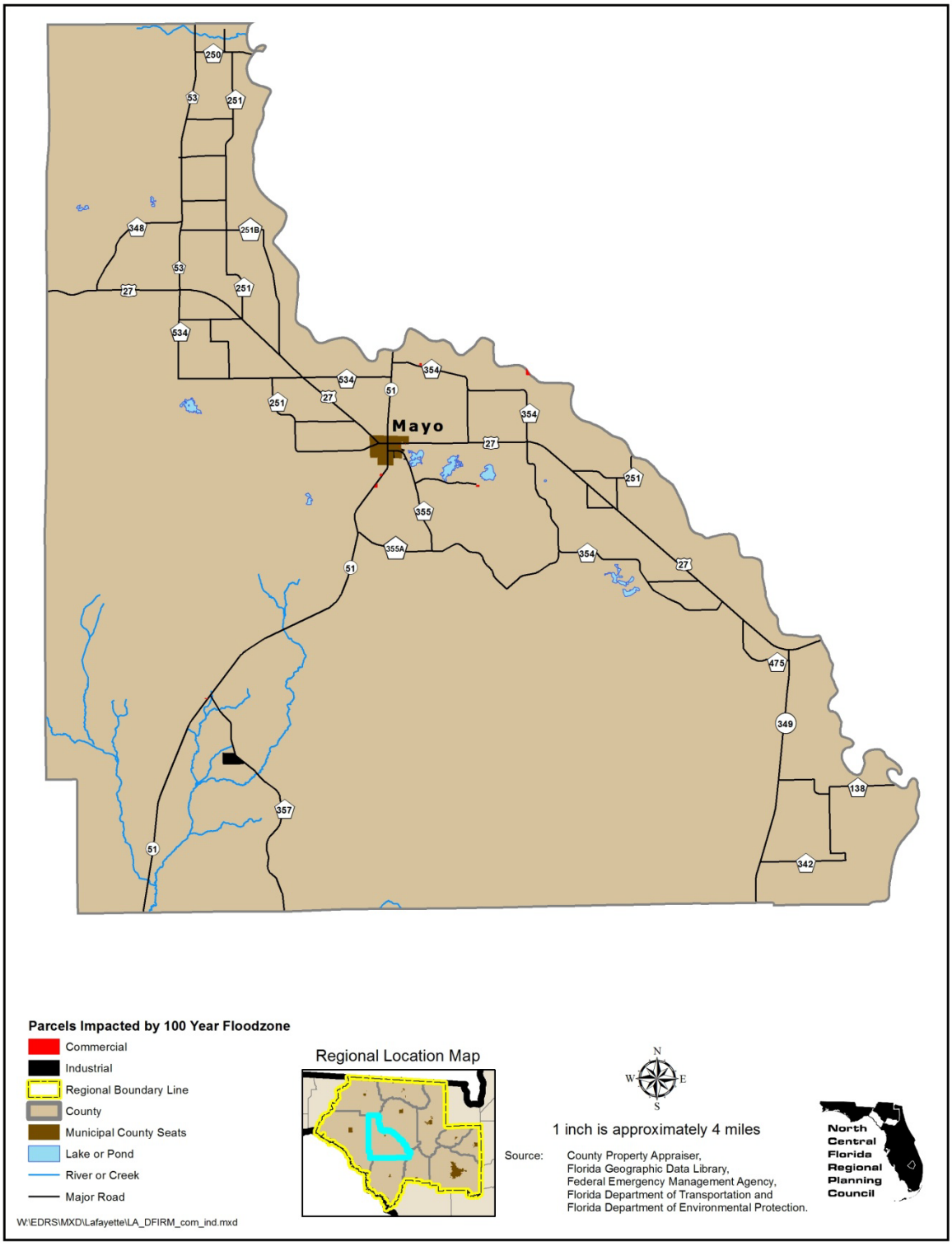


Table III-20: Lafayette County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T960100 BG1	0	0
	0.00%	0.00%
T960100 BG2	0	0
	0.00%	0.00%
T960200 BG1	5	1
	62.50%	25.00%
T960200 BG2	0	0
	0.00%	0.00%
T960200 BG3	3	3
	37.50%	75.00%
T960200 BG4	0	0
	0.00%	0.00%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	8	4
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-45: Madison County Commercial and Industrial Parcels located within 100-year Floodzones

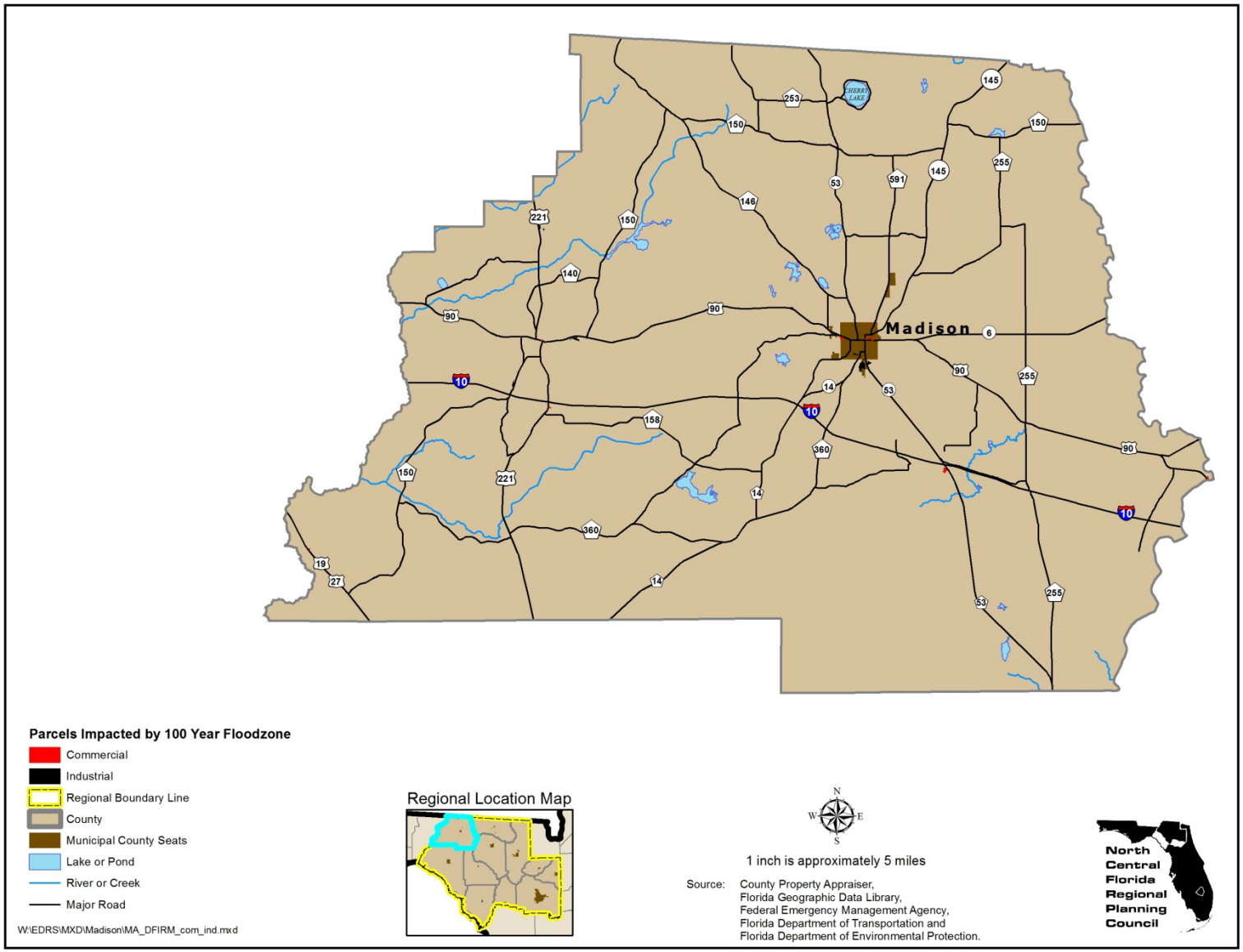


Table III-21: Madison County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T110100 BG1	0 0.00%	0 0.00%
T110100 BG2	0 0.00%	0 0.00%
T110100 BG3	0 0.00%	2 16.67%
T110200 BG1	2 12.50%	0 0.00%
T110200 BG2	0 0.00%	2 16.67%
T110200 BG3	3 18.75%	1 8.33%
T110200 BG4	1 6.25%	1 8.33%
T110301 BG1	6 37.50%	1 8.33%
T110301 BG2	1 6.25%	0 0.00%
T110302 BG1	0 0.00%	2 16.67%
T110302 BG2	1 6.25%	0 0.00%
T110302 BG3	0 0.00%	1 8.33%
T110302 BG4	0 0.00%	1 8.33%
T110400 BG1	0 0.00%	1 8.33%
T110400 BG2	1 6.25%	0 0.00%
T110400 BG3	1 6.25%	0 0.00%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	16 100%	12 100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-46: Suwannee County Commercial and Industrial Parcels located within 100-year Floodzones

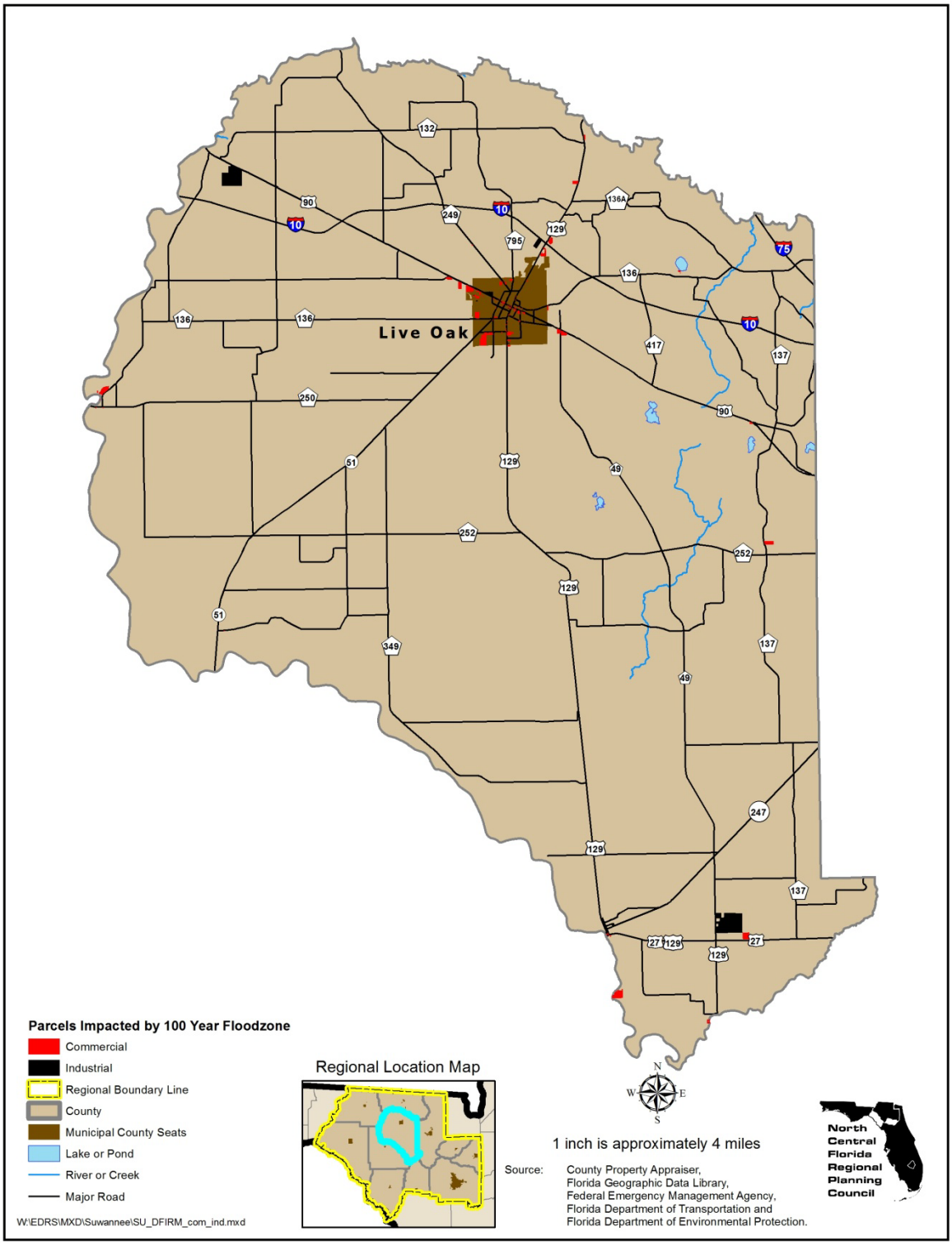


Table III-22: Suwannee County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T970100 BG1	7	0
	4.43%	0.00%
T970100 BG2	1	0
	0.63%	0.00%
T970100 BG3	10	1
	6.33%	9.09%
T970100 BG4	26	1
	16.46%	9.09%
T970100 BG5	8	1
	5.06%	9.09%
T970200 BG1	1	0
	0.63%	0.00%
T970200 BG2	2	1
	1.27%	9.09%
T970200 BG3	21	1
	13.29%	9.09%
T970301 BG1	1	0
	0.63%	0.00%
T970302 BG1	0	1
	0.00%	9.09%
T970302 BG2	6	0
	3.80%	0.00%
T970302 BG3	0	0
	0.00%	0.00%
T970302 BG4	0	0
	0.00%	0.00%
T970400 BG1	10	2
	6.33%	18.18%
T970400 BG2	7	0
	4.43%	0.00%
T970400 BG3	29	1
	18.35%	9.09%
T970400 BG4	2	0

Table III-22: Suwannee County Commercial and Industrial Parcels located within 100-year Floodzones (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
	1.27%	0.00%
T970400 BG5	16	0
	10.13%	0.00%
T970500 BG1	0	0
	0.00%	0.00%
T970500 BG2	2	0
	1.27%	0.00%
T970500 BG3	0	0
	0.00%	0.00%
T970500 BG4	0	0
	0.00%	0.00%
T970600 BG1	1	1
	0.63%	9.09%
T970600 BG2	0	0
	0.00%	0.00%
T970600 BG3	6	1
	3.80%	9.09%
T970600 BG4	2	0
	1.27%	0.00%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	158	11
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-47: Taylor County Commercial and Industrial Parcels located within 100-year Floodzones and Category 5 SURGE

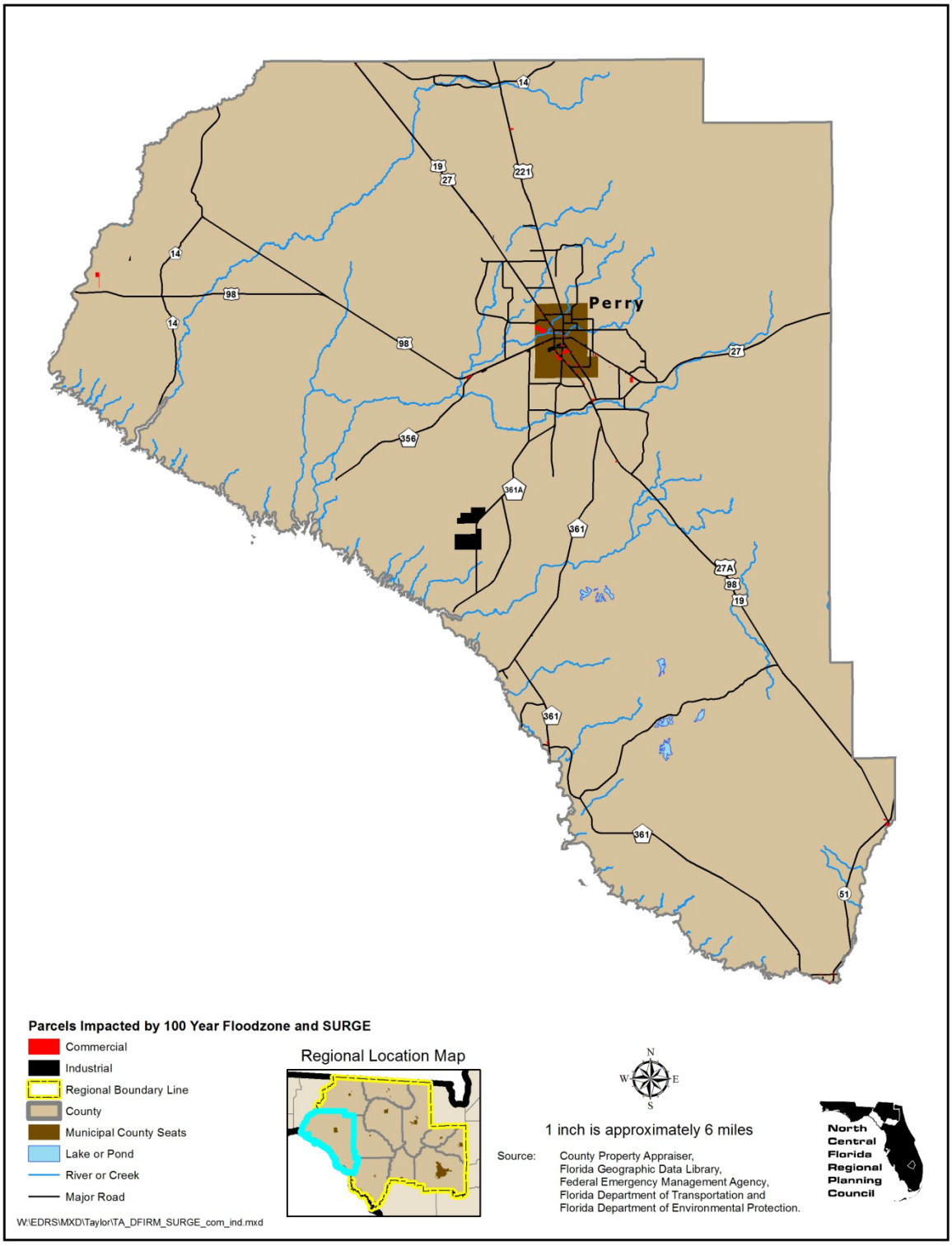


Table III-23: Taylor County Commercial and Industrial Parcels located within 100-year Floodzones and Category 5 SURGE

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T950100 BG1	1 0.73%	0 0.00%
T950100 BG2	4 2.92%	0 0.00%
T950100 BG3	14 10.22%	1 3.45%
T950100 BG4	0 0.00%	1 3.45%
T950200 BG1	9 6.57%	0 0.00%
T950200 BG2	1 0.73%	0 0.00%
T950200 BG3	3 2.19%	0 0.00%
T950200 BG4	8 5.84%	0 0.00%
T950200 BG5	6 4.38%	2 6.90%
T950300 BG1	15 10.95%	1 3.45%
T950300 BG2	4 2.92%	2 6.90%
T950300 BG3	5 3.65%	3 10.34%
T950300 BG4	8 5.84%	4 13.79%
T950300 BG5	1 0.73%	1 3.45%
T950300 BG6	11 8.03%	3 10.34%
T950400 BG1	31 22.63%	4 13.79%
T950400 BG2	8 5.84%	1 3.45%

Table III-23: Taylor County Commercial and Industrial Parcels located within 100-year Floodzones and Category 5 SURGE (Continued)

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T950400 BG3	3	6
	2.19%	20.69%
T950400 BG4	5	0
	3.65%	0.00%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	137	29
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

Figure III-48: Union County Commercial and Industrial Parcels located within 100-year Floodzones

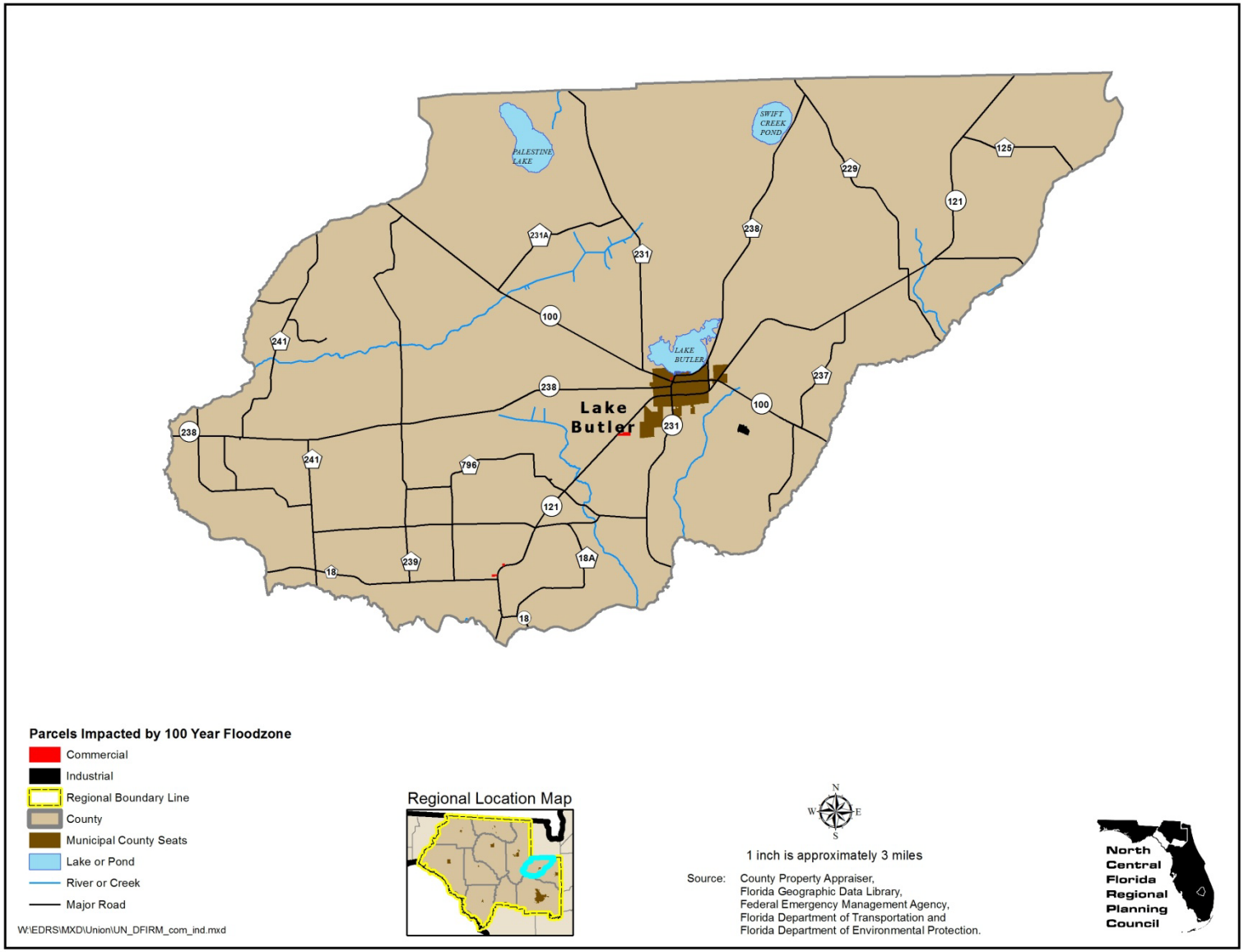


Table III-24: Union County Commercial and Industrial Parcels located within 100-year Floodzones

Census Block Group	Commercial and industrial property impacted by 100-year floodzone and/or category five SURGE	
Track Number and Block Group Number	Commercial	Industrial
T960100 BG1	0	0
	0.00%	0.00%
T960100 BG2	0	0
	0.00%	0.00%
T960200 BG1	2	0
	40.00%	0.00%
T960200 BG2	0	1
	0.00%	16.67%
T960200 BG3	0	0
	0.00%	0.00%
T960200 BG4	0	3
	0.00%	50.00%
T960200 BG5	1	0
	20.00%	0.00%
T960300 BG1	0	1
	0.00%	16.67%
T960300 BG2	2	1
	40.00%	16.67%
Total number of commercial or industrial property impacted by 100-year floodzone and/or category five SURGE	5	6
	100%	100%

Source: County Property Appraiser and Federal Emergency Management Agency.

E. Infrastructure

1. North Central Florida

The proper operation of critical facilities is essential for economic resilience after a major storm. The County Emergency Management Departments have indentified eight critical facilities: airports, helipads, sea planes, solid waste facilities, potable water treatment plants, wastewater treatment plants, electrical power plants and energy substations. All of these facilities play a major role in maintaining proper functioning of businesses and communities. Although the majority of these facilities are owned and operated by the public sector there are some that owned by the private sector but operated by the public sector (See Table III-25 and Figure III-49).

2. Alachua County

According to the County Emergency Management Department there are one airport, 10 solid waste facilities, 45 potable water treatment plants, 14 wastewater treatment plants and 24 energy substations located within the County (See Table III-26, Figure III-3, Figure III-4 and Figure III-50).

3. Bradford County

According to the County Emergency Management Department there are 9 airports, 9 helipads, 42 solid waste facilities, 110 potable water treatment plants, 46 wastewater treatment plants, 2 electrical power plants and 145 energy substations located within the County (See Table III-27, Figure III-5, Figure III-6 and Figure III-51).

4. Columbia County

According to the County Emergency Management Department there are 10 airports, 2 helipads, 9 solid waste facilities, 108 potable water treatment plants, 38 wastewater treatment plants and 72 energy substations located within the County (See Table III-28, Figure III-7, Figure III-8 and Figure III-52).

5. Dixie County

According to the County Emergency Management Department there are 2 airports, 2 sea planes, one helipad, 13 solid waste facilities, 26 potable water treatment plants, 5 wastewater treatment plants and 17 energy substations located within the County (See Table III-29, Figure III-9, Figure III-10 and Figure III-53).

6. Gilchrist County

According to the County Emergency Management Department there are 6 airports, 7 solid waste facilities, 30 potable water treatment plants, 13 wastewater treatment plants and 12 energy substations located within the County (See Table III-30, Figure III-11, Figure III-12 and Figure III-54).

7. Hamilton County

According to the County Emergency Management Department there are one airport, one helipad, 12 solid waste facilities, 31 potable water treatment plants, 15 wastewater treatment plants and 20 energy substations located within the County (See Table III-31, Figure III-13, Figure III-14 and Figure III-55).

8. Lafayette County

According to the County Emergency Management Department there are one airport, 13 solid waste facilities, 10 potable water treatment plants, 6 wastewater treatment plants and 7 energy substations located within the County (See Table III-32, Figure III-15, Figure III-16 and Figure III-56).

9. Madison County

According to the County Emergency Management Department there are 6 airports, 11 solid waste facilities, 27 potable water treatment plants, 12 wastewater treatment plants and 24 energy substations located within the County (See Table III-33, Figure III-17, Figure III-18 and Figure III-57).

10. Suwannee County

According to the County Emergency Management Department there are 18 airports, one helipad, 13 solid waste facilities, 68 potable water treatment plants, 18 wastewater treatment plants, one electrical power plant and 48 energy substations located within the County (See Table III-34, Figure III-19, Figure III-20 and Figure III-58).

11. Taylor County

According to the County Emergency Management Department there are 6 airports, one helipad, 22 solid waste facilities, 23 potable water treatment plants, 18 wastewater treatment plants and 33 energy substations located within the County (See Table III-35, Figure III-21, Figure III-22 and Figure III-59).

12. Union County

According to the County Emergency Management Department there are 2 airports, 12 solid waste facilities, 13 potable water treatment plants, 4 wastewater treatment plants and 10 energy substations located within the County (See Table III-36, Figure III-23, Figure III-24 and Figure III-60).

Figure III-49: North Central Florida Critical Infrastructure

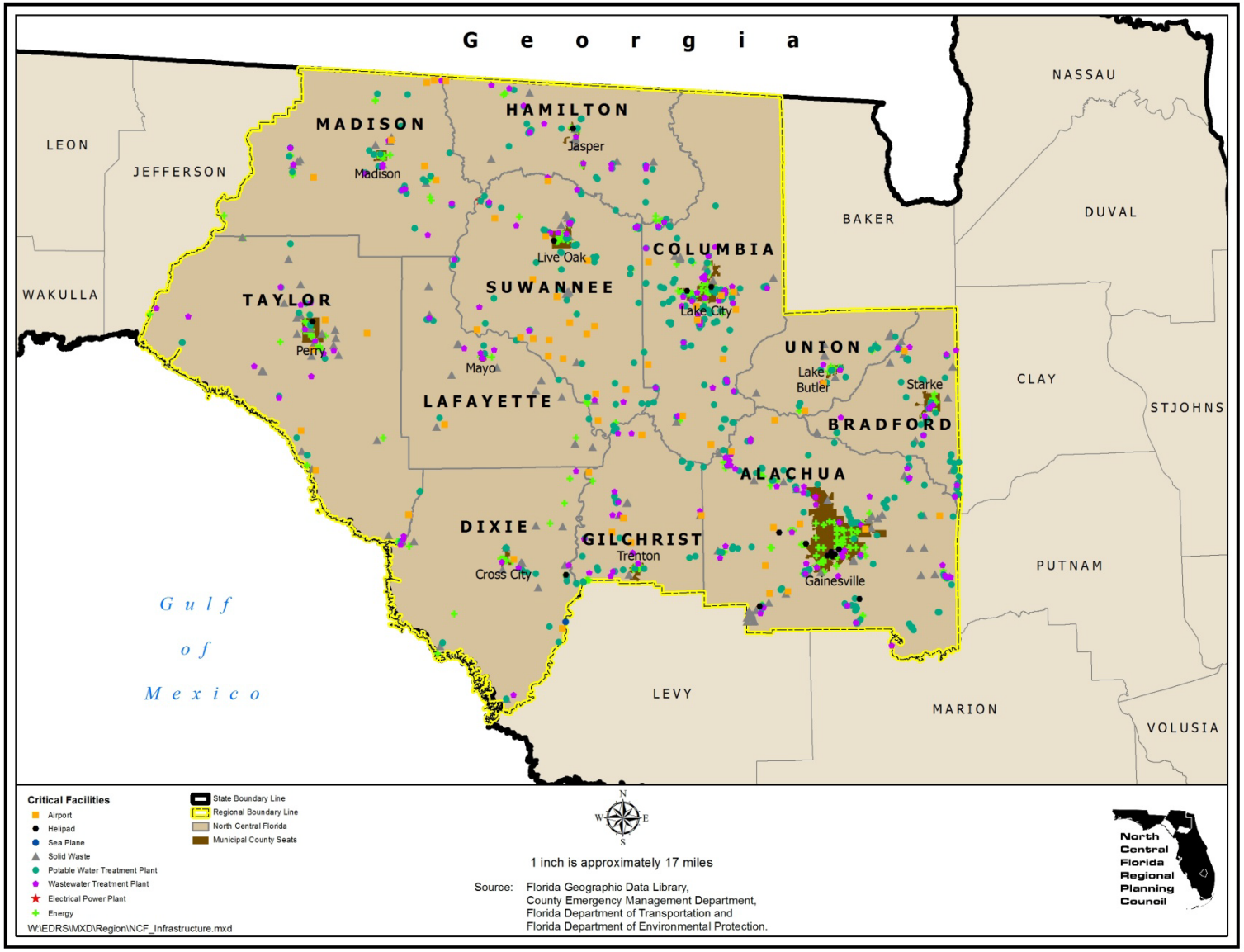


Table III-25: North Central Florida Critical Infrastructure

Census Block Group	Location of critical facilities							
County	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
ALACHUA	9	9	0	42	110	46	2	145
	14.52%	60.00%	0.00%	25.61%	22.40%	24.34%	66.67%	35.19%
BRADFORD	1	0	0	10	45	14	0	24
	1.61%	0.00%	0.00%	6.10%	9.16%	7.41%	0.00%	5.83%
COLUMBIA	10	2	0	9	108	38	0	72
	16.13%	13.33%	0.00%	5.49%	22.00%	20.11%	0.00%	17.48%
DIXIE	2	1	1	13	26	5	0	17
	3.23%	6.67%	100.00%	7.93%	5.30%	2.65%	0.00%	4.13%
GILCHRIST	6	0	0	7	30	13	0	12
	9.68%	0.00%	0.00%	4.27%	6.11%	6.88%	0.00%	2.91%
HAMILTON	1	1	0	12	31	15	0	20
	1.61%	6.67%	0.00%	7.32%	6.31%	7.94%	0.00%	4.85%
LAFAYETTE	1	0	0	13	10	6	0	7
	1.61%	0.00%	0.00%	7.93%	2.04%	3.17%	0.00%	1.70%
MADISON	6	0	0	11	27	12	0	24
	9.68%	0.00%	0.00%	6.71%	5.50%	6.35%	0.00%	5.83%
SUWANNEE	18	1	0	13	68	18	1	48
	29.03%	6.67%	0.00%	7.93%	13.85%	9.52%	33.33%	11.65%
TAYLOR	6	1	0	22	23	18	0	33
	9.68%	6.67%	0.00%	13.41%	4.68%	9.52%	0.00%	8.01%
UNION	2	0	0	12	13	4	0	10
	3.23%	0.00%	0.00%	7.32%	2.65%	2.12%	0.00%	2.43%
Total number of critical facilities	62	15	1	164	491	189	3	412
	100%	100%	100%	100%	100%	100%	100%	100%

Source: County Emergency Management Department.

Figure III-50: Alachua County Critical Infrastructure

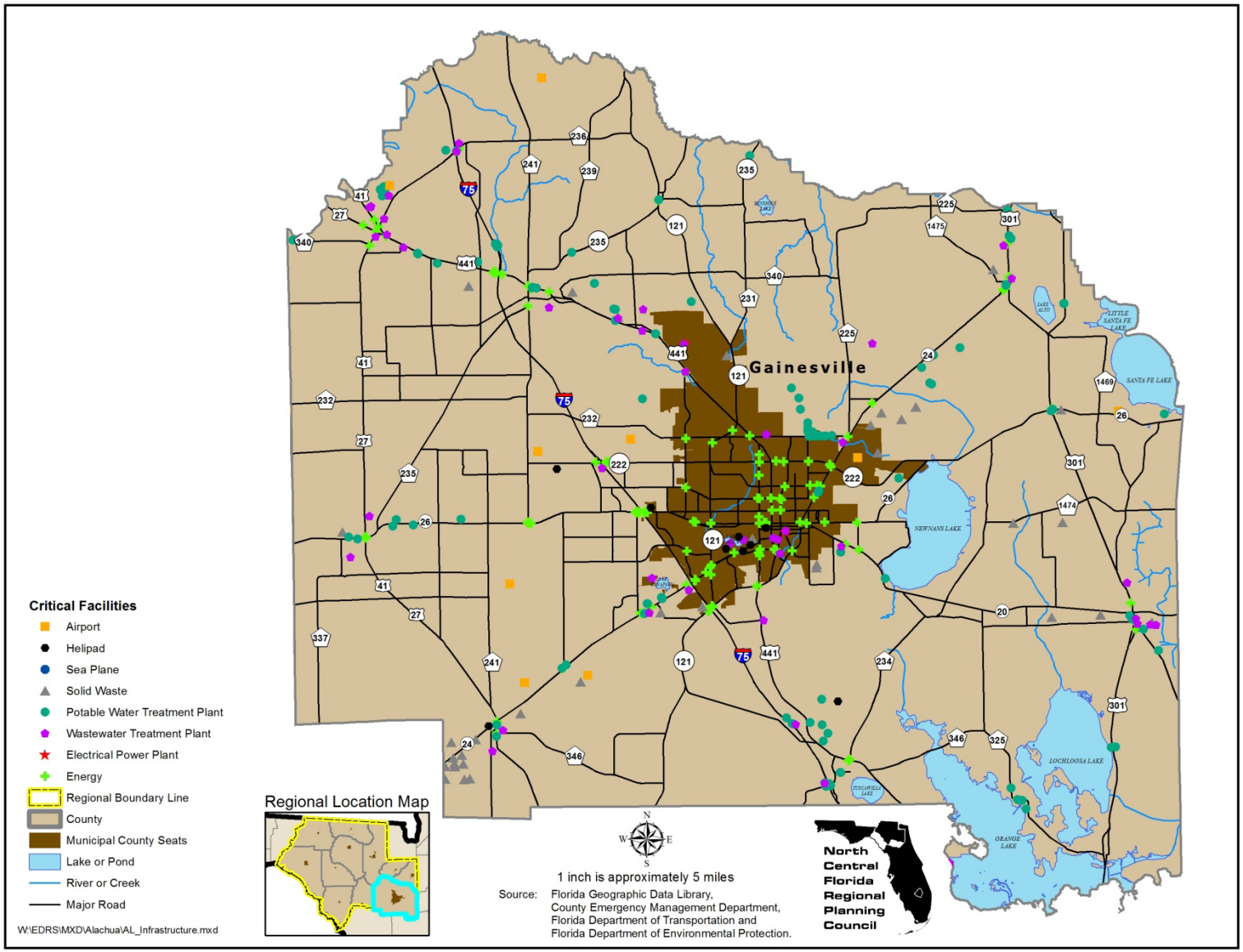


Table III-26: Alachua County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T1000 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1000 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1000 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1000 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1000 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1100 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1100 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1100 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1100 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T110800 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%
T1201 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1202 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1202 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1202 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1202 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1202 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1203 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1203 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%

Table III-26: Alachua County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T1400 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1400 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.91%	0 0.00%	0 0.00%	1 0.69%
T1400 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.91%	0 0.00%	0 0.00%	0 0.00%
T1514 BG1	0 0.00%	1 11.11%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%
T1514 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1515 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1515 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1515 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1516 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1516 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1517 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1517 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1519 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	4 2.76%
T1520 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1521 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1521 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1521 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1603 BG1	0	0	0	0	0	0	0	2

Table III-26: Alachua County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%
T1604 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1604 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1604 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1604 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 2.07%
T1701 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1701 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1702 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T1702 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1702 BG3	0 0.00%	1 11.11%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%
T1801 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	5 4.55%	0 0.00%	0 0.00%	0 0.00%
T1801 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 2.73%	0 0.00%	0 0.00%	1 0.69%
T1801 BG3	0 0.00%	0 0.00%	0 0.00%	1 2.38%	0 0.00%	2 4.35%	0 0.00%	5 3.45%
T1801 BG4	2 22.22%	0 0.00%	0 0.00%	0 0.00%	7 6.36%	5 10.87%	0 0.00%	3 2.07%
T1801 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.82%	0 0.00%	0 0.00%	1 0.69%
T1802 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 2.73%	0 0.00%	0 0.00%	1 0.69%
T1802 BG2	0 0.00%	0 0.00%	0 0.00%	2 4.76%	4 3.64%	1 2.17%	0 0.00%	1 0.69%
T1802 BG3	0 0.00%	0 0.00%	0 0.00%	1 2.38%	2 1.82%	2 4.35%	1 50.00%	1 0.69%
T1803 BG1	0	0	0	0	0	0	0	0

Table III-26: Alachua County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T1803 BG2	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T1803 BG3	0	0	0	0	0	0	0	1
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69%
T1803 BG4	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T1805 BG1	0	0	0	0	0	1	0	1
	0.00%	0.00%	0.00%	0.00%	0.00%	2.17%	0.00%	0.69%
T1806 BG1	0	0	0	0	1	1	0	1
	0.00%	0.00%	0.00%	0.00%	0.91%	2.17%	0.00%	0.69%
T1806 BG2	0	0	0	0	2	1	0	0
	0.00%	0.00%	0.00%	0.00%	1.82%	2.17%	0.00%	0.00%
T1806 BG3	0	0	0	1	1	0	0	1
	0.00%	0.00%	0.00%	2.38%	0.91%	0.00%	0.00%	0.69%
T1806 BG4	0	0	0	0	0	0	0	3
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.07%
T1811 BG1	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T1811 BG2	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T1811 BG3	1	0	0	0	0	0	0	0
	11.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T1811 BG4	0	0	0	0	0	0	0	2
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%
T1813 BG1	0	0	0	0	1	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.91%	0.00%	0.00%	0.00%
T1814 BG1	0	0	0	0	0	2	0	1
	0.00%	0.00%	0.00%	0.00%	0.00%	4.35%	0.00%	0.69%
T1902 BG1	0	0	0	0	0	1	0	2
	0.00%	0.00%	0.00%	0.00%	0.00%	2.17%	0.00%	1.38%
T1902 BG2	1	0	0	1	2	0	0	0
	11.11%	0.00%	0.00%	2.38%	1.82%	0.00%	0.00%	0.00%
T1907 BG1	1	0	0	0	2	0	0	1
	11.11%	0.00%	0.00%	0.00%	1.82%	0.00%	0.00%	0.69%

Table III-26: Alachua County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T1907 BG2	0 0.00%	0 0.00%	0 0.00%	7 16.67%	5 4.55%	0 0.00%	0 0.00%	1 0.69%
T1907 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.82%	0 0.00%	0 0.00%	0 0.00%
T1908 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T1908 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	14 12.73%	2 4.35%	0 0.00%	1 0.69%
T1908 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.91%	0 0.00%	0 0.00%	0 0.00%
T1908 BG4	0 0.00%	0 0.00%	0 0.00%	1 2.38%	5 4.55%	2 4.35%	0 0.00%	21 14.48%
T1908 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.17%	0 0.00%	0 0.00%
T200 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T200 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T200 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T200 BG4	0 0.00%	1 11.11%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 2.07%
T200 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T200 BG6	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2000 BG1	0 0.00%	0 0.00%	0 0.00%	1 2.38%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T2000 BG2	0 0.00%	0 0.00%	0 0.00%	3 7.14%	5 4.55%	0 0.00%	0 0.00%	1 0.69%
T2000 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 2.73%	0 0.00%	0 0.00%	1 0.69%
T2000 BG4	0 0.00%	0 0.00%	0 0.00%	1 2.38%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2000 BG5	0 0.00%	0 0.00%	0 0.00%	1 2.38%	2 1.82%	5 10.87%	0 0.00%	3 2.07%

Table III-26: Alachua County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T2101 BG1	0 0.00%	1 11.11%	0 0.00%	0 0.00%	7 6.36%	1 2.17%	0 0.00%	1 0.69%
T2101 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.82%	1 2.17%	0 0.00%	1 0.69%
T2102 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	7 6.36%	1 2.17%	0 0.00%	6 4.14%
T2201 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.17%	0 0.00%	1 0.69%
T2201 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.82%	0 0.00%	0 0.00%	1 0.69%
T2202 BG1	1 11.11%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%
T2202 BG2	1 11.11%	0 0.00%	0 0.00%	0 0.00%	1 0.91%	0 0.00%	0 0.00%	1 0.69%
T2202 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.82%	0 0.00%	0 0.00%	1 0.69%
T2204 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2204 BG2	0 0.00%	1 11.11%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2204 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T2204 BG4	1 11.11%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.17%	0 0.00%	1 0.69%
T2205 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2205 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2205 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.91%	0 0.00%	0 0.00%	0 0.00%
T2205 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2207 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%

Table III-26: Alachua County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T2207 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2208 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2208 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2209 BG1	1 11.11%	0 0.00%	0 0.00%	1 2.38%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2209 BG2	0 0.00%	0 0.00%	0 0.00%	13 30.95%	2 1.82%	2 4.35%	0 0.00%	2 1.38%
T2209 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2210 BG1	0 0.00%	1 11.11%	0 0.00%	1 2.38%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2210 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.91%	1 2.17%	0 0.00%	0 0.00%
T2210 BG3	0 0.00%	0 0.00%	0 0.00%	1 2.38%	1 0.91%	0 0.00%	0 0.00%	1 0.69%
T2217 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2217 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2217 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%
T2218 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2218 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2219 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 2.73%	2 4.35%	0 0.00%	1 0.69%
T2219 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.82%	0 0.00%	0 0.00%	3 2.07%
T2219 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T2220 BG1	0 0.00%	0 0.00%	0 0.00%	3 7.14%	2 1.82%	2 4.35%	0 0.00%	3 2.07%

Table III-26: Alachua County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T301 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T301 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	5 3.45%
T302 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T302 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%
T302 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%
T400 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	4 2.76%
T400 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%
T400 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T400 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T500 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.17%	1 50.00%	0 0.00%
T500 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T500 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T500 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.69%
T500 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T600 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T600 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T600 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.38%

Table III-26: Alachua County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T700 BG1	0	0	0	0	0	0	0	1
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69%
T700 BG2	0	0	0	0	0	2	0	1
	0.00%	0.00%	0.00%	0.00%	0.00%	4.35%	0.00%	0.69%
T700 BG3	0	0	0	2	0	0	0	0
	0.00%	0.00%	0.00%	4.76%	0.00%	0.00%	0.00%	0.00%
T700 BG4	0	0	0	0	3	1	0	1
	0.00%	0.00%	0.00%	0.00%	2.73%	2.17%	0.00%	0.69%
T806 BG1	0	0	0	0	0	2	0	3
	0.00%	0.00%	0.00%	0.00%	0.00%	4.35%	0.00%	2.07%
T808 BG1	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T808 BG2	0	0	0	0	0	0	0	2
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38%
T808 BG3	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T809 BG1	0	1	0	0	0	0	0	1
	0.00%	11.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69%
T901 BG1	0	1	0	0	0	1	0	0
	0.00%	11.11%	0.00%	0.00%	0.00%	2.17%	0.00%	0.00%
T902 BG1	0	1	0	1	0	1	0	0
	0.00%	11.11%	0.00%	2.38%	0.00%	2.17%	0.00%	0.00%
T902 BG2	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T902 BG3	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T902 BG4	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total number of critical facilities	9	9	0	42	110	46	2	145
	100%	100%	0.00%	100%	100%	100%	100%	100%

Source: County Emergency Management Department.

Figure III-51: Bradford County Critical Infrastructure

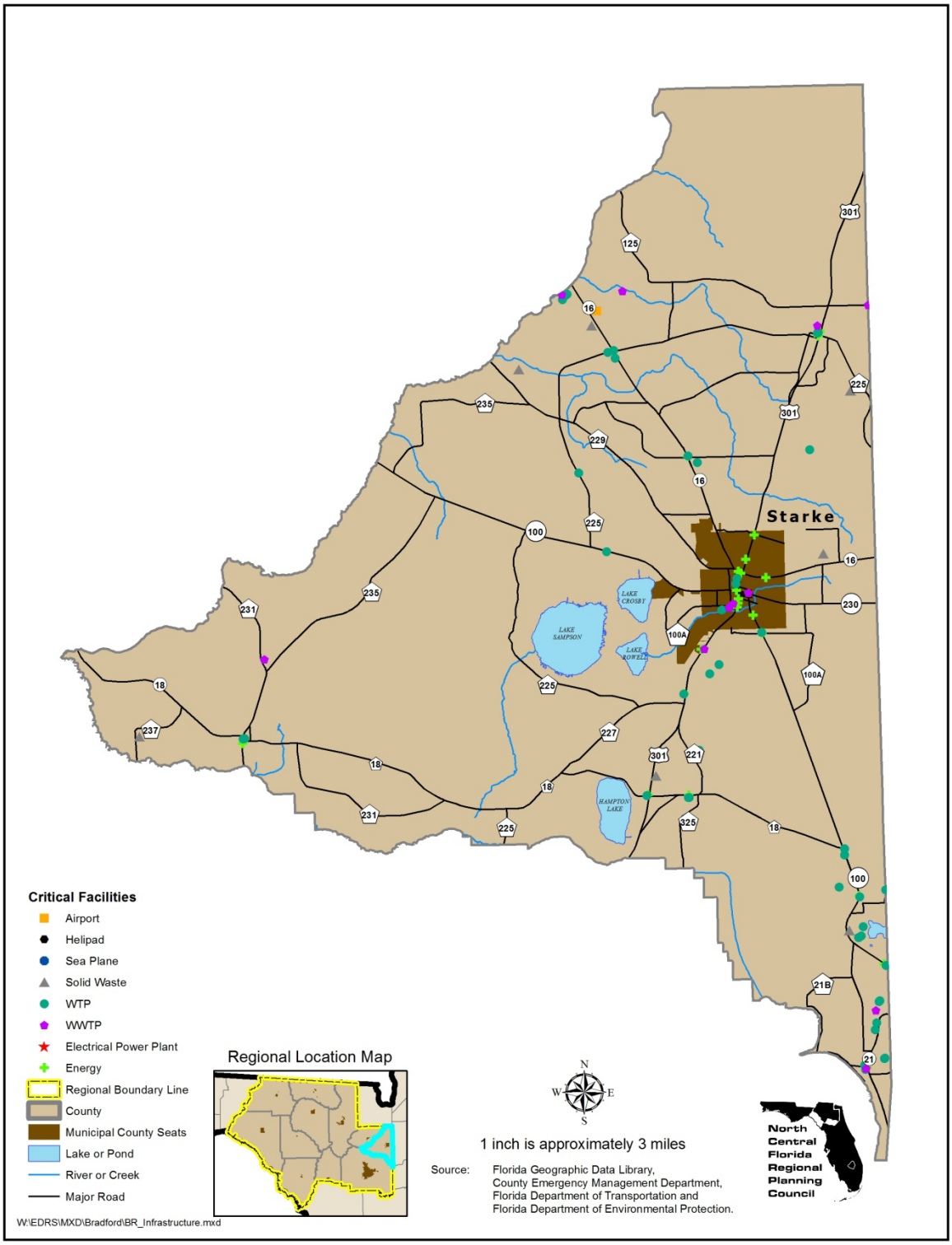


Table III-27: Bradford County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T100 BG1	0 0.00%	0 0.00%	0 0.00%	1 10.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T100 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 7.14%	0 0.00%	1 4.17%
T100 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.22%	0 0.00%	0 0.00%	2 8.33%
T100 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 4.17%
T100 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 4.44%	1 7.14%	0 0.00%	3 12.50%
T200 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 6.67%	3 21.43%	0 0.00%	2 8.33%
T200 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 6.67%	0 0.00%	0 0.00%	2 8.33%
T200 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T200 BG4	0 0.00%	0 0.00%	0 0.00%	3 30.00%	5 11.11%	1 7.14%	0 0.00%	0 0.00%
T200 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.22%	0 0.00%	0 0.00%	2 8.33%
T300 BG1	0 0.00%	0 0.00%	0 0.00%	1 10.00%	3 6.67%	0 0.00%	0 0.00%	2 8.33%
T300 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	4 8.89%	2 14.29%	0 0.00%	0 0.00%
T300 BG3	0 0.00%	0 0.00%	0 0.00%	2 20.00%	8 17.78%	0 0.00%	0 0.00%	2 8.33%
T300 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	8 17.78%	2 14.29%	0 0.00%	1 4.17%
T300 BG5	0 0.00%	0 0.00%	0 0.00%	1 10.00%	2 4.44%	1 7.14%	0 0.00%	1 4.17%
T400 BG1	0 0.00%	0 0.00%	0 0.00%	2 20.00%	1 2.22%	1 7.14%	0 0.00%	0 0.00%
T400 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.22%	0 0.00%	0 0.00%	2 8.33%

Table III-27: Bradford County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T400 BG3	1 100.00%	0 0.00%	0 0.00%	0 0.00%	3 6.67%	2 14.29%	0 0.00%	3 12.50%
Total number of critical facilities	1	0	0	10	45	14	0	24
	100%	0.00%	0.00%	100%	100%	100%	0.00%	100%

Source: County Emergency Management Department.

Figure III-52: Columbia County Critical Infrastructure

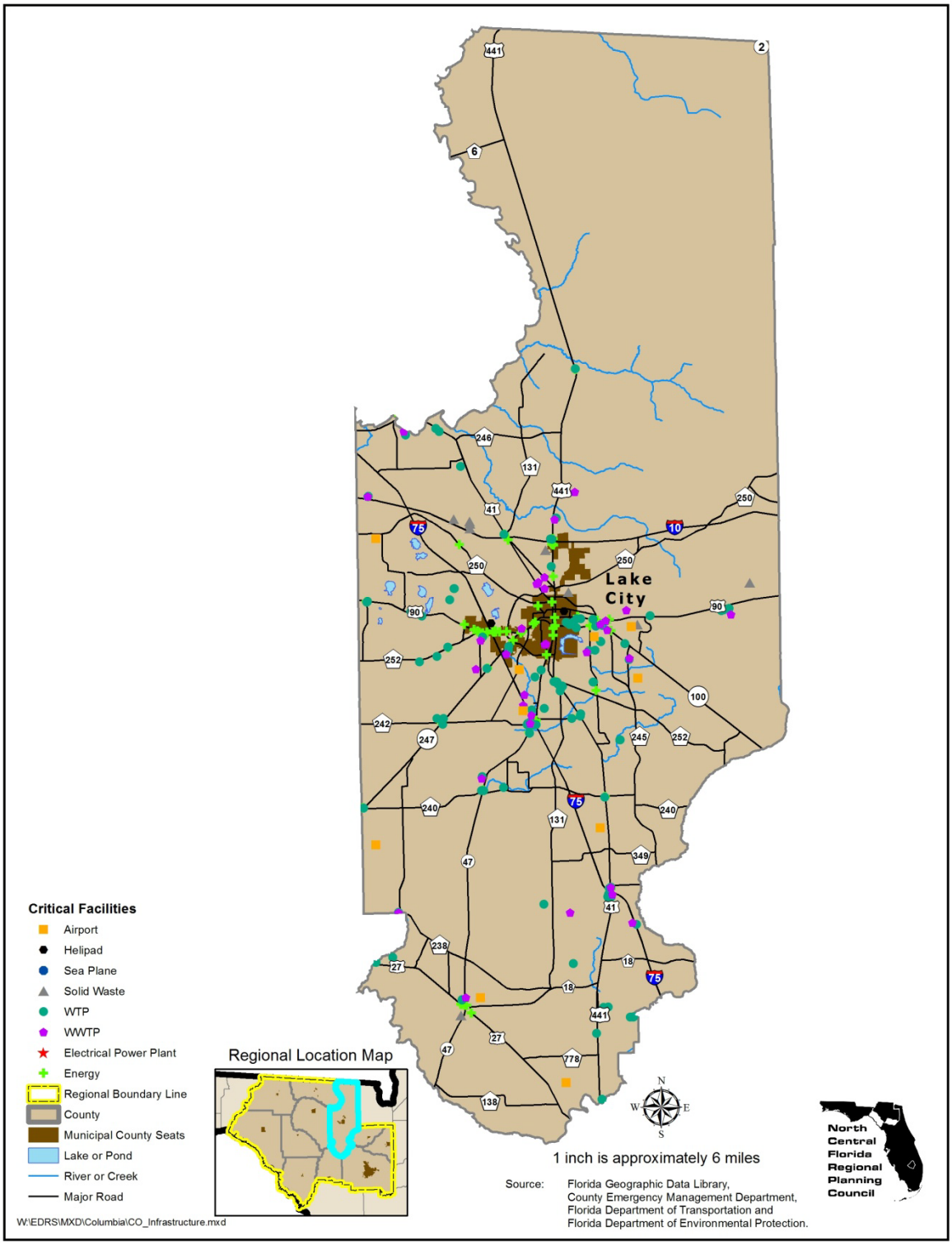


Table III-28: Columbia County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T110201 BG1	1 10.00%	0 0.00%	0 0.00%	0 0.00%	2 1.85%	0 0.00%	0 0.00%	0 0.00%
T110201 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.85%	0 0.00%	0 0.00%	4 5.56%
T110202 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 2.78%
T110202 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 1.39%
T110202 BG3	0 0.00%	0 0.00%	0 0.00%	4 44.44%	7 6.48%	2 5.26%	0 0.00%	1 1.39%
T110202 BG4	0 0.00%	0 0.00%	0 0.00%	1 11.11%	1 0.93%	6 15.79%	0 0.00%	3 4.17%
T110300 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	5 4.63%	2 5.26%	0 0.00%	3 4.17%
T110300 BG2	1 10.00%	0 0.00%	0 0.00%	2 22.22%	4 3.70%	2 5.26%	0 0.00%	1 1.39%
T110300 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.63%	0 0.00%	4 5.56%
T110300 BG4	0 0.00%	0 0.00%	0 0.00%	1 11.11%	0 0.00%	0 0.00%	0 0.00%	1 1.39%
T110300 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T110400 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 2.78%	1 2.63%	0 0.00%	1 1.39%
T110400 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 2.78%	0 0.00%	0 0.00%	2 2.78%
T110400 BG3	0 0.00%	1 50.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T110400 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.93%	0 0.00%	0 0.00%	0 0.00%
T110500 BG1	1 10.00%	0 0.00%	0 0.00%	0 0.00%	5 4.63%	3 7.89%	0 0.00%	6 8.33%
T110500 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 2.78%

Table III-28: Columbia County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T110500 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	6 15.79%	0 0.00%	0 0.00%
T110500 BG4	0 0.00%	1 50.00%	0 0.00%	0 0.00%	0 0.00%	1 2.63%	0 0.00%	6 8.33%
T110500 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T110601 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	4 3.70%	2 5.26%	0 0.00%	5 6.94%
T110601 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	4 3.70%	0 0.00%	0 0.00%	1 1.39%
T110601 BG3	1 10.00%	0 0.00%	0 0.00%	0 0.00%	7 6.48%	2 5.26%	0 0.00%	3 4.17%
T110602 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	5 4.63%	1 2.63%	0 0.00%	3 4.17%
T110602 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	5 4.63%	0 0.00%	0 0.00%	3 4.17%
T110700 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 2.78%
T110700 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	4 3.70%	0 0.00%	0 0.00%	1 1.39%
T110700 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	8 7.41%	1 2.63%	0 0.00%	2 2.78%
T110700 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 0.93%	0 0.00%	0 0.00%	1 1.39%
T110800 BG1	1 10.00%	0 0.00%	0 0.00%	0 0.00%	2 1.85%	1 2.63%	0 0.00%	0 0.00%
T110800 BG2	1 10.00%	0 0.00%	0 0.00%	0 0.00%	4 3.70%	1 2.63%	0 0.00%	0 0.00%
T110800 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 1.85%	0 0.00%	0 0.00%	0 0.00%
T110800 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	5 4.63%	0 0.00%	0 0.00%	1 1.39%
T110901 BG1	1 10.00%	0 0.00%	0 0.00%	0 0.00%	10 9.26%	4 10.53%	0 0.00%	8 11.11%
T110901 BG2	1	0	0	0	1	1	0	0

Table III-28: Columbia County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
	10.00%	0.00%	0.00%	0.00%	0.93%	2.63%	0.00%	0.00%
T110901 BG3	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T110903 BG1	0	0	0	1	0	0	0	0
	0.00%	0.00%	0.00%	11.11%	0.00%	0.00%	0.00%	0.00%
T110903 BG2	0	0	0	0	0	0	0	3
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.17%
T110904 BG1	1	0	0	0	8	0	0	0
	10.00%	0.00%	0.00%	0.00%	7.41%	0.00%	0.00%	0.00%
T110904 BG2	1	0	0	0	5	1	0	2
	10.00%	0.00%	0.00%	0.00%	4.63%	2.63%	0.00%	2.78%
Total number of critical facilities	10	2	0	9	108	38	0	72
	100%	100%	0.00%	100%	100%	100%	0.00%	100%

Source: County Emergency Management Department.

Figure III-53: Dixie County Critical Infrastructure

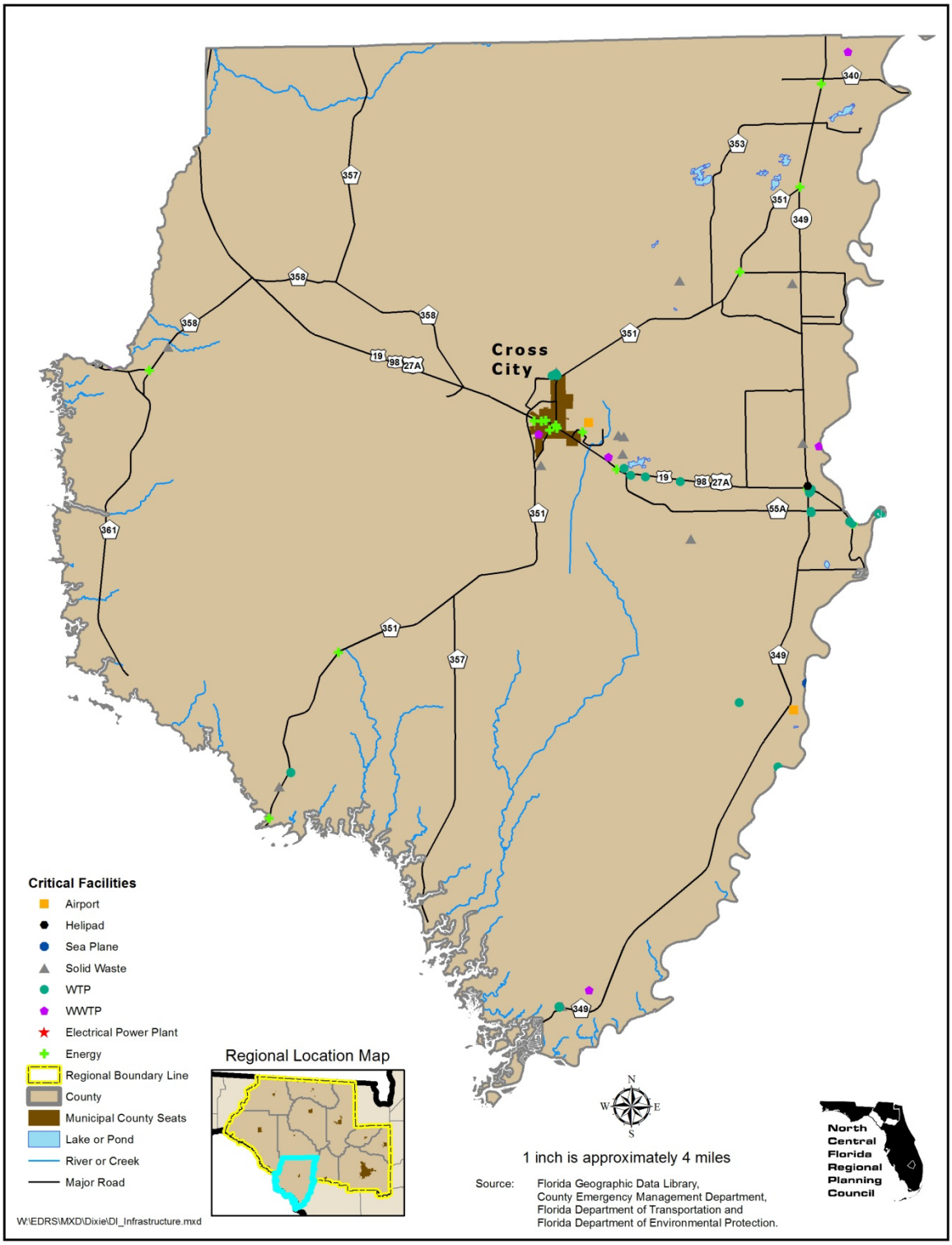


Table III-29: Dixie County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T970101 BG1	1 50.00%	0 0.00%	0 0.00%	4 30.77%	1 3.85%	1 20.00%	0 0.00%	1 5.88%
T970101 BG2	0 0.00%	0 0.00%	0 0.00%	1 7.69%	3 11.54%	1 20.00%	0 0.00%	5 29.41%
T970101 BG3	0 0.00%	0 0.00%	0 0.00%	1 7.69%	1 3.85%	0 0.00%	0 0.00%	2 11.76%
T970102 BG1	0 0.00%	0 0.00%	0 0.00%	2 15.38%	0 0.00%	0 0.00%	0 0.00%	2 11.76%
T970102 BG2	0 0.00%	1 100.00%	0 0.00%	0 0.00%	2 7.69%	1 20.00%	0 0.00%	1 5.88%
T970102 BG3	0 0.00%	0 0.00%	0 0.00%	1 7.69%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T970102 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T970102 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 20.00%	0 0.00%	1 5.88%
T970200 BG1	1 50.00%	0 0.00%	0 0.00%	1 7.69%	4 15.38%	1 20.00%	0 0.00%	1 5.88%
T970200 BG2	0 0.00%	0 0.00%	0 0.00%	2 15.38%	2 7.69%	0 0.00%	0 0.00%	2 11.76%
T970200 BG3	0 0.00%	0 0.00%	0 0.00%	1 7.69%	2 7.69%	0 0.00%	0 0.00%	0 0.00%
T970200 BG4	0 0.00%	0 0.00%	1 100.00%	0 0.00%	11 42.31%	0 0.00%	0 0.00%	2 11.76%
Total number of critical facilities	2 100%	1 100%	1 100%	13 100%	26 100%	5 100%	0 0.00%	17 100%

Source: County Emergency Management Department.

Figure III-54: Gilchrist County Critical Infrastructure

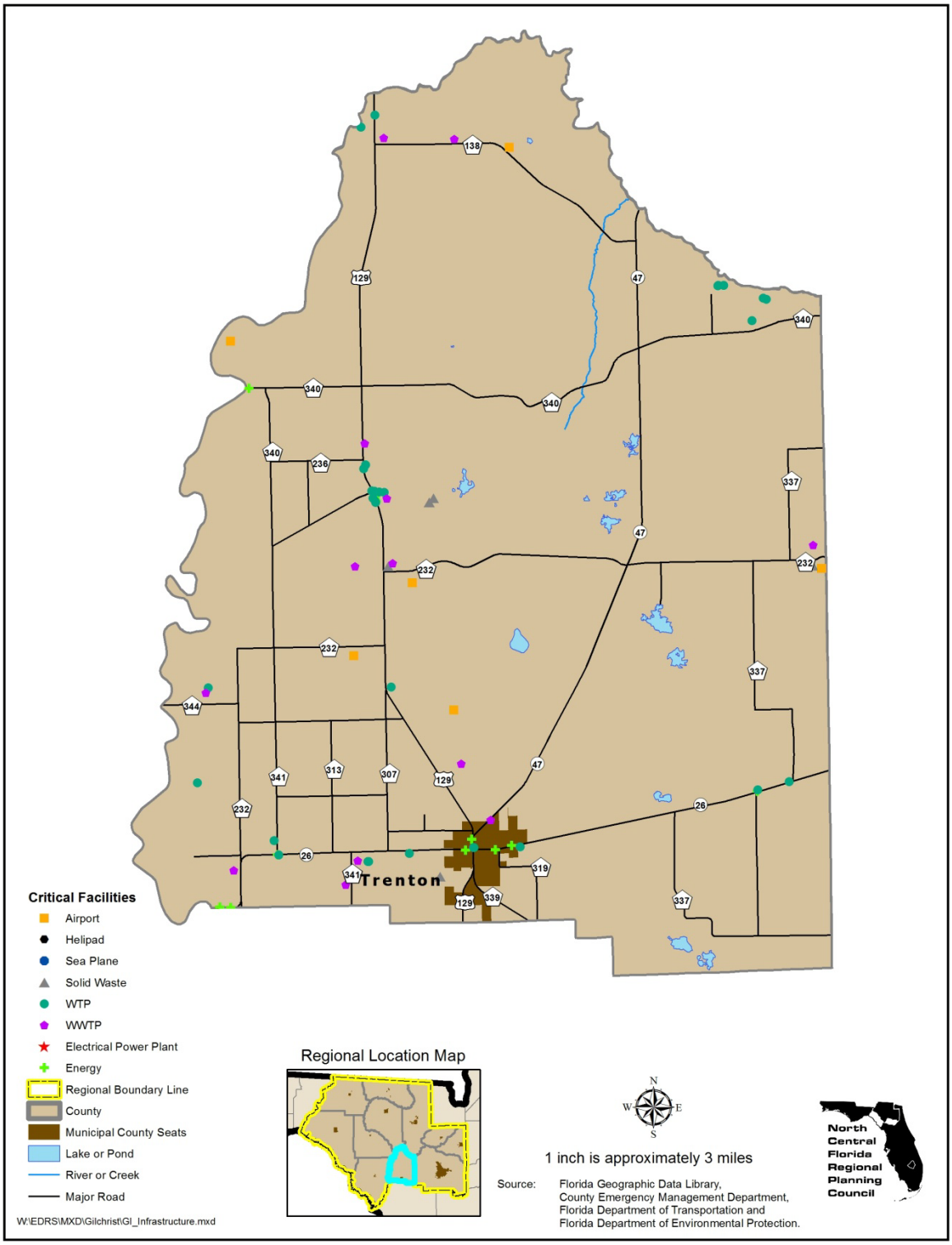


Table III-30: Gilchrist County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T950100 BG1	1	0	0	0	1	2	0	0
	16.67%	0.00%	0.00%	0.00%	3.33%	15.38%	0.00%	0.00%
T950100 BG2	1	0	0	0	1	0	0	0
	16.67%	0.00%	0.00%	0.00%	3.33%	0.00%	0.00%	0.00%
T950100 BG3	0	0	0	0	2	1	0	1
	0.00%	0.00%	0.00%	0.00%	6.67%	7.69%	0.00%	8.33%
T950100 BG4	0	0	0	5	8	4	0	3
	0.00%	0.00%	0.00%	71.43%	26.67%	30.77%	0.00%	25.00%
T950201 BG1	0	0	0	0	6	1	0	0
	0.00%	0.00%	0.00%	0.00%	20.00%	7.69%	0.00%	0.00%
T950202 BG1	1	0	0	0	3	2	0	0
	16.67%	0.00%	0.00%	0.00%	10.00%	15.38%	0.00%	0.00%
T950202 BG2	0	0	0	0	2	1	0	3
	0.00%	0.00%	0.00%	0.00%	6.67%	7.69%	0.00%	25.00%
T950203 BG1	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T950203 BG2	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T950203 BG3	1	0	0	1	2	0	0	1
	16.67%	0.00%	0.00%	14.29%	6.67%	0.00%	0.00%	8.33%
T950204 BG1	2	0	0	0	1	1	0	1
	33.33%	0.00%	0.00%	0.00%	3.33%	7.69%	0.00%	8.33%
T950204 BG2	0	0	0	1	2	0	0	2
	0.00%	0.00%	0.00%	14.29%	6.67%	0.00%	0.00%	16.67%
T950204 BG3	0	0	0	0	2	1	0	1
	0.00%	0.00%	0.00%	0.00%	6.67%	7.69%	0.00%	8.33%
Total number of critical facilities	6	0	0	7	30	13	0	12
	100%	0.00%	0.00%	100%	100%	100%	0.00%	100%

Source: County Emergency Management Department.

Figure III-55: Hamilton County Critical Infrastructure

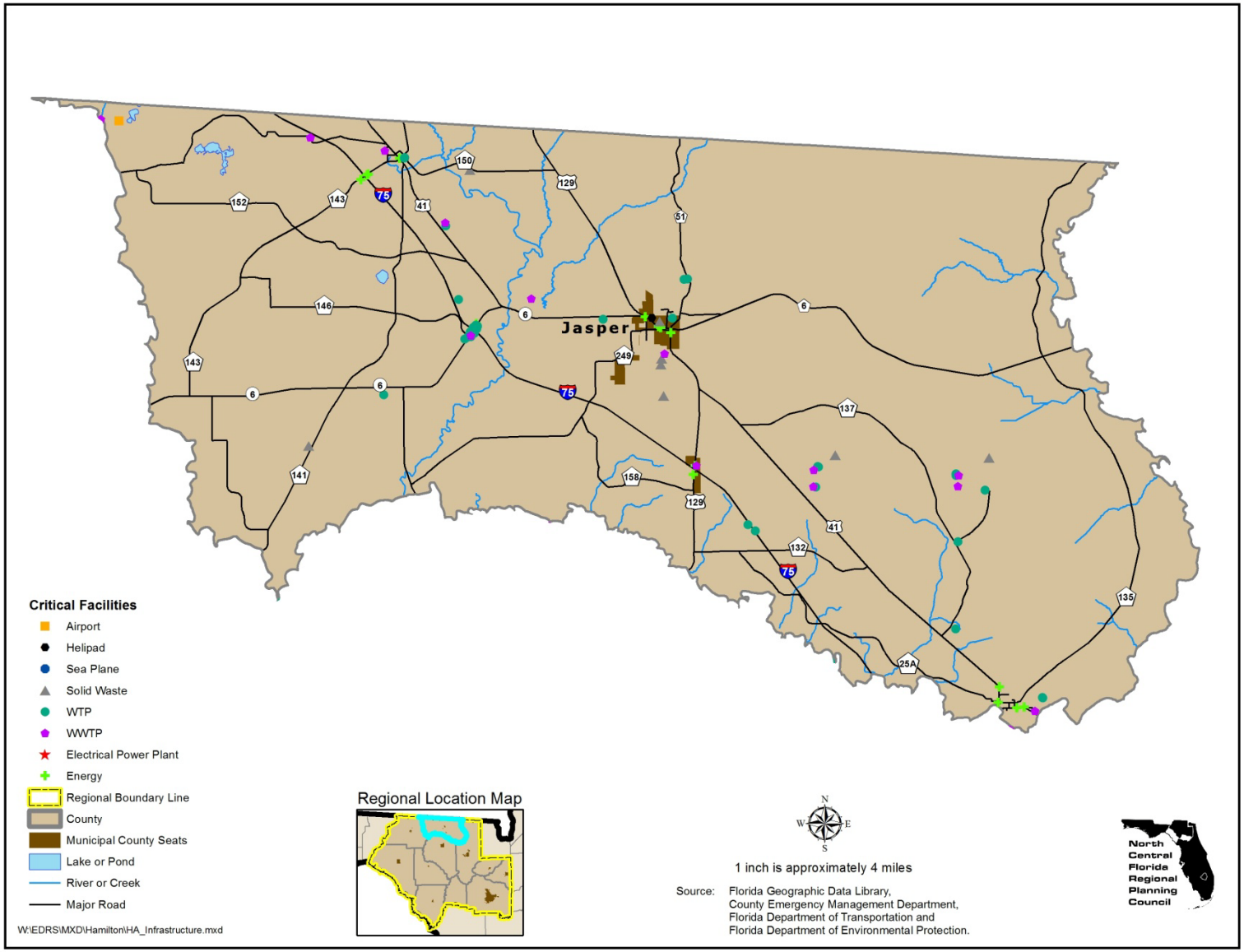


Table III-31: Hamilton County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T960200 BG2	0	0	0	0	8	2	0	7
	0.00%	0.00%	0.00%	0.00%	25.81%	13.33%	0.00%	35.00%
T960300 BG1	0	0	0	2	8	3	0	0
	0.00%	0.00%	0.00%	16.67%	25.81%	20.00%	0.00%	0.00%
T960200 BG3	1	0	0	0	0	4	0	1
	100.00%	0.00%	0.00%	0.00%	0.00%	26.67%	0.00%	5.00%
T960100 BG5	0	0	0	1	0	0	0	1
	0.00%	0.00%	0.00%	8.33%	0.00%	0.00%	0.00%	5.00%
T960300 BG2	0	0	0	0	0	0	0	4
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%
T960100 BG3	0	1	0	1	4	1	0	1
	0.00%	100.00%	0.00%	8.33%	12.90%	6.67%	0.00%	5.00%
T960200 BG1	0	0	0	1	6	1	0	2
	0.00%	0.00%	0.00%	8.33%	19.35%	6.67%	0.00%	10.00%
T960100 BG4	0	0	0	0	0	0	0	2
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%
T960100 BG2	0	0	0	5	0	1	0	0
	0.00%	0.00%	0.00%	41.67%	0.00%	6.67%	0.00%	0.00%
T960100 BG1	0	0	0	2	5	3	0	2
	0.00%	0.00%	0.00%	16.67%	16.13%	20.00%	0.00%	10.00%
Total number of critical facilities	1	1	0	12	31	15	0	20
	100%	100%	0.00%	100%	100%	100%	0.00%	100%

Source: County Emergency Management Department.

Figure III-56: Lafayette County Critical Infrastructure

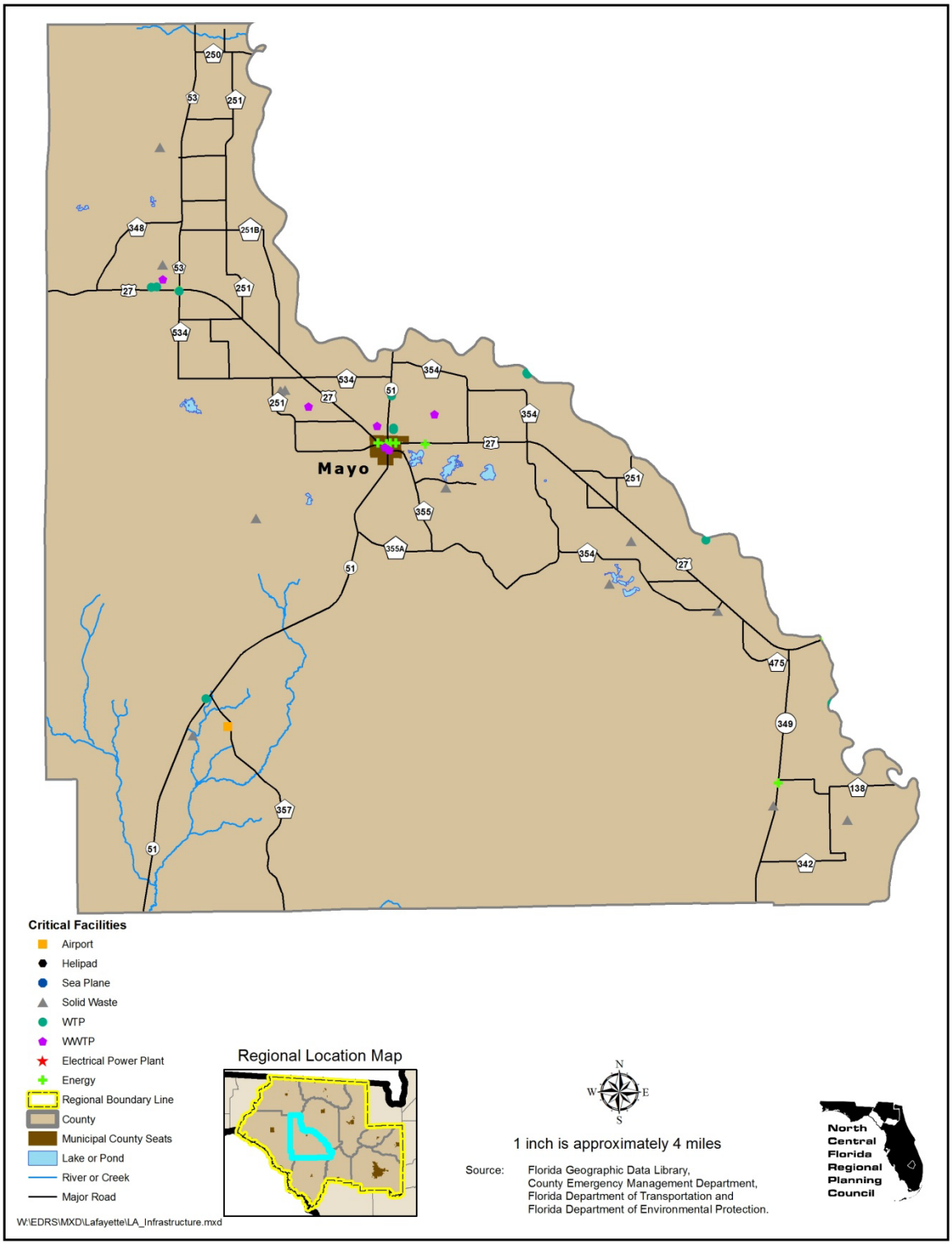


Table III-32: Lafayette County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T960100 BG1	0	0	0	2	2	1	0	0
	0.00%	0.00%	0.00%	15.38%	20.00%	16.67%	0.00%	0.00%
T960100 BG2	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
T960200 BG1	0	0	0	2	6	2	0	3
	0.00%	0.00%	0.00%	15.38%	60.00%	33.33%	0.00%	42.86%
T960200 BG2	0	0	0	3	1	3	0	3
	0.00%	0.00%	0.00%	23.08%	10.00%	50.00%	0.00%	42.86%
T960200 BG3	1	0	0	2	1	0	0	0
	100.00%	0.00%	0.00%	15.38%	10.00%	0.00%	0.00%	0.00%
T960200 BG4	0	0	0	4	0	0	0	1
	0.00%	0.00%	0.00%	30.77%	0.00%	0.00%	0.00%	14.29%
Total number of critical facilities	1	0	0	13	10	6	0	7
	100%	0.00%	0.00%	100%	100%	100%	0.00%	100%

Source: County Emergency Management Department.

Figure III-57: Madison County Critical Infrastructure

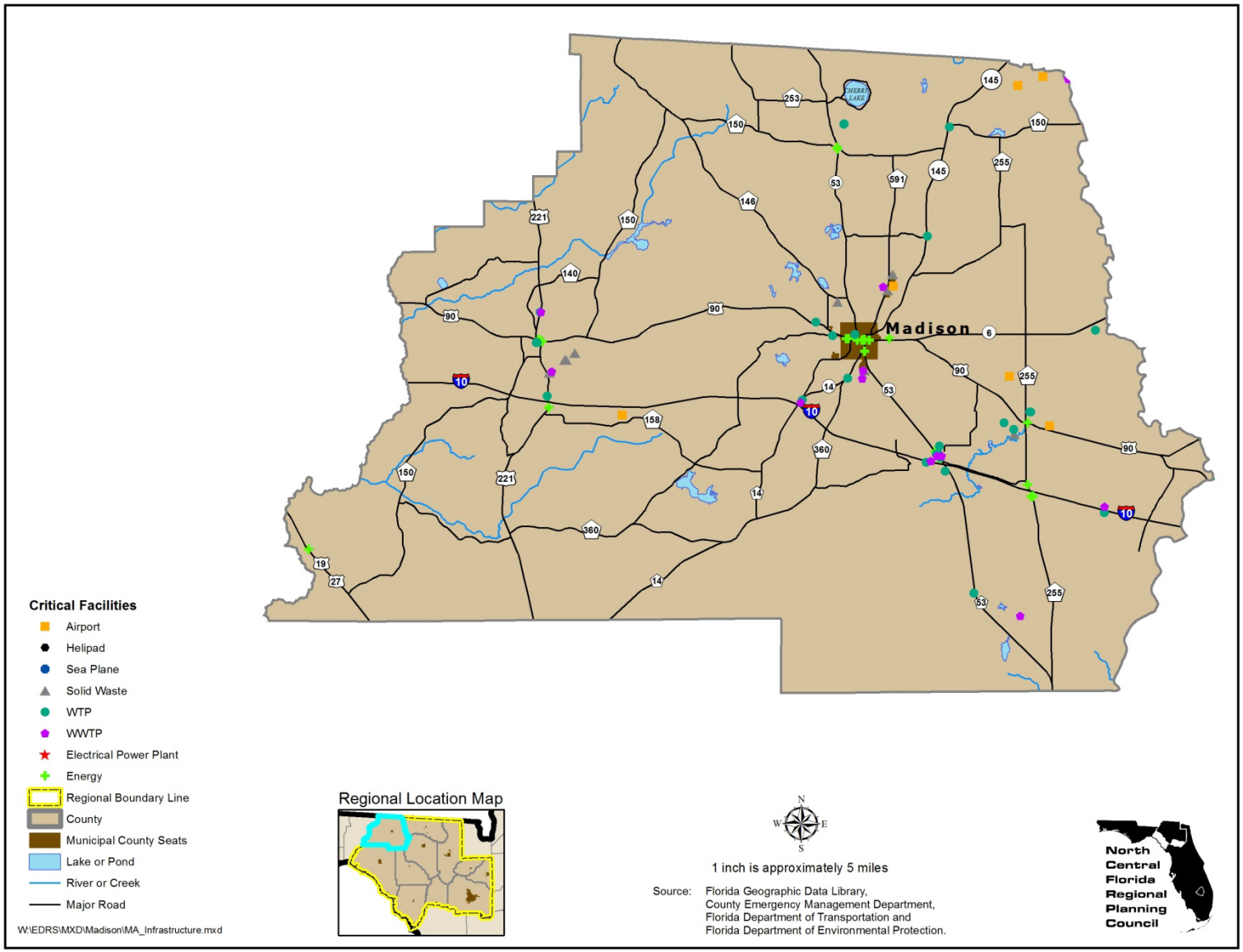


Table III-33: Madison County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T110100 BG1	2	0	0	0	1	0	0	0
	33.33%	0.00%	0.00%	0.00%	3.70%	0.00%	0.00%	0.00%
T110100 BG2	0	0	0	0	2	0	0	0
	0.00%	0.00%	0.00%	0.00%	7.41%	0.00%	0.00%	0.00%
T110100 BG3	0	0	0	0	0	0	0	2
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.33%
T110200 BG1	1	0	0	0	0	0	0	2
	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.33%
T110200 BG2	0	0	0	0	1	0	0	0
	0.00%	0.00%	0.00%	0.00%	3.70%	0.00%	0.00%	0.00%
T110200 BG3	0	0	0	6	2	3	0	3
	0.00%	0.00%	0.00%	54.55%	7.41%	25.00%	0.00%	12.50%
T110200 BG4	0	0	0	0	2	0	0	0
	0.00%	0.00%	0.00%	0.00%	7.41%	0.00%	0.00%	0.00%
T110301 BG1	1	0	0	2	1	0	0	1
	16.67%	0.00%	0.00%	18.18%	3.70%	0.00%	0.00%	4.17%
T110301 BG2	0	0	0	1	1	1	0	2
	0.00%	0.00%	0.00%	9.09%	3.70%	8.33%	0.00%	8.33%
T110302 BG1	0	0	0	1	3	5	0	2
	0.00%	0.00%	0.00%	9.09%	11.11%	41.67%	0.00%	8.33%
T110302 BG2	0	0	0	0	1	0	0	1
	0.00%	0.00%	0.00%	0.00%	3.70%	0.00%	0.00%	4.17%
T110302 BG3	0	0	0	0	0	0	0	2
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.33%
T110302 BG4	0	0	0	0	0	0	0	3
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.50%
T110400 BG1	0	0	0	0	2	0	0	1
	0.00%	0.00%	0.00%	0.00%	7.41%	0.00%	0.00%	4.17%
T110400 BG2	0	0	0	0	3	1	0	1
	0.00%	0.00%	0.00%	0.00%	11.11%	8.33%	0.00%	4.17%
T110400 BG3	2	0	0	1	8	2	0	4
	33.33%	0.00%	0.00%	9.09%	29.63%	16.67%	0.00%	16.67%
Total number of critical facilities	6	0	0	11	27	12	0	24
	100%	0.00%	0.00%	100%	100%	100%	0.00%	100%

Source: County Emergency Management Department.

Figure III-58: Suwannee County Critical Infrastructure

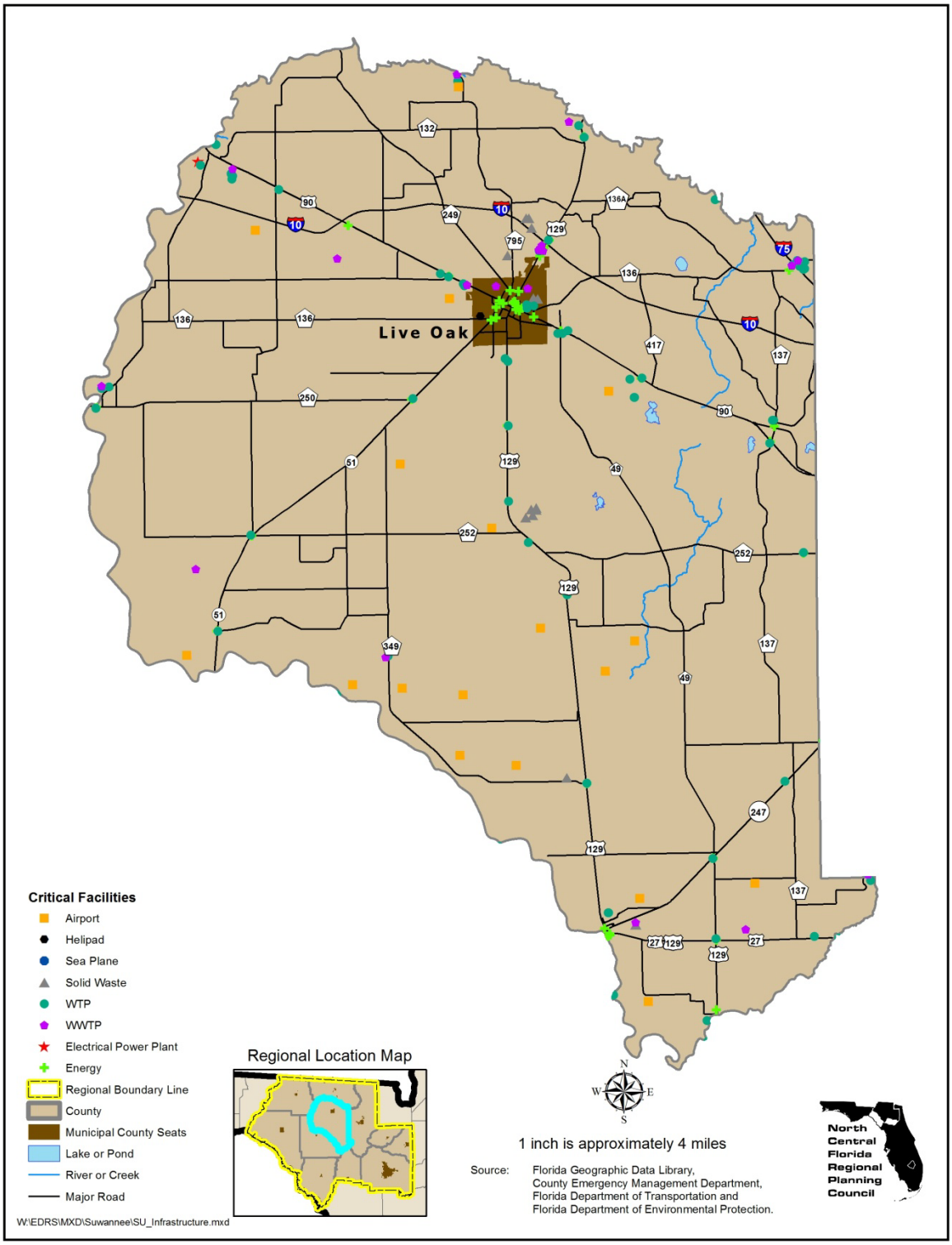


Table III-34: Suwannee County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T970100 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	5 7.35%	4 22.22%	0 0.00%	6 12.50%
T970100 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 2.94%	0 0.00%	0 0.00%	1 2.08%
T970100 BG3	0 0.00%	0 0.00%	0 0.00%	2 15.38%	3 4.41%	0 0.00%	0 0.00%	4 8.33%
T970100 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	2 4.17%
T970100 BG5	0 0.00%	0 0.00%	0 0.00%	0 0.00%	4 5.88%	0 0.00%	0 0.00%	3 6.25%
T970200 BG1	1 5.56%	0 0.00%	0 0.00%	3 23.08%	4 5.88%	2 11.11%	0 0.00%	0 0.00%
T970200 BG2	0 0.00%	0 0.00%	0 0.00%	1 7.69%	2 2.94%	3 16.67%	0 0.00%	2 4.17%
T970200 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 5.56%	0 0.00%	3 6.25%
T970301 BG1	2 11.11%	0 0.00%	0 0.00%	0 0.00%	2 2.94%	2 11.11%	0 0.00%	2 4.17%
T970302 BG1	1 5.56%	0 0.00%	0 0.00%	0 0.00%	7 10.29%	2 11.11%	1 100.00%	1 2.08%
T970302 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 4.41%	1 5.56%	0 0.00%	1 2.08%
T970302 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T970302 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 1.47%	0 0.00%	0 0.00%	0 0.00%
T970400 BG1	1 5.56%	0 0.00%	0 0.00%	0 0.00%	4 5.88%	1 5.56%	0 0.00%	1 2.08%
T970400 BG2	0 0.00%	1 100.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 2.08%
T970400 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 6.25%
T970400 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 1.47%	0 0.00%	0 0.00%	2 4.17%

Table III-34: Suwannee County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T970400 BG5	1 5.56%	0 0.00%	0 0.00%	0 0.00%	1 1.47%	0 0.00%	0 0.00%	1 2.08%
T970500 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	11 16.18%	0 0.00%	0 0.00%	4 8.33%
T970500 BG2	1 5.56%	0 0.00%	0 0.00%	0 0.00%	5 7.35%	0 0.00%	0 0.00%	2 4.17%
T970500 BG3	2 11.11%	0 0.00%	0 0.00%	5 38.46%	2 2.94%	0 0.00%	0 0.00%	1 2.08%
T970500 BG4	4 22.22%	0 0.00%	0 0.00%	0 0.00%	1 1.47%	0 0.00%	0 0.00%	0 0.00%
T970600 BG1	1 5.56%	0 0.00%	0 0.00%	0 0.00%	5 7.35%	1 5.56%	0 0.00%	2 4.17%
T970600 BG2	2 11.11%	0 0.00%	0 0.00%	1 7.69%	1 1.47%	0 0.00%	0 0.00%	1 2.08%
T970600 BG3	1 5.56%	0 0.00%	0 0.00%	1 7.69%	2 2.94%	1 5.56%	0 0.00%	4 8.33%
T970600 BG4	1 5.56%	0 0.00%	0 0.00%	0 0.00%	2 2.94%	0 0.00%	0 0.00%	1 2.08%
Total number of critical facilities	18 100%	1 100%	0 0.00%	13 100%	68 100%	18 100%	1 100%	48 100%

Source: County Emergency Management Department.

Figure III-59: Taylor County Critical Infrastructure

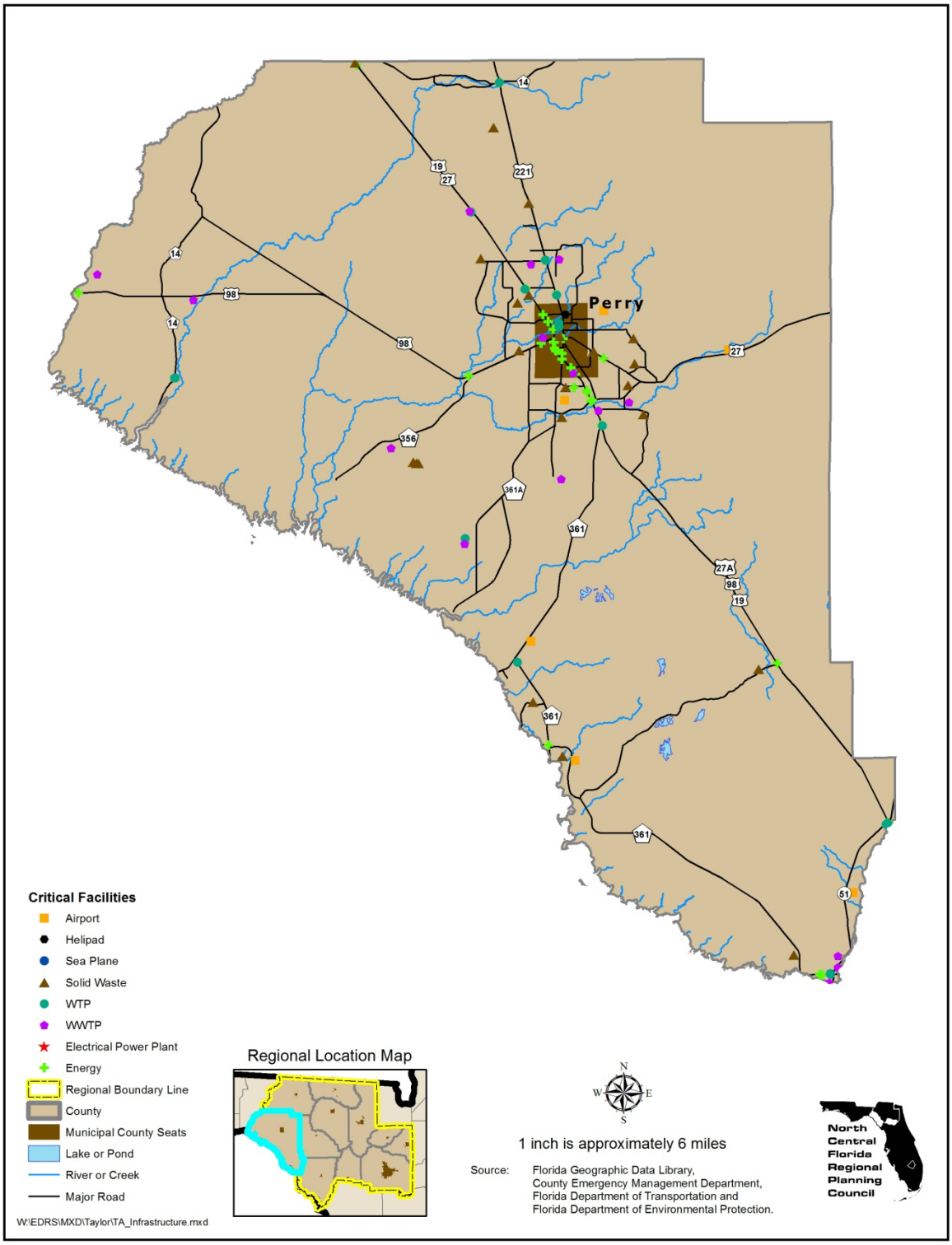


Table III-35: Taylor County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T950100 BG1	1 16.67%	0 0.00%	0 0.00%	0 0.00%	1 4.35%	0 0.00%	0 0.00%	0 0.00%
T950100 BG2	0 0.00%	1 100.00%	0 0.00%	0 0.00%	1 4.35%	1 5.56%	0 0.00%	1 3.03%
T950100 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T950100 BG4	1 16.67%	0 0.00%	0 0.00%	3 13.64%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
T950200 BG1	0 0.00%	0 0.00%	0 0.00%	1 4.55%	3 13.04%	0 0.00%	0 0.00%	0 0.00%
T950200 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 5.56%	0 0.00%	0 0.00%
T950200 BG3	0 0.00%	0 0.00%	0 0.00%	3 13.64%	2 8.70%	1 5.56%	0 0.00%	2 6.06%
T950200 BG4	0 0.00%	0 0.00%	0 0.00%	1 4.55%	0 0.00%	2 11.11%	0 0.00%	3 9.09%
T950200 BG5	0 0.00%	0 0.00%	0 0.00%	3 13.64%	5 21.74%	2 11.11%	0 0.00%	4 12.12%
T950300 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 3.03%
T950300 BG2	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	5 15.15%
T950300 BG3	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 3.03%
T950300 BG4	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 3.03%
T950300 BG5	1 16.67%	0 0.00%	0 0.00%	1 4.55%	0 0.00%	1 5.56%	0 0.00%	5 15.15%
T950300 BG6	0 0.00%	0 0.00%	0 0.00%	1 4.55%	0 0.00%	1 5.56%	0 0.00%	4 12.12%
T950400 BG1	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 13.04%	3 16.67%	0 0.00%	2 6.06%
T950400 BG2	2 33.33%	0 0.00%	0 0.00%	2 9.09%	4 17.39%	0 0.00%	0 0.00%	1 3.03%
T950400 BG3	0	0	0	4	1	5	0	0

Table III-35: Taylor County Critical Infrastructure (Continued)

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
	0.00%	0.00%	0.00%	18.18%	4.35%	27.78%	0.00%	0.00%
T950400 BG4	1	0	0	3	3	1	0	3
	16.67%	0.00%	0.00%	13.64%	13.04%	5.56%	0.00%	9.09%
Total number of critical facilities	6	1	0	22	23	18	0	33
	100%	100%	0.00%	100%	100%	100%	0.00%	100%

Source: County Emergency Management Department.

Figure III-60: Union County Critical Infrastructure

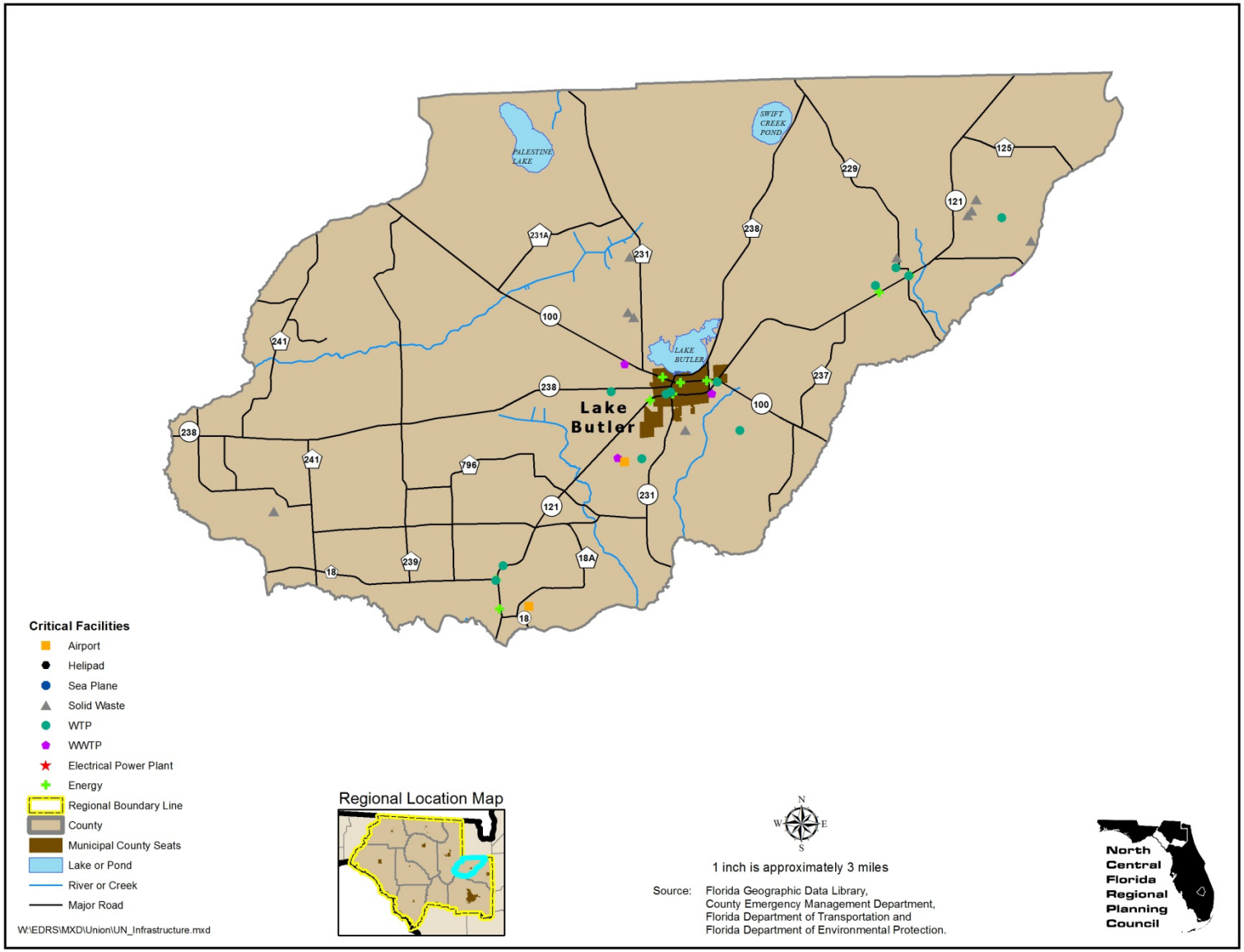


Table III-36: Union County Critical Infrastructure

Census Block Group	Location of critical facilities							
Track Number and Block Group Number	Airport	Helipad	Sea Plane	Solid Waste	Potable Water Treatment Plant	Wastewater Treatment Plant	Electrical Power Plant	Energy
T960100 BG1	0	0	0	6	1	0	0	0
	0.00%	0.00%	0.00%	50.00%	7.69%	0.00%	0.00%	0.00%
T960100 BG2	0	0	0	1	3	0	0	2
	0.00%	0.00%	0.00%	8.33%	23.08%	0.00%	0.00%	20.00%
T960200 BG1	0	0	0	3	0	0	0	1
	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	10.00%
T960200 BG2	0	0	0	1	2	2	0	1
	0.00%	0.00%	0.00%	8.33%	15.38%	50.00%	0.00%	10.00%
T960200 BG3	0	0	0	0	0	0	0	3
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%
T960200 BG4	0	0	0	0	3	1	0	0
	0.00%	0.00%	0.00%	0.00%	23.08%	25.00%	0.00%	0.00%
T960200 BG5	1	0	0	0	2	1	0	1
	50.00%	0.00%	0.00%	0.00%	15.38%	25.00%	0.00%	10.00%
T960300 BG1	0	0	0	1	0	0	0	0
	0.00%	0.00%	0.00%	8.33%	0.00%	0.00%	0.00%	0.00%
T960300 BG2	1	0	0	0	2	0	0	2
	50.00%	0.00%	0.00%	0.00%	15.38%	0.00%	0.00%	20.00%
Total number of critical facilities	2	0	0	12	13	4	0	10
	100%	0.00%	0.00%	100%	100%	100%	0.00%	100%

Source: County Emergency Management Department.

F. Schools

1. North Central Florida

Schools and education are an important part of life in developing children, and play a vital role in family order and preparing young people to enter the workforce. Not only do schools provide education for the youth but also allow parents of the youth to work and shop during this time (See Table III-37 and Figure III-61).

2. Alachua County

According to the County School District there are 75 educational facilities, 5 colleges and 2 sports facilities located in the County (See Table III-38, Figure III-3, Figure III-4 and Figure III-62).

3. Bradford County

According to the County School District there are 14 educational facilities located in the County (See Table III-39, Figure III-5, Figure III-6 and Figure III-63).

4. Columbia County

According to the County School District there are 18 educational facilities and 1 college located in the County (See Table III-40, Figure III-7, Figure III-8 and Figure III-64).

5. Dixie County

According to the County School District there are 7 educational facilities located in the County (See Table III-41, Figure III-9, Figure III-10 and Figure III-65).

6. Gilchrist County

According to the County School District there are 6 educational facilities located in the County (See Table III-42, Figure III-11, Figure III-12 and Figure III-66).

7. Hamilton County

According to the County School District there are 10 educational facilities located in the County (See Table III-43, Figure III-13, Figure III-14 and Figure III-67).

8. Lafayette County

According to the County School District there are 6 educational facilities located in the County (See Table III-44, Figure III-15, Figure III-16 and Figure III-68).

9. Madison County

According to the County School District there are 11 educational facilities and 1 college located in the County (See Table III-45, Figure III-17, Figure III-18 and Figure III-69).

10. Suwannee County

According to the County School District there are 14 educational facilities located in the County (See Table III-46, Figure III-19, Figure III-20 and Figure III-70).

11. Taylor County

According to the County School District there are 8 educational facilities located in the County (See Table III-47, Figure III-21, Figure III-22 and Figure III-71).

12. Union County

According to the County School District there are 11 educational facilities located in the County (See Table III-48, Figure III-23, Figure III-24 and Figure III-72).

Figure III-61: North Central Florida Educational Facilties

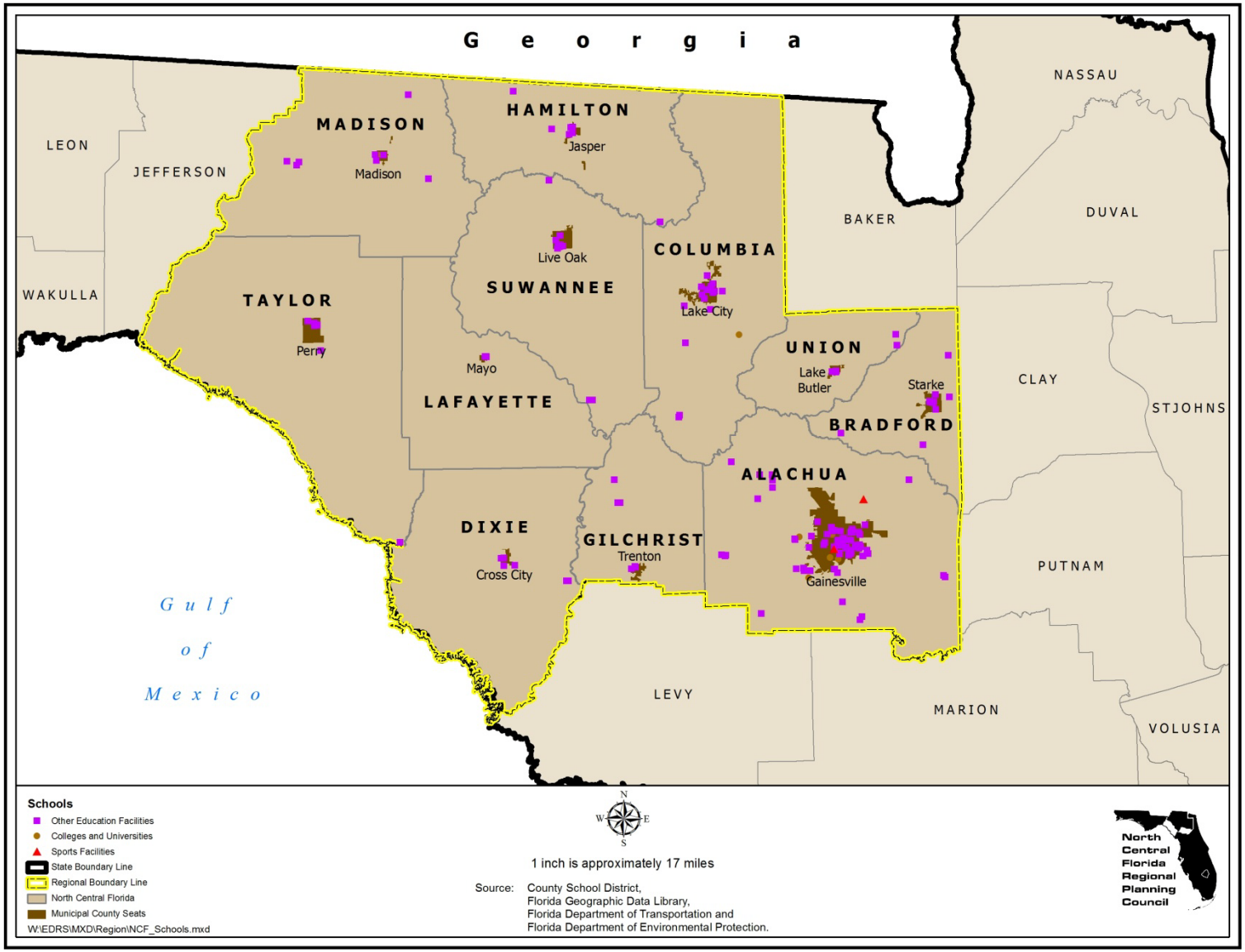


Table III-37: North Central Florida Educational Facilities

Census Block Group	Location of schools and sporting facilities		
County	Other Educational Facilities	Colleges and Universities	Sports Facilities
ALACHUA	75	5	2
	41.67%	71.43%	100.00%
BRADFORD	14	0	0
	7.78%	0.00%	0.00%
COLUMBIA	18	1	0
	10.00%	14.29%	0.00%
DIXIE	7	0	0
	3.89%	0.00%	0.00%
GILCHRIST	6	0	0
	3.33%	0.00%	0.00%
HAMILTON	10	0	0
	5.56%	0.00%	0.00%
LAFAYETTE	6	0	0
	3.33%	0.00%	0.00%
MADISON	11	1	0
	6.11%	14.29%	0.00%
SUWANNEE	14	0	0
	7.78%	0.00%	0.00%
TAYLOR	8	0	0
	4.44%	0.00%	0.00%
UNION	11	0	0
	6.11%	0.00%	0.00%
Total number of schools and sporting facilities	180	7	2
	100%	100%	100%

Source: County School Board.

Figure III-62: Alachua Educational Facilties

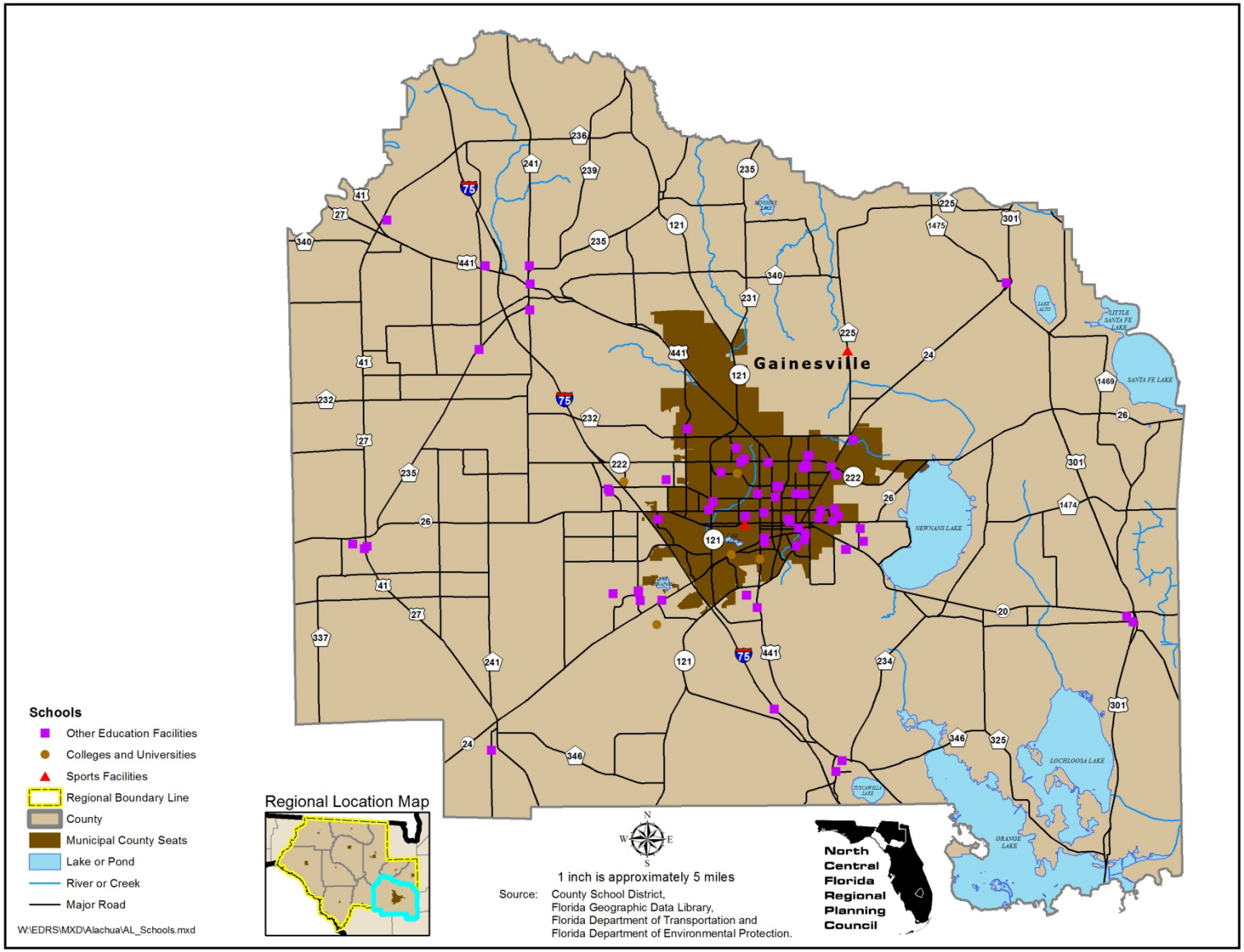


Table III-38: Alachua County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T1000 BG1	0 0.00%	0 0.00%	0 0.00%
T1000 BG2	0 0.00%	0 0.00%	0 0.00%
T1000 BG3	0 0.00%	0 0.00%	0 0.00%
T1000 BG4	1 1.33%	0 0.00%	0 0.00%
T1000 BG5	1 1.33%	0 0.00%	0 0.00%
T1100 BG1	0 0.00%	0 0.00%	0 0.00%
T1100 BG2	0 0.00%	0 0.00%	0 0.00%
T1100 BG3	1 1.33%	0 0.00%	0 0.00%
T1100 BG4	0 0.00%	0 0.00%	0 0.00%
T110800 BG1	3 4.00%	0 0.00%	0 0.00%
T1201 BG1	0 0.00%	0 0.00%	0 0.00%
T1202 BG1	0 0.00%	0 0.00%	0 0.00%
T1202 BG2	2 2.67%	1 20.00%	0 0.00%
T1202 BG3	0 0.00%	0 0.00%	0 0.00%
T1202 BG4	0 0.00%	0 0.00%	0 0.00%
T1202 BG5	1 1.33%	0 0.00%	0 0.00%
T1203 BG1	1 1.33%	0 0.00%	0 0.00%
T1203 BG2	0	0	0

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
	0.00%	0.00%	0.00%
T1400 BG1	1	0	0
	1.33%	0.00%	0.00%
T1400 BG2	1	0	0
	1.33%	0.00%	0.00%
T1400 BG3	2	0	0
	2.67%	0.00%	0.00%
T1514 BG1	0	1	0
	0.00%	20.00%	0.00%
T1514 BG2	0	0	0
	0.00%	0.00%	0.00%
T1515 BG1	0	0	0
	0.00%	0.00%	0.00%
T1515 BG2	0	0	0
	0.00%	0.00%	0.00%
T1515 BG3	0	0	0
	0.00%	0.00%	0.00%
T1516 BG1	0	0	0
	0.00%	0.00%	0.00%
T1516 BG2	0	0	0
	0.00%	0.00%	0.00%
T1517 BG1	0	0	0
	0.00%	0.00%	0.00%
T1517 BG2	0	0	0
	0.00%	0.00%	0.00%
T1519 BG1	0	0	0
	0.00%	0.00%	0.00%
T1520 BG1	0	0	0
	0.00%	0.00%	0.00%
T1521 BG1	0	0	0
	0.00%	0.00%	0.00%
T1521 BG2	0	0	0
	0.00%	0.00%	0.00%
T1521 BG3	0	0	0
	0.00%	0.00%	0.00%

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T1603 BG1	0 0.00%	0 0.00%	0 0.00%
T1604 BG1	1 1.33%	0 0.00%	0 0.00%
T1604 BG2	0 0.00%	0 0.00%	0 0.00%
T1604 BG3	0 0.00%	0 0.00%	0 0.00%
T1604 BG4	0 0.00%	0 0.00%	0 0.00%
T1701 BG1	1 1.33%	0 0.00%	0 0.00%
T1701 BG2	0 0.00%	1 20.00%	0 0.00%
T1702 BG1	1 1.33%	0 0.00%	0 0.00%
T1702 BG2	0 0.00%	0 0.00%	0 0.00%
T1702 BG3	0 0.00%	0 0.00%	0 0.00%
T1801 BG1	1 1.33%	0 0.00%	0 0.00%
T1801 BG2	1 1.33%	0 0.00%	0 0.00%
T1801 BG3	1 1.33%	0 0.00%	0 0.00%
T1801 BG4	0 0.00%	0 0.00%	0 0.00%
T1801 BG5	0 0.00%	0 0.00%	0 0.00%
T1802 BG1	1 1.33%	0 0.00%	0 0.00%
T1802 BG2	0 0.00%	0 0.00%	0 0.00%

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T1802 BG3	0 0.00%	0 0.00%	0 0.00%
T1803 BG1	0 0.00%	0 0.00%	0 0.00%
T1803 BG2	0 0.00%	0 0.00%	0 0.00%
T1803 BG3	0 0.00%	0 0.00%	0 0.00%
T1803 BG4	1 1.33%	0 0.00%	0 0.00%
T1805 BG1	1 1.33%	0 0.00%	0 0.00%
T1806 BG1	0 0.00%	0 0.00%	0 0.00%
T1806 BG2	0 0.00%	0 0.00%	0 0.00%
T1806 BG3	1 1.33%	0 0.00%	0 0.00%
T1806 BG4	0 0.00%	0 0.00%	0 0.00%
T1811 BG1	0 0.00%	0 0.00%	0 0.00%
T1811 BG2	0 0.00%	0 0.00%	0 0.00%
T1811 BG3	0 0.00%	0 0.00%	0 0.00%
T1811 BG4	0 0.00%	0 0.00%	0 0.00%
T1813 BG1	0 0.00%	0 0.00%	0 0.00%
T1814 BG1	0 0.00%	0 0.00%	0 0.00%
T1902 BG1	2 2.67%	0 0.00%	0 0.00%
T1902 BG2	1	0	0

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
	1.33%	0.00%	0.00%
T1907 BG1	0	0	0
	0.00%	0.00%	0.00%
T1907 BG2	0	0	0
	0.00%	0.00%	0.00%
T1907 BG3	0	0	0
	0.00%	0.00%	0.00%
T1908 BG1	0	0	0
	0.00%	0.00%	0.00%
T1908 BG2	0	0	0
	0.00%	0.00%	0.00%
T1908 BG3	0	0	0
	0.00%	0.00%	0.00%
T1908 BG4	1	0	0
	1.33%	0.00%	0.00%
T1908 BG5	0	0	1
	0.00%	0.00%	50.00%
T200 BG1	0	0	0
	0.00%	0.00%	0.00%
T200 BG2	0	0	0
	0.00%	0.00%	0.00%
T200 BG3	1	0	0
	1.33%	0.00%	0.00%
T200 BG4	0	0	0
	0.00%	0.00%	0.00%
T200 BG5	0	0	0
	0.00%	0.00%	0.00%
T200 BG6	1	0	0
	1.33%	0.00%	0.00%
T2000 BG1	0	0	0
	0.00%	0.00%	0.00%
T2000 BG2	0	0	0
	0.00%	0.00%	0.00%
T2000 BG3	0	0	0

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
	0.00%	0.00%	0.00%
T2000 BG4	0	0	0
	0.00%	0.00%	0.00%
T2000 BG5	2	0	0
	2.67%	0.00%	0.00%
T2101 BG1	0	0	0
	0.00%	0.00%	0.00%
T2101 BG2	1	0	0
	1.33%	0.00%	0.00%
T2102 BG1	2	0	0
	2.67%	0.00%	0.00%
T2201 BG1	0	0	0
	0.00%	0.00%	0.00%
T2201 BG2	0	0	0
	0.00%	0.00%	0.00%
T2202 BG1	0	0	0
	0.00%	0.00%	0.00%
T2202 BG2	0	0	0
	0.00%	0.00%	0.00%
T2202 BG3	1	0	0
	1.33%	0.00%	0.00%
T2204 BG1	0	0	0
	0.00%	0.00%	0.00%
T2204 BG2	0	0	0
	0.00%	0.00%	0.00%
T2204 BG3	2	0	0
	2.67%	0.00%	0.00%
T2204 BG4	0	0	0
	0.00%	0.00%	0.00%
T2205 BG1	1	0	0
	1.33%	0.00%	0.00%
T2205 BG2	0	0	0
	0.00%	0.00%	0.00%
T2205 BG3	0	0	0

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
	0.00%	0.00%	0.00%
T2205 BG4	0	0	0
	0.00%	0.00%	0.00%
T2207 BG1	0	0	0
	0.00%	0.00%	0.00%
T2207 BG2	0	0	0
	0.00%	0.00%	0.00%
T2208 BG1	0	0	0
	0.00%	0.00%	0.00%
T2208 BG2	0	0	0
	0.00%	0.00%	0.00%
T2209 BG1	0	0	0
	0.00%	0.00%	0.00%
T2209 BG2	1	0	0
	1.33%	0.00%	0.00%
T2209 BG3	0	0	0
	0.00%	0.00%	0.00%
T2210 BG1	0	0	0
	0.00%	0.00%	0.00%
T2210 BG2	2	0	0
	2.67%	0.00%	0.00%
T2210 BG3	0	0	0
	0.00%	0.00%	0.00%
T2217 BG1	0	0	0
	0.00%	0.00%	0.00%
T2217 BG2	0	0	0
	0.00%	0.00%	0.00%
T2217 BG3	0	0	0
	0.00%	0.00%	0.00%
T2218 BG1	0	0	0
	0.00%	0.00%	0.00%
T2218 BG2	0	0	0
	0.00%	0.00%	0.00%
T2219 BG1	1	0	0

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
	1.33%	0.00%	0.00%
T2219 BG2	4	0	0
	5.33%	0.00%	0.00%
T2219 BG3	0	0	0
	0.00%	0.00%	0.00%
T2220 BG1	0	1	0
	0.00%	20.00%	0.00%
T301 BG1	4	0	0
	5.33%	0.00%	0.00%
T301 BG2	0	0	0
	0.00%	0.00%	0.00%
T302 BG1	0	0	0
	0.00%	0.00%	0.00%
T302 BG2	0	0	0
	0.00%	0.00%	0.00%
T302 BG3	1	0	0
	1.33%	0.00%	0.00%
T400 BG1	1	0	0
	1.33%	0.00%	0.00%
T400 BG2	1	0	0
	1.33%	0.00%	0.00%
T400 BG3	1	0	0
	1.33%	0.00%	0.00%
T400 BG4	4	0	0
	5.33%	0.00%	0.00%
T500 BG1	0	0	0
	0.00%	0.00%	0.00%
T500 BG2	0	0	0
	0.00%	0.00%	0.00%
T500 BG3	0	0	0
	0.00%	0.00%	0.00%
T500 BG4	0	0	0
	0.00%	0.00%	0.00%
T500 BG5	4	0	0

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
	5.33%	0.00%	0.00%
T600 BG1	1	0	0
	1.33%	0.00%	0.00%
T600 BG2	0	0	0
	0.00%	0.00%	0.00%
T600 BG3	4	0	0
	5.33%	0.00%	0.00%
T700 BG1	1	0	0
	1.33%	0.00%	0.00%
T700 BG2	3	0	0
	4.00%	0.00%	0.00%
T700 BG3	0	0	0
	0.00%	0.00%	0.00%
T700 BG4	2	0	0
	2.67%	0.00%	0.00%
T806 BG1	1	0	0
	1.33%	0.00%	0.00%
T808 BG1	0	0	0
	0.00%	0.00%	0.00%
T808 BG2	0	0	0
	0.00%	0.00%	0.00%
T808 BG3	0	0	0
	0.00%	0.00%	0.00%
T809 BG1	0	1	0
	0.00%	20.00%	0.00%
T901 BG1	0	0	0
	0.00%	0.00%	0.00%
T902 BG1	0	0	0
	0.00%	0.00%	0.00%
T902 BG2	0	0	0
	0.00%	0.00%	0.00%
T902 BG3	0	0	0
	0.00%	0.00%	0.00%
T902 BG4	0	0	1
	0.00%	0.00%	50.00%

Table III-38: Alachua County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
Total number of schools and sporting facilities	75	5	2
	100%	100%	100%

Source: County School Board.

Figure III-63: Bradford Educational Facilties

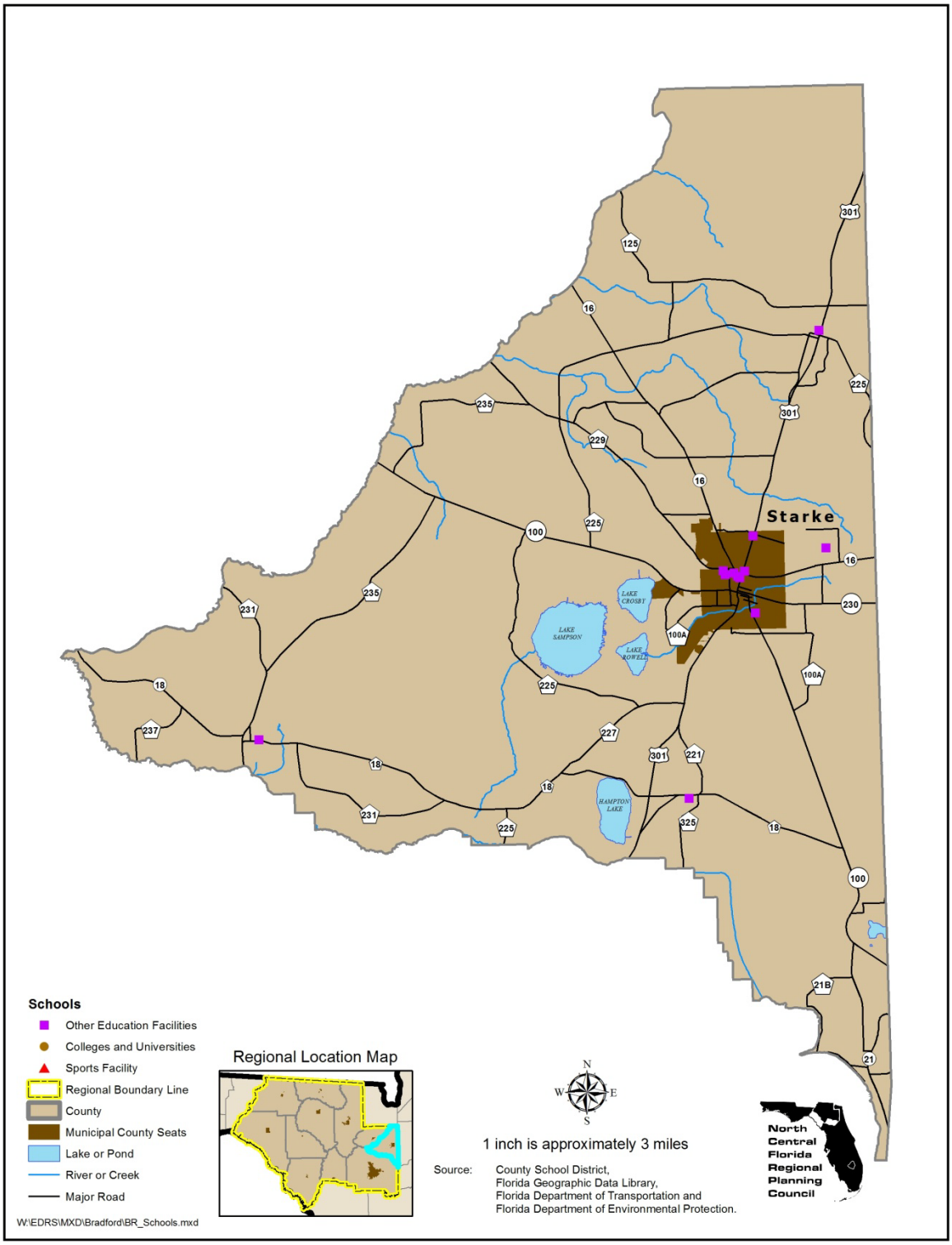


Table III-39: Bradford County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T100 BG1	1 7.14%	0 0.00%	0 0.00%
T100 BG2	0 0.00%	0 0.00%	0 0.00%
T100 BG3	1 7.14%	0 0.00%	0 0.00%
T100 BG4	1 7.14%	0 0.00%	0 0.00%
T100 BG5	0 0.00%	0 0.00%	0 0.00%
T200 BG1	0 0.00%	0 0.00%	0 0.00%
T200 BG2	7 50.00%	0 0.00%	0 0.00%
T200 BG3	0 0.00%	0 0.00%	0 0.00%
T200 BG4	0 0.00%	0 0.00%	0 0.00%
T200 BG5	1 7.14%	0 0.00%	0 0.00%
T300 BG1	1 7.14%	0 0.00%	0 0.00%
T300 BG2	0 0.00%	0 0.00%	0 0.00%
T300 BG3	0 0.00%	0 0.00%	0 0.00%
T300 BG4	0 0.00%	0 0.00%	0 0.00%
T300 BG5	1 7.14%	0 0.00%	0 0.00%
T400 BG1	0 0.00%	0 0.00%	0 0.00%
T400 BG2	0 0.00%	0 0.00%	0 0.00%
T400 BG3	1	0	0

Table III-39: Bradford County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
	7.14%	0.00%	0.00%
Total number of schools and sporting facilities	14	0	0
	100%	0.00%	0.00%

Source: County School Board.

Figure III-64: Columbia Educational Facilties

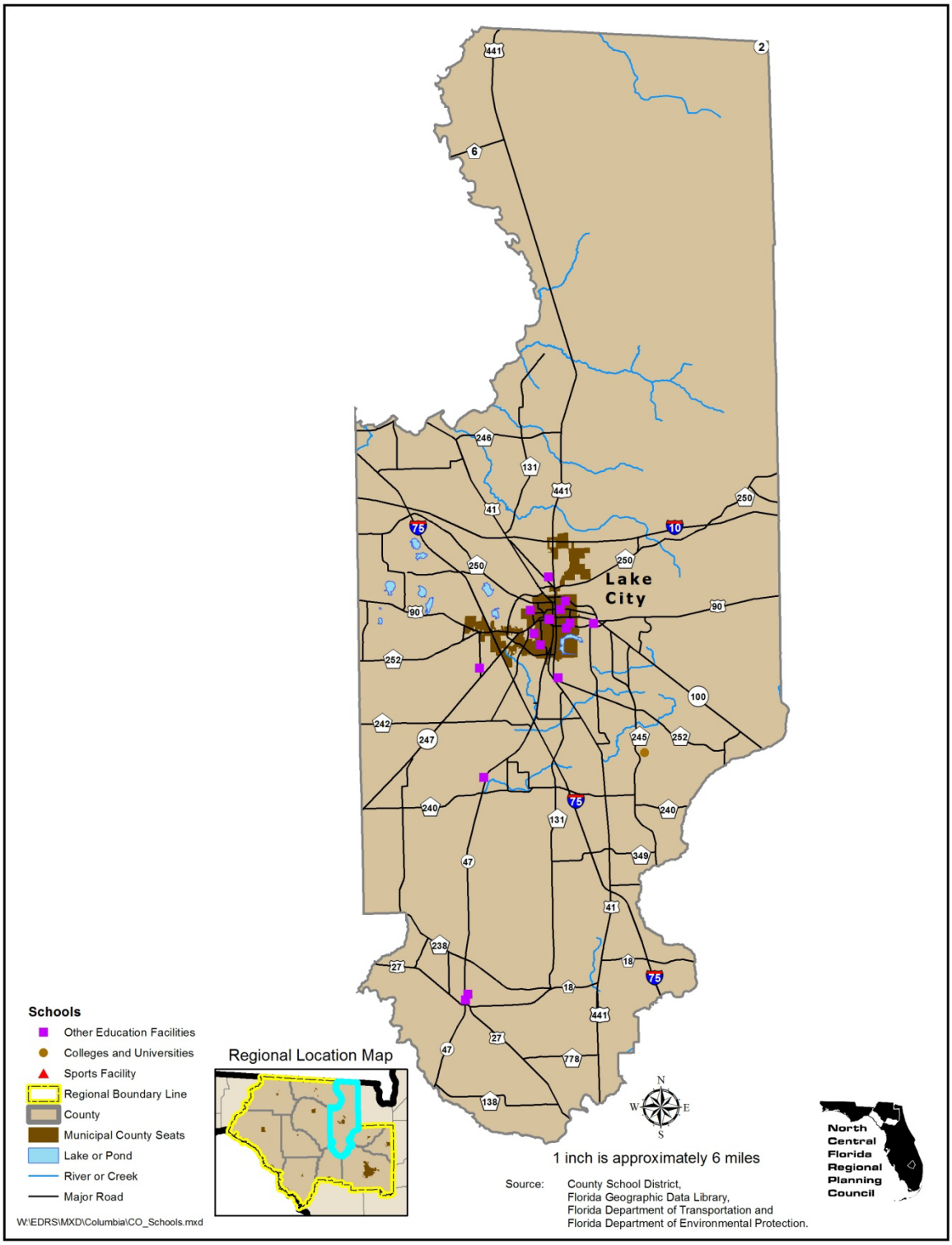


Table III-40: Columbia County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T110201 BG1	0 0.00%	0 0.00%	0 0.00%
T110201 BG2	0 0.00%	0 0.00%	0 0.00%
T110202 BG1	0 0.00%	0 0.00%	0 0.00%
T110202 BG2	0 0.00%	0 0.00%	0 0.00%
T110202 BG3	0 0.00%	0 0.00%	0 0.00%
T110202 BG4	1 5.56%	0 0.00%	0 0.00%
T110300 BG1	0 0.00%	0 0.00%	0 0.00%
T110300 BG2	0 0.00%	0 0.00%	0 0.00%
T110300 BG3	0 0.00%	0 0.00%	0 0.00%
T110300 BG4	0 0.00%	0 0.00%	0 0.00%
T110300 BG5	1 5.56%	0 0.00%	0 0.00%
T110400 BG1	1 5.56%	0 0.00%	0 0.00%
T110400 BG2	1 5.56%	0 0.00%	0 0.00%
T110400 BG3	1 5.56%	0 0.00%	0 0.00%
T110400 BG4	0 0.00%	0 0.00%	0 0.00%
T110500 BG1	0 0.00%	0 0.00%	0 0.00%
T110500 BG2	4 22.22%	0 0.00%	0 0.00%
T110500 BG3	0 0.00%	0 0.00%	0 0.00%

Table III-40: Columbia County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T110500 BG4	1 5.56%	0 0.00%	0 0.00%
T110500 BG5	2 11.11%	0 0.00%	0 0.00%
T110601 BG1	1 5.56%	0 0.00%	0 0.00%
T110601 BG2	0 0.00%	0 0.00%	0 0.00%
T110601 BG3	0 0.00%	0 0.00%	0 0.00%
T110602 BG1	1 5.56%	0 0.00%	0 0.00%
T110602 BG2	0 0.00%	0 0.00%	0 0.00%
T110700 BG1	1 5.56%	0 0.00%	0 0.00%
T110700 BG2	0 0.00%	0 0.00%	0 0.00%
T110700 BG3	0 0.00%	0 0.00%	0 0.00%
T110700 BG4	1 5.56%	0 0.00%	0 0.00%
T110800 BG1	0 0.00%	1 100.00%	0 0.00%
T110800 BG2	0 0.00%	0 0.00%	0 0.00%
T110800 BG3	0 0.00%	0 0.00%	0 0.00%
T110800 BG4	0 0.00%	0 0.00%	0 0.00%
T110901 BG1	0 0.00%	0 0.00%	0 0.00%
T110901 BG2	0 0.00%	0 0.00%	0 0.00%
T110901 BG3	0 0.00%	0 0.00%	0 0.00%
T110903 BG1	0	0	0

Table III-40: Columbia County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
	0.00%	0.00%	0.00%
T110903 BG2	0	0	0
	0.00%	0.00%	0.00%
T110904 BG1	0	0	0
	0.00%	0.00%	0.00%
T110904 BG2	2	0	0
	11.11%	0.00%	0.00%
Total number of schools and sporting facilities	18	1	0
	100%	100%	0.00%

Source: County School Board.

Figure III-65: Dixie Educational Facilties

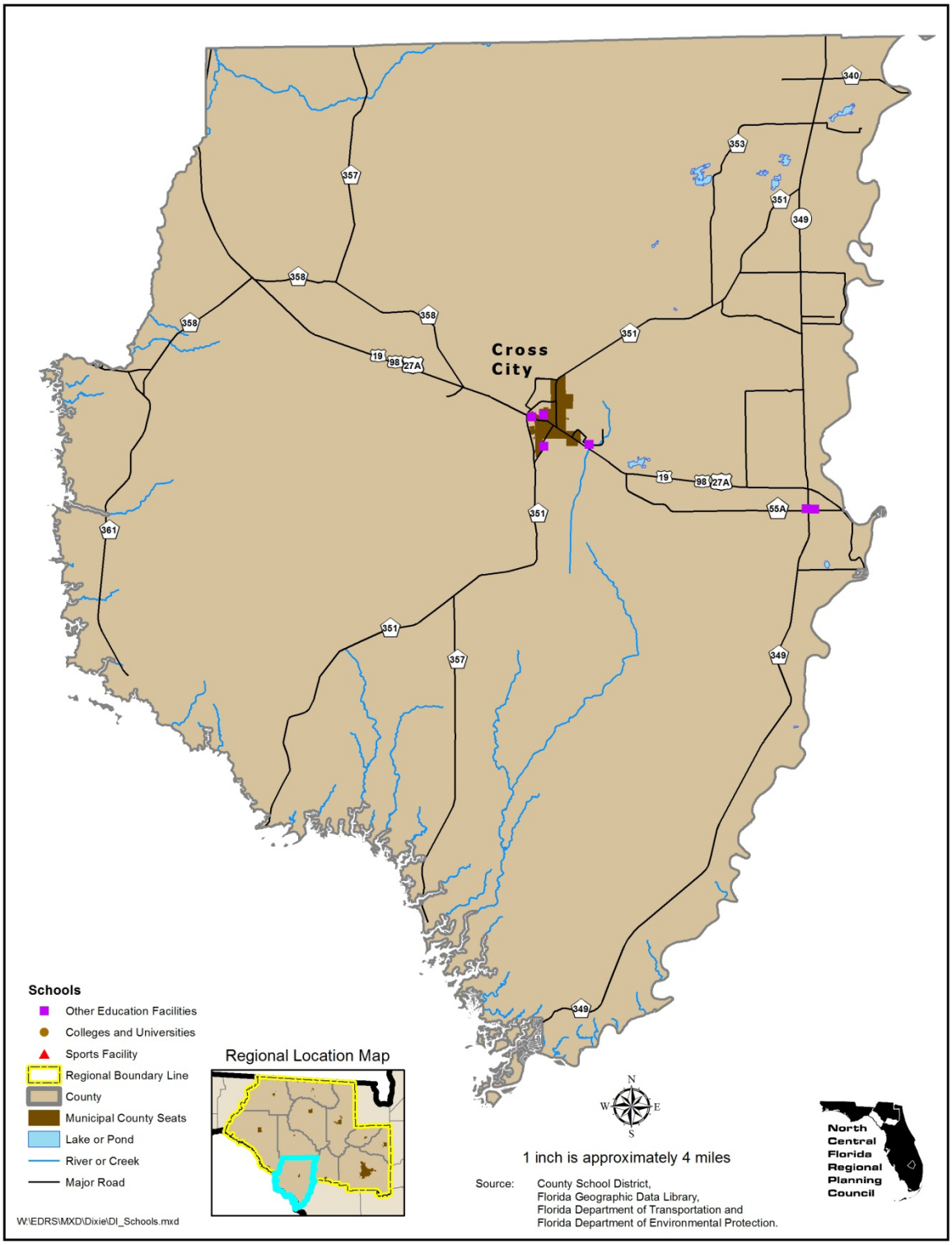


Table III-41: Dixie County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T970101 BG1	1	0	0
	14.29%	0.00%	0.00%
T970101 BG2	3	0	0
	42.86%	0.00%	0.00%
T970101 BG3	1	0	0
	14.29%	0.00%	0.00%
T970102 BG1	0	0	0
	0.00%	0.00%	0.00%
T970102 BG2	0	0	0
	0.00%	0.00%	0.00%
T970102 BG3	0	0	0
	0.00%	0.00%	0.00%
T970102 BG4	0	0	0
	0.00%	0.00%	0.00%
T970102 BG5	0	0	0
	0.00%	0.00%	0.00%
T970200 BG1	0	0	0
	0.00%	0.00%	0.00%
T970200 BG2	0	0	0
	0.00%	0.00%	0.00%
T970200 BG3	1	0	0
	14.29%	0.00%	0.00%
T970200 BG4	1	0	0
	14.29%	0.00%	0.00%
Total number of schools and sporting facilities	7	0	0
	100%	0.00%	0.00%

Source: County School Board.

Figure III-66: Gilchrist Educational Facilties

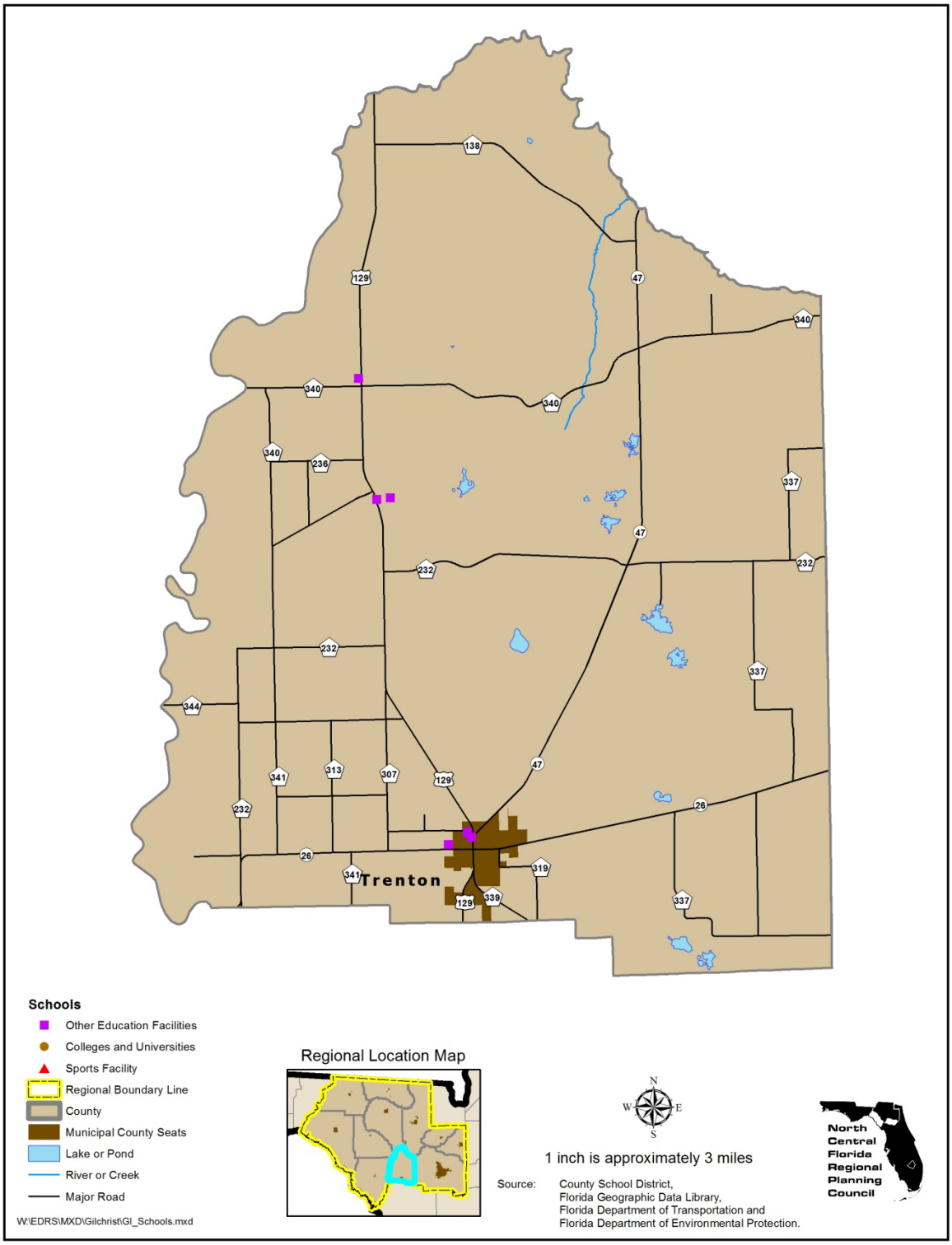


Table III-42: Gilchrist County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T950100 BG1	0 0.00%	0 0.00%	0 0.00%
T950100 BG2	1 16.67%	0 0.00%	0 0.00%
T950100 BG3	0 0.00%	0 0.00%	0 0.00%
T950100 BG4	2 33.33%	0 0.00%	0 0.00%
T950201 BG1	0 0.00%	0 0.00%	0 0.00%
T950202 BG1	0 0.00%	0 0.00%	0 0.00%
T950202 BG2	0 0.00%	0 0.00%	0 0.00%
T950203 BG1	0 0.00%	0 0.00%	0 0.00%
T950203 BG2	0 0.00%	0 0.00%	0 0.00%
T950203 BG3	0 0.00%	0 0.00%	0 0.00%
T950204 BG1	3 50.00%	0 0.00%	0 0.00%
T950204 BG2	0 0.00%	0 0.00%	0 0.00%
T950204 BG3	0 0.00%	0 0.00%	0 0.00%
Total number of schools and sporting facilities	6 100%	0 0.00%	0 0.00%

Source: County School Board.

Figure III-67: Hamilton Educational Facilties

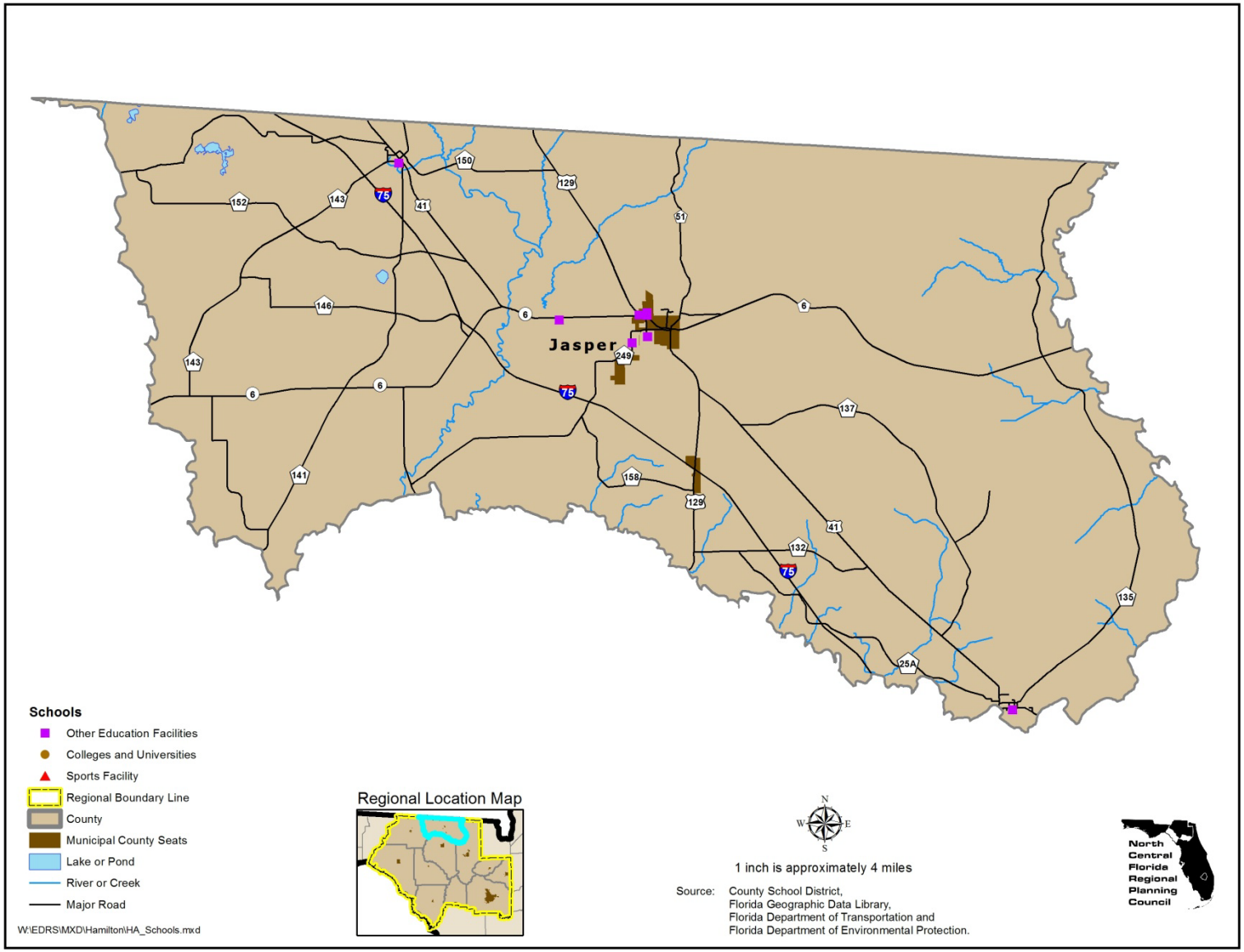


Table III-43: Hamilton County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T960200 BG2	1 10.00%	0 0.00%	0 0.00%
T960300 BG1	0 0.00%	0 0.00%	0 0.00%
T960200 BG3	0 0.00%	0 0.00%	0 0.00%
T960100 BG5	0 0.00%	0 0.00%	0 0.00%
T960300 BG2	1 10.00%	0 0.00%	0 0.00%
T960100 BG3	4 40.00%	0 0.00%	0 0.00%
T960200 BG1	0 0.00%	0 0.00%	0 0.00%
T960100 BG4	0 0.00%	0 0.00%	0 0.00%
T960100 BG2	4 40.00%	0 0.00%	0 0.00%
T960100 BG1	0 0.00%	0 0.00%	0 0.00%
Total number of schools and sporting facilities	10 100%	0 0.00%	0 0.00%

Source: County School Board.

Figure III-68: Lafayette Educational Facilties

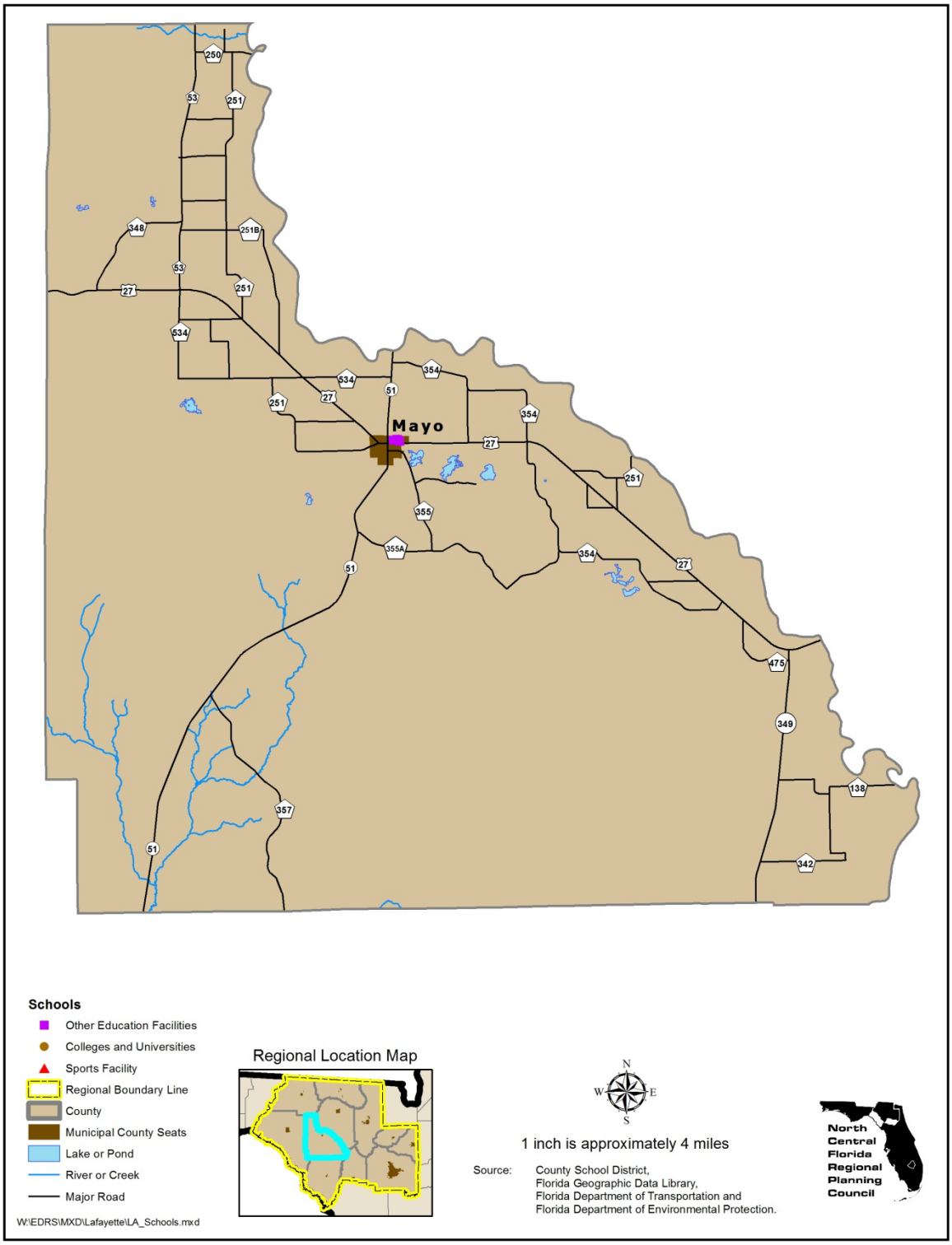


Table III-44: Lafayette County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T960100 BG1	0 0.00%	0 0.00%	0 0.00%
T960100 BG2	0 0.00%	0 0.00%	0 0.00%
T960200 BG1	6 100.00%	0 0.00%	0 0.00%
T960200 BG2	0 0.00%	0 0.00%	0 0.00%
T960200 BG3	0 0.00%	0 0.00%	0 0.00%
T960200 BG4	0 0.00%	0 0.00%	0 0.00%
Total number of schools and sporting facilities	6 100%	0 0.00%	0 0.00%

Source: County School Board.

Figure III-69: Madison Educational Facilties

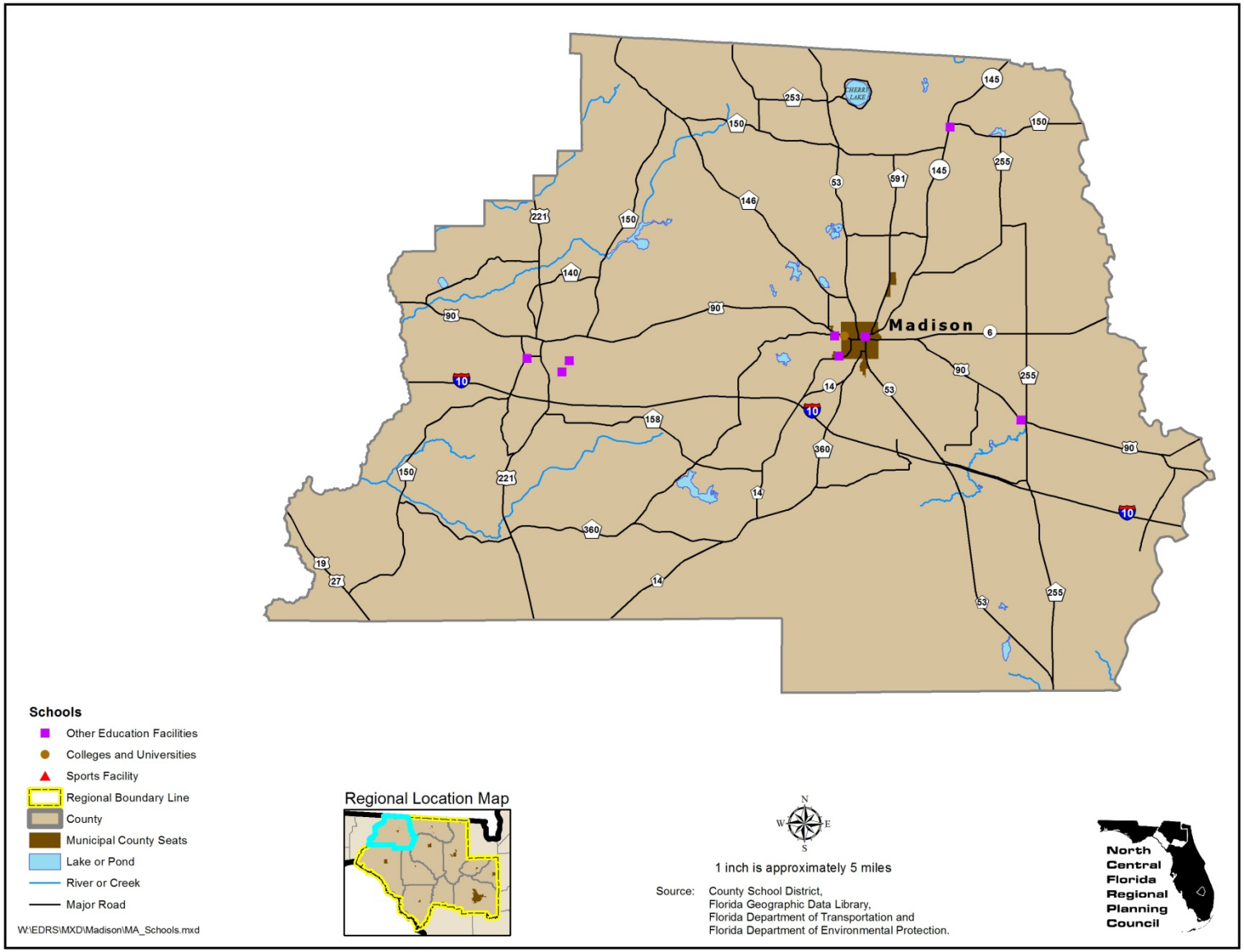


Table III-45: Madison County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T110100 BG1	1 9.09%	0 0.00%	0 0.00%
T110100 BG2	0 0.00%	0 0.00%	0 0.00%
T110100 BG3	0 0.00%	0 0.00%	0 0.00%
T110200 BG1	0 0.00%	0 0.00%	0 0.00%
T110200 BG2	0 0.00%	0 0.00%	0 0.00%
T110200 BG3	3 27.27%	0 0.00%	0 0.00%
T110200 BG4	0 0.00%	0 0.00%	0 0.00%
T110301 BG1	4 36.36%	0 0.00%	0 0.00%
T110301 BG2	0 0.00%	1 100.00%	0 0.00%
T110302 BG1	0 0.00%	0 0.00%	0 0.00%
T110302 BG2	2 18.18%	0 0.00%	0 0.00%
T110302 BG3	0 0.00%	0 0.00%	0 0.00%
T110302 BG4	0 0.00%	0 0.00%	0 0.00%
T110400 BG1	0 0.00%	0 0.00%	0 0.00%
T110400 BG2	0 0.00%	0 0.00%	0 0.00%
T110400 BG3	1 9.09%	0 0.00%	0 0.00%
Total number of schools and sporting facilities	11 100%	1 100%	0 0.00%

Source: County School Board.

Figure III-70: Suwannee Educational Facilties

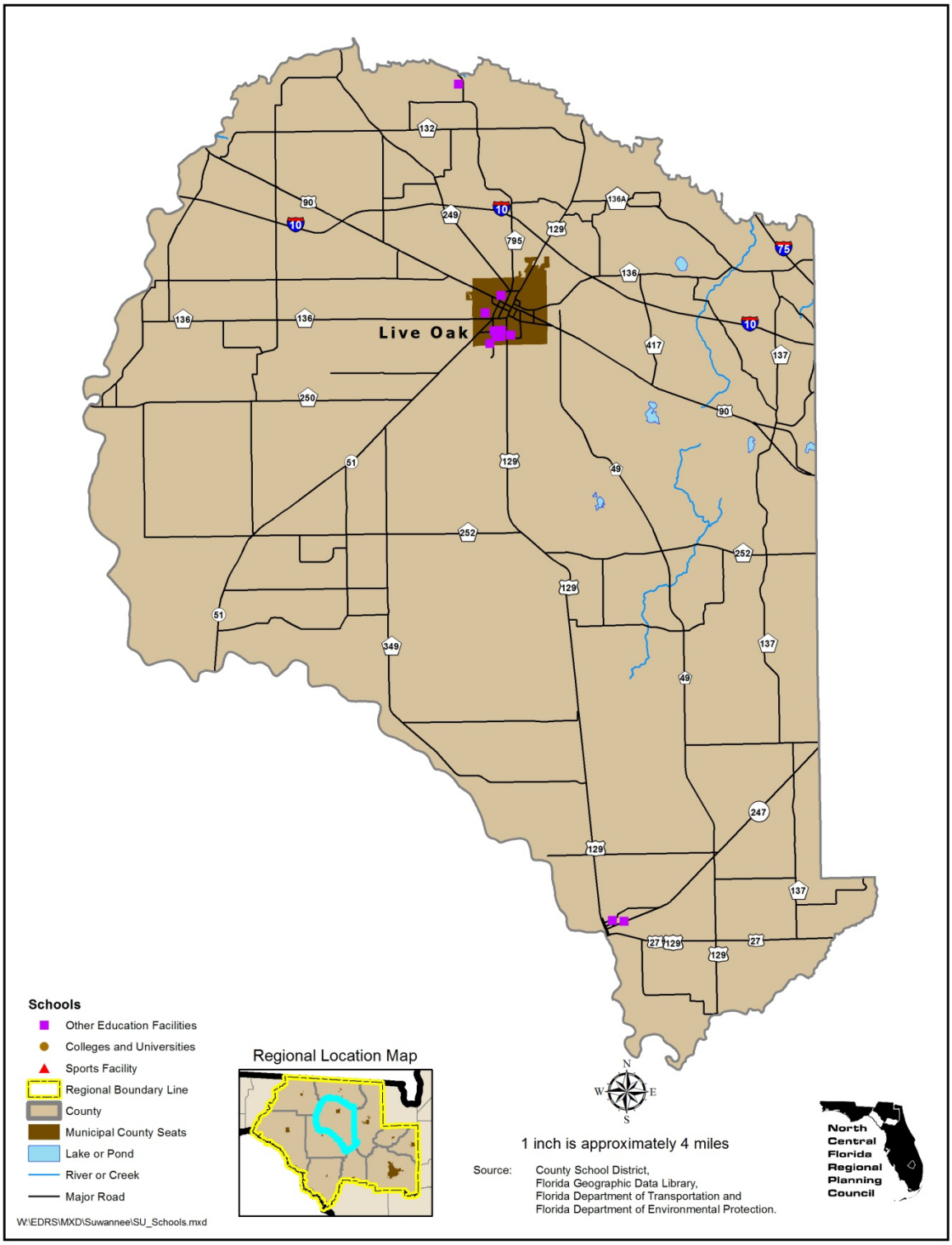


Table III-46: Suwannee County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T970100 BG1	0 0.00%	0 0.00%	0 0.00%
T970100 BG2	0 0.00%	0 0.00%	0 0.00%
T970100 BG3	0 0.00%	0 0.00%	0 0.00%
T970100 BG4	1 7.14%	0 0.00%	0 0.00%
T970100 BG5	0 0.00%	0 0.00%	0 0.00%
T970200 BG1	1 7.14%	0 0.00%	0 0.00%
T970200 BG2	0 0.00%	0 0.00%	0 0.00%
T970200 BG3	3 21.43%	0 0.00%	0 0.00%
T970301 BG1	0 0.00%	0 0.00%	0 0.00%
T970302 BG1	0 0.00%	0 0.00%	0 0.00%
T970302 BG2	0 0.00%	0 0.00%	0 0.00%
T970302 BG3	0 0.00%	0 0.00%	0 0.00%
T970302 BG4	0 0.00%	0 0.00%	0 0.00%
T970400 BG1	0 0.00%	0 0.00%	0 0.00%
T970400 BG2	1 7.14%	0 0.00%	0 0.00%
T970400 BG3	0 0.00%	0 0.00%	0 0.00%
T970400 BG4	0 0.00%	0 0.00%	0 0.00%
T970400 BG5	6 42.86%	0 0.00%	0 0.00%

Table III-46: Suwannee County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T970500 BG1	0 0.00%	0 0.00%	0 0.00%
T970500 BG2	0 0.00%	0 0.00%	0 0.00%
T970500 BG3	0 0.00%	0 0.00%	0 0.00%
T970500 BG4	0 0.00%	0 0.00%	0 0.00%
T970600 BG1	0 0.00%	0 0.00%	0 0.00%
T970600 BG2	0 0.00%	0 0.00%	0 0.00%
T970600 BG3	2 14.29%	0 0.00%	0 0.00%
T970600 BG4	0 0.00%	0 0.00%	0 0.00%
Total number of schools and sporting facilities	14 100%	0 0.00%	0 0.00%

Source: County School Board.

Figure III-71: Taylor Educational Facilties

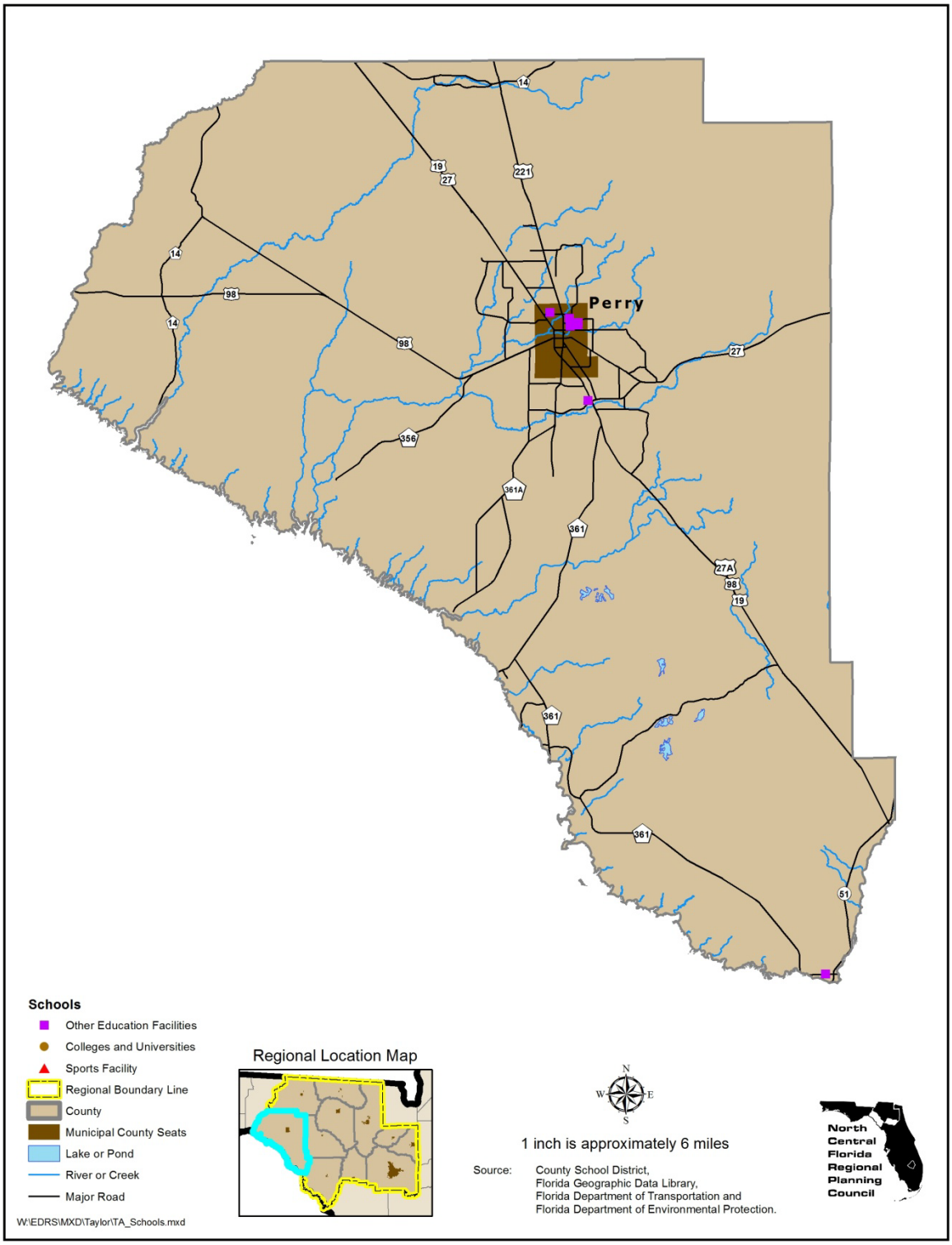


Table III-47: Taylor County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T950100 BG1	0 0.00%	0 0.00%	0 0.00%
T950100 BG2	1 12.50%	0 0.00%	0 0.00%
T950100 BG3	2 25.00%	0 0.00%	0 0.00%
T950100 BG4	2 25.00%	0 0.00%	0 0.00%
T950200 BG1	0 0.00%	0 0.00%	0 0.00%
T950200 BG2	1 12.50%	0 0.00%	0 0.00%
T950200 BG3	0 0.00%	0 0.00%	0 0.00%
T950200 BG4	0 0.00%	0 0.00%	0 0.00%
T950200 BG5	0 0.00%	0 0.00%	0 0.00%
T950300 BG1	0 0.00%	0 0.00%	0 0.00%
T950300 BG2	0 0.00%	0 0.00%	0 0.00%
T950300 BG3	0 0.00%	0 0.00%	0 0.00%
T950300 BG4	0 0.00%	0 0.00%	0 0.00%
T950300 BG5	1 12.50%	0 0.00%	0 0.00%
T950300 BG6	0 0.00%	0 0.00%	0 0.00%
T950400 BG1	1 12.50%	0 0.00%	0 0.00%
T950400 BG2	0 0.00%	0 0.00%	0 0.00%
T950400 BG3	0 0.00%	0 0.00%	0 0.00%

Table III-47: Taylor County Educational Facilities (Continued)

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T950400 BG4	0	0	0
	0.00%	0.00%	0.00%
Total number of schools and sporting facilities	8	0	0
	100%	0.00%	0.00%

Source: County School Board.

Figure III-72: Union Educational Facilties

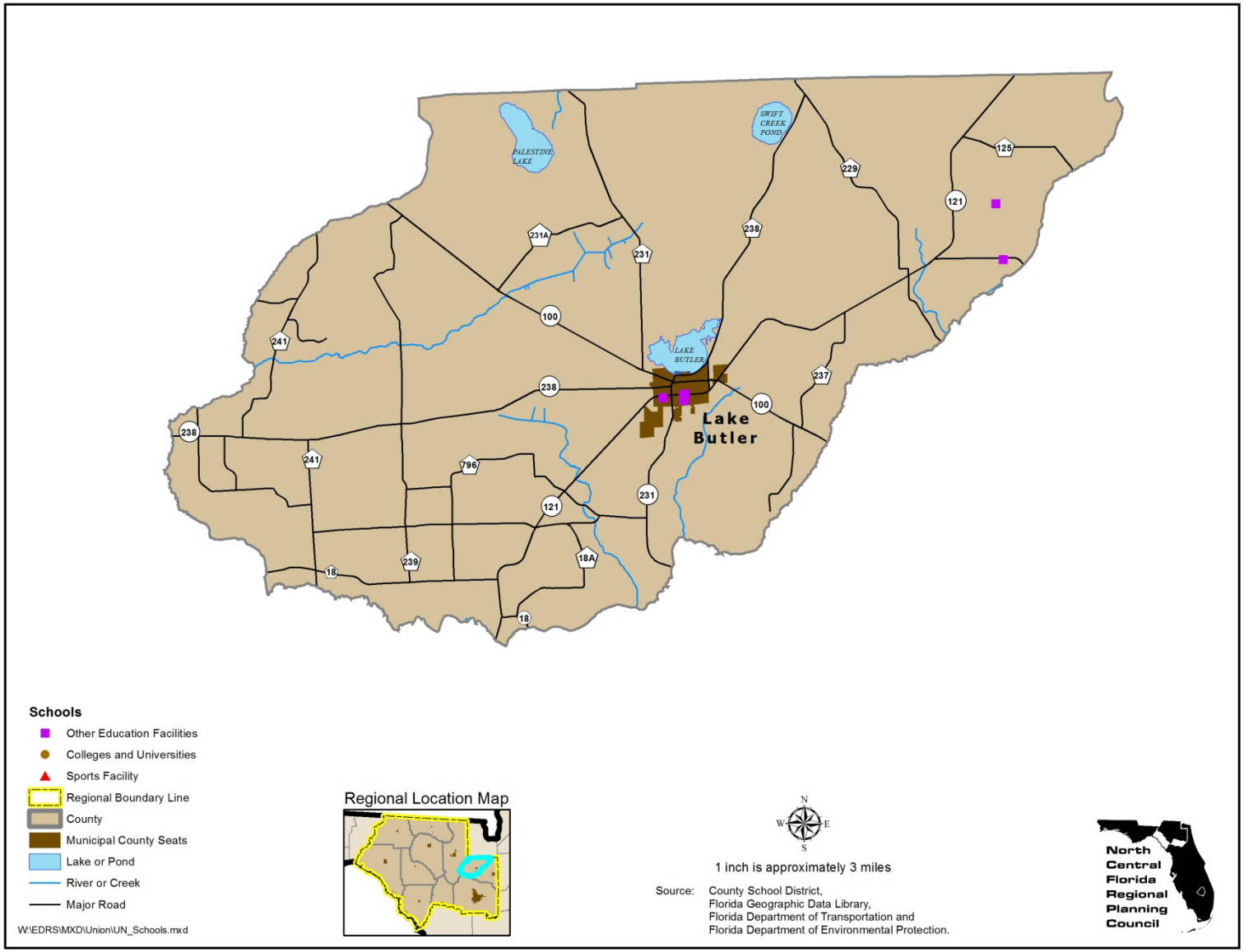


Table III-48: Union County Educational Facilities

Census Block Group	Location of schools and sporting facilities		
Track Number and Block Group Number	Other Educational Facilities	Colleges and Universities	Sports Facilities
T960100 BG1	2	0	0
	18.18%	0.00%	0.00%
T960100 BG2	0	0	0
	0.00%	0.00%	0.00%
T960200 BG1	0	0	0
	0.00%	0.00%	0.00%
T960200 BG2	2	0	0
	18.18%	0.00%	0.00%
T960200 BG3	6	0	0
	54.55%	0.00%	0.00%
T960200 BG4	0	0	0
	0.00%	0.00%	0.00%
T960200 BG5	1	0	0
	9.09%	0.00%	0.00%
T960300 BG1	0	0	0
	0.00%	0.00%	0.00%
T960300 BG2	0	0	0
	0.00%	0.00%	0.00%
Total number of schools and sporting facilities	11	0	0
	100%	0.00%	0.00%

Source: County School Board.

G. Shelters

1. North Central Florida

Shelters act as temporary housing for families who may have had their primary residence damaged or destroyed. Shelters allow families to maintain their normal way of life after a storm such as working or taking their children to school. To qualify as a shelter, a structure must meet the minimum requirements as outlined by the American Red Cross Shelter standards (See Table III-49 and Figure III-73).

2. Alachua County

According to the County Emergency Management Department there are 45 shelters located within the County (See Table III-50, Figure III-3, Figure III-4 and Figure III-74).

3. Bradford County

According to the County Emergency Management Department there are nine shelters located within the County (See Table III-51, Figure III-5, Figure III-6 and Figure III-75).

4. Columbia County

According to the County Emergency Management Department there are 29 s helters located within the County (See Table III-52, Figure III-7, Figure III-8 and Figure III-76).

5. Dixie County

According to the County Emergency Management Department there are five shelters located within the County (See Table III-53, Figure III-9, Figure III-10 and Figure III-77).

6. Gilchrist County

According to the County Emergency Management Department there are four shelters located within the County (See Table III-54, Figure III-11, Figure III-12 and Figure III-78).

7. Hamilton County

According to the County Emergency Management Department there are nine shelters located within the County (See Table III-55, Figure III-13, Figure III-14 and Figure III-79).

8. Lafayette County

According to the County Emergency Management Department there are six shelters located within the County (See Table III-56, Figure III-15, Figure III-16 and Figure III-80).

9. Madison County

According to the County Emergency Management Department there are 14 s helters located within the County (See Table III-57, Figure III-17, Figure III-18 and Figure III-81).

10. Suwannee County

According to the County Emergency Management Department there are 22 s helters located within the County (See Table III-58, Figure III-19, Figure III-20 and Figure III-82).

11. Taylor County

According to the County Emergency Management Department there are 12 s helters located within the County (See Table III-59, Figure III-21, Figure III-22 and Figure III-83).

12. Union County

According to the County Emergency Management Department there are nine shelters located within the County (See Table III-60, Figure III-23, Figure III-24 and Figure III-84).

Figure III-73: North Central Florida Shelters

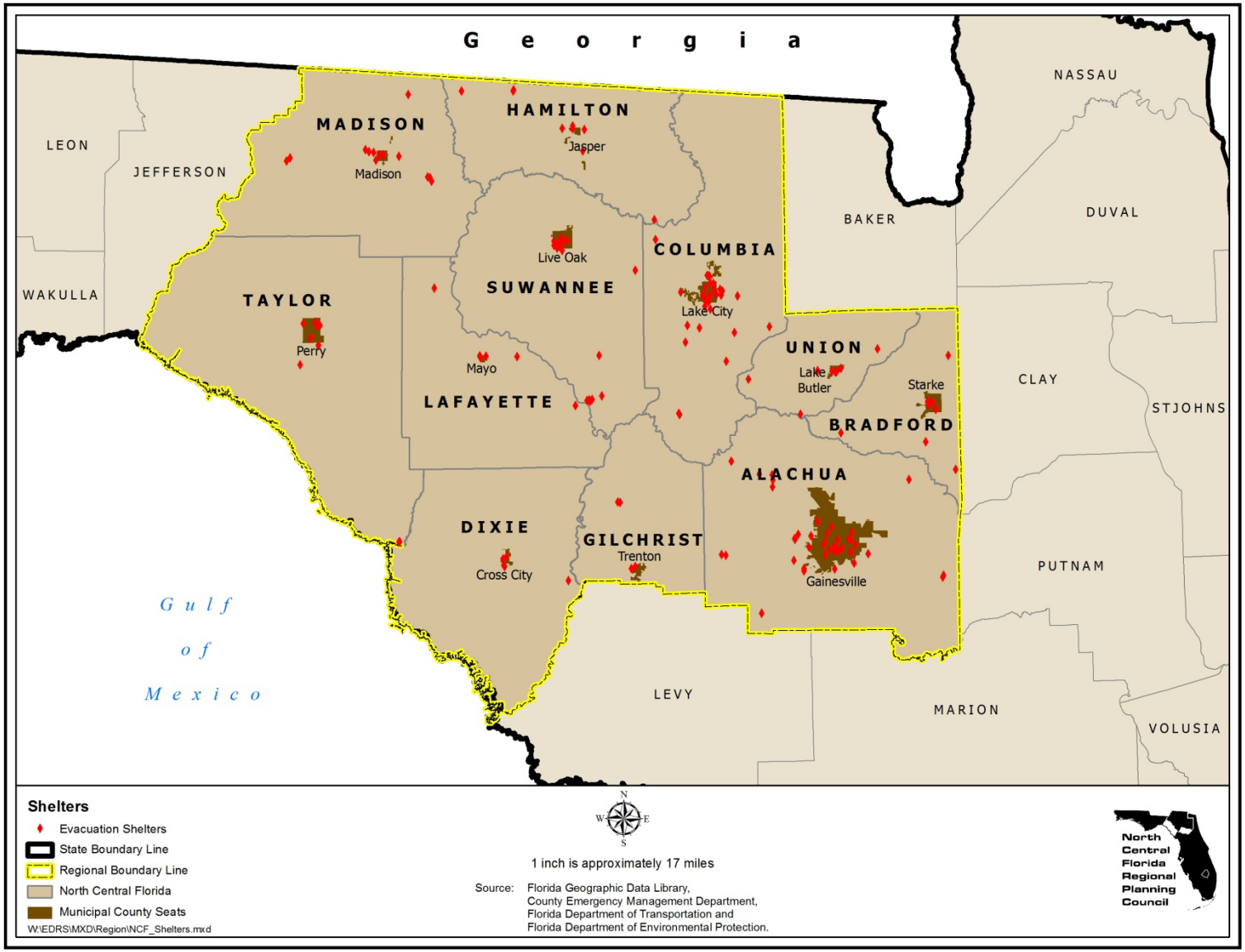


Table III-49: North Central Florida Shelters

Census Block Group	Location of evacuation shelters
County	Evacuation Shelters
ALACHUA	45
	27.44%
BRADFORD	9
	5.49%
COLUMBIA	29
	17.68%
DIXIE	5
	3.05%
GILCHRIST	4
	2.44%
HAMILTON	9
	5.49%
LAFAYETTE	6
	3.66%
MADISON	14
	8.54%
SUWANNEE	22
	13.41%
TAYLOR	12
	7.32%
UNION	9
	5.49%
Total number of evacuation shelters	164
	100%

Source: County Emergency Management Department.

Figure III-74: Alachua County Shelters

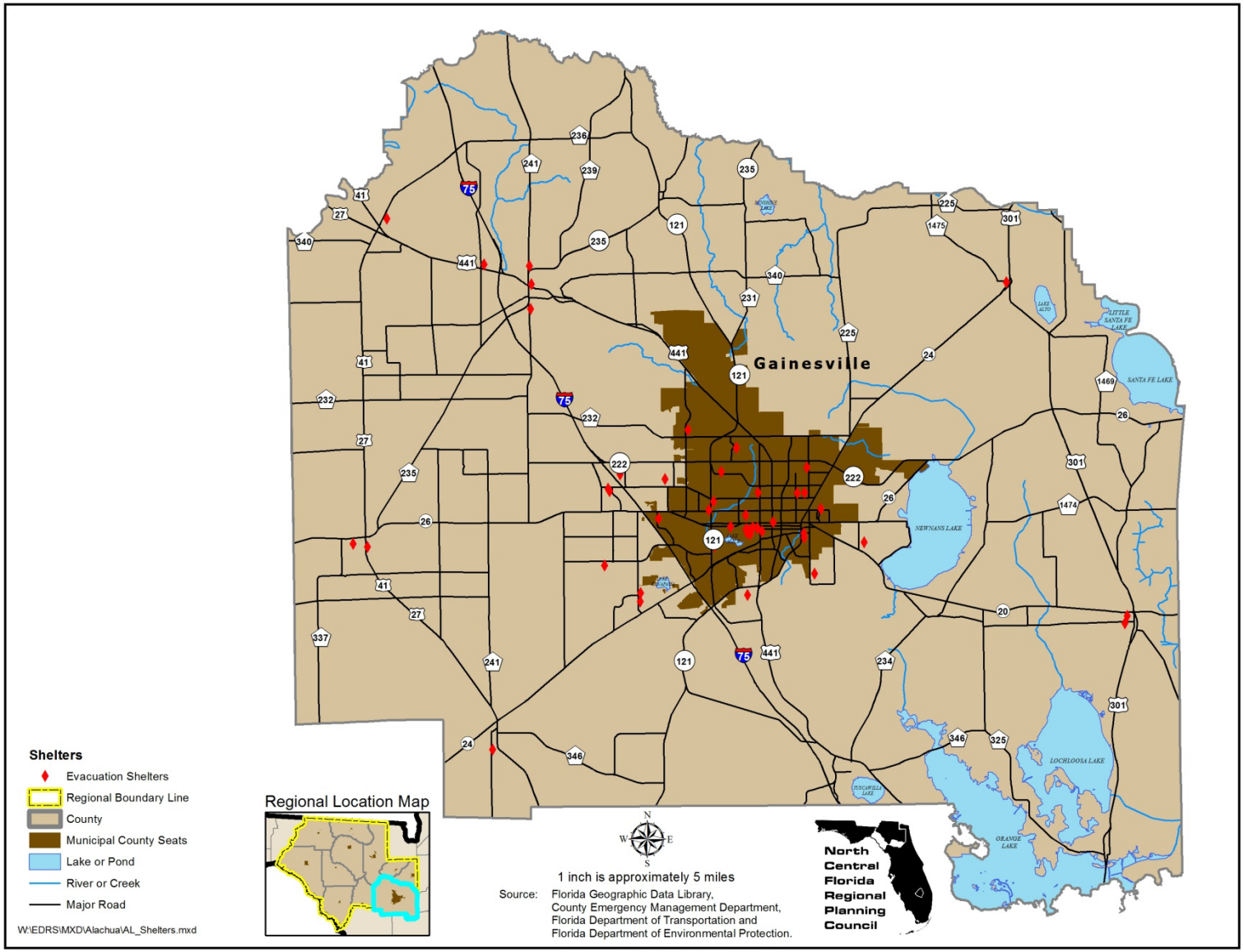


Table III-50: Alachua County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T1000 BG1	0 0.00%
T1000 BG2	0 0.00%
T1000 BG3	0 0.00%
T1000 BG4	1 2.22%
T1000 BG5	1 2.22%
T1100 BG1	0 0.00%
T1100 BG2	0 0.00%
T1100 BG3	1 2.22%
T1100 BG4	0 0.00%
T110800 BG1	1 2.22%
T1201 BG1	0 0.00%
T1202 BG1	0 0.00%
T1202 BG2	1 2.22%
T1202 BG3	0 0.00%
T1202 BG4	0 0.00%
T1202 BG5	1 2.22%
T1203 BG1	0 0.00%
T1203 BG2	0 0.00%

Table III-50: Alachua County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T1400 BG1	0 0.00%
T1400 BG2	1 2.22%
T1400 BG3	0 0.00%
T1514 BG1	0 0.00%
T1514 BG2	0 0.00%
T1515 BG1	0 0.00%
T1515 BG2	0 0.00%
T1515 BG3	0 0.00%
T1516 BG1	0 0.00%
T1516 BG2	0 0.00%
T1517 BG1	0 0.00%
T1517 BG2	0 0.00%
T1519 BG1	0 0.00%
T1520 BG1	0 0.00%
T1521 BG1	0 0.00%
T1521 BG2	0 0.00%
T1521 BG3	0 0.00%
T1603 BG1	0 0.00%

Table III-50: Alachua County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T1604 BG1	1 2.22%
T1604 BG2	0 0.00%
T1604 BG3	0 0.00%
T1604 BG4	0 0.00%
T1701 BG1	1 2.22%
T1701 BG2	1 2.22%
T1702 BG1	1 2.22%
T1702 BG2	0 0.00%
T1702 BG3	0 0.00%
T1801 BG1	1 2.22%
T1801 BG2	1 2.22%
T1801 BG3	1 2.22%
T1801 BG4	0 0.00%
T1801 BG5	0 0.00%
T1802 BG1	1 2.22%
T1802 BG2	0 0.00%
T1802 BG3	0 0.00%
T1803 BG1	0 0.00%

Table III-50: Alachua County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T1803 BG2	0 0.00%
T1803 BG3	0 0.00%
T1803 BG4	1 2.22%
T1805 BG1	1 2.22%
T1806 BG1	0 0.00%
T1806 BG2	0 0.00%
T1806 BG3	0 0.00%
T1806 BG4	0 0.00%
T1811 BG1	0 0.00%
T1811 BG2	0 0.00%
T1811 BG3	0 0.00%
T1811 BG4	0 0.00%
T1813 BG1	0 0.00%
T1814 BG1	0 0.00%
T1902 BG1	0 0.00%
T1902 BG2	0 0.00%
T1907 BG1	0 0.00%
T1907 BG2	0 0.00%

Table III-50: Alachua County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T1907 BG3	0 0.00%
T1908 BG1	0 0.00%
T1908 BG2	0 0.00%
T1908 BG3	0 0.00%
T1908 BG4	1 2.22%
T1908 BG5	0 0.00%
T200 BG1	0 0.00%
T200 BG2	0 0.00%
T200 BG3	0 0.00%
T200 BG4	0 0.00%
T200 BG5	0 0.00%
T200 BG6	1 2.22%
T2000 BG1	0 0.00%
T2000 BG2	1 2.22%
T2000 BG3	0 0.00%
T2000 BG4	0 0.00%
T2000 BG5	1 2.22%
T2101 BG1	0 0.00%

Table III-50: Alachua County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T2101 BG2	0 0.00%
T2102 BG1	0 0.00%
T2201 BG1	0 0.00%
T2201 BG2	0 0.00%
T2202 BG1	0 0.00%
T2202 BG2	0 0.00%
T2202 BG3	1 2.22%
T2204 BG1	0 0.00%
T2204 BG2	0 0.00%
T2204 BG3	2 4.44%
T2204 BG4	0 0.00%
T2205 BG1	1 2.22%
T2205 BG2	0 0.00%
T2205 BG3	0 0.00%
T2205 BG4	0 0.00%
T2207 BG1	0 0.00%
T2207 BG2	0 0.00%
T2208 BG1	0 0.00%

Table III-50: Alachua County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T2208 BG2	0 0.00%
T2209 BG1	0 0.00%
T2209 BG2	1 2.22%
T2209 BG3	0 0.00%
T2210 BG1	0 0.00%
T2210 BG2	1 2.22%
T2210 BG3	0 0.00%
T2217 BG1	0 0.00%
T2217 BG2	0 0.00%
T2217 BG3	0 0.00%
T2218 BG1	0 0.00%
T2218 BG2	0 0.00%
T2219 BG1	0 0.00%
T2219 BG2	2 4.44%
T2219 BG3	0 0.00%
T2220 BG1	0 0.00%
T301 BG1	0 0.00%
T301 BG2	0 0.00%

Table III-50: Alachua County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T302 BG1	0 0.00%
T302 BG2	0 0.00%
T302 BG3	0 0.00%
T400 BG1	0 0.00%
T400 BG2	1 2.22%
T400 BG3	1 2.22%
T400 BG4	1 2.22%
T500 BG1	1 2.22%
T500 BG2	0 0.00%
T500 BG3	0 0.00%
T500 BG4	0 0.00%
T500 BG5	0 0.00%
T600 BG1	1 2.22%
T600 BG2	0 0.00%
T600 BG3	0 0.00%
T700 BG1	0 0.00%
T700 BG2	2 4.44%
T700 BG3	1 2.22%

Table III-50: Alachua County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T700 BG4	0 0.00%
T806 BG1	0 0.00%
T808 BG1	0 0.00%
T808 BG2	0 0.00%
T808 BG3	0 0.00%
T809 BG1	0 0.00%
T901 BG1	2 4.44%
T902 BG1	0 0.00%
T902 BG2	1 2.22%
T902 BG3	0 0.00%
T902 BG4	5 11.11%
Total number of evacuation shelters	45
	89%

Source: County Emergency Management Department.

Figure III-75: Bradford County Shelters

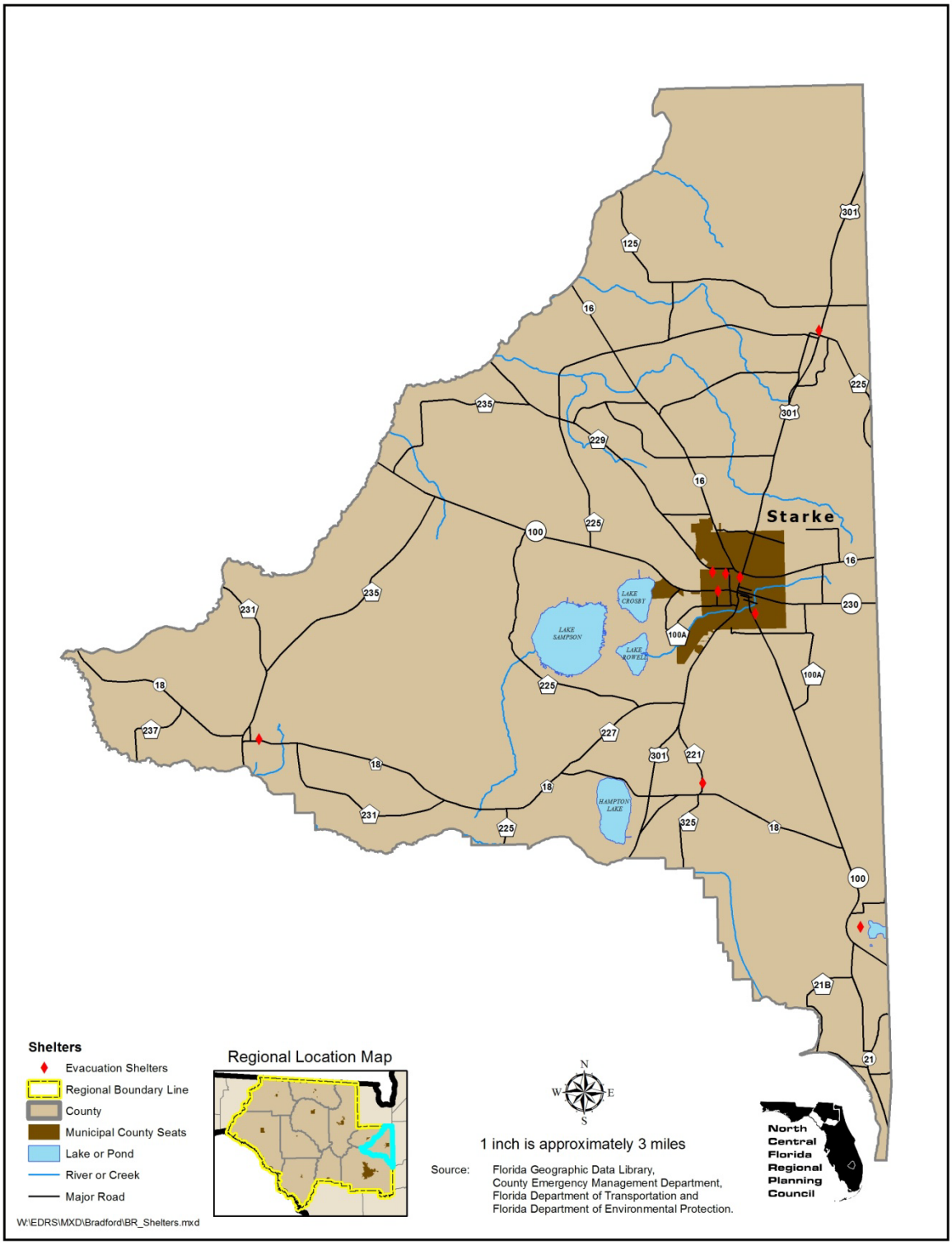


Table III-51: Bradford County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T100 BG1	0 0.00%
T100 BG2	0 0.00%
T100 BG3	1 11.11%
T100 BG4	0 0.00%
T100 BG5	0 0.00%
T200 BG1	1 11.11%
T200 BG2	3 33.33%
T200 BG3	0 0.00%
T200 BG4	0 0.00%
T200 BG5	0 0.00%
T300 BG1	0 0.00%
T300 BG2	1 11.11%
T300 BG3	1 11.11%
T300 BG4	0 0.00%
T300 BG5	1 11.11%
T400 BG1	0 0.00%
T400 BG2	0 0.00%
T400 BG3	1 11.11%

Table III-51: Bradford County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
Total number of evacuation shelters	9
	100%

Source: County Emergency Management Department.

Figure III-76: Columbia County Shelters

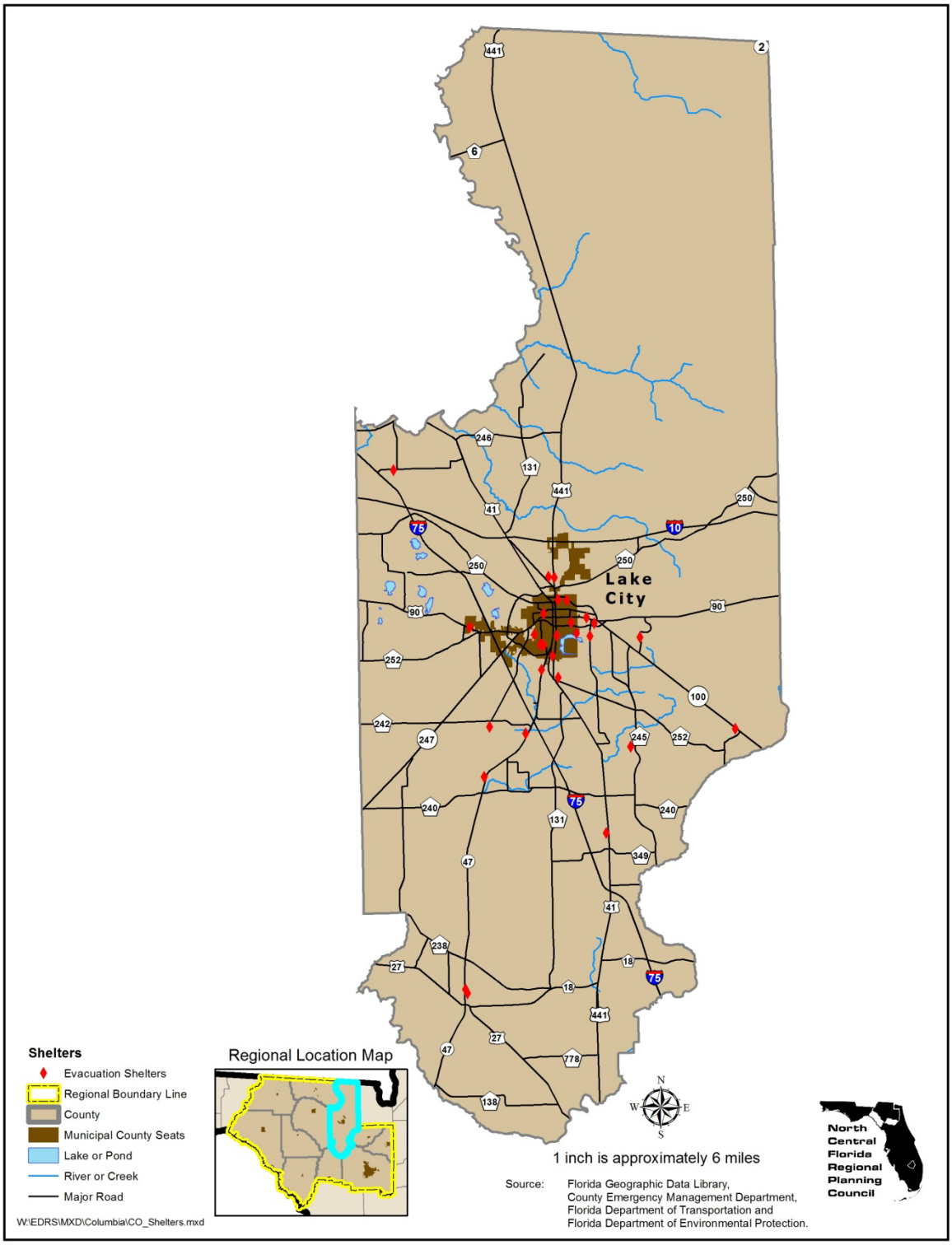


Table III-52: Columbia County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T110201 BG1	0 0.00%
T110201 BG2	1 3.45%
T110202 BG1	0 0.00%
T110202 BG2	0 0.00%
T110202 BG3	1 3.45%
T110202 BG4	1 3.45%
T110300 BG1	0 0.00%
T110300 BG2	1 3.45%
T110300 BG3	0 0.00%
T110300 BG4	1 3.45%
T110300 BG5	2 6.90%
T110400 BG1	2 6.90%
T110400 BG2	1 3.45%
T110400 BG3	0 0.00%
T110400 BG4	0 0.00%
T110500 BG1	1 3.45%
T110500 BG2	1 3.45%
T110500 BG3	2 6.90%

Table III-52: Columbia County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T110500 BG4	0 0.00%
T110500 BG5	2 6.90%
T110601 BG1	0 0.00%
T110601 BG2	0 0.00%
T110601 BG3	0 0.00%
T110602 BG1	3 10.34%
T110602 BG2	0 0.00%
T110700 BG1	3 10.34%
T110700 BG2	0 0.00%
T110700 BG3	0 0.00%
T110700 BG4	1 3.45%
T110800 BG1	1 3.45%
T110800 BG2	1 3.45%
T110800 BG3	1 3.45%
T110800 BG4	0 0.00%
T110901 BG1	1 3.45%
T110901 BG2	0 0.00%
T110901 BG3	0

Table III-52: Columbia County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
	0.00%
T110903 BG1	0
	0.00%
T110903 BG2	0
	0.00%
T110904 BG1	0
	0.00%
T110904 BG2	2
	6.90%
Total number of evacuation shelters	29
	100%

Source: County Emergency Management Department.

Figure III-77: Dixie County Shelters

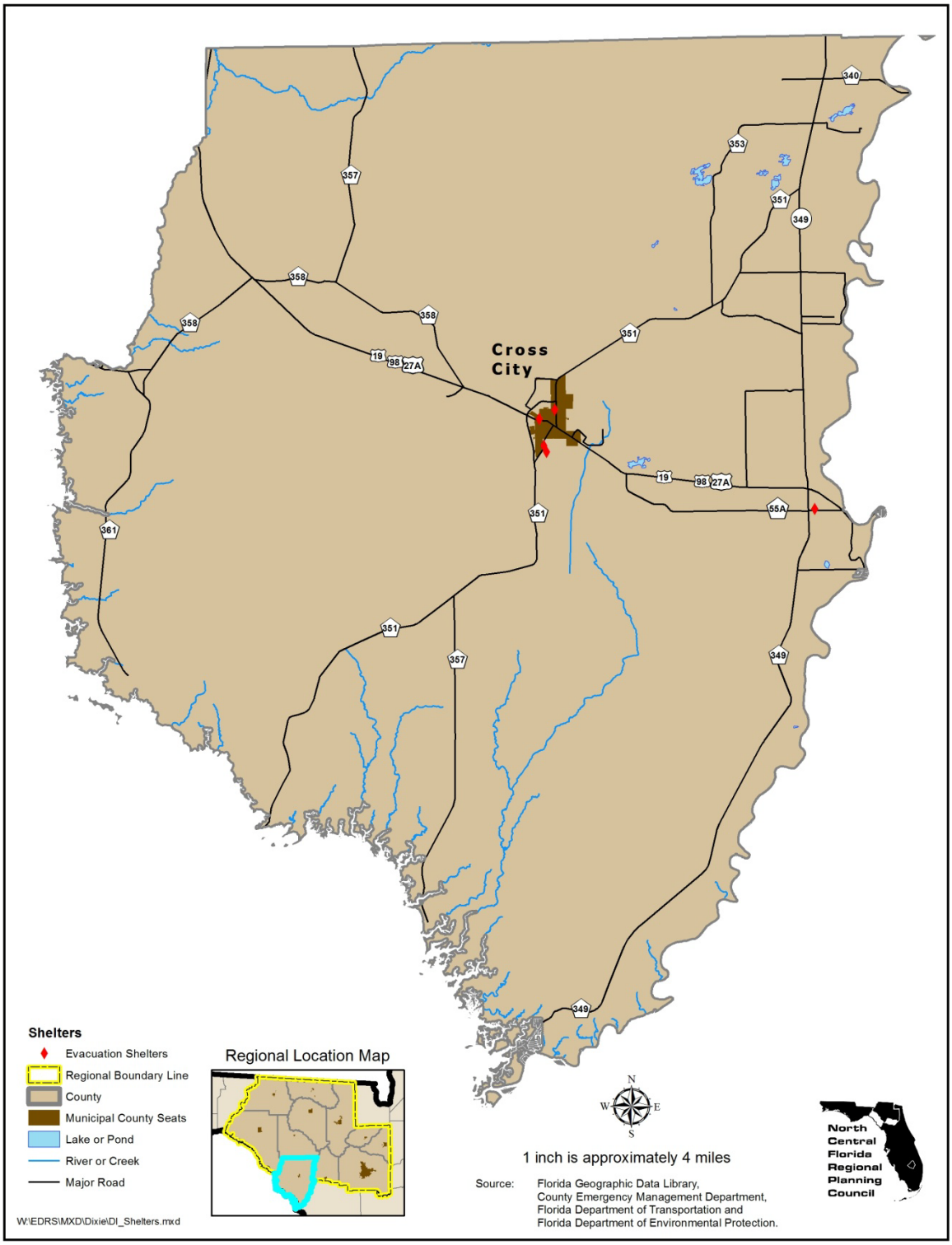


Table III-53: Dixie County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T970101 BG1	0 0.00%
T970101 BG2	2 40.00%
T970101 BG3	2 40.00%
T970102 BG1	0 0.00%
T970102 BG2	0 0.00%
T970102 BG3	0 0.00%
T970102 BG4	0 0.00%
T970102 BG5	0 0.00%
T970200 BG1	0 0.00%
T970200 BG2	0 0.00%
T970200 BG3	0 0.00%
T970200 BG4	1 20.00%
Total number of evacuation shelters	5
	100%

Source: County Emergency Management Department.

Figure III-78: Gilchrist County Shelters

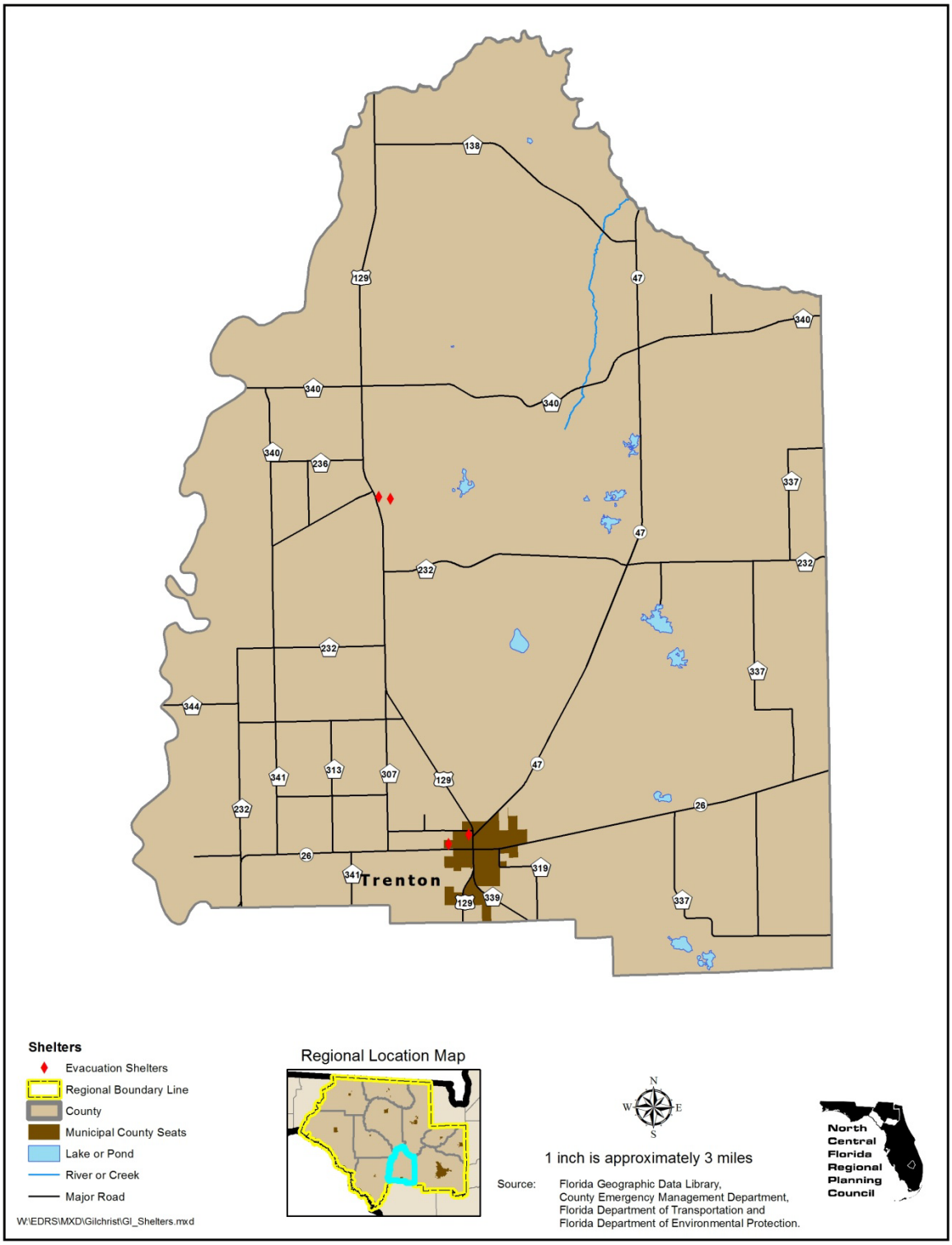


Table III-54: Gilchrist County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T950100 BG1	0 0.00%
T950100 BG2	0 0.00%
T950100 BG3	0 0.00%
T950100 BG4	2 50.00%
T950201 BG1	0 0.00%
T950202 BG1	0 0.00%
T950202 BG2	0 0.00%
T950203 BG1	0 0.00%
T950203 BG2	0 0.00%
T950203 BG3	0 0.00%
T950204 BG1	2 50.00%
T950204 BG2	0 0.00%
T950204 BG3	0 0.00%
Total number of evacuation shelters	4
	100%

Source: County Emergency Management Department.

Figure III-79: Hamilton County Shelters

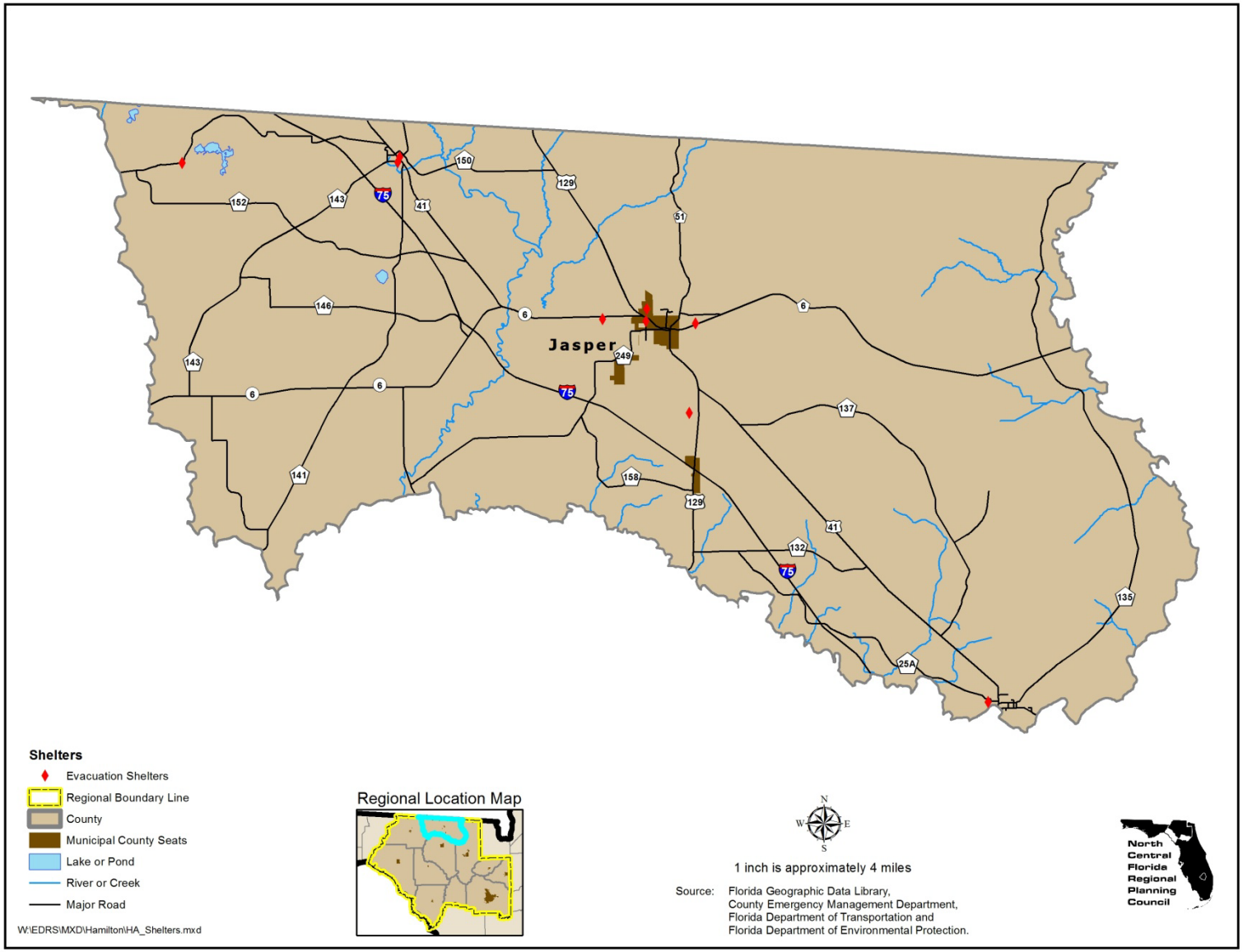


Table III-55: Hamilton County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T960200 BG2	2 22.22%
T960300 BG1	0 0.00%
T960200 BG3	1 11.11%
T960100 BG5	1 11.11%
T960300 BG2	1 11.11%
T960100 BG3	2 22.22%
T960200 BG1	0 0.00%
T960100 BG4	0 0.00%
T960100 BG2	0 0.00%
T960100 BG1	2 22.22%
Total number of evacuation shelters	9
	100%

Source: County Emergency Management Department.

Figure III-80: Lafayette County Shelters

Table III-56: Lafayette County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T960100 BG1	1
	16.67%
T960100 BG2	0
	0.00%
T960200 BG1	2
	33.33%
T960200 BG2	1
	16.67%
T960200 BG3	1
	16.67%
T960200 BG4	1
	16.67%
Total number of evacuation shelters	6
	100%

Source: County Emergency Management Department.

Figure III-81: Madison County Shelters

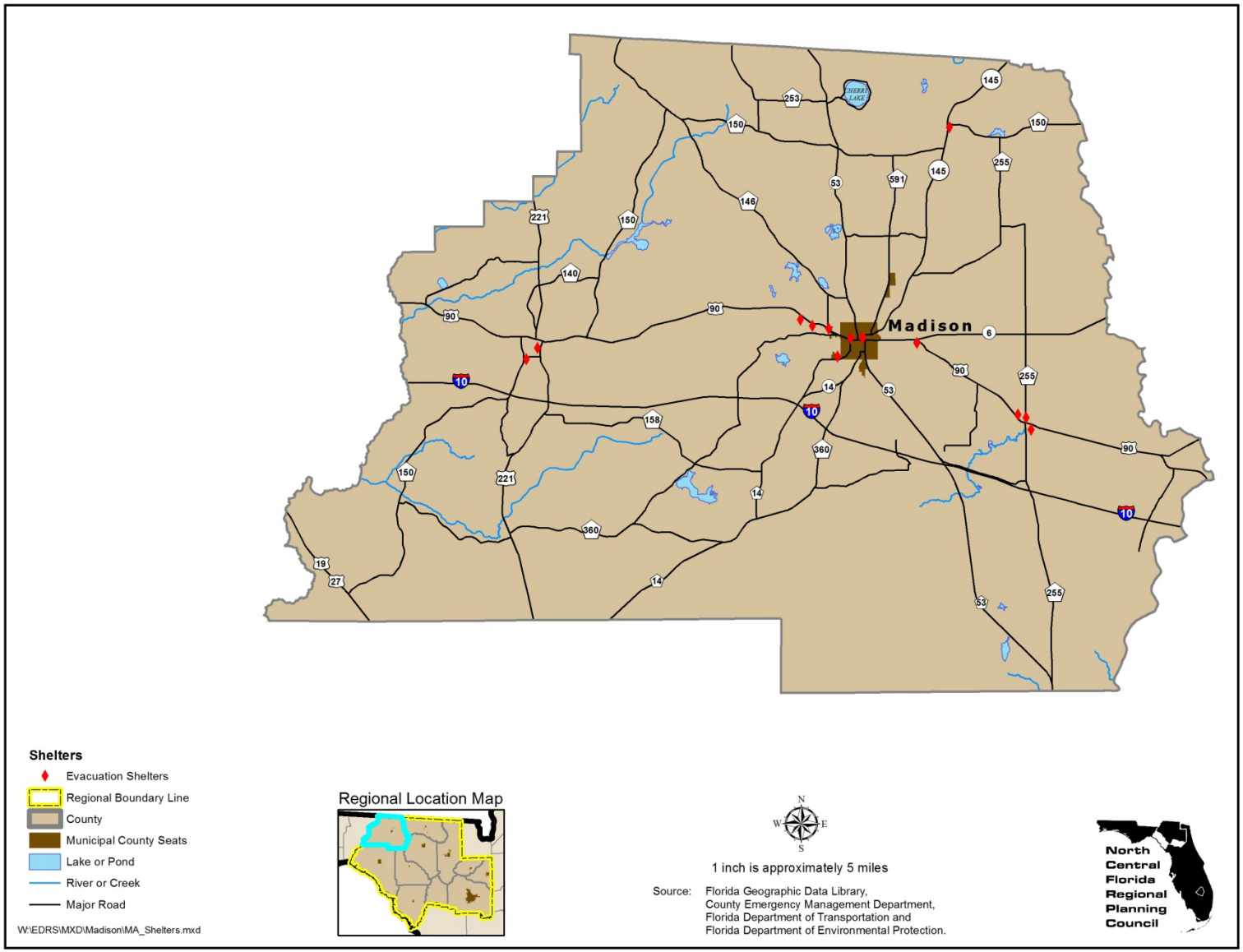


Table III-57: Madison County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T110100 BG1	1 7.14%
T110100 BG2	0 0.00%
T110100 BG3	0 0.00%
T110200 BG1	0 0.00%
T110200 BG2	0 0.00%
T110200 BG3	2 14.29%
T110200 BG4	0 0.00%
T110301 BG1	0 0.00%
T110301 BG2	4 28.57%
T110302 BG1	0 0.00%
T110302 BG2	3 21.43%
T110302 BG3	0 0.00%
T110302 BG4	0 0.00%
T110400 BG1	1 7.14%
T110400 BG2	0 0.00%
T110400 BG3	3 21.43%
Total number of evacuation shelters	14
	100%

Source: County Emergency Management Department.

Figure III-82: Suwannee County Shelters

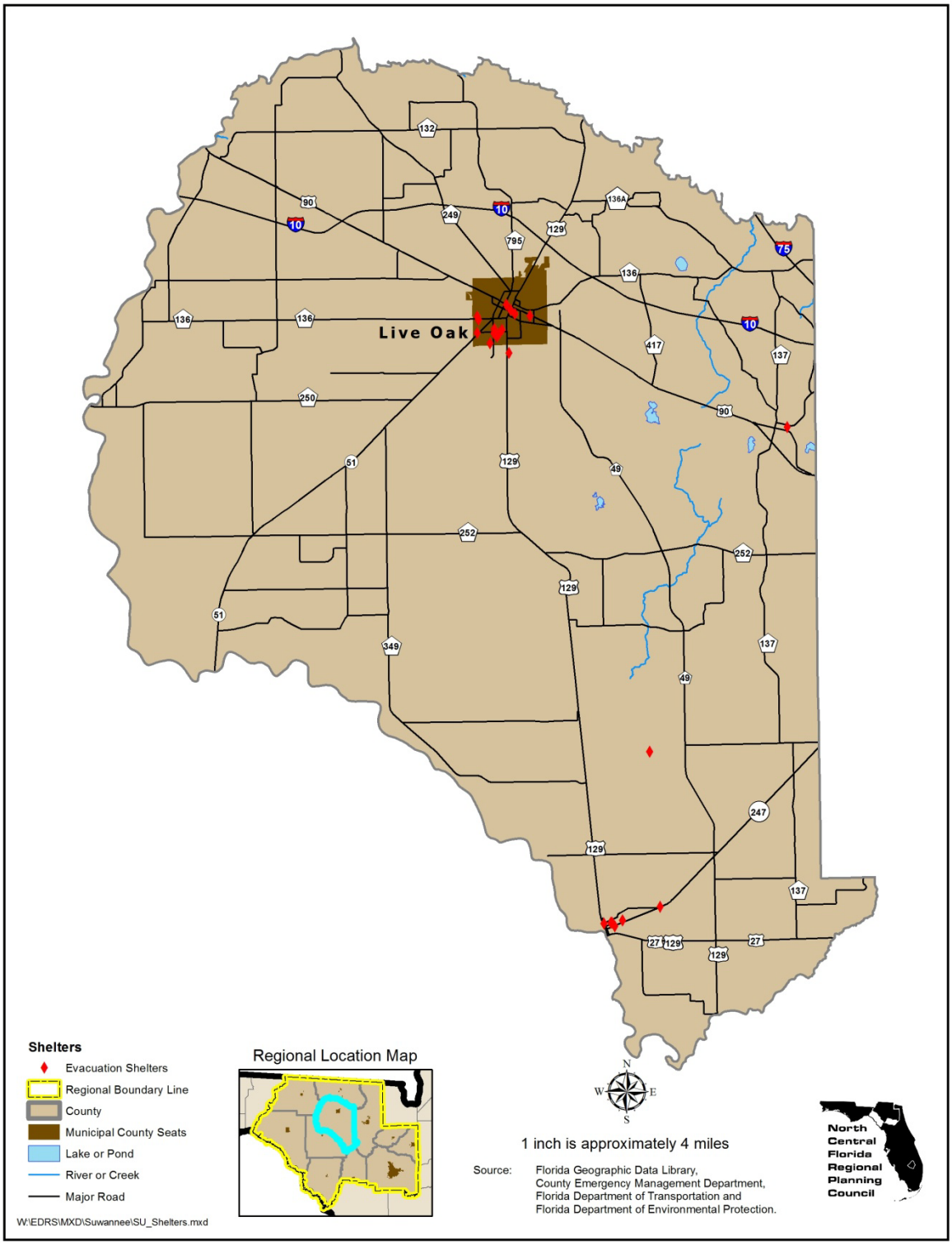


Table III-58: Suwannee County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T970100 BG1	0 0.00%
T970100 BG2	0 0.00%
T970100 BG3	0 0.00%
T970100 BG4	2 9.09%
T970100 BG5	2 9.09%
T970200 BG1	0 0.00%
T970200 BG2	0 0.00%
T970200 BG3	0 0.00%
T970301 BG1	0 0.00%
T970302 BG1	0 0.00%
T970302 BG2	0 0.00%
T970302 BG3	0 0.00%
T970302 BG4	0 0.00%
T970400 BG1	0 0.00%
T970400 BG2	1 4.55%
T970400 BG3	1 4.55%
T970400 BG4	2 9.09%
T970400 BG5	6 27.27%

Table III-58: Suwannee County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T970500 BG1	1 4.55%
T970500 BG2	0 0.00%
T970500 BG3	0 0.00%
T970500 BG4	0 0.00%
T970600 BG1	1 4.55%
T970600 BG2	1 4.55%
T970600 BG3	5 22.73%
T970600 BG4	0 0.00%
Total number of evacuation shelters	22
	100%

Source: County Emergency Management Department.

Figure III-83: Taylor County Shelters

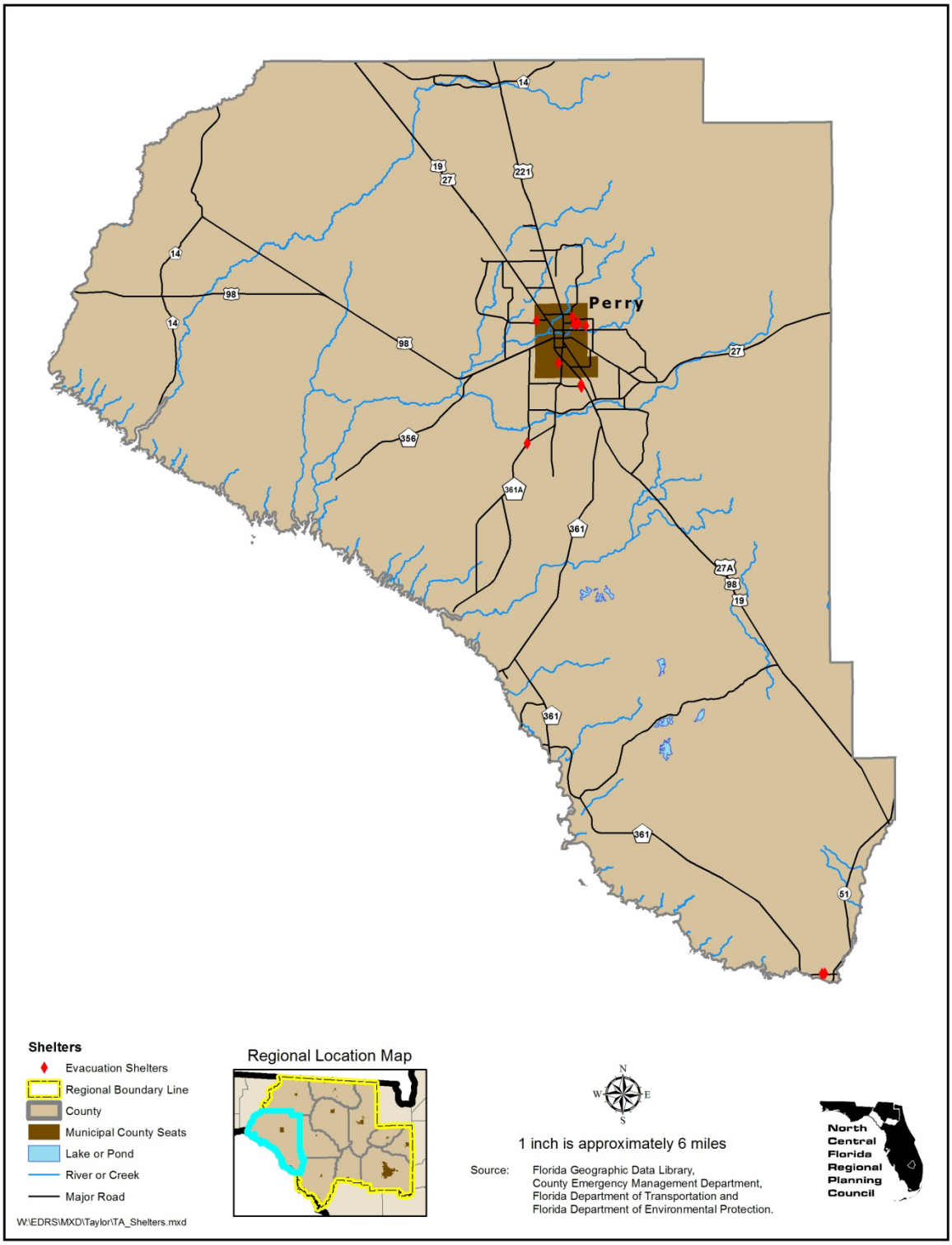


Table III-59: Taylor County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T950100 BG1	0 0.00%
T950100 BG2	1 8.33%
T950100 BG3	1 8.33%
T950100 BG4	3 25.00%
T950200 BG1	0 0.00%
T950200 BG2	0 0.00%
T950200 BG3	1 8.33%
T950200 BG4	0 0.00%
T950200 BG5	0 0.00%
T950300 BG1	0 0.00%
T950300 BG2	0 0.00%
T950300 BG3	0 0.00%
T950300 BG4	1 8.33%
T950300 BG5	2 16.67%
T950300 BG6	0 0.00%
T950400 BG1	2 16.67%
T950400 BG2	0 0.00%
T950400 BG3	1 8.33%

Table III-59: Taylor County Shelters (Continued)

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T950400 BG4	0
	0.00%
Total number of evacuation shelters	12
	100%

Source: County Emergency Management Department.

Figure III-84: Union County Shelters

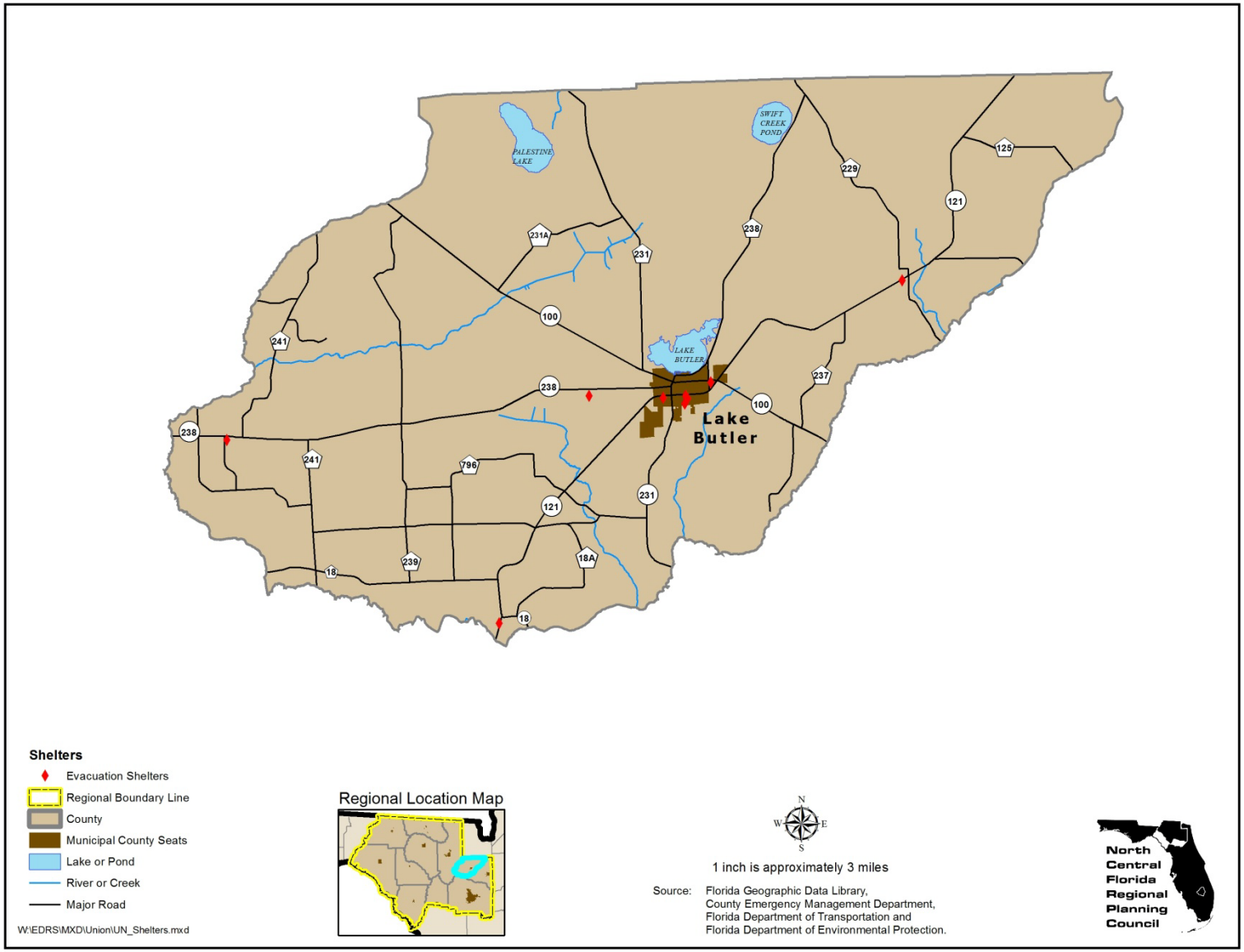


Table III-60: Union County Shelters

Census Block Group	Location of evacuation shelters
Track Number and Block Group Number	Evacuation Shelters
T960100 BG1	0 0.00%
T960100 BG2	1 11.11%
T960200 BG1	0 0.00%
T960200 BG2	3 33.33%
T960200 BG3	1 11.11%
T960200 BG4	1 11.11%
T960200 BG5	1 11.11%
T960300 BG1	1 11.11%
T960300 BG2	1 11.11%
Total number of evacuation shelters	9
	100%

Source: County Emergency Management Department.

H. Staging Areas

1. North Central Florida

Staging areas, as the name implies are locations where emergency relief supplies can be established and secured. These areas act as collection points for necessary resources an area may need after a hurricane has passed through. A staging area needs to be a large, secure area for various size trucks and equipment (See Table III-61 and Figure III-85).

2. Alachua County

According to the County Emergency Management Department there are 21 s taging areas located within the County (See Table III-62, Figure III-3, Figure III-4 and Figure III-86).

3. Bradford County

According to the County Emergency Management Department there are two staging areas located within the County (See Table III-63, Figure III-5, Figure III-6 and Figure III-87).

4. Columbia County

According to the County Emergency Management Department there is one staging area located within the County (See Table III-64, Figure III-7, Figure III-8 and Figure III-88).

5. Dixie County

According to the County Emergency Management Department there is one staging area located within the County (See Table III-65, Figure III-9, Figure III-10 and Figure III-89).

6. Gilchrist County

According to the County Emergency Management Department there is one staging area located within the County (See Table III-66, Figure III-11, Figure III-12 and Figure III-90).

7. Hamilton County

According to the County Emergency Management Department there are no staging areas located within the County.

8. Lafayette County

According to the County Emergency Management Department there are no staging areas located within the County.

9. Madison County

According to the County Emergency Management Department there are two staging areas located within the County (See Table III-67, Figure III-17, Figure III-18 and Figure III-91).

10. Suwannee County

According to the County Emergency Management Department there are four staging areas located within the County (See Table III-68, Figure III-19, Figure III-20 and Figure III-92).

11. Taylor County

According to the County Emergency Management Department there is one staging area located within the County (See Table III-69, Figure III-21, Figure III-22 and Figure III-93).

12. Union County

According to the County Emergency Management Department there is one staging areas located within the County (See Table III-70, Figure III-23, Figure III-24 and Figure III-94).

Figure III-85: North Central Florida Staging Areas

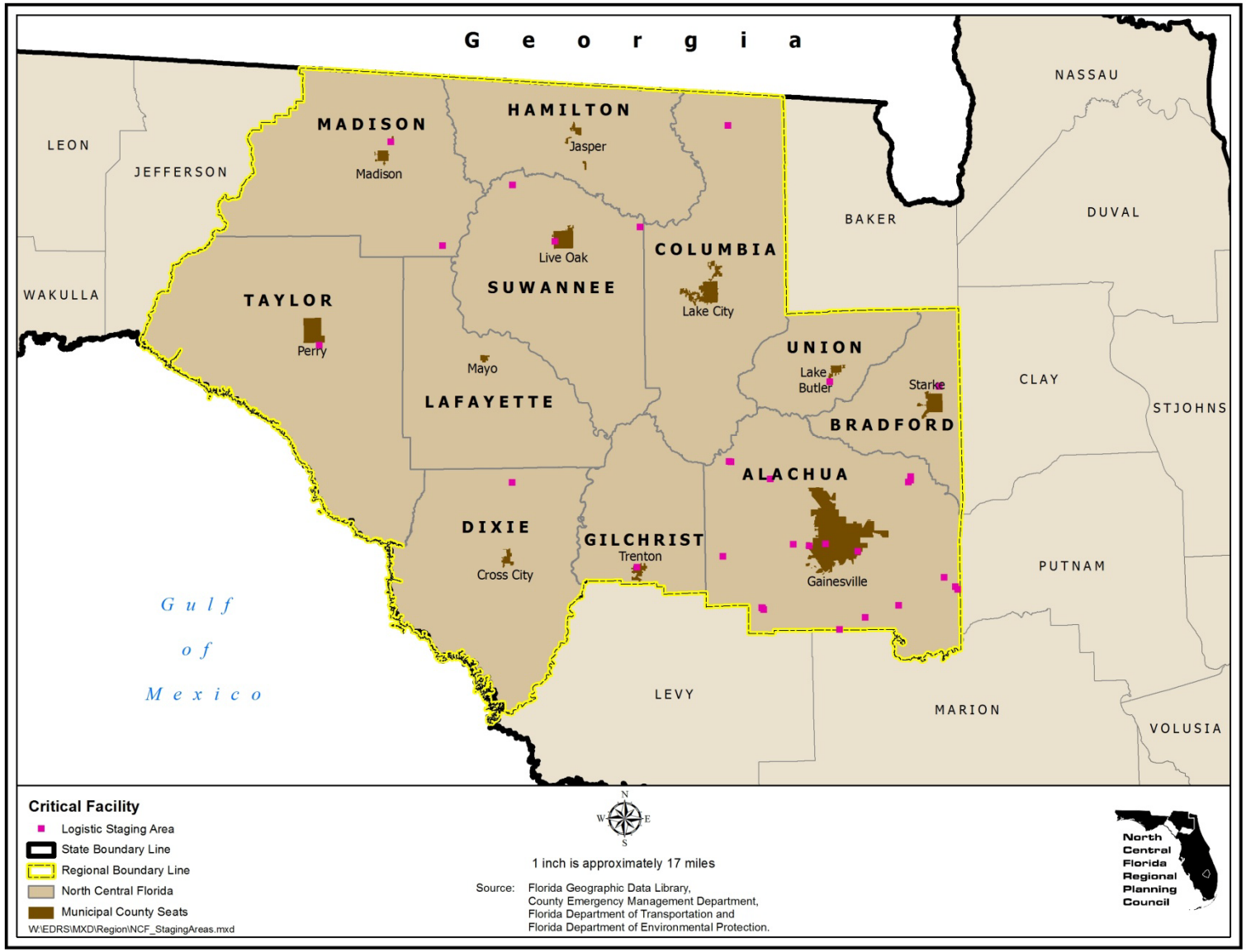


Table III-61: North Central Florida Staging Areas

Census Block Group	Location of staging areas
County	Staging Area
ALACHUA	21 61.76%
BRADFORD	2 5.88%
COLUMBIA	1 2.94%
DIXIE	1 2.94%
GILCHRIST	1 2.94%
HAMILTON	0 0.00%
LAFAYETTE	0 0.00%
MADISON	2 5.88%
SUWANNEE	4 11.76%
TAYLOR	1 2.94%
UNION	1 2.94%
Total number of staging areas	34
	100%

Source: County Emergency Management Department.

Figure III-86: Alachua County Staging Areas

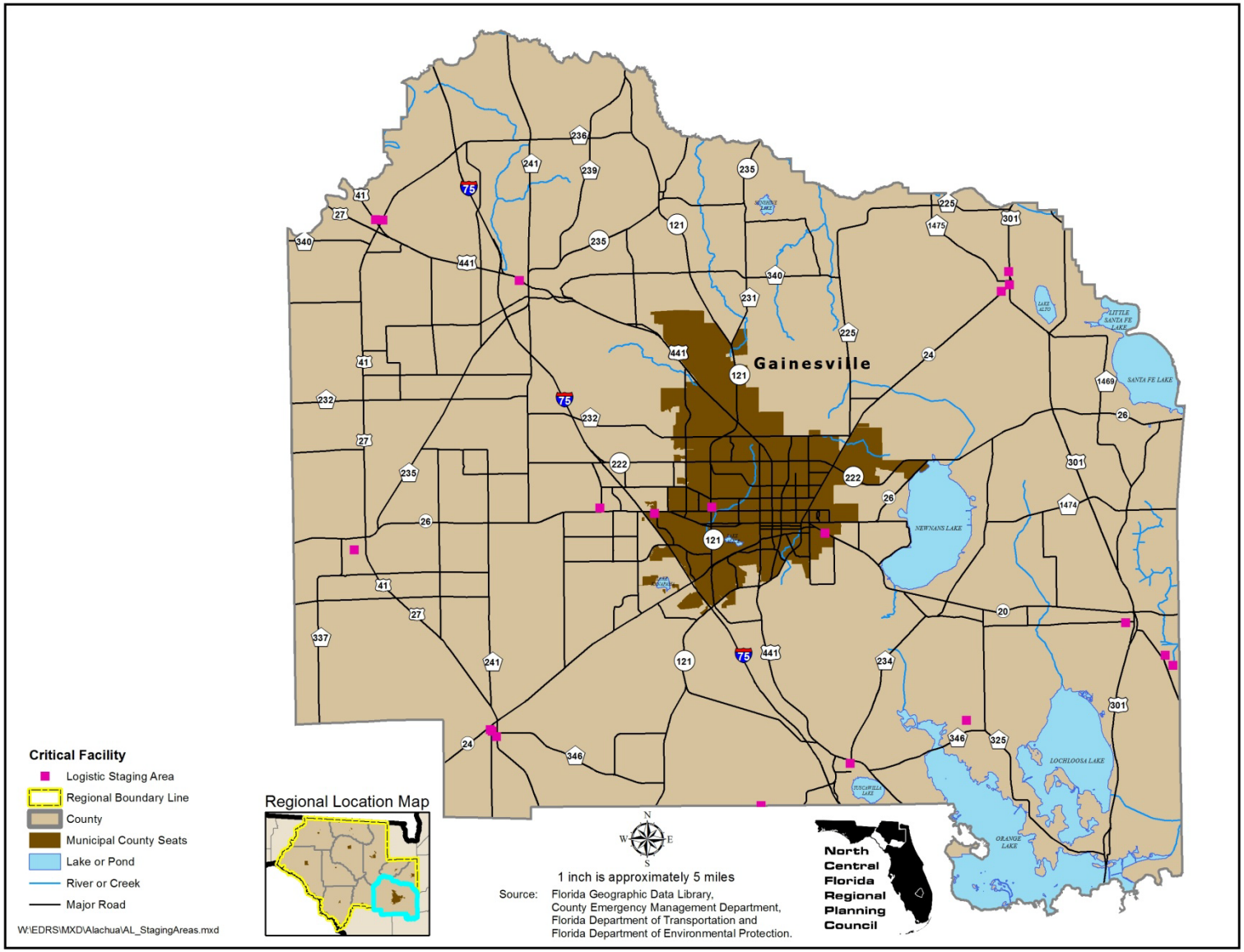


Table III-62: Alachua County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T1000 BG1	0 0.00%
T1000 BG2	0 0.00%
T1000 BG3	0 0.00%
T1000 BG4	0 0.00%
T1000 BG5	1 4.76%
T1100 BG1	0 0.00%
T1100 BG2	0 0.00%
T1100 BG3	0 0.00%
T1100 BG4	0 0.00%
T110800 BG1	0 0.00%
T1201 BG1	0 0.00%
T1202 BG1	0 0.00%
T1202 BG2	0 0.00%
T1202 BG3	0 0.00%
T1202 BG4	0 0.00%
T1202 BG5	0 0.00%
T1203 BG1	0 0.00%
T1203 BG2	0 0.00%
T1400 BG1	0

Table III-62: Alachua County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
	0.00%
T1400 BG2	0 0.00%
T1400 BG3	0 0.00%
T1514 BG1	0 0.00%
T1514 BG2	0 0.00%
T1515 BG1	0 0.00%
T1515 BG2	0 0.00%
T1515 BG3	0 0.00%
T1516 BG1	0 0.00%
T1516 BG2	0 0.00%
T1517 BG1	0 0.00%
T1517 BG2	0 0.00%
T1519 BG1	0 0.00%
T1520 BG1	0 0.00%
T1521 BG1	0 0.00%
T1521 BG2	0 0.00%
T1521 BG3	0 0.00%
T1603 BG1	0 0.00%

Table III-62: Alachua County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T1604 BG1	0 0.00%
T1604 BG2	0 0.00%
T1604 BG3	0 0.00%
T1604 BG4	1 4.76%
T1701 BG1	0 0.00%
T1701 BG2	0 0.00%
T1702 BG1	0 0.00%
T1702 BG2	0 0.00%
T1702 BG3	0 0.00%
T1801 BG1	0 0.00%
T1801 BG2	0 0.00%
T1801 BG3	2 9.52%
T1801 BG4	0 0.00%
T1801 BG5	0 0.00%
T1802 BG1	0 0.00%
T1802 BG2	0 0.00%
T1802 BG3	0 0.00%
T1803 BG1	0 0.00%

Table III-62: Alachua County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T1803 BG2	0 0.00%
T1803 BG3	0 0.00%
T1803 BG4	0 0.00%
T1805 BG1	0 0.00%
T1806 BG1	0 0.00%
T1806 BG2	0 0.00%
T1806 BG3	0 0.00%
T1806 BG4	2 9.52%
T1811 BG1	0 0.00%
T1811 BG2	0 0.00%
T1811 BG3	0 0.00%
T1811 BG4	0 0.00%
T1813 BG1	0 0.00%
T1814 BG1	0 0.00%
T1902 BG1	0 0.00%
T1902 BG2	0 0.00%
T1907 BG1	0 0.00%
T1907 BG2	0

Table III-62: Alachua County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
	0.00%
T1907 BG3	0 0.00%
T1908 BG1	0 0.00%
T1908 BG2	0 0.00%
T1908 BG3	0 0.00%
T1908 BG4	2 9.52%
T1908 BG5	1 4.76%
T200 BG1	0 0.00%
T200 BG2	0 0.00%
T200 BG3	0 0.00%
T200 BG4	0 0.00%
T200 BG5	0 0.00%
T200 BG6	0 0.00%
T2000 BG1	0 0.00%
T2000 BG2	3 14.29%
T2000 BG3	0 0.00%
T2000 BG4	0 0.00%
T2000 BG5	0 0.00%
T2101 BG1	1

Table III-62: Alachua County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
	4.76%
T2101 BG2	0 0.00%
T2102 BG1	2 9.52%
T2201 BG1	0 0.00%
T2201 BG2	0 0.00%
T2202 BG1	0 0.00%
T2202 BG2	0 0.00%
T2202 BG3	0 0.00%
T2204 BG1	1 4.76%
T2204 BG2	0 0.00%
T2204 BG3	0 0.00%
T2204 BG4	0 0.00%
T2205 BG1	0 0.00%
T2205 BG2	0 0.00%
T2205 BG3	0 0.00%
T2205 BG4	0 0.00%
T2207 BG1	0 0.00%
T2207 BG2	0 0.00%

Table III-62: Alachua County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T2208 BG1	0 0.00%
T2208 BG2	0 0.00%
T2209 BG1	0 0.00%
T2209 BG2	3 14.29%
T2209 BG3	0 0.00%
T2210 BG1	0 0.00%
T2210 BG2	1 4.76%
T2210 BG3	0 0.00%
T2217 BG1	0 0.00%
T2217 BG2	0 0.00%
T2217 BG3	0 0.00%
T2218 BG1	0 0.00%
T2218 BG2	0 0.00%
T2219 BG1	0 0.00%
T2219 BG2	0 0.00%
T2219 BG3	0 0.00%
T2220 BG1	0 0.00%
T301 BG1	0 0.00%

Table III-62: Alachua County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T301 BG2	0 0.00%
T302 BG1	0 0.00%
T302 BG2	0 0.00%
T302 BG3	0 0.00%
T400 BG1	0 0.00%
T400 BG2	0 0.00%
T400 BG3	0 0.00%
T400 BG4	0 0.00%
T500 BG1	0 0.00%
T500 BG2	0 0.00%
T500 BG3	0 0.00%
T500 BG4	0 0.00%
T500 BG5	0 0.00%
T600 BG1	0 0.00%
T600 BG2	0 0.00%
T600 BG3	0 0.00%
T700 BG1	0 0.00%
T700 BG2	0 0.00%

Table III-62: Alachua County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T700 BG3	1 4.76%
T700 BG4	0 0.00%
T806 BG1	0 0.00%
T808 BG1	0 0.00%
T808 BG2	0 0.00%
T808 BG3	0 0.00%
T809 BG1	0 0.00%
T901 BG1	0 0.00%
T902 BG1	0 0.00%
T902 BG2	0 0.00%
T902 BG3	0 0.00%
T902 BG4	0 0.00%
Total number of staging areas	21 100%

Source: County Emergency Management Department.

Figure III-87: Bradford County Staging Areas

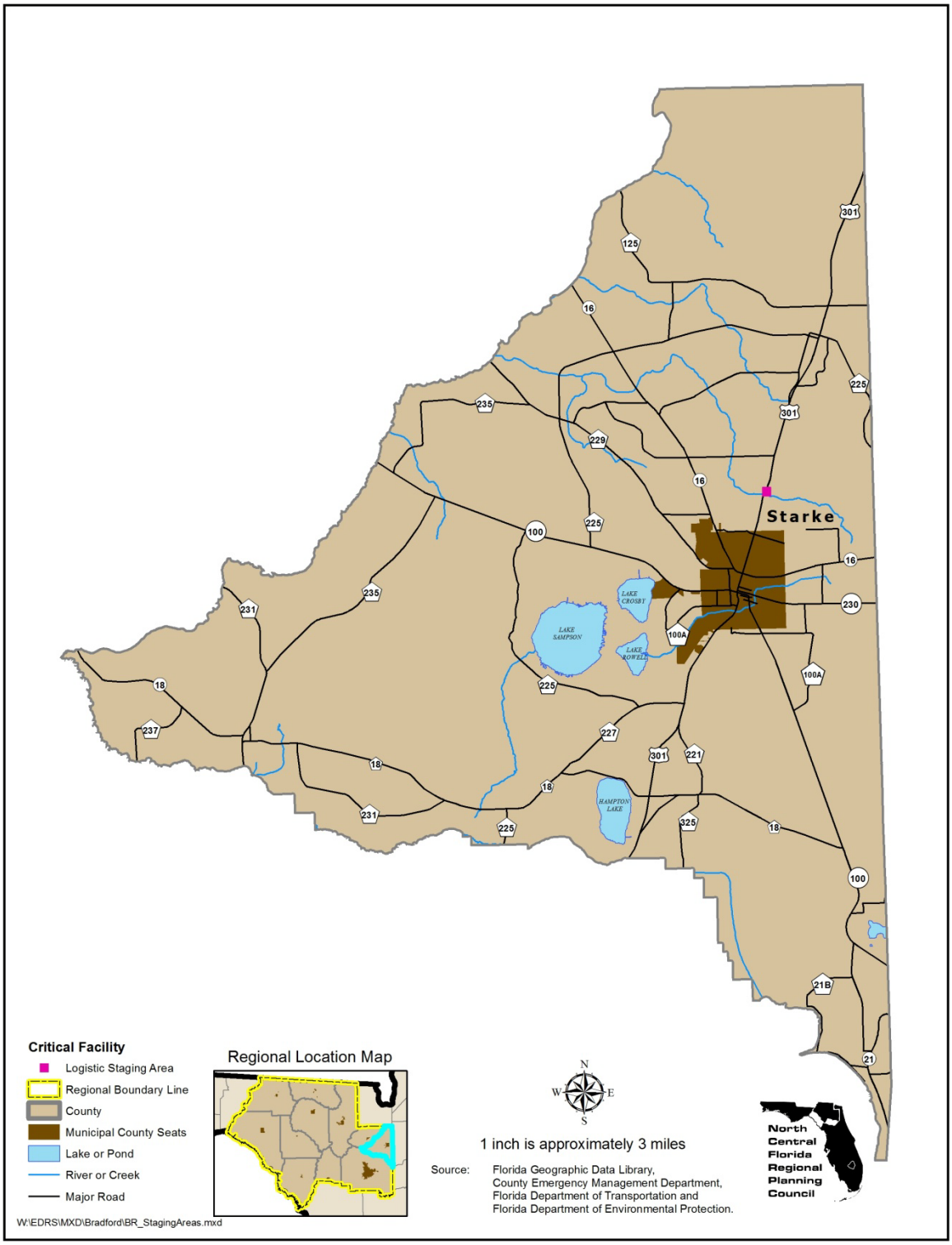


Table III-63: Bradford County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T100 BG1	0 0.00%
T100 BG2	0 0.00%
T100 BG3	0 0.00%
T100 BG4	2 100.00%
T100 BG5	0 0.00%
T200 BG1	0 0.00%
T200 BG2	0 0.00%
T200 BG3	0 0.00%
T200 BG4	0 0.00%
T200 BG5	0 0.00%
T300 BG1	0 0.00%
T300 BG2	0 0.00%
T300 BG3	0 0.00%
T300 BG4	0 0.00%
T300 BG5	0 0.00%
T400 BG1	0 0.00%
T400 BG2	0 0.00%
T400 BG3	0 0.00%

Table III-63: Bradford County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
Total number of staging areas	2
	100%

Source: County Emergency Management Department.

Figure III-88: Columbia County Staging Areas

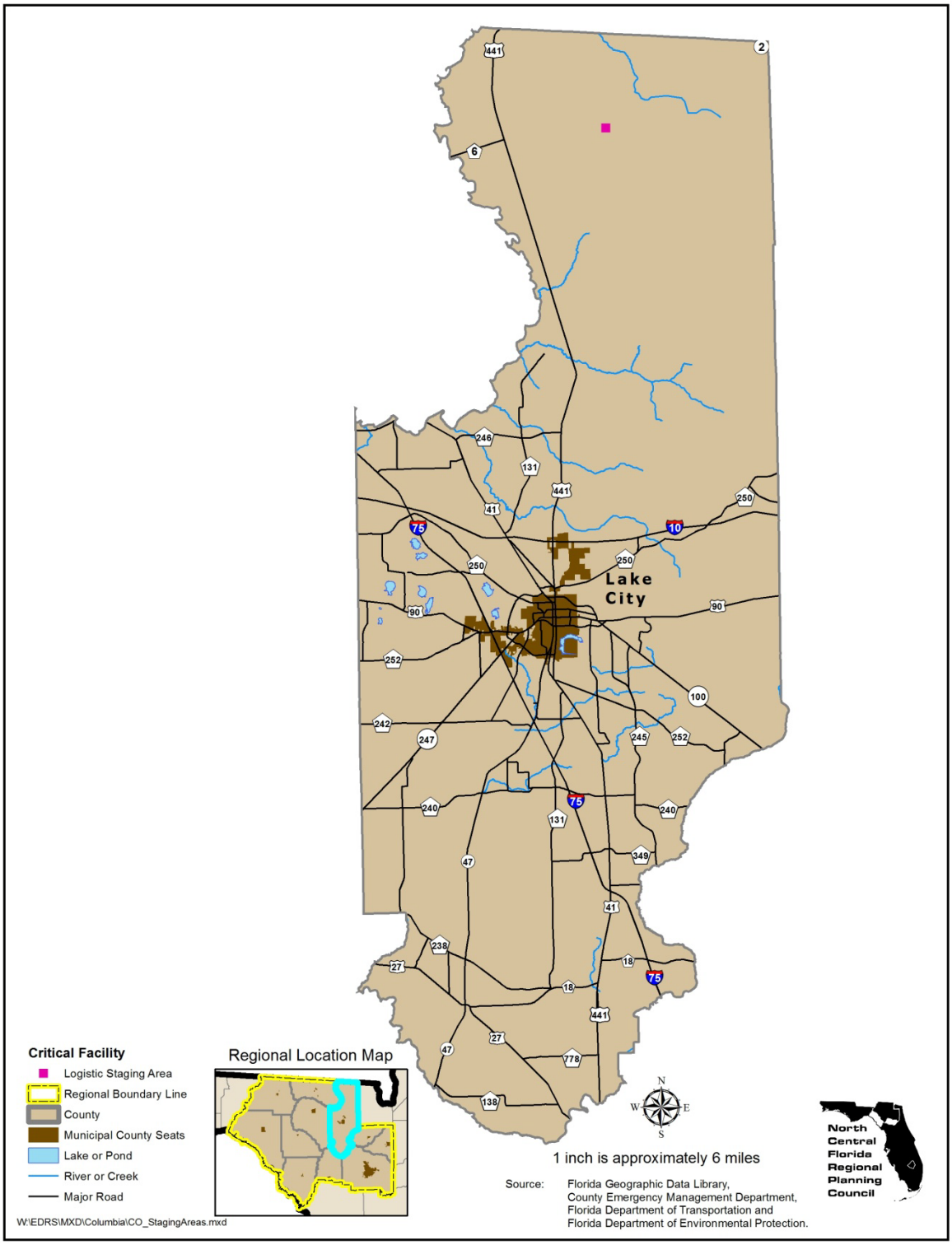


Table III-64: Columbia County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T110201 BG1	0 0.00%
T110201 BG2	0 0.00%
T110202 BG1	0 0.00%
T110202 BG2	0 0.00%
T110202 BG3	0 0.00%
T110202 BG4	0 0.00%
T110300 BG1	1 100.00%
T110300 BG2	0 0.00%
T110300 BG3	0 0.00%
T110300 BG4	0 0.00%
T110300 BG5	0 0.00%
T110400 BG1	0 0.00%
T110400 BG2	0 0.00%
T110400 BG3	0 0.00%
T110400 BG4	0 0.00%
T110500 BG1	0 0.00%
T110500 BG2	0 0.00%
T110500 BG3	0

Table III-64: Columbia County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
	0.00%
T110500 BG4	0
	0.00%
T110500 BG5	0
	0.00%
T110601 BG1	0
	0.00%
T110601 BG2	0
	0.00%
T110601 BG3	0
	0.00%
T110602 BG1	0
	0.00%
T110602 BG2	0
	0.00%
T110700 BG1	0
	0.00%
T110700 BG2	0
	0.00%
T110700 BG3	0
	0.00%
T110700 BG4	0
	0.00%
T110800 BG1	0
	0.00%
T110800 BG2	0
	0.00%
T110800 BG3	0
	0.00%
T110800 BG4	0
	0.00%
T110901 BG1	0
	0.00%
T110901 BG2	0
	0.00%
T110901 BG3	0

Table III-64: Columbia County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
	0.00%
T110903 BG1	0
	0.00%
T110903 BG2	0
	0.00%
T110904 BG1	0
	0.00%
T110904 BG2	0
	0.00%
Total number of staging areas	1
	100%

Source: County Emergency Management Department.

Figure III-89: Dixie County Staging Areas

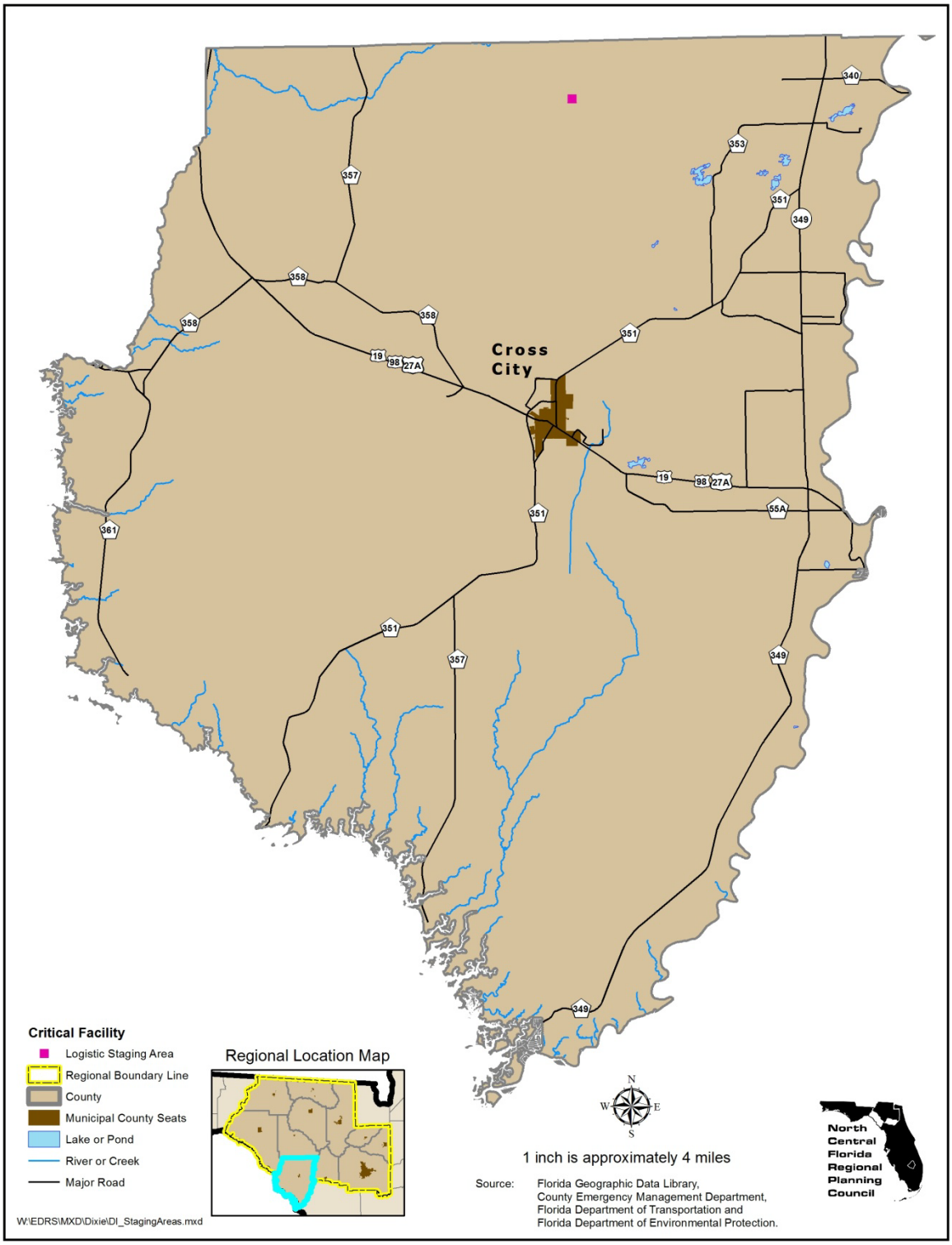


Table III-65: Dixie County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T970101 BG1	0 0.00%
T970101 BG2	0 0.00%
T970101 BG3	0 0.00%
T970102 BG1	1 100.00%
T970102 BG2	0 0.00%
T970102 BG3	0 0.00%
T970102 BG4	0 0.00%
T970102 BG5	0 0.00%
T970200 BG1	0 0.00%
T970200 BG2	0 0.00%
T970200 BG3	0 0.00%
T970200 BG4	0 0.00%
Total number of staging areas	1
	100%

Source: County Emergency Management Department.

Figure III-90: Gilchrist County Staging Areas

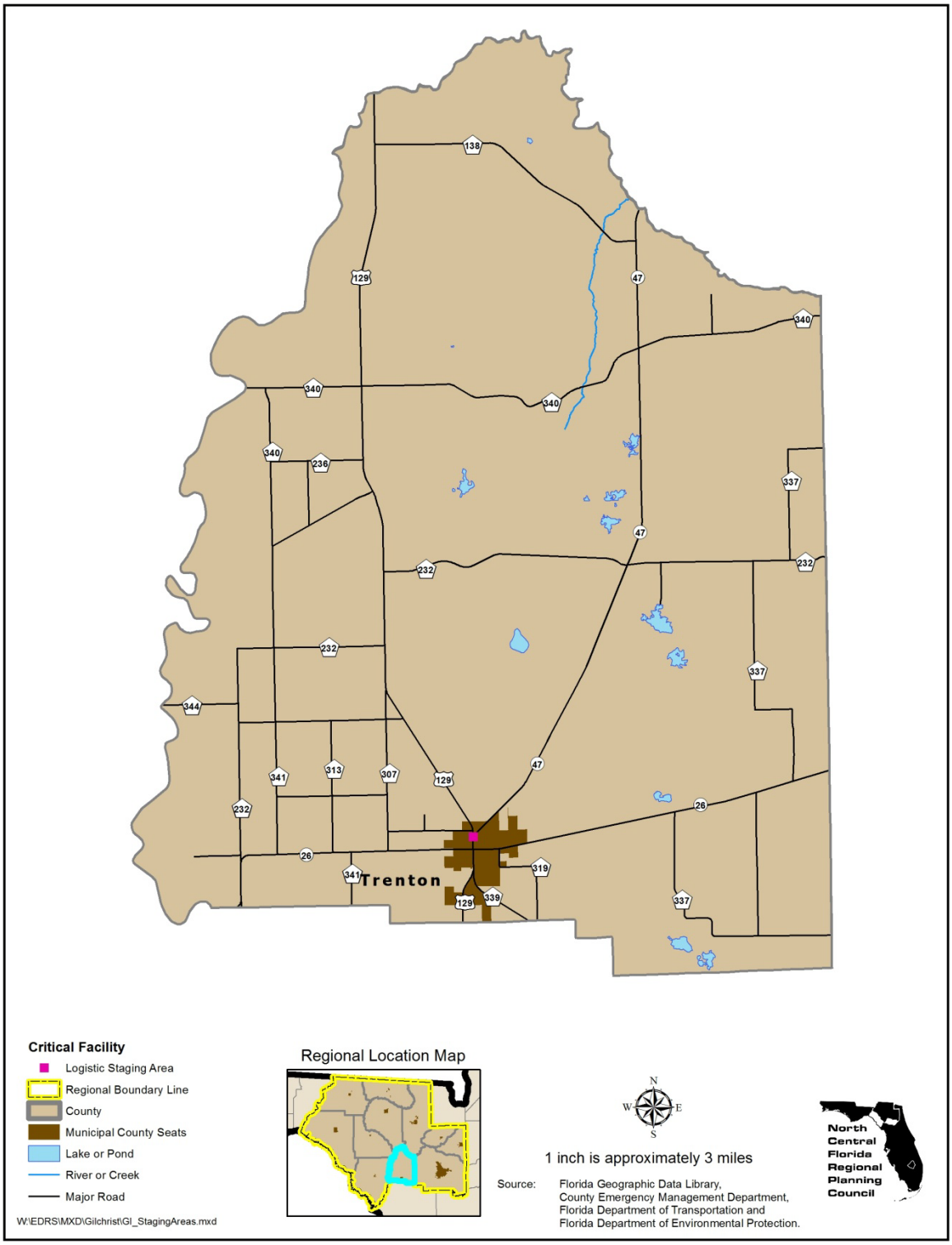


Table III-66: Gilchrist County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T950100 BG1	0 0.00%
T950100 BG2	0 0.00%
T950100 BG3	0 0.00%
T950100 BG4	0 0.00%
T950201 BG1	0 0.00%
T950202 BG1	0 0.00%
T950202 BG2	0 0.00%
T950203 BG1	0 0.00%
T950203 BG2	0 0.00%
T950203 BG3	0 0.00%
T950204 BG1	0 0.00%
T950204 BG2	0 0.00%
T950204 BG3	1 100.00%
Total number of staging areas	1
	100%

Source: County Emergency Management Department.

Figure III-91: Madison County Staging Areas

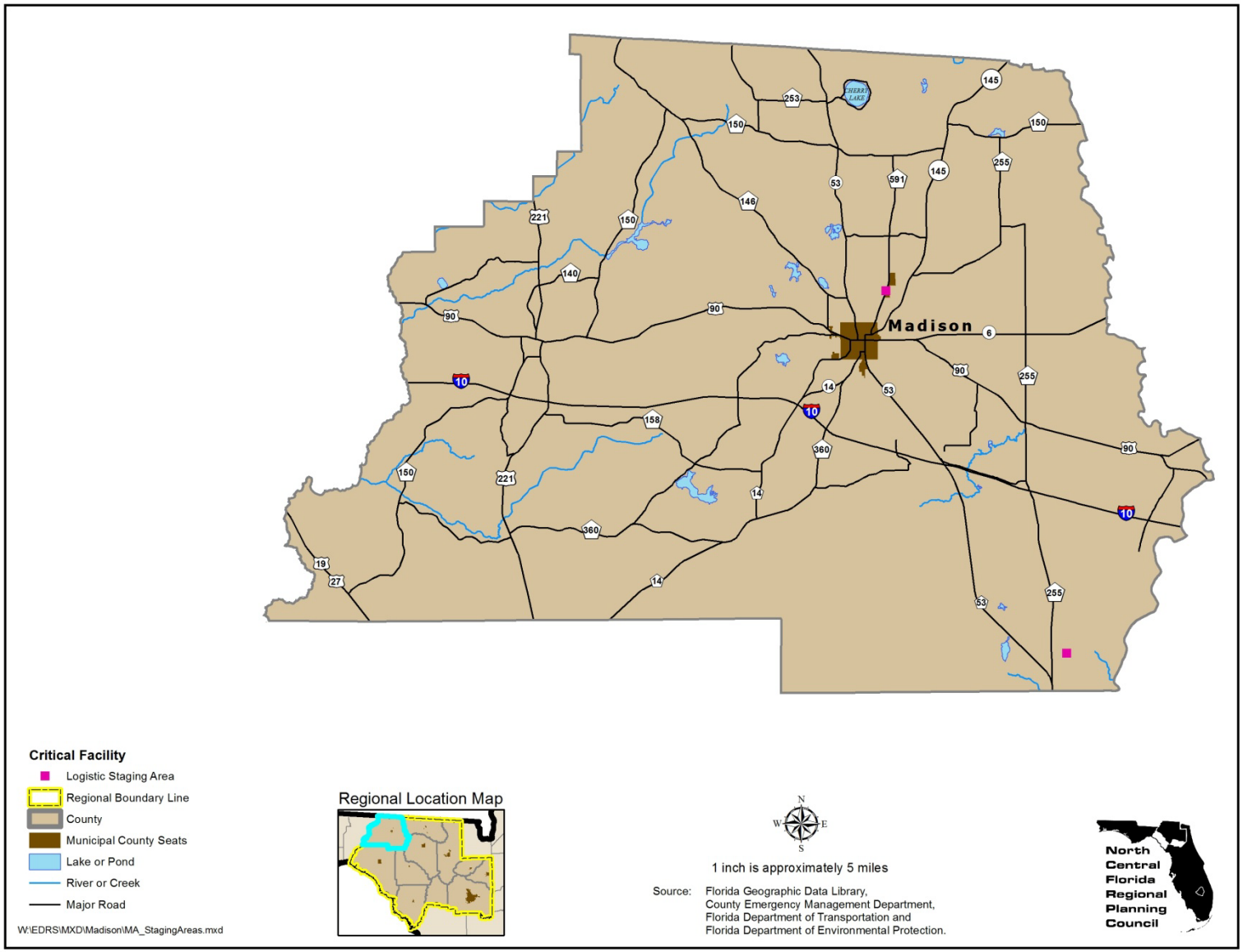


Table III-67: Madison County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T110100 BG1	0 0.00%
T110100 BG2	0 0.00%
T110100 BG3	0 0.00%
T110200 BG1	0 0.00%
T110200 BG2	0 0.00%
T110200 BG3	0 0.00%
T110200 BG4	0 0.00%
T110301 BG1	0 0.00%
T110301 BG2	1 50.00%
T110302 BG1	0 0.00%
T110302 BG2	0 0.00%
T110302 BG3	0 0.00%
T110302 BG4	0 0.00%
T110400 BG1	0 0.00%
T110400 BG2	0 0.00%
T110400 BG3	1 50.00%
Total number of staging areas	2
	100%

Source: County Emergency Management Department.

Figure III-92: Suwannee County Staging Areas

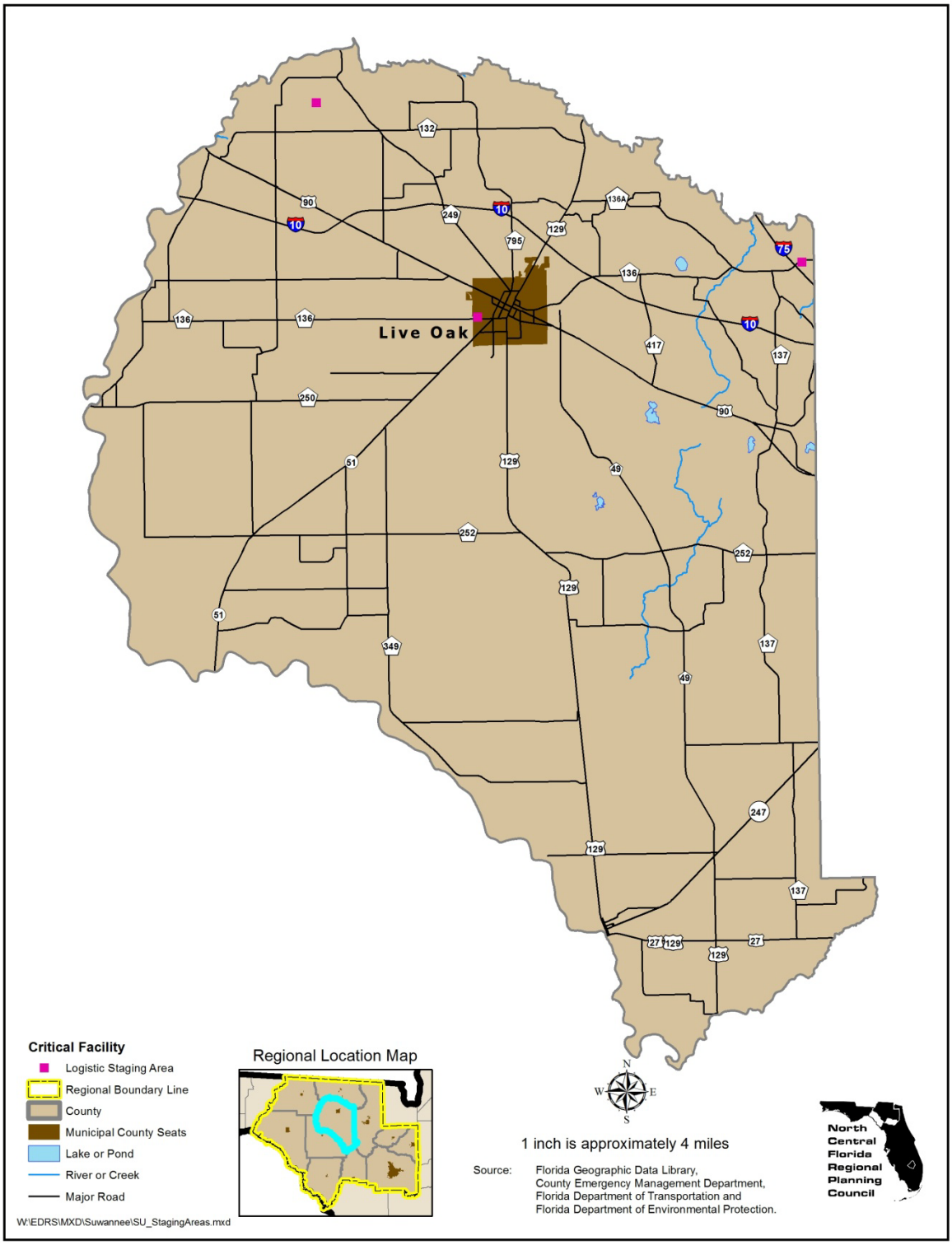


Table III-68: Suwannee County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T970100 BG1	0 0.00%
T970100 BG2	0 0.00%
T970100 BG3	0 0.00%
T970100 BG4	0 0.00%
T970100 BG5	0 0.00%
T970200 BG1	2 50.00%
T970200 BG2	0 0.00%
T970200 BG3	0 0.00%
T970301 BG1	0 0.00%
T970302 BG1	0 0.00%
T970302 BG2	0 0.00%
T970302 BG3	0 0.00%
T970302 BG4	0 0.00%
T970400 BG1	0 0.00%
T970400 BG2	1 25.00%
T970400 BG3	0 0.00%
T970400 BG4	0 0.00%

Table III-68: Suwannee County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T970400 BG5	0
	0.00%
T970500 BG1	1
	25.00%
T970500 BG2	0
	0.00%
T970500 BG3	0
	0.00%
T970500 BG4	0
	0.00%
T970600 BG1	0
	0.00%
T970600 BG2	0
	0.00%
T970600 BG3	0
	0.00%
T970600 BG4	0
	0.00%
Total number of staging areas	4
	100%

Source: County Emergency Management Department.

Figure III-93: Taylor County Staging Areas

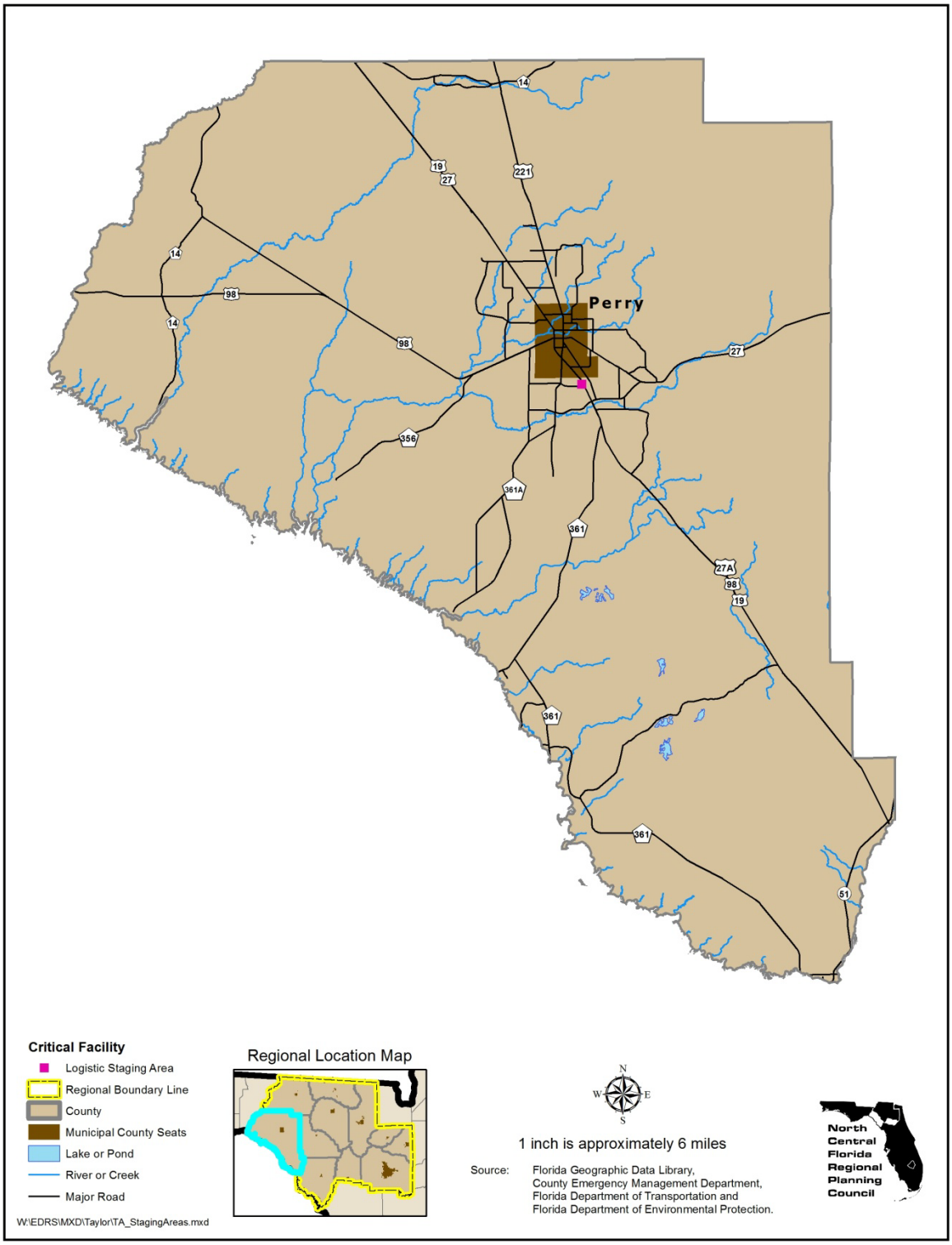


Table III-69: Taylor County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T950100 BG1	0 0.00%
T950100 BG2	0 0.00%
T950100 BG3	0 0.00%
T950100 BG4	0 0.00%
T950200 BG1	0 0.00%
T950200 BG2	0 0.00%
T950200 BG3	0 0.00%
T950200 BG4	0 0.00%
T950200 BG5	0 0.00%
T950300 BG1	0 0.00%
T950300 BG2	0 0.00%
T950300 BG3	0 0.00%
T950300 BG4	0 0.00%
T950300 BG5	1 100.00%
T950300 BG6	0 0.00%
T950400 BG1	0 0.00%
T950400 BG2	0 0.00%
T950400 BG3	0 0.00%

Table III-69: Taylor County Staging Areas (Continued)

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T950400 BG4	0
	0.00%
Total number of staging areas	1
	100%

Source: County Emergency Management Department.

Figure III-94: Union County Staging Areas

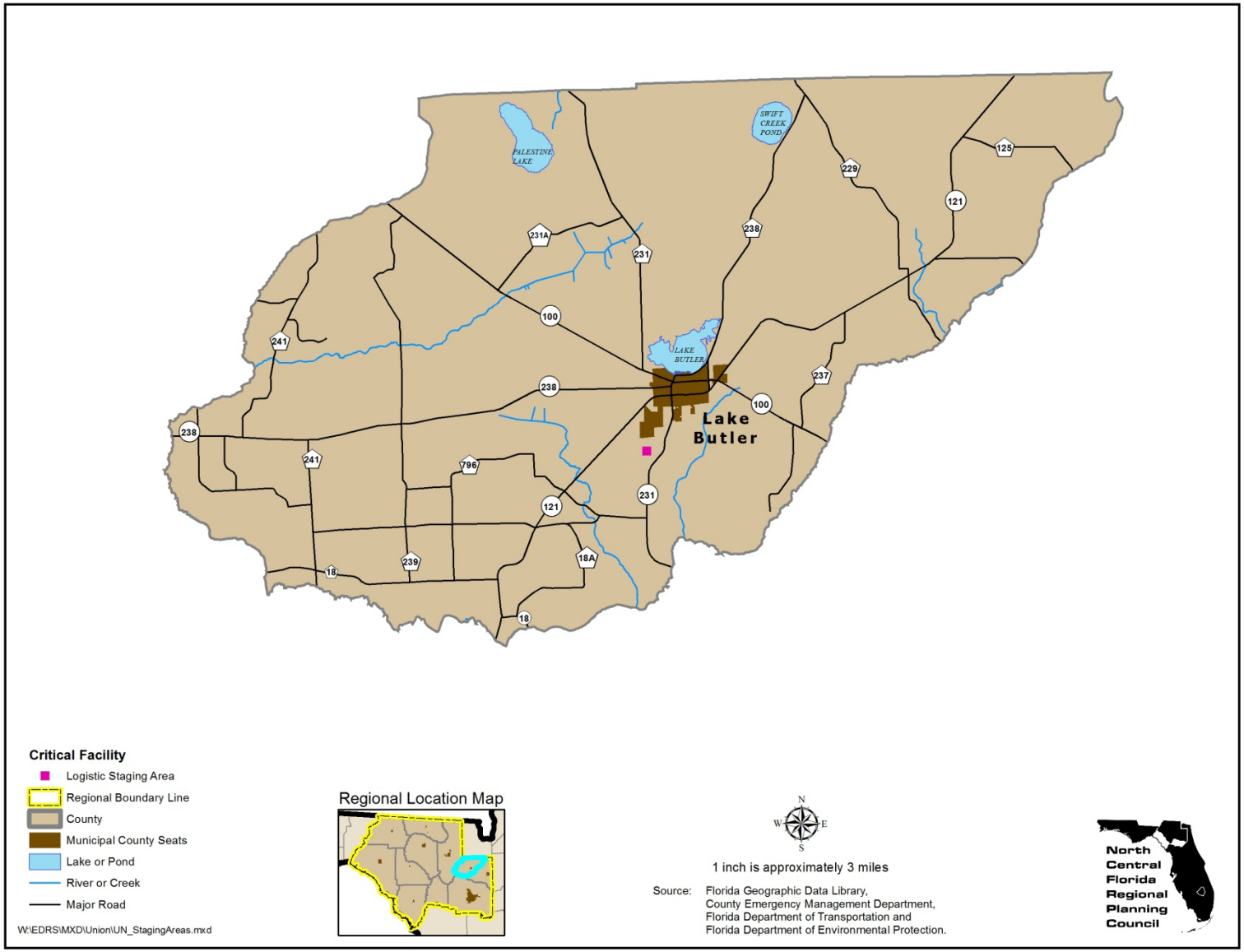


Table III-70: Union County Staging Areas

Census Block Group	Location of staging areas
Track Number and Block Group Number	Staging Area
T960100 BG1	0 0.00%
T960100 BG2	0 0.00%
T960200 BG1	0 0.00%
T960200 BG2	0 0.00%
T960200 BG3	0 0.00%
T960200 BG4	0 0.00%
T960200 BG5	1 100.00%
T960300 BG1	0 0.00%
T960300 BG2	0 0.00%
Total number of staging areas	1
	100%

Source: County Emergency Management Department.

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Chapter IV
Regional Economic Analysis

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CHAPTER IV
REGIONAL ECONOMIC ANALYSIS

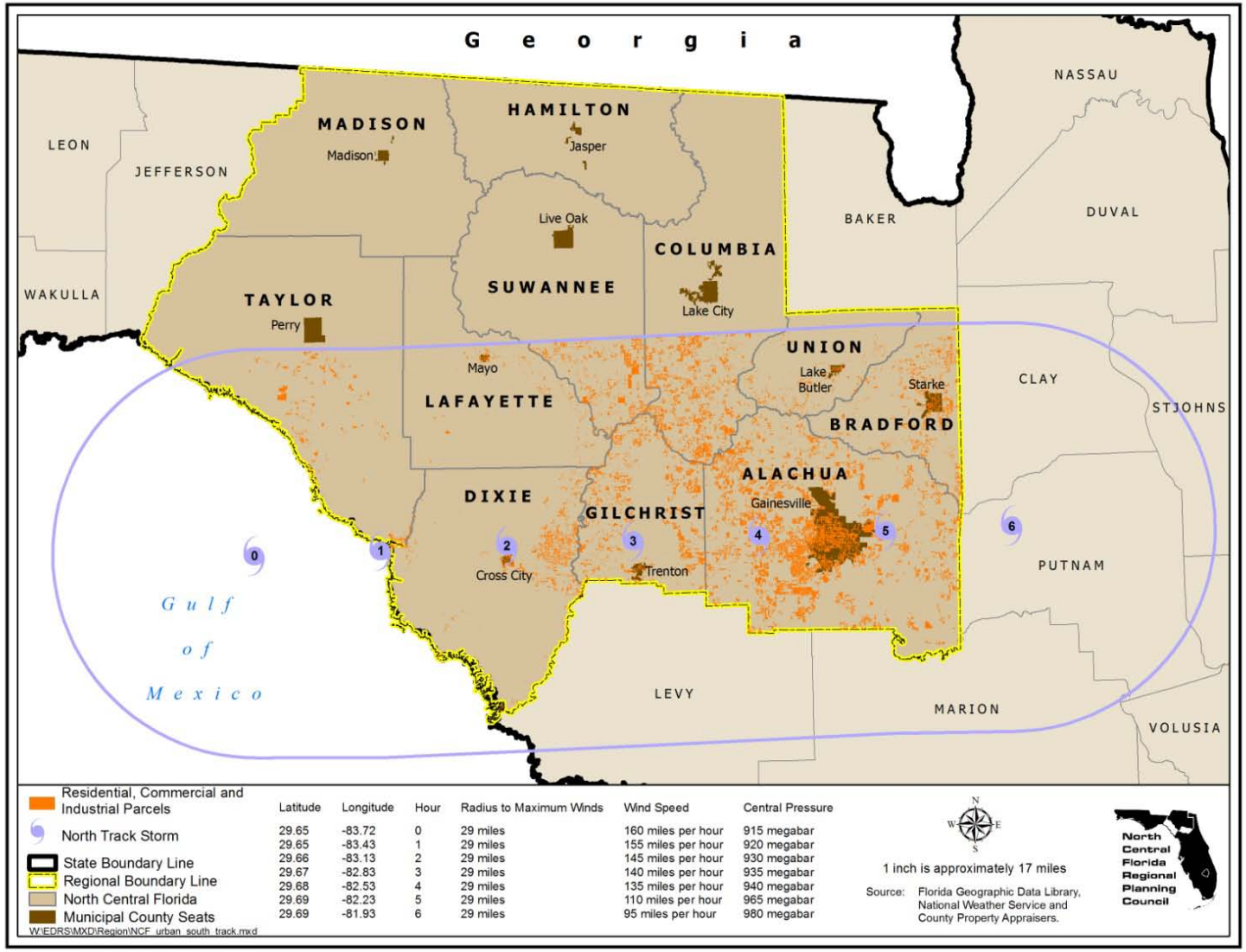
A. South Track and North Track Hurricanes

What happens to the north central Florida economy if a Category Five hurricane similar Hurricane Katrina strikes the Region? To answer this question, two Category Five hurricanes are modeled to determine the extent of their physical and economic impacts to the Region. With the assistance of the National Weather Service, the Council developed two hypothetical Category Five hurricane tracks. Both hurricanes enter the Region from the Gulf of Mexico and travel west to east across the Region. Hazus, a computer program developed by the Federal Emergency Management Agency, is used to determine the extent and value building damage caused by the two hypothetical hurricanes for the North Central Florida Region and its 11 counties.

As can be seen in Figure IV-1, the South Track hurricane makes landfall at the mouth of the Steinhatchee River and travels due east through the most developed portion of the Region. The hurricane crosses the Region in approximately six hours and travels near the Town of Cross City in Dixie County, the City of Trenton in Gilchrist County, and the City of Gainesville in Alachua County. The hurricane track continues eastward and exits the Region through Putnam County. Figure IV-1 identifies a 29-mile radius of maximum winds for the South Track hurricane. The hurricane has a maximum wind speed of 160 miles per hour in the Gulf of Mexico and gradually decreases to 95 miles per hour as it exits the Region.

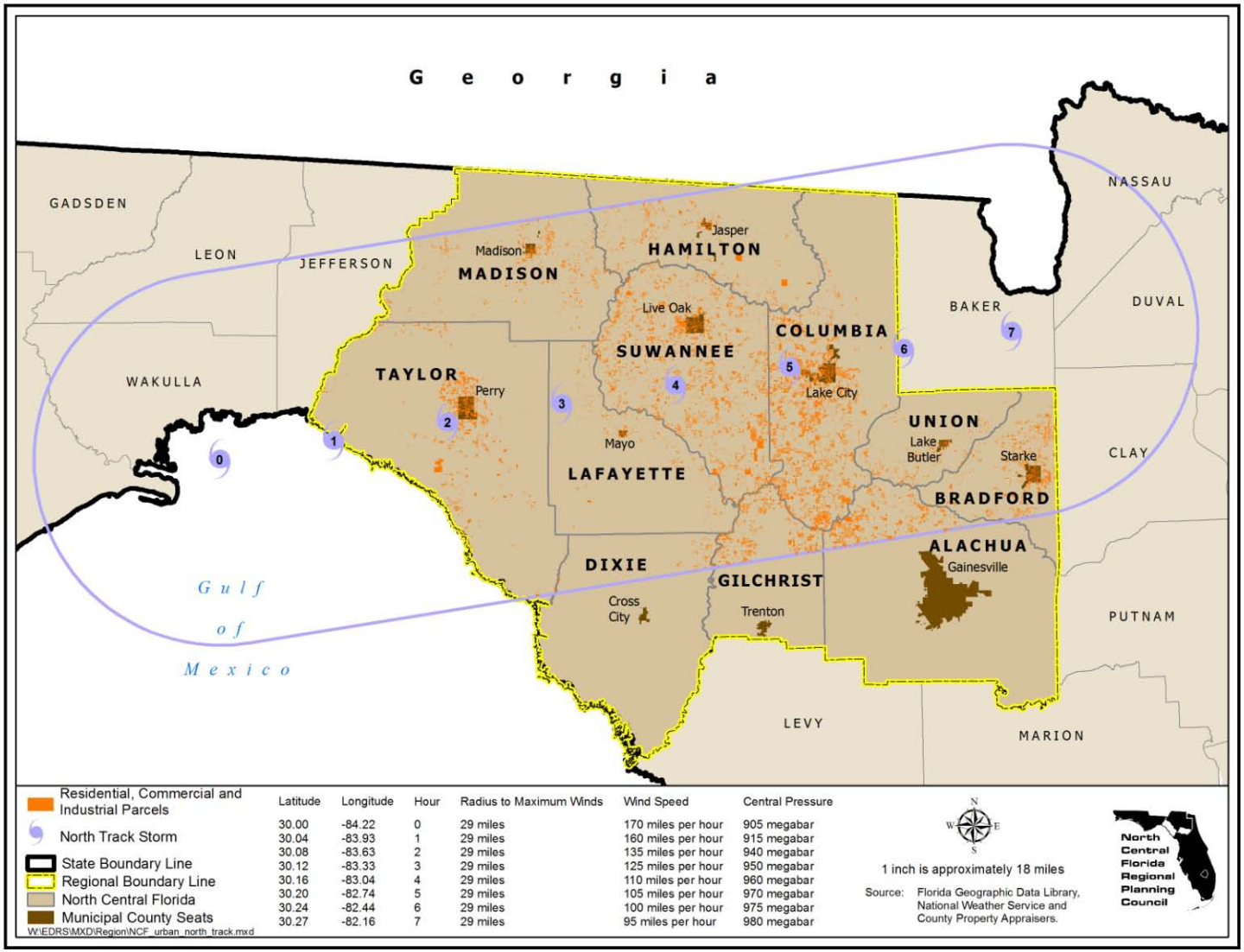
The North Track hurricane is depicted in Figure IV-2. The North Track hurricane makes landfall in northern Taylor County and travels east-northeast across the Region. The North Track hurricane traverses the Region in approximately seven hours and travels near the City of Perry in Taylor County, the Town of Mayo in Lafayette County, and the City of Lake City in Columbia County. The hurricane track continues its east-northeasterly track and exits the Region through Baker County. As with the South Track hurricane, the North Track hurricane has a 29-mile radius of maximum winds. It has a maximum wind speed of 170 miles per hour in the Gulf of Mexico and eventually slows to 95 miles per hour as it exits the Region.

Figure IV-1: South Track Hurricane



Source: North Central Florida Regional Planning Council, 2011.

Figure IV-2: North Track Hurricane



Latitude	Longitude	Hour	Radius to Maximum Winds	Wind Speed	Central Pressure
30.00	-84.22	0	29 miles	170 miles per hour	905 megabar
30.04	-83.93	1	29 miles	160 miles per hour	915 megabar
30.08	-83.63	2	29 miles	135 miles per hour	940 megabar
30.12	-83.33	3	29 miles	125 miles per hour	950 megabar
30.16	-83.04	4	29 miles	110 miles per hour	960 megabar
30.20	-82.74	5	29 miles	105 miles per hour	970 megabar
30.24	-82.44	6	29 miles	100 miles per hour	975 megabar
30.27	-82.16	7	29 miles	95 miles per hour	980 megabar

Source: North Central Florida Regional Planning Council, 2011.

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B. Assumptions and Methodology

The economic impacts of the South Track and North Track hurricane impacts are analyzed for the period between 2010 and 2021. The analysis consists of two parts. The first part uses an Excel workbook prepared by the Council to translate the output from Hazus into population changes and job losses as a direct result of the hurricanes. In the second part, output from the Council Excel workbook is entered into Policy Insight, an econometric model of the regional economy developed by Regional Economic Models, Incorporated, to determine total (direct and indirect) population and economic impacts at county and regional levels.

In addition to the physical damage caused by the hurricanes, recovery periods are also determined. The hurricane recovery period represents the length of time for the repair of building damage to basic industries and residences, the return of basic industry employment to pre-hurricane levels, and the return of lost population due to residential building damage and basic industry job loss. The hurricane recovery period is determined by the Council Excel workbook. A more detailed discussion of impact assessment assumptions and methodology follows.

1. Direct Impacts

a. Assumptions and Methodology - Direct Impacts - Capital Stock Loss

Hazus provides capital stock loss information, expressed both as a dollar amount and as a percent of total building damage, for each county. As an example, capital stock losses by county as a result of the South Track hurricane are portrayed in Table IV-1.

Table IV-1: North Central Florida - Direct Impacts - South Track Hurricane - Capital Stock Losses

County	Value of Buildings	Percent of Capital Loss	Dollar Amount of Capital Loss
Alachua	$17,956,911,000	52.8%	$9,473,526,000
Bradford	1,174,937,000	36.3%	463,032,000
Columbia	2,785,303,000	30.0%	863,488,000
Dixie	574,717,000	81.1%	466,338,000
Gilchrist	545,904,000	72.3%	394,457,000
Hamilton	479,111,000	0.9%	4,499,000
Lafayette	290,968,000	58.3%	169,523,000
Madison	774,597,000	1.8%	13,777,000
Suwannee	1,608,729,000	20.1%	322,863,000
Taylor	1,013,195,000	53.0%	536,615,000
Union	443,633,000	42.6%	189,101,000
Region	$27,648,005,000	46.6%	$12,897,269,000

Source: North Central Florida Regional Planning Council, 2011.

Hazus capital stock losses are converted by the Council Excel workbook into values which are entered in Policy Insight as residential and nonresidential actual capital stock losses. The converted residential and non-residential capital stock losses are entered in Policy Insight as a one-time decrease to the year 2010 capital stock.

b. Assumptions and Methodology - Direct Impacts - Building Damage

Hazus does not provide capital stock loss information by land use. However, it does provide information on the number of buildings damaged by degree of damage for the following seven general occupancy categories: Agriculture, Commercial, Education, Government, Industrial, Religion and Residential. Hazus classifies degree of building damage as None, Minor, Moderate, Severe, and Destroyed. Table IV-2 is an example of number of damaged buildings by use for the South Track hurricane in Dixie County.

Table IV-2: Dixie County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage					Total Buildings
	None	Minor	Moderate	Severe	Destroyed	
Agriculture	0	0	1	5	3	9
Commercial	1	1	7	81	24	114
Education	0	0	1	7	1	9
Government	0	0	0	8	1	9
Industrial	0	0	2	30	6	38
Religion	0	0	1	10	2	13
Residential	24	132	686	1,829	5,078	7,749
Total	25	133	698	1,970	5,115	7,941

Source: North Central Florida Regional Planning Council, 2011.

The Council Excel workbook assumes a direct relationship exists between the degree of building damage and the number of distressed individuals. For example, if Hazus identifies 24 commercial buildings as destroyed, the Council Excel workbook assumes that 100 percent of the employees associated with the destroyed buildings are 'job distressed."[1] Similarly, if 24 residential buildings have no damage, the Council Excel workbook assumes that none of the residents of the buildings are "housing distressed."[2] Hazus does not indicate the percentage of damage or capital loss which each damage category (None, Minor, Moderate, Severe, and Destroyed) represents. Therefore, the Council Excel workbook provides a method to estimate the percentage of building damage represented by each damage category based on the average building value and the capital stock loss information provided by Hazus. The method results in a Council estimate of total county capital stock loss which is within a few percentage points of the total county non-residential capital struck loss reported by Hazus. The percentage of building damage by damage category is then used by the Council Excel workbook to determine the number of job-distressed employees and housing-distressed residents.

[1] Job distressed employees are those employees who are at risk of losing their jobs as a direct result of non-residential building damage.
[2] Housing distressed residents are those residents who are at risk of losing their housing as a direct result of residential building damage.

c. Assumptions and Methodology - Direct Impacts - Employee Losses and Gains

The Council Excel workbook assumes that the higher the percentage of job-distressed employees, the high the percentage of job-distressed employees who, along with their households, lose their jobs. At lower damage levels it is assumed that a higher percentage of businesses located in damaged buildings can successfully relocate to undamaged vacant buildings. Additionally, at lower damage levels, the Council Excel workbook assumes job-distressed employees have greater likelihood of finding alternative employment elsewhere in the county. At higher damage levels, undamaged vacant buildings are less likely to be available to relocating businesses. Job-distressed employees are assumed to be less likely to find alternative employment elsewhere in the county as there are fewer undamaged businesses which can continue to operate at pre-hurricane levels.

Hazus uses six non-residential land uses. However, Policy Insight uses 23 industrial categories. In order to estimate job losses and gains, the Council Excel workbook assigns job losses and gains from the six Hazus non-residential land uses to the 23 Policy Insight industrial sectors. Policy Insight further classifies employees into basic and non-basic industries. Therefore, the Council Excel workbook further classifies job losses into basic and non-basic industries. The determination of the percentage of industry-specific employees classified as either basic or non-basic is based on a location quotient analysis conducted by the Council for each county using Policy Insight 2010 industrial sector employment data.

Building damage is used by the Council Excel workbook to determine job-distressed employees for every industry except construction, which is assumed to experience an increase in jobs inversely proportional to capital stock losses. The Council estimates that 40 percent of the building repair and reconstruction costs represents labor. The 40 percent estimate is derived from estimates of construction labor as a percentage of total construction costs provided by developers for two recent, large, multi-use development projects proposed for Alachua County. Construction employee wages are based on the Florida average annual construction wage from the year 2010 Quarterly Census of Employment and Wages Program annual report. Therefore, the number of new construction employees equals 40 percent of the building damage divided by the 2010 average construction wage. Tables IV-3 and IV-4 are examples of job losses as a result of the South Track hurricane in Dixie County.

Table IV-3: Dixie County - Direct Impacts - South Track Hurricane - Employment Impacts, Basic Industries

Industry	2010 Jobs Without Hurricane	2010 Job Loss/Gain as a Result of Hurricane
State and Local Government	470	(211)
Federal Government, Civilian	0	0
Federal Government, Military	0	0
Forestry, Fishing, Related Activities, and Other	266	(148)
Mining	0	0
Utilities	0	0
Construction	69	134
Manufacturing	76	(35)
Wholesale Trade	0	0
Retail Trade	7	(4)
Transportation and Warehousing	39	(18)
Information	0	0
Finance and Insurance	0	0
Real Estate and Rental and Leasing	46	(23)
Professional and Technical Services	0	0
Management of Companies and Enterprises	0	0
Administrative and Waste Services	0	0
Educational Services	0	0
Health Care and Social Assistance	0	0
Arts, Entertainment, and Recreation	0	0
Accommodation and Food Services	0	0
Other Services, except Public Administration	50	(24)
Farm	149	(84)
Total Basic Jobs	1,172	(413)

Source: North Central Florida Regional Planning Council, 2011.

Basic industries are those industries where the percentage of total county jobs is higher than the national average. Such industries are assumed to provide goods and services to businesses and individuals located outside of their respective county. Non-basic industries are those industries where the percentage of total county jobs is less than or equal to the national average. It is assumed that non-basic industries provide goods and services primarily within their respective county. As can be seen in Table IV-3, a percentage of jobs in the State and Local Government, Forestry, Fishing Related Activities and Other, Construction, Manufacturing, Retail Trade, Transportation and Warehousing, Real Estate and Rental and Leasing, Other Services, except Public Administration, and Farm are considered basic industries in the County. If an industry does not contain at least some jobs classified as basic, then no jobs are reported for that industry in Table IV-3.

Table IV-4: Dixie County - Direct Impact - South Track Hurricane - Employment Impacts, Non-Basic Industries

Industry	2010 Jobs Without Hurricane	2010 Job Loss/Gain as a Result of Hurricane
State and Local Government	485	(218)
Federal Government, Civilian	16	(7)
Federal Government, Military	31	(14)
Forestry, Fishing, Related Activities, and Other	22	(12)
Mining	0	0
Utilities	13	(6)
Construction	231	447
Manufacturing	318	(148)
Wholesale Trade	81	(39)
Retail Trade	448	(219)
Transportation and Warehousing	145	(67)
Information	12	(5)
Finance and Insurance	68	(33)
Real Estate and Rental and Leasing	205	(100)
Professional and Technical Services	110	(54)
Management of Companies and Enterprises	4	(2)
Administrative and Waste Services	110	(51)
Educational Services	21	(9)
Health Care and Social Assistance	236	(115)
Arts, Entertainment, and Recreation	38	(19)
Accommodation and Food Services	299	(146)
Other Services, except Public Administration	259	(127)
Farm	63	(35)
Total Basic Jobs	3,212	(980)

Source: North Central Florida Regional Planning Council, 2011.

d. Assumptions and Methodology - Direct Impacts - Population Losses and Gains

Population losses and gains are attributable to direct impacts are assumed to result from job losses and gains as well as population lost due to residential building damage. The Council Excel workbook determines population losses and gains as a direct result of hurricane damage. The population changes attributable to direct impacts are entered into Policy Insight to determine total population changes.

As with job losses, the Council Excel workbook assumes that the higher the percentage of employees who are job-distressed, the high the percentage of job-distressed employees who, along with their households, lose their jobs and as a result, leave the Region as well as their respective counties. The Council Excel workbook assumes that job loss is confined to persons between the ages of 18 and 64. A ratio of County population, aged 18 through 64, per job is determined based on Policy Insight estimates of 2010 county population aged 18 through 64 and jobs. This ratio is then multiplied by the number of lost county jobs to determine lost population as a direct result of hurricane impacts. In the case of population gains associated with construction industry employment increases, the number of additional construction jobs is multiplied by the average county population per job to determine county population increase.

The Council Excel workbook assumes that the higher the percentage of residents who are housing-distressed, the higher the percentage of housing-distressed residents who leave the Region and their respective counties. Housing-distressed populations at lower damage levels are more likely to find alternative undamaged vacant residential units within the county. At high damage levels, not only will a larger number of housing-distressed populations need alternative housing, but the supply of undamaged vacant housing within the county is likely to be lower. Therefore, the higher the degree of residential building damage, the higher the percentage of the housing-distressed population anticipated to leave their respective counties as well as the Region. Table IV-5 identifies estimated population impacts as a result of the South Track hurricane in Dixie County.

Table IV-5: Dixie County - Direct Impacts - South Track Hurricane - Population Impacts

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change as a Result of Hurricane
Age 0 - 17	2,709	(986)
Age 18 - 64	9,306	(3,388)
Age 65+, White Non-Hispanic	2,862	(1,042)
Age 65+, Black Non-Hispanic	101	(37)
Age 65+, Other Non-Hispanic	41	(15)
Age 65+, Hispanic	31	(11)
Population Change Due to Basic Industry Job Loss		
Age 0 - 17	2,709	(229)
Age 18 - 64	9,306	(788)
Age 65+, White Non-Hispanic	2,862	0
Age 65+, Black Non-Hispanic	101	0
Age 65+, Other Non-Hispanic	41	0
Age 65+, Hispanic	31	0
Population Change Due to Non-Basic Industry Job Loss		
Age 0 - 17	2,709	(544)
Age 18 - 64	9,306	(1,870)
Age 65+, White Non-Hispanic	2,862	0
Age 65+, Black Non-Hispanic	101	0
Age 65+, Other Non-Hispanic	41	0
Age 65+, Hispanic	31	0
Total Population Change		
Age 0 - 17	2,709	(1,760)
Age 18 - 64	9,306	(6,045)
Age 65+, White Non-Hispanic	2,862	(1,042)
Age 65+, Black Non-Hispanic	101	(37)
Age 65+, Other Non-Hispanic	41	(15)
Age 65+, Hispanic	31	(11)
Total	15,050	(8,910)

Source: North Central Florida Regional Planning Council, 2011.

e. Assumptions and Methodology - Direct Impacts - Hurricane Recovery Periods

The Council Excel workbook assumes that lost basic industry jobs, their associated lost households, and households who left as a result of residential building damage return to their county over a period of time. This period of time is referred to as the hurricane recovery period. The hurricane recovery period varies from county to county and is determined in equal parts by the percentage of total capital loss experienced by a county as well as the dollar amount of the capital loss. For example, the South Track hurricane resulted in an 81.1 percent capital stock loss in Dixie County, suggesting a longer-than average recovery period. However, the actual dollar amount of the capital loss as estimated by Hazus was a relatively small $466.4 million compared to the percentage of capital stock loss, suggesting a shorter hurricane recovery period.

The Council Excel workbook assumes that no more than 20 percentage points of county capital loss is repaired/rebuilt per year. Therefore, the maximum recovery period should not exceed five years for the repair and replacement of damaged/destroyed buildings. The Council Excel workbook also assumes that $2 billion of capital stock losses can be repaired/replaced annually. The $2 billion figure is derived from the $9.7 billion total capital stock loss experienced by Alachua County as reported by Hazus.

It is assumed that Alachua County capital stock losses can be repaired/replaced within five years. The five-year recovery period is determined from a review of hurricane recovery periods for seven Florida hurricanes identified in Table IV-6. In the table, the hurricane recovery period is considered to be the period of time for the local government population to return to pre-hurricane levels. As can be seen, the recovery period for most hurricanes is relatively short. The recovery periods are longer for the impacted municipalities than for the county as a whole. Only one Category 5 hurricane, Hurricane Andrew, is included. W hile Dade County did not experience a loss in population as a result of Hurricane Andrew, City of Homestead, the hardest-hit area in Dade County, took six years to recover to pre-hurricane population levels. Also noteworthy is the Storm of the Century, the only storm in Table IV-6 which affected north central Florida. While Dixie County did not experience a population decline as a result of the storm, the Town of Horseshoe Beach, the only incorporated municipality on the County coast, did not return to pre-storm population levels for 10 years.

Table IV-6: Florida Hurricane Recovery Periods

Hurricane and Affected Jurisdictions	Population by Year											
Hurricane Eloise (Cat. 3) Sept 1975	1975	1976	1977									
Panama City	39,142	38,740	39,791									
Bay County	91,606	92,884	95,405									
Hurricane David (Cat. 2) Sept 1979	1979	1980	1981									
West Palm Beach Population	62,834	62,350	63,996									
Palm Beach County Population	564,447	573,125	615,165									
Hurricane Andrew (Cat 5) August 1992	1992	1993	1994	1995	1996	1997	1998					
Homestead Population	27,087	18,732	22,067	23.190	25,385	25,865	27,084					
Dade County Population	1,982,901	1,951,116	1,990,445	2,013,821	2,043,316	2,070,573	2,090,314					
Storm of the Century (TS) March 1993	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Horseshoe Beach Population	245	185	186	194	199	209	220	206	214	225	241	245
Dixie County Population	11,810	12,150	12,416	12,602	13,039	13,196	13,478	13,827	14,059	14,459	14,688	14,928
Hurricane Opal (Cat 4) Sept 1995	1995	1996	1997									
Pensacola Population	60,373	60,658	60,591									
Escambia County Population	282,742	286,301	291,135									
Hurricane Charlie (Cat 4) August 2004	2004	2005	2006	2007								
Punta Gorda Population	17,168	16,255	16,952	17,444								
Charlotte County Population	156,985	154,030	160,315	164,585								
Hurricane Jeanne (Cat 3) Sept 2004	2004	2005	2006									
Port St. Lucy Population	115,155	129,135	144,159									
St. Lucie County Population	226,216	240,039	259,315									
Hurricane Dennis (Cat 4) July 2004	2005	2006	2007	2008								
Pensacola Population	54,827	55,033	55,024	54,925								
Escambia County Population	303,623	309,647	311,775	313,480								
Hurricane Wilma (Cat 3) Oct 2005	2005	2006	2007									
Marco Island Population	15,647	15,719	15,825									
Collier County Population	317,788	326,658	333,858									

Source: Florida Statistical Abstract, 1975 -2008

The determination of hurricane recovery periods from the direct impacts of a hurricane is an exercise of judgment. In Table IV-6, most of the hurricanes occurred in high-growth locations and time periods compared to 2010 north central Florida. Additionally, the recovery efforts included substantial amounts of federal and state recovery assistance. The hurricane recovery periods identified by the Council Excel workbook do not include federal or state recovery assistance. Therefore the hurricane recovery period will be longer for north central Florida counties than the recovery periods suggested in Table IV-6.

As an example, Table IV-7 provides the recovery period and return of basic industry jobs for Dixie County, while Table IV-8 displays the recovery period and return of the County population associated with the recovery of non-basic employment and population associated with the repair and reconstruction of damaged residential buildings. Therefore, it is assumed that regardless of the percentage of county building damage or the total dollar amount of the capital loss, a north central Florida county should be able to recover from the direct impacts of either the South Track or North Track hurricane within six years.

Table IV-7: Dixie County - Direct Impacts - South Track Hurricane - Hurricane Recovery, Basic Industry Employment by Year

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(211)	(170)	(129)	(97)	(72)	(12)	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(148)	(120)	(91)	(68)	(50)	(9)	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	180	180	180	180	180	31	0
Manufacturing	(35)	(29)	(22)	(16)	(12)	(2)	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(4)	(3)	(2)	(2)	(1)	0	0
Transportation and Warehousing	(18)	(15)	(11)	(8)	(6)	(1)	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	(23)	(18)	(14)	(10)	(8)	(1)	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(24)	(20)	(15)	(11)	(8)	(1)	0
Farm	(84)	(67)	(51)	(38)	(28)	(5)	0
Total Basic Jobs	(367)	(261)	(155)	(70)	(5)	(1)	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-8: Dixie County - Direct Impacts - South Track Hurricane - Hurricane Recovery, Population by Year

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(986)	(854)	(722)	(591)	(459)	(382)	(304)	(304)
Age 18 - 64	(3,388)	(2,935)	(2,482)	(2,029)	(1,576)	(1,311)	(1,045)	(1,045)
Age 65+, White Non-Hispanic	(1,042)	(903)	(763)	(624)	(485)	(403)	(321)	(321)
Age 65+, Black Non-Hispanic	(37)	(32)	(27)	(22)	(17)	(14)	(11)	(11)
Age 65+, Other Non-Hispanic	(15)	(13)	(11)	(9)	(7)	(6)	(5)	(5)
Age 65+, Hispanic	(11)	(10)	(8)	(7)	(5)	(4)	(3)	(3)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(229)	(180)	(132)	(86)	(40)	(7)	0	0
Age 18 - 64	(788)	(619)	(455)	(295)	(139)	(24)	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(544)	(544)	(544)	(544)	(544)	(544)	(544)	(544)
Age 18 - 64	(1,870)	(1,870)	(1,870)	(1,870)	(1,870)	(1,870)	(1,870)	(1,870)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(1,760)	181	180	178	177	111	84	0
Age 18 - 64	(6,054)	621	617	613	609	381	289	0
Age 65+, White Non-Hispanic	(1,042)	139	139	139	139	82	82	0
Age 65+, Black Non-Hispanic	(37)	5	5	5	5	3	3	0
Age 65+, Other Non-Hispanic	(15)	2	2	2	2	1	1	0
Age 65+, Hispanic	(11)	2	2	2	2	1	1	0
Total	(8,919)	950	945	939	934	579	460	0

Source: North Central Florida Regional Planning Council, 2011.

In the upper three-fourths of Table IV-8, population change due to residential building damage and industry job loss is reported as negative numbers. For example, year 2010 population change due to residential building damage, ages 18 - 64, reports a decline of 3,388 persons from what the population would otherwise have been should a hurricane have not occurred. In year 2011, the population decline is less, reporting 2,935. In other words, 453 persons, age 18 - 64, who left Dixie County as a result of residential building damage returned to the County one year later. However, for purposes of data entry into Policy Insight, the population changes are reported as positive numbers in the last category in Table IV-8, Total Population Change. Here we see that 6,054 persons between ages 18 - 64 left the County as a result of the hurricane and 621 persons within the 18 - 64 age category returned one year later. Similarly, an additional 617 persons returned in 2012. The number of persons returning ceases in 2016, with 84 persons in this age group returning to the County.

The Council Excel workbook assumes that 100 percent of damaged owner-occupied residential buildings with mortgages are repaired/reconstructed and that their associated residential population returns to the County during the hurricane recovery period. The Council Excel workbook further assumes that half of the damaged owner-occupied residential buildings without mortgages are repaired/reconstructed and that half of their associated residential population returns during the hurricane recovery period. Similar assumptions are also made for renter-occupied housing units.

Two additional direct impact categories must be accounted for regarding the hurricane recovery period: Job recovery for non-basic industries and population recovery from population losses associated with the loss of non-basic industry jobs. Since non-basic industry sells its goods and services primarily within the county of job location, these jobs are dependent on demand generated within the county. Therefore, recovered non-basic jobs, as well as their associated populations and recovery periods, are not determined by the Council Excel workbook. Instead, Policy Insight determines the recovery of non-basic industry jobs, their associated populations, and the length of time of their recovery periods.

f. Assumptions and Methodology - Direct Impacts - County Government Revenues

Impacts to County government revenues are based on county government revenues for Fiscal Year 2007-08 as reported in the 2010 Florida Statistical Abstract. Revenue projections were made using a revenue per capita projection method. Revenue impacts are assumed to not occur until one year after the hurricane event.

g. Assumptions and Methodology - Direct Impacts - Timing of Impacts

Except for local government revenue impacts as noted above, the Council Excel workbook assumes that capital losses and associated job and population changes as a direct result of the hurricanes occur during 2010.

2. Total Impacts

a. Assumptions and Methodology - Total Impacts - Employment, Population, Regional Gross Domestic Product, Combined Personal Income and County Government Revenues

As previously noted, data from the Council Excel workbook regarding the direct impacts of the South and North Track hurricanes are entered into Policy Insight to determine total (direct and indirect) impacts. More specifically, the dollar value of lost capital stock, the number of jobs lost and gained as a result of the direct impacts of the hurricanes, as well as population lost and gained are entered in Policy Insight. Also entered in Policy Insight is the recovery, over time, of basic industry jobs, the recovery of lost population due to basic industry job loss, and the recovery of lost population due to residential damage. Policy Insight then determines changes to the regional and county economies as a result of the data entries to determine total hurricane impacts.

Also as previously noted, Policy Insight is relied upon to determine the recovery of lost non-basic industry jobs and the recovery of its associated population. The recovery of non-basic industry jobs is assumed to be dependent on local demand and is therefore dependent on the recovery county population as well as other factors for which Policy Insight is well-suited to determine.

Since the direct impacts for population and employment are determined by the Council Excel workbook, indirect impacts for population, employment and county government revenue can be derived by subtracting the direct impacts produced by the Council Excel workbook from the Policy Insight estimate of total impacts. However, direct impacts cannot be separated from indirect impacts for regional gross domestic product and combined personal income since the direct impacts of these factors are not determined independently of Policy Insight.

b. Assumptions and Methodology - Direct Impacts - Federal Emergency Management Agency Disaster and Debris Removal Assistance

The effects of Federal Emergency Management Agency disaster and debris removal assistance are analyzed to determine total impacts on regional and county employment, population, gross domestic product, combined personal income, and county government revenues. Federal Emergency Management Agency disaster assistance is assumed to equal 75 percent of the capital loss as determined by Hazus for uninsured buildings damaged by the hurricanes. It is assumed that all owner-occupied residences which had a mortgage had homeowners insurance and that 50 percent of all owner-occupied residences which did not have a mortgage had insurance. Similar assumptions are also made for renter-occupied residential buildings. It is further assumed that 50 percent of all agricultural, commercial, industrial, and religious buildings carried property insurance. Finally, it is assumed that all government and educational buildings are insured.

Federal Emergency Management Agency debris assistance is assumed to equal 90 percent of the estimated debris removal cost. Hazus tonnage data for structure debris is multiplied by $95 per ton to determine the estimated structural debris removal cost. The $95 figure is based on debris removal tonnage costs incurred with the 2011 Joplin, Missouri tornado.[3] Hazus tonnage data for eligible urban forest debris was multiplied by $74 per ton to determine the estimated urban forest debris removal cost. The $74 estimate is based on a study of average urban forest debris removal costs for seven Florida hurricanes.[4] The estimated Federal funds are evenly distributed across 2011 and 2012 for both disaster and debris removal assistance.

[3] "Joplin Board of Education Accepts Debris-Removal Bid," *The Joplin Globe*, August 3, 2011.
[4] Francisco J. Escobedo, et al, "Hurricane Debris and Damage Assessment for Florida Urban Forests," *Agriculture and Urban Forestry*, 2009. The average debris removal cost of $21.50 per cubic yard was multiplied by a cubic yard to pounds conversion factor. Additionally, the estimated cost per ton was increased by 30 percent to take into account higher fuel costs.

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C. North Central Florida Region

1. North Central Florida Region - Direct Impacts

a. North Central Florida Region - Direct Impacts - Building Damage

Capital stock losses as a direct result of building damage were determined by Hazus for each county for both South Track and North Track hurricanes. Table IV-9 portrays capital stock loss as a result of the South Track hurricane. As can be seen, the Region experiences an estimated capital stock loss of $12.9 billion, which represents 46.6 percent of the value of all buildings within the Region, as a result of the South Track hurricane.

Table IV-9: North Central Florida Region - Direct Impacts - South Track Hurricane - Capital Stock Losses

County	Value of Buildings	Percent of Capital Loss	Dollar Amount of Capital Loss
Alachua	$17,956,911,000	52.8%	$9,473,526,000
Bradford	1,174,937,000	36.3%	463,032,000
Columbia	2,785,303,000	30.0%	863,488,000
Dixie	574,717,000	81.1%	466,338,000
Gilchrist	545,904,000	72.3%	394,457,000
Hamilton	479,111,000	0.9%	4,499,000
Lafayette	290,968,000	58.3%	169,523,000
Madison	774,597,000	1.8%	13,777,000
Suwannee	1,608,729,000	20.1%	322,863,000
Taylor	1,013,195,000	53.0%	536,615,000
Union	443,633,000	42.6%	189,101,000
Region	$27,648,005,000	46.6%	$12,897,269,000

Source: North Central Florida Regional Planning Council, 2011.

Table IV-10 portrays capital stock loss as a result of the North Track hurricane reported by Hazus. As can be seen, the Region experiences an estimated capital stock loss of $2.7 billion, which represents 9.9 percent of the value of all buildings within the Region, as a result of the North Track hurricane.

Table IV-10: North Central Florida Region - Direct Impacts - North Track Hurricane - Capital Stock Losses

County	Value of Buildings	Percent of Capital Loss	Dollar Amount of Capital Loss
Alachua	$17,956,911,000	1.5%	270,793,000
Bradford	1,174,937,000	4.1%	48,570,000
Columbia	2,785,303,000	18.6%	517,750,000
Dixie	574,717,000	19.6%	112,466,000
Gilchrist	545,904,000	11.3%	61,523,000
Hamilton	479,111,000	8.8%	42,154,000
Lafayette	290,968,000	43.5%	126,534,000
Madison	774,597,000	27.5%	212,764,000
Suwannee	1,608,729,000	31.1%	500,086,000
Taylor	1,013,195,000	79.9%	809,484,000
Union	443,633,000	9.0%	39,982,000
Region	$27,648,005,000	9.9%	$2,742,106,000

Source: North Central Florida Regional Planning Council, 2011.

The direct impact of building damage by degree of building damage for each county was determined by Hazus for South Track and North Track hurricane events. The direct building damage impacts to the Region as a result of the South Track hurricane are presented in Table IV-11. As can be seen, 86.3 percent of all buildings in the Region receive varying degrees of building damage as a result of the South Track hurricane. The percentage of building damage by use varies from a low of 86.1 percent for all residential buildings in the Region to a high of 95.2 percent for all educational buildings in the Region. However, the number of educational buildings is a relatively low 828, while the number of residential buildings is 170,958, which represents 92.7 percent of all buildings in the Region. For the South Track hurricane, 24.4 percent of all buildings in the Region are destroyed.

Table IV-11: North Central Florida Region - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	11.8	10.5	20.7	40.7	16.3	100.0	94	84	165	324	130	797
Commercial	11.3	7.3	19.7	55.4	6.4	100.0	944	610	1645	4,628	533	8,360
Education	4.8	3.9	13.8	75.9	1.7	100.0	40	32	114	629	14	829
Government	12.5	7.1	16.6	62.5	1.4	100.0	46	26	61	230	5	368
Industrial	10.5	6.8	16.6	61.1	5.0	100.0	232	150	368	1,351	110	2,211
Religion	13.2	10.3	21.2	51.5	3.9	100.0	130	101	208	506	38	983
Residential	13.9	11.9	22.3	26.1	25.9	100.0	23,726	20,258	38,181	44,618	44,175	170,958
Total	13.7	11.5	22.1	28.3	24.4	100.0	25,212	21,261	40,742	52,286	45,005	184,506

Source: North Central Florida Regional Planning Council, 2011.

Table IV-12 presents estimated building damage to all buildings in the Region as a direct result of the North Track hurricane. An estimated 49.2 percent of all buildings in the Region receive at least some building damage as a result of the North Track hurricane. The percentage of building damage by use varies from a low of 50.0 percent for all residential buildings in the Region to a high of 24.2 percent for all educational buildings. For the North Track hurricane, 7.2 percent of all buildings in the Region are destroyed.

Table IV-12: North Central Florida Region - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	40.5	20.13	17.1	16.4	5.9	100.0	324	161	137	131	47	800
Commercial	51.5	15.1	15.6	15.96	1.9	100.0	4,294	1256	1,299	1,331	158	8,338
Education	75.8	12.1	6.3	5.8	0.1	100.0	629	100	52	48	1	830
Government	51.6	14.1	14.3	19.5	0.5	100.0	191	52	53	72	2	370
Industrial	48.2	14.6	15.1	19.6	2.4	100.0	1,067	324	335	434	54	2,214
Religion	50.7	17.5	14.5	15.8	1.5	100.0	496	171	142	155	15	979
Residential	50.0	20.8	14.9	6.6	7.7	100.0	85,657	35,614	25,481	11,356	13,105	171,213
Total	50.2	20.4	14.9	7.3	7.2	100.0	92,658	37,78	27,499	13,527	13,382	184,744

Source: North Central Florida Regional Planning Council, 2011.

b. North Central Florida Region - Direct Impacts - Employment

Tables IV-13 and IV-14 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane as determined by the Council Excel workbook. The tables further classify job changes into basic and non-basic industry. As can be seen in Table IV-13, north central Florida is anticipated to experience a net loss (gains minus losses) of 54,641 jobs, or 22.1 percent of all jobs in the Region, as a result of the South Track Hurricane. Additionally, north central Florida is anticipated to gain 11,036 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane. Basic industry jobs which are identified as having no employment changes, such as Federal Government, Military, are either industrial classifications which are not considered basic industry are industrial classifications for which the degree of building damage insufficient to result in basic industry job loss. As shown in Table IV-14, the Region is anticipated experience a net loss of 20,279 jobs, or 8.2 percent of all north central Florida jobs, as a result of the North Track hurricane. Additionally, the Region is anticipated to gain 6,986 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-13: North Central Florida Region - Direct Impacts - South Track Hurricane - Employment Impacts

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	53,355	(6,884)	(6,976)	(13,860)
Federal Government, Civilian	5,796	(1,077)	(839)	(1,916)
Federal Government, Military	1,170	0	(325)	(325)
Forestry, Fishing, Related Activities, and Other	2,688	(582)	(446)	(1,028)
Mining	280	(3)	(86)	(89)
Utilities	955	(121)	(172)	(293)
Construction	11,100	485	11,036	11,521
Manufacturing	12,268	(489)	(2,983)	(3,472)
Wholesale Trade	4,926	0	(1,383)	(1,383)
Retail Trade	25,977	(497)	(6,954)	(7,451)
Transportation and Warehousing	5,744	(254)	(1,523)	(1,777)
Information	2,905	0	(762)	(762)
Finance and Insurance	8,244	0	(2,300)	(2,300)
Real Estate and Rental and Leasing	9,063	0	(2,598)	(2,598)
Professional and Technical Services	13,499	0	(3,756)	(3,756)
Management of Companies and Enterprises	552	0	(159)	(159)
Administrative and Waste Services	10,052	(10)	(2,802)	(2,812)
Educational Services	3,775	0	(909)	(909)
Health Care and Social Assistance	30,561	(1,648)	(6,790)	(8,438)
Arts, Entertainment, and Recreation	4,223	0	(1,164)	(1,164)
Accommodation and Food Services	19,084	(795)	(4,625)	(5,420)
Other Services, except Public Administration	14,040	(229)	(3,804)	(4,033)
Farm	6,694	(1,029)	(1,188)	(2,217)
Total	246,951	(13,133)	(41,508)	(54,641)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-14: North Central Florida Region - Direct Impacts - North Track Hurricane - Employment Impacts

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	53,355	(2,177)	(2,894)	(5,071)
Federal Government, Civilian	5,796	(247)	(256)	(503)
Federal Government, Military	1,170	0	(146)	(146)
Forestry, Fishing, Related Activities, and Other	2,688	(561)	(193)	(754)
Mining	280	(5)	(51)	(56)
Utilities	955	(118)	(88)	(206)
Construction	11,100	458	6,528	6,986
Manufacturing	12,268	(747)	(1,869)	(2,616)
Wholesale Trade	4,926	0	(661)	(661)
Retail Trade	25,977	(469)	(2,843)	(3,312)
Transportation and Warehousing	5,744	(89)	(767)	(856)
Information	2,905	(2)	(295)	(297)
Finance and Insurance	8,244	0	(818)	(818)
Real Estate and Rental and Leasing	9,063	(19)	(909)	(928)
Professional and Technical Services	13,499	0	(1,070)	(1,070)
Management of Companies and Enterprises	552	0	(73)	(73)
Administrative and Waste Services	10,052	(8)	(1,261)	(1,269)
Educational Services	3,775	0	(190)	(190)
Health Care and Social Assistance	30,561	(319)	(2,518)	(2,837)
Arts, Entertainment, and Recreation	4,223	0	(325)	(325)
Accommodation and Food Services	19,084	(205)	(1,718)	(1,923)
Other Services, except Public Administration	14,040	(211)	(1,617)	(1,828)
Farm	6,694	(997)	(530)	(1,526)
Total	246,951	(5,716)	(14,564)	(20,279)

Source: North Central Florida Regional Planning Council, 2011.

c. North Central Florida Region - Direct Impacts - Population

Table IV-15 identifies population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of north central Florida by age and, in the case of persons age 65 and over, by ethnicity. The population of the Region is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in Table IV-15, north central Florida is estimated to lose 152,063 residents, 29.8 percent of the population of the Region, as a result of the South Track hurricane. The Region is estimated to lose 62,698 residents, 12.5 percent of its population, as a result of the North Track hurricane.

Table IV-15: North Central Florida Region - Direct Impacts - Population Impacts

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	95,571	(12,105)	(4,555)
Age 18 - 64	341,158	(43,638)	(15,002)
Age 65+, White Non-Hispanic	44,182	(7,359)	(3,171)
Age 65+, Black Non-Hispanic	8,257	(855)	(352)
Age 65+, Other Non-Hispanic	1,453	(176)	(69)
Age 65+, Hispanic	1,731	(203)	(58)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	95,571	(4,761)	(2,547)
Age 18 - 64	341,158	(17,525)	(9,045)
Age 65+, White Non-Hispanic	55,182	0	0
Age 65+, Black Non-Hispanic	8,257	0	0
Age 65+, Other Non-Hispanic	1,453	0	0
Age 65+, Hispanic	1,731	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	95,571	(14,049)	(6,257)
Age 18 - 64	341,158	(51,392)	(21,632)
Age 65+, White Non-Hispanic	55,182	0	0
Age 65+, Black Non-Hispanic	8,257	0	0
Age 65+, Other Non-Hispanic	1,453	0	0
Age 65+, Hispanic	1,731	0	
Total Population Change			
Age 0 - 17	85,571	(30,195)	(13,359)
Age 18 - 64	341,158	(112,555)	(45,679)
Age 65+, White Non-Hispanic	55,182	(7,359)	(3,171)
Age 65+, Black Non-Hispanic	8,257	(855)	(362)
Age 65+, Other Non-Hispanic	1,453	(176)	(69)
Age 65+, Hispanic	1,731	(203)	(58)
Total	503,352	(152,063)	(62,698)

Source: North Central Florida Regional Planning Council, 2011.

d. North Central Florida Region - Direct Impacts - Hurricane Recovery Period

The hurricane recovery period represents the length of time needed to recover basic industry jobs, population lost as a result of basic industry job loss, and population lost as a result of residential building damage. Since hurricane recovery periods were determined by county, there is no hurricane recovery period, per say, for the Region. Instead, Tables IV-16 through IV-19 report the aggregate recovery of jobs and residents for all eleven north central Florida counties. Additionally, although the study period is through the year 2021, only years 2010 through 2016 are reported. This is because the hurricane recovery period did not extend beyond year 2016 for any north central Florida county as a result of either the South Track or North Track hurricanes. The recovery of non-basic industry jobs and population associated with non-basic industry job loss is not reported in the Direct Impacts section. They are instead reported under Total Impacts, since they are calculated by Policy Insight.

Numbers reported in Tables IV-16 through IV-19 reflect jobs lost relative to year 2010 levels. For example, in Table IV-16, 6,884 State and Local Government jobs were lost in 2010 due to the South Track hurricane. In 2011, the loss was reduced from 6,884 to 5,301. The 2010 job loss is subsequently reduced each year until 2016 when the last eight State and Local Government jobs are recovered. Total Population Change reported in Table IV-19 differs from this reporting approach. Here, due to the data entry requirements of Policy Insight, the recovered population is reported as positive, discrete, numbers. Population lost due to non-basic industry job losses is reported in Tables IV-18 and IV-19, but is held constant during the hurricane recovery period. The recovery of population due to non-basic industry job loss is determined by Policy Insight and reported in the Total Impacts section.

Tables IV-16 and IV-17 report the recovery of north central Florida basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-16, the 13,158 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the Region by 2016. Similarly, Table IV-17 indicates that the 5,716 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the Region by 2015.

Table IV-16: North Central Florida Region - Direct Impacts - South Track Hurricane - Hurricane Recovery, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(6,884)	(5,301)	(4,033)	(2,510)	(1,784)	(1,316)	(8)
Federal Government, Civilian	(1,077)	(765)	(643)	(186)	(147)	(115)	(1)
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(582)	(396)	(251)	(130)	(50)	(9)	0
Mining	(3)	(3)	(2)	(1)	0	0	0
Utilities	(121)	(71)	(35)	(2)	0	0	0
Construction	485	485	392	301	134	23	0
Manufacturing	(489)	(337)	(191)	(145)	(12)	(2)	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(497)	(314)	(196)	(38)	(1)	0	0
Transportation and Warehousing	(254)	(174)	(118)	(21)	(6)	(1)	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	(25)	(20)	(15)	(12)	(8)	(1)	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	(10)	(6)	(4)	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	(1,648)	(1,341)	(1,061)	(797)	(627)	(482)	(3)
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(795)	(624)	(492)	(317)	(250)	(194)	(1)
Other Services, except Public Administration	(229)	(143)	(94)	(26)	(8)	(1)	0
Farm	(1,029)	(632)	(346)	(122)	(28)	(5)	0
Total	(13,158)	(9,642)	(7,089)	(4,006)	(2,787)	(2,103)	(13)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-17: North Central Florida Region - Direct Impacts - North Track Hurricane - Hurricane Recovery, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(2,177)	(1,136)	(375)	(190)	(129)	(25)	0
Federal Government, Civilian	(247)	(102)	(5)	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(561)	(361)	(197)	(91)	(66)	(13)	0
Mining	(5)	(4)	(3)	(2)	(2)	0	0
Utilities	(118)	(69)	(31)	(3)	(2)	0	0
Construction	458	448	325	245	245	48	0
Manufacturing	(747)	(542)	(366)	(237)	(176)	(35)	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(469)	(304)	(174)	(78)	(58)	(11)	0
Transportation and Warehousing	(89)	(40)	(2)	0	0	0	0
Information	(2)	(1)	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	(19)	(10)	(1)	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	(8)	(4)	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	(319)	(109)	(15)	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(205)	(81)	(4)	0	0	0	0
Other Services, except Public Administration	(211)	(128)	(70)	(15)	(10)	(2)	0
Farm	(997)	(587)	(277)	(15)	(3)	(1)	0
Total	(5,716)	(3,030)	(1,195)	(386)	(201)	(39)	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-18 and IV-19 portray population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of lost population due to residential building damage and basic industry job loss. As can be seen in Table IV-18, population loss due to residential building damage gradually recovers through 2017 for the South Track hurricane. However, not all of the lost population returns to the Region. Due in part to the lack of homeowners insurance, 12,944 residents lost due to residential building damage resulting from the South Track hurricane do not return to the Region. Table IV-19, 5,950 residents lost due to residential building damage from the North Track hurricane do not return to the Region.

Table IV-18: North Central Florida Region - Direct Impacts - South Track Hurricane - Recovery of Lost Population

Population Change Due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(12,105)	(9,703)	(7,443)	(5,339)	(4,060)	(3,181)	(2,774)	(2,444)
Age 18 - 64	(43,638)	(35,140)	(27,078)	(19,576)	(14,808)	(11,528)	(9,975)	(8,688)
Age 65+, White Non-Hispanic	(7,359)	(5,878)	(4,498)	(3,213)	(2,462)	(1,962)	(1,725)	(1,570)
Age 65+, Black Non-Hispanic	(855)	(685)	(527)	(379)	(293)	(229)	(196)	(167)
Age 65+, Other Non-Hispanic	(176)	(143)	(111)	(81)	(62)	(48)	(41)	(36)
Age 65+, Hispanic	(203)	(164)	(128)	(94)	(72)	(55)	(47)	(40)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(4,761)	(3,347)	(2,342)	(1,139)	(569)	(209)	(1)	0
Age 18 - 64	(17,525)	(12,462)	(8,781)	(4,420)	(2,174)	(811)	(5)	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(14,049)	(14,049)	(14,049)	(14,049)	(14,049)	(14,049)	(14,049)	(14,049)
Age 18 - 64	(51,392)	(51,392)	(51,392)	(51,392)	(51,392)	(51,392)	(51,392)	(51,392)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(30,915)	3,817	3,264	3,307	1,849	1,240	614	332
Age 18 - 64	(112,555)	13,561	11,742	11,863	7,015	4,643	2,358	1,292
Age 65+, White Non-Hispanic	(7,359)	1,481	1,379	1,285	752	499	237	155
Age 65+, Black Non-Hispanic	(855)	170	158	147	86	65	33	30
Age 65+, Other Non-Hispanic	(176)	34	32	30	19	14	7	6
Age 65+, Hispanic	(203)	39	36	34	22	17	8	7
Total	(152,063)	19,102	16,611	16,666	9,743	6,478	3,257	1,822

Source: North Central Florida Regional Planning Council, 2011.

Table IV-19: North Central Florida Region - Direct Impacts - North Track Hurricane - Recovery of Lost Population

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(4,555)	(3,384)	(2,452)	(1,807)	(1,472)	(1,319)	(1,166)	(1,166)
Age 18 - 64	(15,002)	(11,177)	(7,967)	(6,080)	(4,900)	(4,368)	(3,836)	(3,836)
Age 65+, White Non-Hispanic	(3,171)	(2,353)	(1,663)	(1,235)	(1,021)	(921)	(822)	(822)
Age 65+, Black Non-Hispanic	(362)	(268)	(184)	(140)	(118)	(106)	(94)	(94)
Age 65+, Other Non-Hispanic	(69)	(52)	(38)	(29)	(24)	(21)	(18)	(18)
Age 65+, Hispanic	(58)	(41)	(27)	(19)	(16)	(16)	(15)	(15)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(2,547)	(1,390)	(538)	(169)	(76)	(15)	0	0
Age 18 - 64	(9,045)	(5,008)	(2,048)	(774)	(358)	(69)	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	0	0	0	0	0	0	0	0
Age 18 - 64	(6,257)	(6,257)	(6,257)	(6,257)	(6,257)	(6,257)	(6,257)	(6,257)
Age 65+, White Non-Hispanic	(21,632)	(21,632)	(21,632)	(21,632)	(21,632)	(21,632)	(21,632)	(21,632)
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(13,359)	2,328	1,785	1,014	427	215	168	0
Age 18 - 64	(45,679)	7,862	6,170	3,161	1,597	820	601	0
Age 65+, White Non-Hispanic	(3,171)	817	691	428	214	100	100	0
Age 65+, Black Non-Hispanic	(362)	94	84	44	22	12	12	0
Age 65+, Other Non-Hispanic	(69)	17	14	10	5	3	3	0
Age 65+, Hispanic	(58)	17	14	8	3	1	1	0
Total	(62,698)	11,135	8,758	4,665	2,268	1,151	885	0

Source: North Central Florida Regional Planning Council, 2011.

2. North Central Florida Region - Total Impacts

a. North Central Florida Region - Total Impacts - Employment

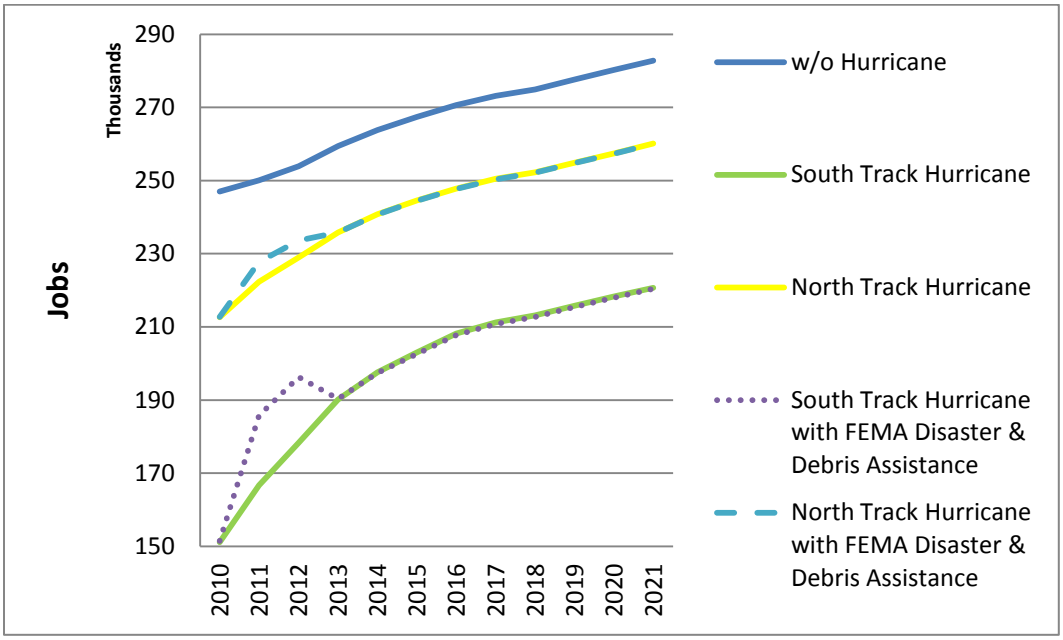
Impacts to total employment in each county were analyzed for the South Track and North Track hurricanes. The total impacts to employment are presented in Figure IV-3. If no event were to occur, the estimated number of employees in the Region is estimated to equal 247,221 in 2010. The South Track hurricane causes the loss of 95,893 jobs, whereas the North Track hurricane results in the loss of 34,388 jobs.

As previously noted, the direct impacts of the South Track hurricane account for a job loss of 54,641 in 2010, resulting in an additional 41,212 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 20,279, resulting in an additional 14,109 jobs lost as a result of indirect impacts.

As can be seen, the Region returns to pre-hurricane levels of employment in 2016 following the North Track hurricane. However, the Region does not return to pre-hurricane employment levels during the study period following the South Track hurricane. In 2021, Region-wide employment is projected to reach 220,702, 89.3 percent of pre-hurricane levels for the South Track hurricane.

The Council estimates that the Region will receive approximately $2.82 billion in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on regional employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 17,980 jobs, a 10.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013. For the North Track Hurricane, the Council estimates the Region will receive approximately $832.8 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 4,711 jobs, a 2.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-3: North Central Florida Region - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. North Central Florida Region - Total Impacts - Population

Impacts to total population of the Region were analyzed for South Track and North Track hurricane events. The total impacts to population in the Region are presented in Figure IV-4. If no event were to occur, the population of the Region is estimated to equal 503,352 in 2010. The South Track hurricane causes the loss of 171,041 residents, whereas the North Track hurricane results in the loss of 68,174 residents.

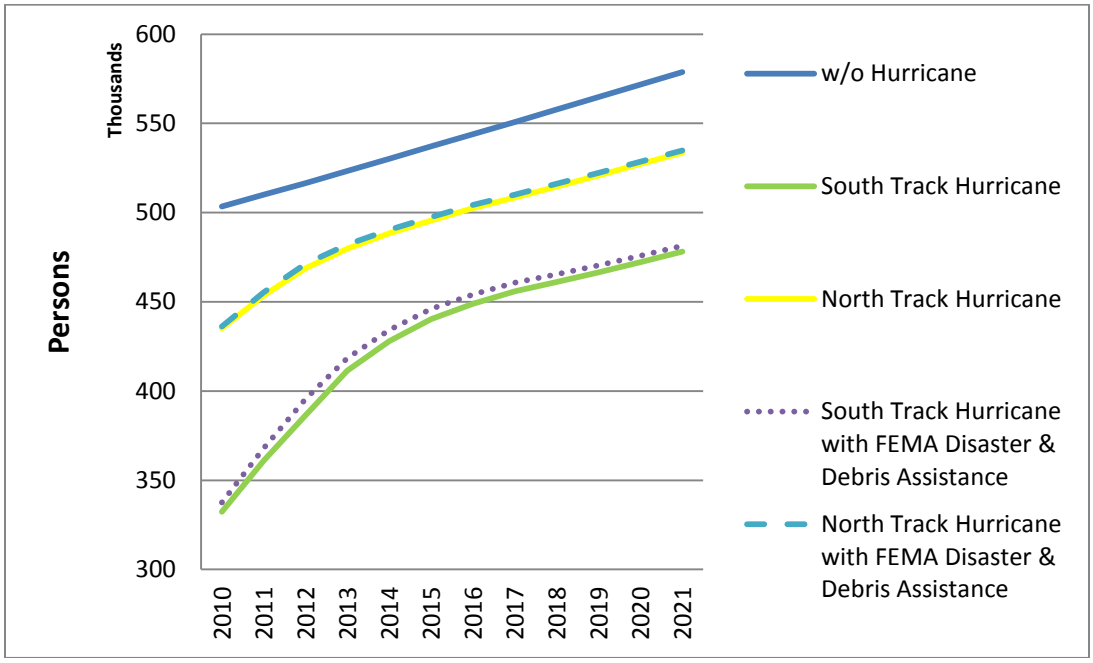
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 152,063 in 2010, resulting in an additional 18,978 residents lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a population loss of 62,698, resulting in an additional 5,476 residents lost as a result of indirect impacts.

As can be seen, the Region returns to pre-hurricane population levels in 2017 following the North Track hurricane during the study period. However, the Region does not return to pre-hurricane population levels during the study period following the South Track hurricane. In 2021, Region-wide population is projected to reach 478,064, which is 95.0 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for effects on regional population. Federal Emergency Management Agency assistance provides a 2012 net increase of 9,125 residents, a 2.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 3,328 residents, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of 2,488 residents, a 0.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 1,200 residents, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-4: North Central Florida Region - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

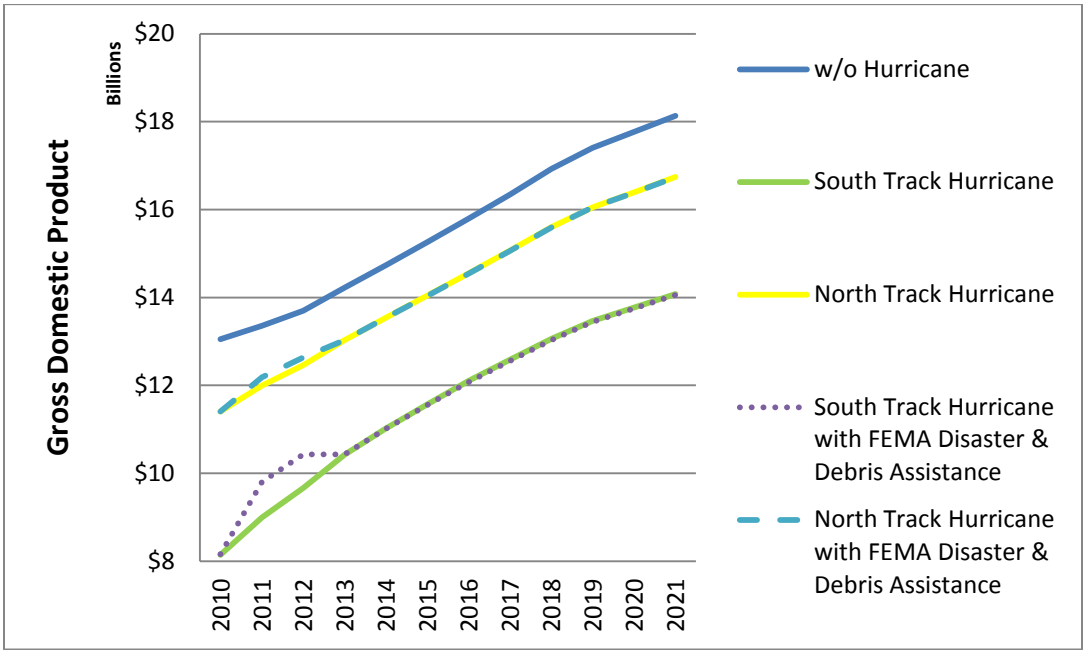
c. North Central Florida Region - Total Impacts - Regional Gross Domestic Product

Regional gross domestic product refers to the market value of all final goods and services produced in the Region in a given period of time. Total impacts to regional gross domestic product were analyzed for South Track and North Track hurricane events. The total impacts to the regional gross domestic product are presented in Figure IV-5. If no event were to occur, the regional gross domestic product is estimated to equal $8.98 billion. The South Track hurricane causes the loss of $3.24 billion in 2010 regional gross domestic product, whereas the North Track hurricane results in the loss of $0.33 billion.

As can be seen, the Region returns to pre-hurricane levels of regional gross domestic product for both hurricanes during the study period. For the South Track hurricane, regional gross domestic product returns to pre-hurricane levels in 2018. For the North Track hurricane, regional gross domestic product returns to pre-hurricane levels in 2014.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for effects on regional gross domestic product. Federal Emergency Management Agency assistance provides a 2012 net increase of $766.0 million in gross domestic product, a 7.9 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on regional gross domestic product dissipate by 2013. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $171.0 million, a 1.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on regional gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-5: North Central Florida Region - Total Impacts - Regional Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. North Central Florida Region - Total Impacts - Combined Personal Income

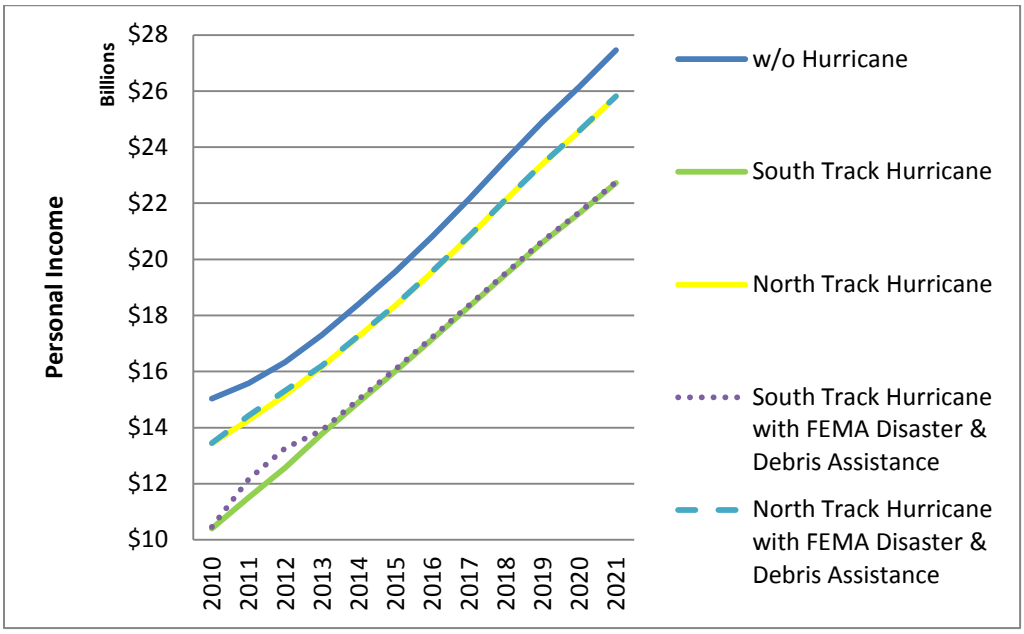
Personal income is an individual's total earnings from wages, investment interest, and other sources. Combined personal income is the combined total income of the residents of the Region. It is considered an indicator of consumer spending.

Total impacts to regional combined personal income were analyzed for South Track and North Track hurricane events. The total impacts to regional combined personal income are presented in Figure IV-6. If no event were to occur, the regional combined personal income is estimated to equal $15.03 billion. The South Track hurricane causes the loss of $4.63 billion in regional combined personal income in 2010, whereas the North Track hurricane results in a 2010 loss of $1.59 billion.

As can be seen, the Region returns to pre-hurricane levels of combined personal income for both hurricanes during the study period. For the South Track hurricane, regional combined personal income returns to pre-hurricane levels in 2015. For the North Track hurricane, regional combined personal income returns to pre-hurricane levels in 2012.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for effects on regional combined personal income. Federal Emergency Management Agency assistance provides a 2012 net increase of $695.0 million in combined personal income product, a 5.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. The impacts of Federal Emergency Management Agency assistance on combined personal income gradually decrease over the study period. By 2021, the net impact is $35.0 million, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $159.0 million, a 1.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is $13.0 million, an 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-6: North Central Florida Region - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. North Central Florida Region - Total Impacts - County Government Revenues

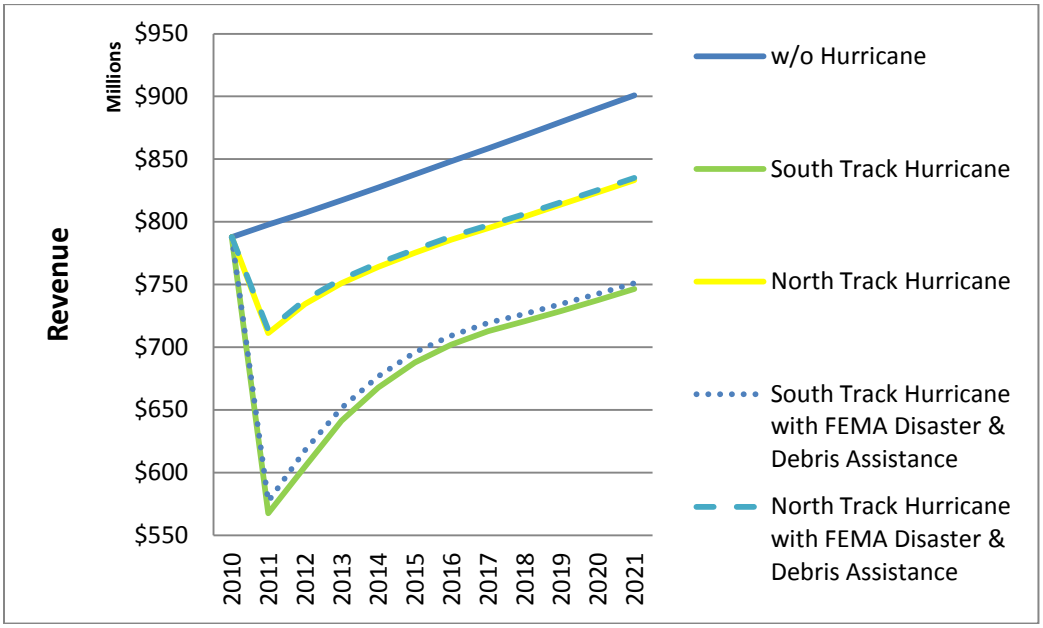
County government revenue impacts are limited to revenues received by the 11 north central Florida county commissions. Revenues for public schools and municipalities are excluded. County government revenues do not include state or federal assistance for hurricane relief. Unlike other reported impacts, county government revenue impacts are assumed to not occur until 2011, one year after the hurricane event.

Total impacts to county government revenues were analyzed for South Track and North Track hurricane events. The total impacts to county government revenues are presented in Figure IV-7. If n o event were to occur, the combined county government revenues are estimated to equal $797.8 million in 2011. The South Track hurricane causes the loss of $230.4 million in combined county government revenues in 2011, whereas the North Track hurricane results in a 2011 loss of $86.4 million.

As can be seen, the Region returns to pre-hurricane levels of combined county government revenues in 2017 following the North Track hurricane. However, for the South Track hurricane, combined county government revenues do not return to pre-hurricane levels during the study period. In 2021, combined county government revenues following the South Track hurricane are projected to reach $746.4 million, which represents 94.7 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on the revenues of all eleven county governments located within north central Florida. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $9.4 million in county government revenue, a 1.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on combined county government revenues gradually decrease over the study period. By 2021, the net impact is 4.6 million, a 0.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $24.0 million, a 0.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is $1.7 million, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-7: North Central Florida Region - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

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D. Alachua County

1. Alachua County - Direct Impacts

a. Alachua County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Alachua County has an estimated capital stock value of $17.96 billion. The County is estimated to suffer a $9.47 billion capital stock loss, representing 52.8 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $0.27 billion capital stock loss, representing 1.5 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-20 and IV-21. An estimated 24.4 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 7.2 percent of all buildings are destroyed. An estimated 86.3 percent of all County buildings receive at least some damage as a result of the South Track hurricane. For the North Track hurricane, 49.8 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 95.2 percent for educational buildings to a low of 86.1 percent for residential buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 59.5 percent for agriculture buildings to a low of 24.2 percent for education buildings.

Table IV-20: Alachua County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	11.8	10.5	20.7	40.7	16.3	100.0	94	84	165	324	130	797
Commercial	11.3	7.3	19.7	55.4	6.4	100.0	944	610	1645	4,628	533	8,360
Education	4.8	3.9	13.8	75.9	1.7	100.0	40	32	114	629	14	829
Government	12.5	7.1	16.6	62.5	1.4	100.0	46	26	61	230	5	368
Industrial	10.5	6.8	16.6	61.1	5.0	100.0	232	150	368	1,351	110	2,211
Religion	13.2	10.3	21.2	51.5	3.9	100.0	130	101	208	506	38	983
Residential	13.9	11.9	22.3	26.1	25.9	100.0	23,726	20,258	38,181	44,618	44,175	170,958
Total	13.7	11.5	22.1	28.3	24.4	100.0	25,212	21,261	40,742	52,286	45,005	184,506

Source: North Central Florida Regional Planning Council, 2011.

Table IV-21: Alachua County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	40.5	20.13	17.1	16.4	5.9	100.0	324	161	137	131	47	800
Commercial	51.5	15.1	15.6	15.96	1.9	100.0	4,294	1256	1,299	1,331	158	8,338
Education	75.8	12.1	6.3	5.8	0.1	100.0	629	100	52	48	1	830
Government	51.6	14.1	14.3	19.5	0.5	100.0	191	52	53	72	2	370
Industrial	48.2	14.6	15.1	19.6	2.4	100.0	1,067	324	335	434	54	2,214
Religion	50.7	17.5	14.5	15.8	1.5	100.0	496	171	142	155	15	979
Residential	50.0	20.8	14.9	6.6	7.7.	100.0	85,657	35,614	25,481	11,356	13,105	171,213
Total	50.2	20.4	14.9	7.3	7.2	100.0	92,658	37,78	27,499	13,527	13,382	184,744

Source: North Central Florida Regional Planning Council, 2011.

b. Alachua County - Direct Impacts - Employment

Tables IV-22 and IV-23 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-22, the County is anticipated experience a net loss (gains minus losses) of 33,403 jobs, or 21.4 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 4,342 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane. Basic industry categories identified as having no employment changes are either industrial categories which are not classified as basic industry in the County or industries in which the degree of building damage was not sufficient to result in basic industry job loss. As shown in Table IV-23, the County is anticipated experience a net loss of 2,934 jobs, or 1.9 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 1,035 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-22: Alachua County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	34,937	(3,959)	(3,856)	(7,815)
Federal Government, Civilian	4,225	(349)	(596)	(945)
Federal Government, Military	587	0	(131)	(131)
Forestry, Fishing, Related Activities, and Other	525	0	(188)	(188)
Mining	150	0	(37)	(37)
Utilities	349	0	(87)	(87)
Construction	6,192	0	4,342	4,342
Manufacturing	4,947	0	(1,227)	(1,227)
Wholesale Trade	2,889	0	(767)	(767)
Retail Trade	15,563	0	(4,132)	(4,132)
Transportation and Warehousing	2,751	0	(682)	(682)
Information	2,106	0	(522)	(522)
Finance and Insurance	5,759	0	(1,529)	(1,529)
Real Estate and Rental and Leasing	6,239	0	(1,656)	(1,656)
Professional and Technical Services	10,706	0	(2,843)	(2,843)
Management of Companies and Enterprises	305	0	(81)	(81)
Administrative and Waste Services	6,280	0	(1,558)	(1,558)
Educational Services	3,221	0	(741)	(741)
Health Care and Social Assistance	21,943	(1,463)	(4,363)	(5,826)
Arts, Entertainment, and Recreation	3,362	0	(893)	(893)
Accommodation and Food Services	13,187	(590)	(2,912)	(3,502)
Other Services, except Public Administration	8,040	0	(2,135)	(2,135)
Farm	1,688	0	(448)	(448)
Total	155,951	(6,361)	(27,040)	(33,403)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-23: Alachua County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	34,937	(295)	(287)	(582)
Federal Government, Civilian	4,225	(26)	(44)	(70)
Federal Government, Military	587	0	(10)	(10)
Forestry, Fishing, Related Activities, and Other	525	0	(25)	(25)
Mining	150	0	(5)	(5)
Utilities	349	0	(13)	(13)
Construction	6,192	0	1,035	1,035
Manufacturing	4,947	0	(180)	(180)
Wholesale Trade	2,889	0	(85)	(85)
Retail Trade	15,563	0	(457)	(457)
Transportation and Warehousing	2,751	0	(100)	(100)
Information	2,106	0	(77)	(77)
Finance and Insurance	5,759	0	(169)	(169)
Real Estate and Rental and Leasing	6,239	0	(183)	(183)
Professional and Technical Services	10,706	0	(314)	(314)
Management of Companies and Enterprises	305	0	(9)	(9)
Administrative and Waste Services	6,280	0	(228)	(228)
Educational Services	3,221	0	(46)	(46)
Health Care and Social Assistance	21,943	(162)	(482)	(644)
Arts, Entertainment, and Recreation	3,362	0	(99)	(99)
Accommodation and Food Services	13,187	(65)	(322)	(387)
Other Services, except Public Administration	8,040	0	(236)	(236)
Farm	1,688	0	(50)	(50)
Total	155,951	(548)	(2,386)	(2,934)

Source: North Central Florida Regional Planning Council, 2011.

c. Alachua County - Direct Impacts - Population

Table IV-24 identifies the County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 70,384 residents, 28.6 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 4,197 residents, 1.7 percent of its population, as a result of the North Track hurricane.

Table IV-24: Alachua County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	44,765	(4,743)	(27)
Age 18 - 64	174,680	(18,509)	(104)
Age 65+, White Non-Hispanic	21,071	(2,233)	(13)
Age 65+, Black Non-Hispanic	4,035	(428)	(2)
Age 65+, Other Non-Hispanic	785	(83)	0
Age 65+, Hispanic	983	(104)	(1)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	44,765	(1,720)	(154)
Age 18 - 64	174,680	(6,713)	(602)
Age 65+, White Non-Hispanic	21,071	0	0
Age 65+, Black Non-Hispanic	4,035	0	0
Age 65+, Other Non-Hispanic	785	0	0
Age 65+, Hispanic	983	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	44,765	(7,313)	(672)
Age 18 - 64	174,680	(28,537)	(2,621)
Age 65+, White Non-Hispanic	21,071	0	0
Age 65+, Black Non-Hispanic	4,035	0	0
Age 65+, Other Non-Hispanic	785	0	0
Age 65+, Hispanic	983	0	0
Total Population Change			
Age 0 - 17	44,765	(13,777)	(853)
Age 18 - 64	174,680	(53,759)	(3,327)
Age 65+, White Non-Hispanic	21,071	(2,233)	(13)
Age 65+, Black Non-Hispanic	4,035	(428)	(2)
Age 65+, Other Non-Hispanic	785	(83)	0
Age 65+, Hispanic	983	(104)	(1)
Total	246,319	(70,384)	(4,195)

Source: North Central Florida Regional Planning Council, 2011.

d. Alachua County - Direct Impacts - Hurricane Recovery Period

Tables IV-25 and IV-26 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-25, the 6,361 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2016. Similarly, Table IV-26 indicates that the 548 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2011.

Table IV-25: Alachua County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(3,959)	(3,300)	(2,641)	(2,091)	(1,652)	(1,304)	(8)
Federal Government, Civilian	(349)	(291)	(233)	(184)	(145)	(115)	(1)
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	0	0	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	(1,463)	(1,220)	(976)	(773)	(611)	(482)	(3)
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(590)	(491)	(393)	(311)	(246)	(194)	(1)
Other Services, except Public Administration	0	0	0	0	0	0	0
Farm	0	0	0	0	0	0	0
Total	(6,361)	(5,302)	(4,243)	(3,359)	(2,654)	(2,095)	(13)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-26: Alachua County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(295)	(42)	0	0	0	0	0
Federal Government, Civilian	(26)	(4)	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	0	0	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	(162)	(23)	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(65)	(9)	0	0	0	0	0
Other Services, except Public Administration	0	0	0	0	0	0	0
Farm	0	0	0	0	0	0	0
Total	(548)	(78)	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-27 and IV-28 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-27, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2017. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 4,440 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-28, County population loss due to residential building damage from the North Track hurricane recovers in 2011. However, 25 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-27: Alachua County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change Due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(4,743)	(4,088)	(3,433)	(2,777)	(2,122)	(1,466)	(1,137)	(807)
Age 18 - 64	(18,509)	(15,952)	(13,394)	(10,837)	(8,279)	(5,722)	(4,435)	(3,148)
Age 65+, White Non-Hispanic	(2,233)	(1,924)	(1,616)	(1,307)	(999)	(690)	(535)	(380)
Age 65+, Black Non-Hispanic	(428)	(368)	(309)	(250)	(191)	(132)	(102)	(73)
Age 65+, Other Non-Hispanic	(83)	(72)	(60)	(49)	(37)	(26)	(20)	(14)
Age 65+, Hispanic	(104)	(90)	(75)	(61)	(47)	(32)	(25)	(18)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(1,720)	(1,403)	(1,093)	(790)	(493)	(202)	(1)	0
Age 18 - 64	(6,713)	(5,476)	(4,266)	(3,081)	(1,922)	(787)	(5)	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic								
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(7,313)	(7,313)	(7,313)	(7,313)	(7,313)	(7,313)	(7,313)	(7,313)
Age 18 - 64	(28,537)	(28,537)	(28,537)	(28,537)	(28,537)	(28,537)	(28,537)	(28,537)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(13,777)	972	966	959	953	946	530	332
Age 18 - 64	(53,759)	3,794	3,768	3,742	3,717	3,692	2,069	1,292
Age 65+, White Non-Hispanic	(2,233)	308	308	308	308	308	155	155
Age 65+, Black Non-Hispanic	(428)	59	59	59	59	59	30	30
Age 65+, Other Non-Hispanic	(83)	11	11	11	11	11	6	6
Age 65+, Hispanic	(104)	14	14	14	14	14	7	7
Total	(70,384)	5,158	5,126	5,093	5,062	5,030	(33,104)	1,822

Source: North Central Florida Regional Planning Council, 2011.

Table IV-28: Alachua County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change Due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(27)	(3)	(5)	(5)	(5)	(5)	(5)	(5)
Age 18 - 64	(104)	(12)	(18)	(18)	(18)	(18)	(18)	(18)
Age 65+, White Non-Hispanic	(13)	(1)	(2)	(2)	(2)	(2)	(2)	(2)
Age 65+, Black Non-Hispanic	(2)	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	(1)	0	0	0	0	0	0	0
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(154)	(22)	0	0	0	0	0	0
Age 18 - 64	(602)	(84)	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(672)	(672)	(672)	(672)	(672)	(672)	(672)	(672)
Age 18 - 64	(2,621)	(2,621)	(2,621)	(2,621)	(2,621)	(2,621)	(2,621)	(2,621)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(853)	156	20	0	0	0	0	0
Age 18 - 64	(3,327)	609	79	0	0	0	0	0
Age 65+, White Non-Hispanic	(13)	11	(1)	0	0	0	0	0
Age 65+, Black Non-Hispanic	(2)	2	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	(1)	1	0	0	0	0	0	0
Total	(4,196)	779	98	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Alachua County - Total Impacts

a. Alachua County - Total Impacts - Employment

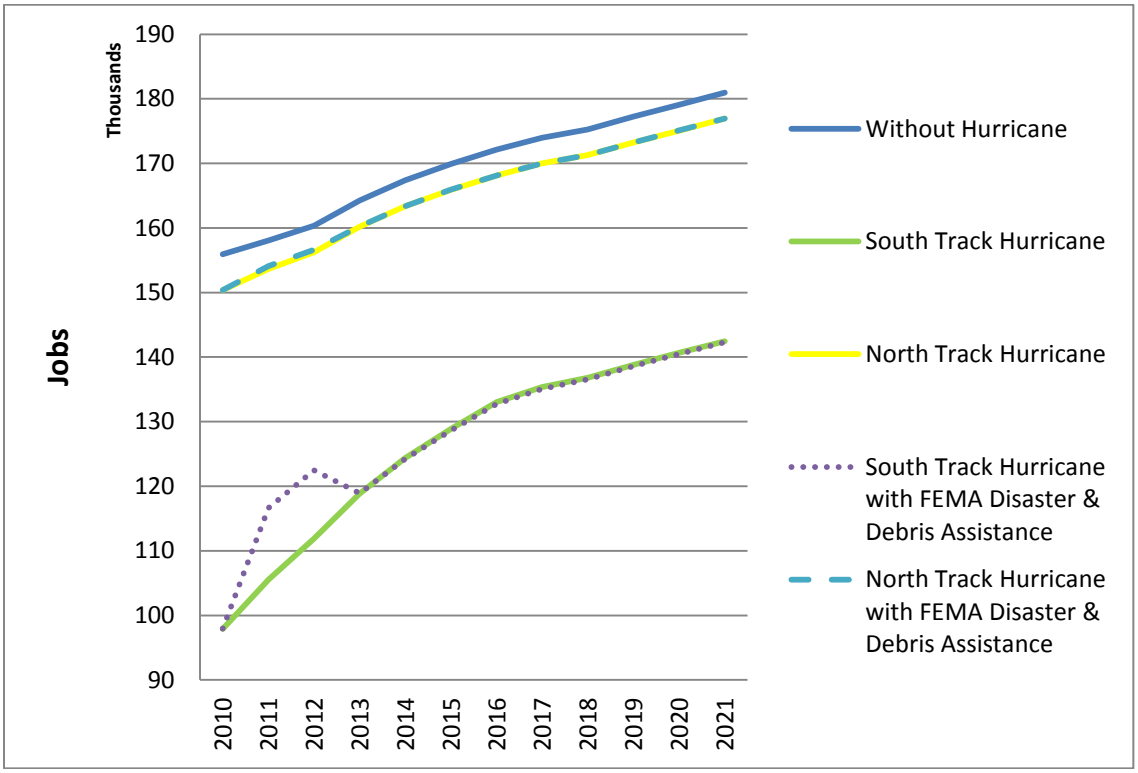
The total employment impacts in the County are presented in Figure IV-8. If no event were to occur, the estimated number of employees in the County is estimated at 155,948 in 2010. The South Track hurricane causes the loss of 58,044 jobs in the County, whereas the North Track hurricane results in the loss of County 5,593 jobs.

As previously noted, the direct impacts of the South Track hurricane account for a loss of 33,403 jobs in 2010, resulting in an additional 24,641 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 2,934, resulting in an additional 2,659 jobs lost as a result of indirect impacts.

The County returns to pre-hurricane levels of employment in 2012 following the North Track hurricane. H owever, the County does not return to pre-hurricane employment levels during the study period following the South Track hurricane. In 2021, County employment is projected to reach 142,246, which represents 91.2 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $1.82 billion in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 10,617 jobs, a 9.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013. For the North Track Hurricane, the Council estimates the County will receive approximately $45.7 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 404 jobs, a 0.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-8: Alachua County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Alachua County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-9. If no event were to occur, the population of the County is estimated at 246,317 in 2010 and is projected to reach 278,413 in 2021. The South Track hurricane causes the loss of 84,588 residents in the County, whereas the North Track hurricane results in the loss of County 5,459 residents.

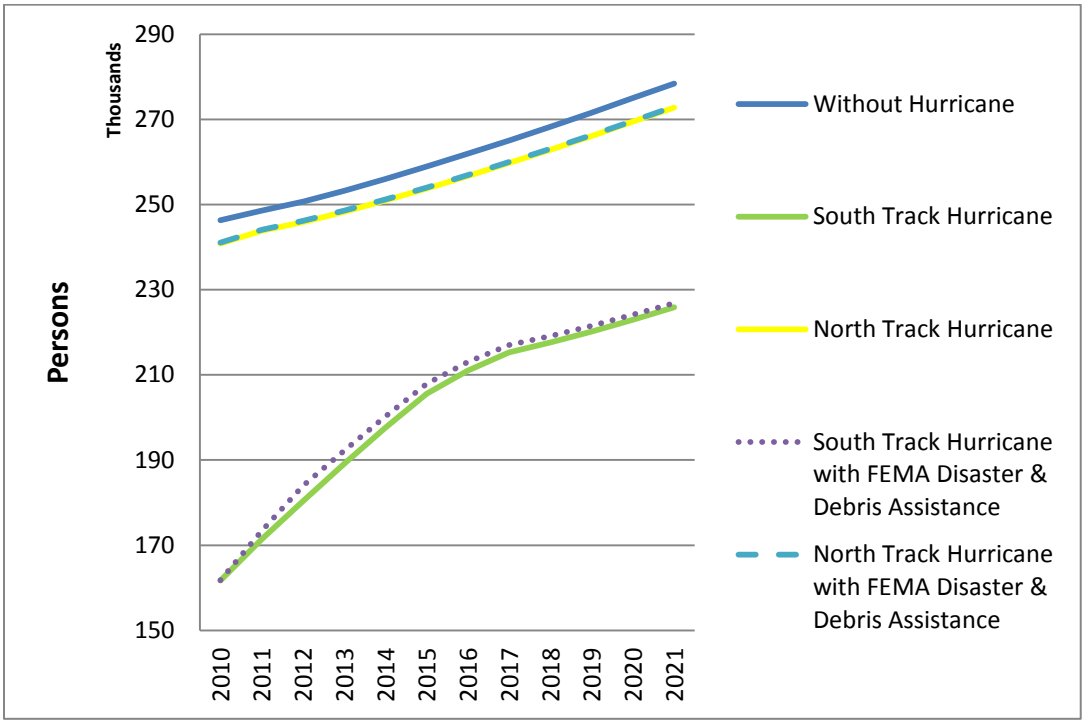
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 70,384 in 2010, resulting in an additional 14,204 residents lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a population loss of 4,195, resulting in an additional 1,264 residents lost as a result of indirect impacts.

The County returns to pre-hurricane levels of employment in 2013 following the North Track hurricane. However, for the South Track hurricane, the County does not return to pre-hurricane employment levels during the study period. In 2021, County population following the South Track hurricane is projected to reach 225,835, which represents 91.7 percent of pre-hurricane population levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 3,601 residents, a 2.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 1,044 residents, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of 404 residents, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 153 residents, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-9: Alachua County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

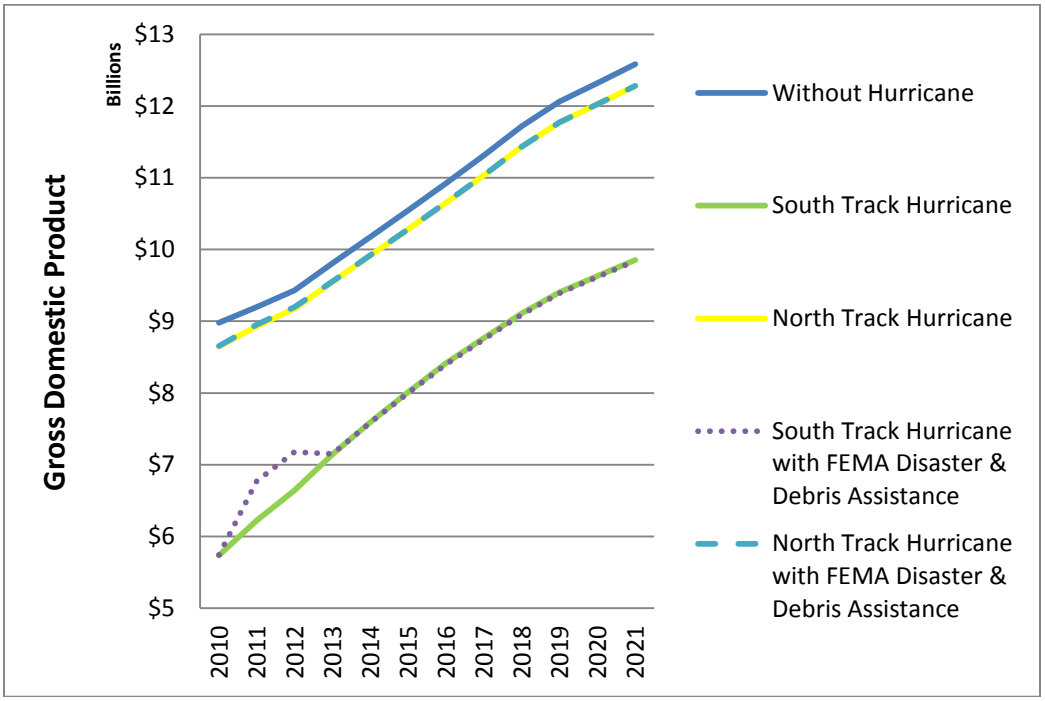
c. Alachua County - Total Impacts - County Gross Domestic Product

The total County gross domestic product impacts in the County are presented in Figure IV-10. If no event were to occur, the County gross domestic product is estimated at $8.98 billion in 2010 and is projected to reach $12.58 billion in 2021. The South Track hurricane causes the loss of $3.24 billion in County gross domestic product, whereas the North Track hurricane results in the loss of $0.33 billion.

The County returns to pre-hurricane levels of gross domestic product for both hurricanes. For the South Track hurricane, County gross domestic product returns to pre-hurricane levels in 2018. For the North Track hurricane, County gross domestic product returns to pre-hurricane levels in 2011.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. Federal Emergency Management Agency assistance provides a 2012 net increase of $532.0 million in County gross domestic product, an 8.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $21.0 million, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-10: Alachua County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Alachua County - Total Impacts - Combined Personal Income

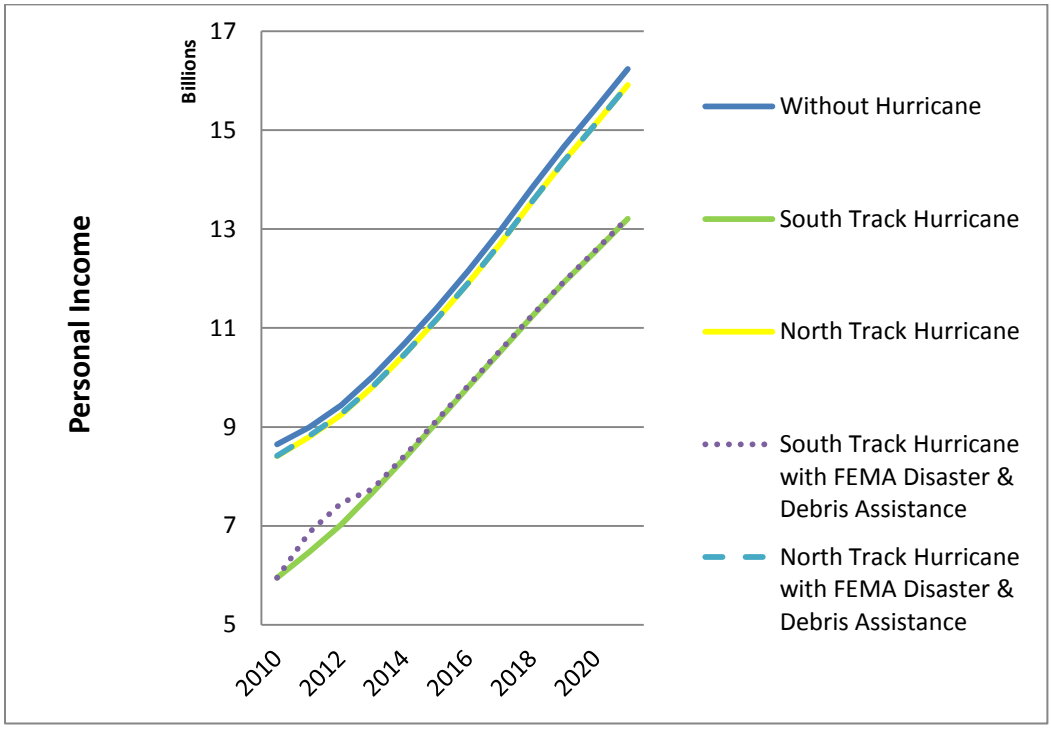
The total County combined personal income impacts in the County are presented in Figure IV-11. If no event were to occur, the County combined personal income is estimated at $8.65 billion in 2010 and is projected to reach $16.24 billion in 2021. The South Track hurricane causes the loss of $2.70 billion in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $0.23 billion.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes during the study period. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2015. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2011.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. Federal Emergency Management Agency assistance provides a 2012 net increase of $431.0 million in County combined personal income, a 6.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period.

By 2021, the net impact is $17.0 million, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $19.0 million to County combined personal income, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is $2.0 million, an increase of less than 0.1 percent over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-11: Alachua County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

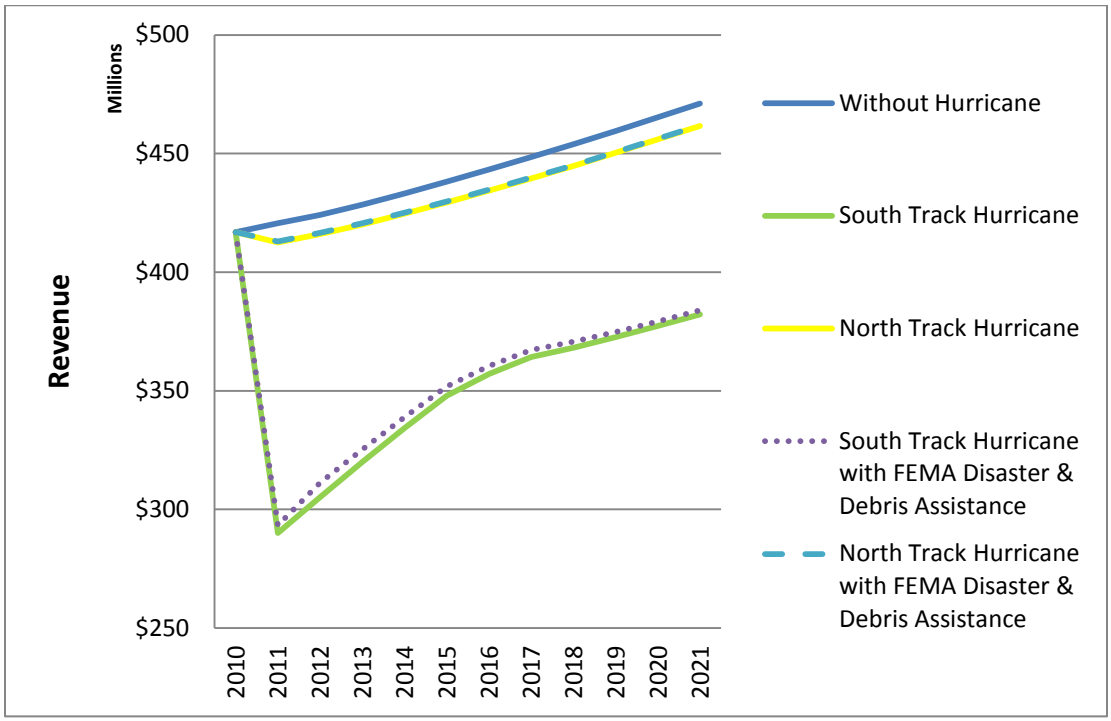
e. Alachua County - Total Impacts - County Government Revenue

County government revenue impacts in the County are presented in Figure IV-12. If no event were to occur, County government revenue is estimated at $420.6 million in 2011 and is projected to reach $471.3 million in 2021. The South Track hurricane causes the loss of $130.6 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $8.0 million.

The County returns to pre-hurricane levels of County government revenue in 2012 for the North Track Hurricane. However, for the South Track hurricane, County government revenue does not return to pre-hurricane levels during the study period. In 2021, County government revenue following the South Track hurricane is projected to reach $382.1 million, which represents 91.7 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $6.0 million in County government revenue, a 2.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County government revenue gradually decrease over the study period. By 2021, the net impact is $1.8 million, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $522,000, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $259,000, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-12: Alachua County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

E. Bradford County

1. Bradford County - Direct Impacts

a. Bradford County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Bradford County has an estimated capital stock value of $1.17 billion. The County is estimated to suffer a $0.46 billion capital stock loss, representing 36.3 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $54.9 million capital stock loss, representing 4.1 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-29 and IV-30. An estimated 16.5 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, an estimated 0.5 percent of all buildings are destroyed. For the South Track hurricane, an estimated 91.1 percent of all County buildings receive at least some damage as a result of the hurricane. For the North Track hurricane, 39.2 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 96.1 percent for agriculture buildings to a low of 91.0 percent for residential buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 50.0 percent for agriculture buildings to a low of 39.3 percent for residential buildings.

Table IV-29: Bradford County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	3.9	13.7	27.5	41.2	13.7	100.0	2	7	14	21	7	51
Commercial	7.3	11.2	28.6	49.1	3.7	100.0	33	51	130	223	17	454
Education	5.3	10.5	26.3	57.9	0.0	100.0	1	2	5	11	0	19
Government	8.7	8.7	26.1	56.5	0.0	100.0	2	2	6	13	0	23
Industrial	7.2	9.4	24.5	55.4	3.6	100.0	10	13	34	77	5	139
Religion	7.1	16.1	30.4	44.6	1.8	100.0	4	9	17	25	1	56
Residential	9.0	19.1	31.9	22.7	17.4	100.0	911	1,937	3,226	2,296	1,760	10,130
Total	8.9	18.6	31.6	24.5	16.5	100.0	963	2,021	3,432	2,666	1,790	10,872

Source: North Central Florida Regional Planning Council, 2011.

Table IV-30: Bradford County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	50.0	26.9	13.5	7.7	1.9	100.0	26	14	7	4	1	52
Commercial	54.2	23.6	17.4	4.6	0.2	100.0	246	107	79	21	1	454
Education	55.0	25	15.0	5.0	0.0	100.0	11	5	3	1	0	20
Government	56.5	21.7	17.4	4.4	0.0	100.0	13	5	4	1	0	23
Industrial	54.0	23.0	16.6	5.8	0.7	100.0	75	32	23	8	1	139
Religion	53.4	27.3	12.7	3.6	0.0	100.0	31	15	7	2	0	55
Residential	60.7	28.0	10.0	0.9	0.5	100.0	6,145	2,839	1,010	87	49	10,130
Total	60.2	27.8	10.4	1.1	0.5	100.0	6,547	3,017	1,133	124	52	10,873

Source: North Central Florida Regional Planning Council, 2011.

b. Bradford County - Direct Impacts - Employment

Tables IV-31 and IV-32 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-31, the County is anticipated experience a net loss (gains minus losses) of 4,497 jobs, or 41.1 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 976 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane. Basic industry categories identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-32, the County is anticipated experience a net loss of 512 jobs, or 4.7 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 288 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table VI-31: Bradford County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	2,487	(609)	(574)	(1,183)
Federal Government, Civilian	38	(505)	(18)	(523)
Federal Government, Military	131	0	(62)	(62)
Forestry, Fishing, Related Activities, and Other	225	(89)	(28)	(117)
Mining	31	0	(15)	(15)
Utilities	48	(7)	(17)	(24)
Construction	598	39	937	976
Manufacturing	455	0	(228)	(228)
Wholesale Trade	134	0	(63)	(63)
Retail Trade	1,345	(109)	(529)	(638)
Transportation and Warehousing	517	(78)	(180)	(258)
Information	80	0	(40)	(40)
Finance and Insurance	266	0	(126)	(126)
Real Estate and Rental and Leasing	412	0	(195)	(195)
Professional and Technical Services	378	0	(179)	(179)
Management of Companies and Enterprises	0	0	0	0
Administrative and Waste Services	465	0	(232)	(232)
Educational Services	89	0	(44)	(44)
Health Care and Social Assistance	1,017	0	(482)	(482)
Arts, Entertainment, and Recreation	104	0	(49)	(49)
Accommodation and Food Services	820	(25)	(364)	(389)
Other Services, except Public Administration	851	(98)	(305)	(403)
Farm	429	(142)	(81)	(223)
Total	10,920	(1,623)	(2,874)	(4,497)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-32: Bradford County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	2,487	(64)	(60)	(124)
Federal Government, Civilian	38	(53)	(2)	(55)
Federal Government, Military	131	0	(7)	(7)
Forestry, Fishing, Related Activities, and Other	225	(14)	(4)	(18)
Mining	31	0	(2)	(2)
Utilities	48	(1)	(2)	(3)
Construction	598	12	288	300
Manufacturing	455	0	(29)	(29)
Wholesale Trade	134	0	(7)	(7)
Retail Trade	1,345	(12)	(61)	(73)
Transportation and Warehousing	517	(10)	(23)	(33)
Information	80	0	(5)	(5)
Finance and Insurance	266	0	(14)	(14)
Real Estate and Rental and Leasing	412	0	(22)	(22)
Professional and Technical Services	378	0	(21)	(21)
Management of Companies and Enterprises	0	0	0	0
Administrative and Waste Services	465	0	(29)	(29)
Educational Services	89	0	(5)	(5)
Health Care and Social Assistance	1,017	0	(55)	(55)
Arts, Entertainment, and Recreation	104	(3)	(6)	(9)
Accommodation and Food Services	820	(11)	(42)	(53)
Other Services, except Public Administration	851	(22)	(35)	(57)
Farm	429	(178)	(13)	(191)
Total	10,920	(356)	(156)	(512)

Source: North Central Florida Regional Planning Council, 2011.

c. Bradford County - Direct Impacts - Population

Table IV-33 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 70,384 residents, or 28.6 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 4,195 residents, 1.7 percent of its population, as a result of the North Track hurricane.

Table IV-33: Bradford County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	5,569	(1,227)	(11)
Age 18 - 64	20,492	(4,445)	(40)
Age 65+, White Non-Hispanic	3,485	(756)	(7)
Age 65+, Black Non-Hispanic	419	(91)	(1)
Age 65+, Other Non-Hispanic	56	(12)	0
Age 65+, Hispanic	61	(13)	0
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	5,569	(627)	(89)
Age 18 - 64	20,492	(2,272)	(321)
Age 65+, White Non-Hispanic	3,485	0	0
Age 65+, Black Non-Hispanic	419	0	0
Age 65+, Other Non-Hispanic	56	0	0
Age 65+, Hispanic	61	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	5,569	(1,113)	(77)
Age 18 - 64	20,492	(4,030)	(278)
Age 65+, White Non-Hispanic	3,485	0	0
Age 65+, Black Non-Hispanic	419	0	0
Age 65+, Other Non-Hispanic	56	0	0
Age 65+, Hispanic	61	0	0
Total Population Change			
Age 0 - 17	5,569	(2,968)	(177)
Age 18 - 64	20,492	(10,747)	(639)
Age 65+, White Non-Hispanic	3,485	(756)	(7)
Age 65+, Black Non-Hispanic	419	(91)	(1)
Age 65+, Other Non-Hispanic	56	(12)	0
Age 65+, Hispanic	61	(13)	0
Total	30,172	(14,587)	(824)

Source: North Central Florida Regional Planning Council, 2011.

d. Bradford County - Direct Impacts - Hurricane Recovery Period

Tables IV-34 and IV-35 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-34, the 1,623 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2013. Similarly, Table IV-35 indicates that the 178 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2012.

Table IV-34: Bradford County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(609)	(401)	(372)	0	0	0	0
Federal Government, Civilian	(505)	(332)	(309)	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(89)	(59)	(54)	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	(7)	(4)	(4)	0	0	0	0
Construction	39	39	36	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(109)	(72)	(66)	0	0	0	0
Transportation and Warehousing	(78)	(51)	(48)	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(25)	(16)	(15)	0	0	0	0
Other Services, except Public Administration	(98)	(65)	(60)	0	0	0	0
Farm	(142)	(94)	(87)	0	0	0	0
Total	(1,623)	(1,055)	(979)	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-35: Bradford County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(64)	(14)	0	0	0	0	0
Federal Government, Civilian	(53)	(12)	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(14)	(3)	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	(1)	0	0	0	0	0	0
Construction	12	3	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(12)	(3)	0	0	0	0	0
Transportation and Warehousing	(10)	(2)	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(3)	(1)	0	0	0	0	0
Other Services, except Public Administration	(11)	(2)	0	0	0	0	0
Farm	(22)	(5)	0	0	0	0	0
	(178)	(39)	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-36 and IV-37 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-36, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2013. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 1,182 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-37, County population loss due to residential building damage from the North Track hurricane recovers in 2011. However, 10 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-36: Bradford County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(1,227)	(884)	(553)	(222)	(222)	(222)	(222)	(222)
Age 18 - 64	(4,445)	(3,202)	(2,002)	(803)	(803)	(803)	(803)	(803)
Age 65+, White Non-Hispanic	(756)	(544)	(341)	(137)	(137)	(137)	(137)	(137)
Age 65+, Black Non-Hispanic	(91)	(65)	(41)	(16)	(16)	(16)	(16)	(16)
Age 65+, Other Non-Hispanic	(12)	(9)	(5)	(2)	(2)	(2)	(2)	(2)
Age 65+, Hispanic	(13)	(10)	(6)	(2)	(2)	(2)	(2)	(2)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(627)	(392)	(345)	0	0	0	0	0
Age 18 - 64	(2,272)	(1,419)	(1,250)	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(1,113)	(1,113)	(1,113)	(1,113)	(1,113)	(1,113)	(1,113)	(1,113)
Age 18 - 64	(4,030)	(4,030)	(4,030)	(4,030)	(4,030)	(4,030)	(4,030)	(4,030)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(2,968)	579	378	676	0	0	0	0
Age 18 - 64	(10,747)	2,096	1,368	2,449	0	0	0	0
Age 65+, White Non-Hispanic	(756)	211	204	204	0	0	0	0
Age 65+, Black Non-Hispanic	(91)	25	25	25	0	0	0	0
Age 65+, Other Non-Hispanic	(12)	3	3	3	0	0	0	0
Age 65+, Hispanic	(13)	4	4	4	0	0	0	0
Total	(14,587)	2,918	1,982	3,361	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-37: Bradford County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(11)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Age 18 - 64	(40)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Age 65+, White Non-Hispanic	(7)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Age 65+, Black Non-Hispanic	(1)	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(89)	(18)	0	0	0	0	0	0
Age 18 - 64	(321)	(67)	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(77)	(77)	(77)	(77)	(77)	(77)	(77)	(77)
Age 18 - 64	(278)	(278)	(278)	(278)	(278)	(278)	(278)	(278)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(177)	79	18	0	0	0	0	0
Age 18 - 64	(639)	288	67	0	0	0	0	0
Age 65+, White Non-Hispanic	(7)	6	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	(1)	1	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total	(824)	374	85	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Bradford County - Total Impacts

a. Bradford County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-13. If no event were to occur, the estimated number of employees in the County is estimated to equal 10,918 in 2010. The South Track hurricane causes the loss of 7,854 jobs in the County, whereas the North Track hurricane results in the loss of County 713 jobs.

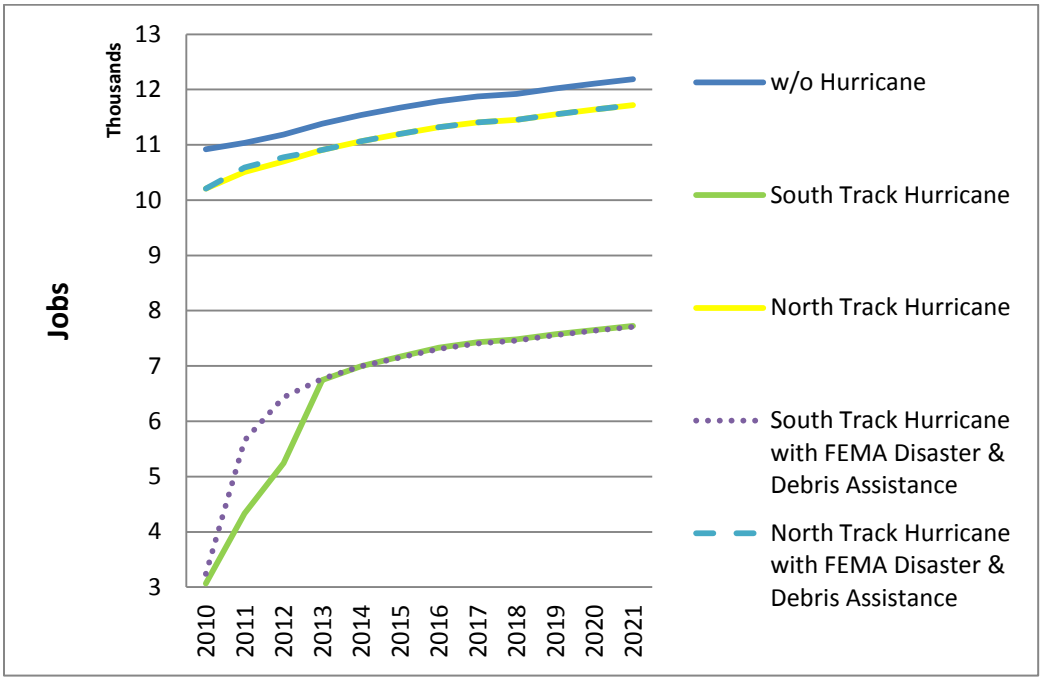
As previously noted, the direct impacts of the South Track hurricane account for a loss of 4,497 jobs in 2010, resulting in an additional 3,357 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 512, resulting in an additional 201 jobs lost as a result of indirect impacts.

The County returns to pre-hurricane levels of employment in 2013 following the North Track hurricane. H owever, the County does not return to pre-hurricane employment levels during the study period following the South Track hurricane. In 2021, County employment is projected to reach 7,722, which represents 70.7 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $123.5 million in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 1,192 jobs, a 22.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013.

For the North Track Hurricane, the Council estimates the County will receive approximately $10.4 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 75 jobs, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-13: Bradford County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Bradford County - Total Impacts - Population

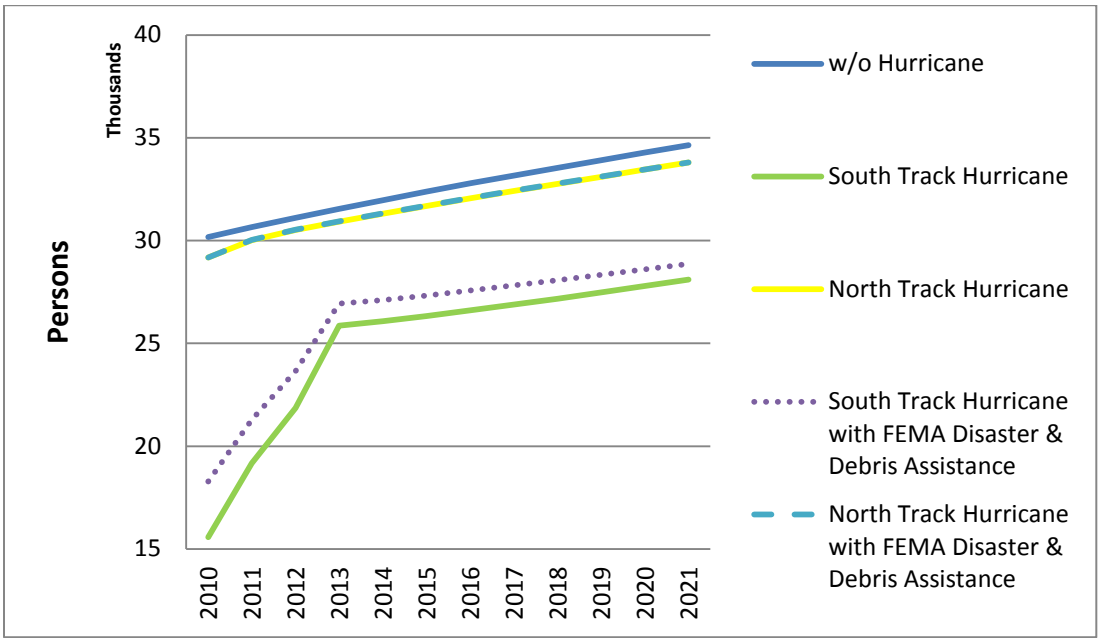
The total population impacts in the County are presented in Figure IV-14. If no event were to occur, the population of the County is estimated at 30,172 in 2010 and is projected to reach 34,674 in 2021. The South Track hurricane causes the loss of 14,598 residents in the County, whereas the North Track hurricane results in the loss of County 1,028 residents.

As previously noted, the direct impacts of the South Track hurricane account for a population loss of 14,587 in 2010, resulting in an additional 11 residents lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a population loss of 824, resulting in an additional 204 residents lost as a result of indirect impacts.

The County returns to pre-hurricane levels of population in 2012 following the North Track hurricane. However, for the South Track hurricane, the County does not return to pre-hurricane population levels during the study period. In 2021, County population following the South Track hurricane is projected to reach 28,098, which represents 93.1 percent of pre-hurricane population levels.

Federal Emergency Management Agency disaster and debris removal assistance funding was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 1,794 residents, an 8.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 773 residents, a 2.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane. For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 19 residents, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. B y 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of six residents, a percentage increase of less than 0.1 percent over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-14: Bradford County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

c. Bradford County - Total Impacts - County Gross Domestic Product

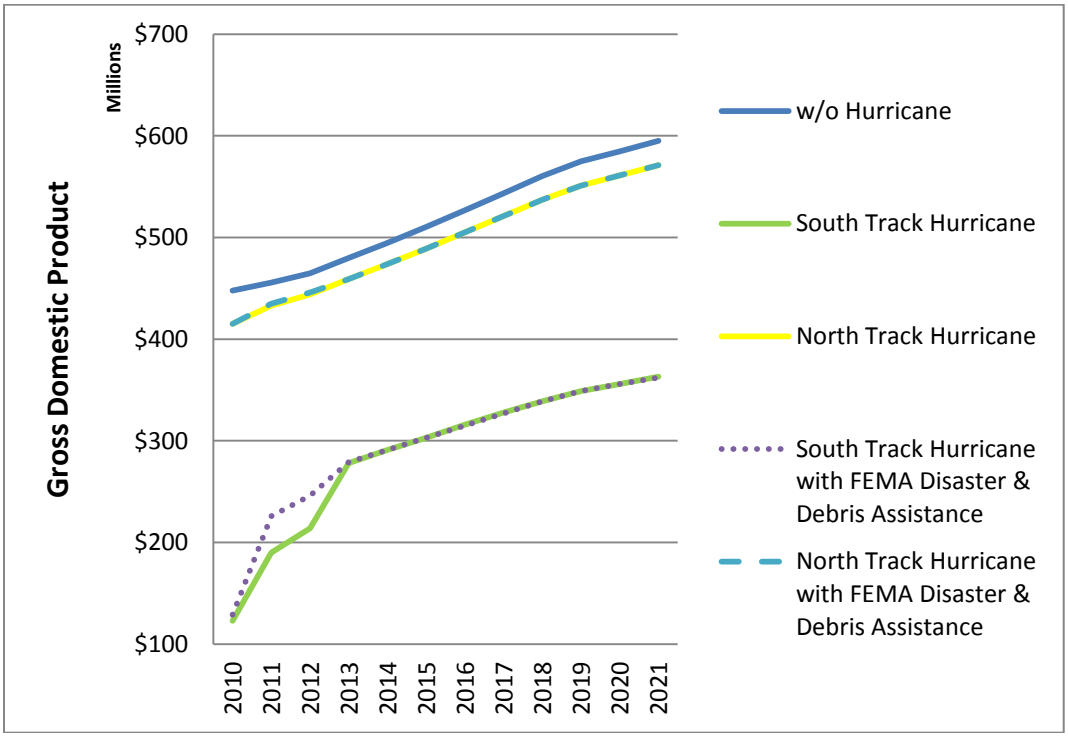
The total County gross domestic product impacts in the County are presented in Figure IV-15. If no event were to occur, the County gross domestic product is estimated at $447.8 million in 2010 and is projected to reach $594.9 million in 2021. The South Track hurricane causes the loss of $324.8 million in 2010 County gross domestic product, whereas the North Track hurricane results in the loss of $32.8 million.

The County returns to pre-hurricane levels of County gross domestic product in 2013 following the North Track hurricane. However, for the South Track hurricane, the County does not return to pre-hurricane levels of County gross domestic product during the study period. In 2021, County gross domestic product following the South Track hurricane is projected to reach $363.0 million, which represents 81.1 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. F or the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $32.0 million in County gross domestic product, a 15.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $2.0 million, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-15: Bradford County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Bradford County - Total Impacts - Combined Personal Income

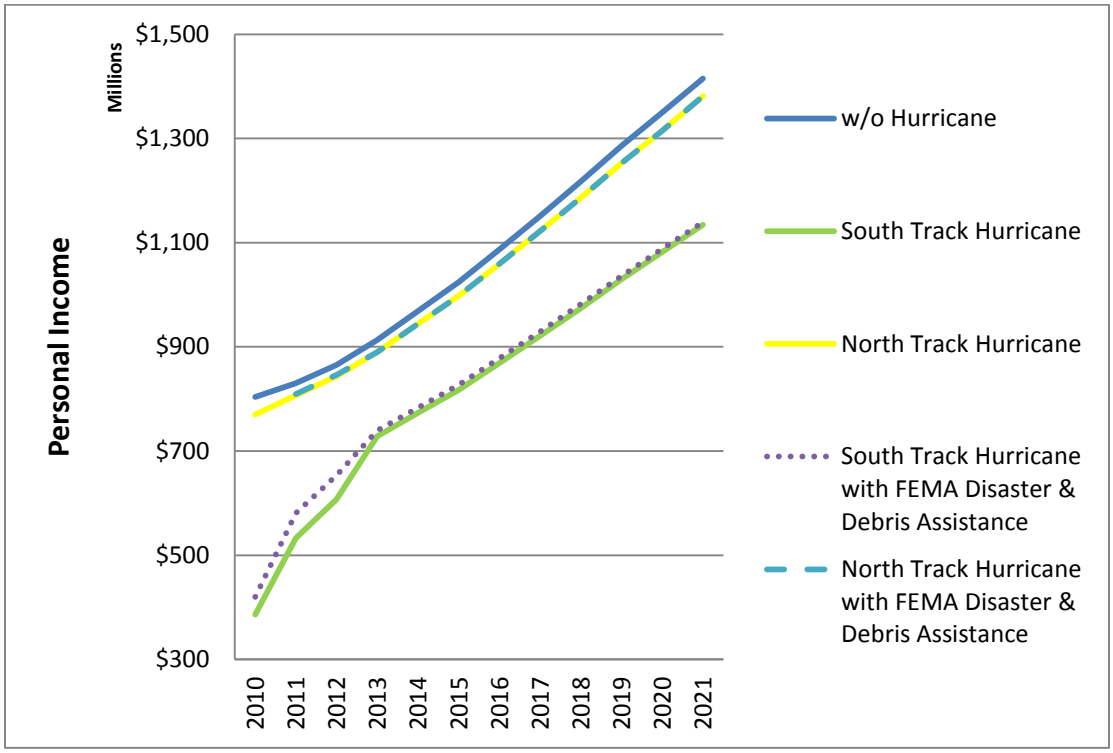
The total County combined personal income impacts in the County are presented in Figure IV-16. If no event were to occur, the County combined personal income is estimated at $803.6 million in 2010 and is projected to reach $1.42 billion in 2021. The South Track hurricane causes the loss of $417.6 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $33.6 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2016. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2011.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $46.0 million in County combined personal income, a 7.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period. By 2021, the net impact is $5.0 million, a 0.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $2.0 million to County combined personal income, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. Federal Emergency Management Agency assistance for the North Track hurricane has no net impact on County combined personal income by 2021.

Figure IV-16: Bradford County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

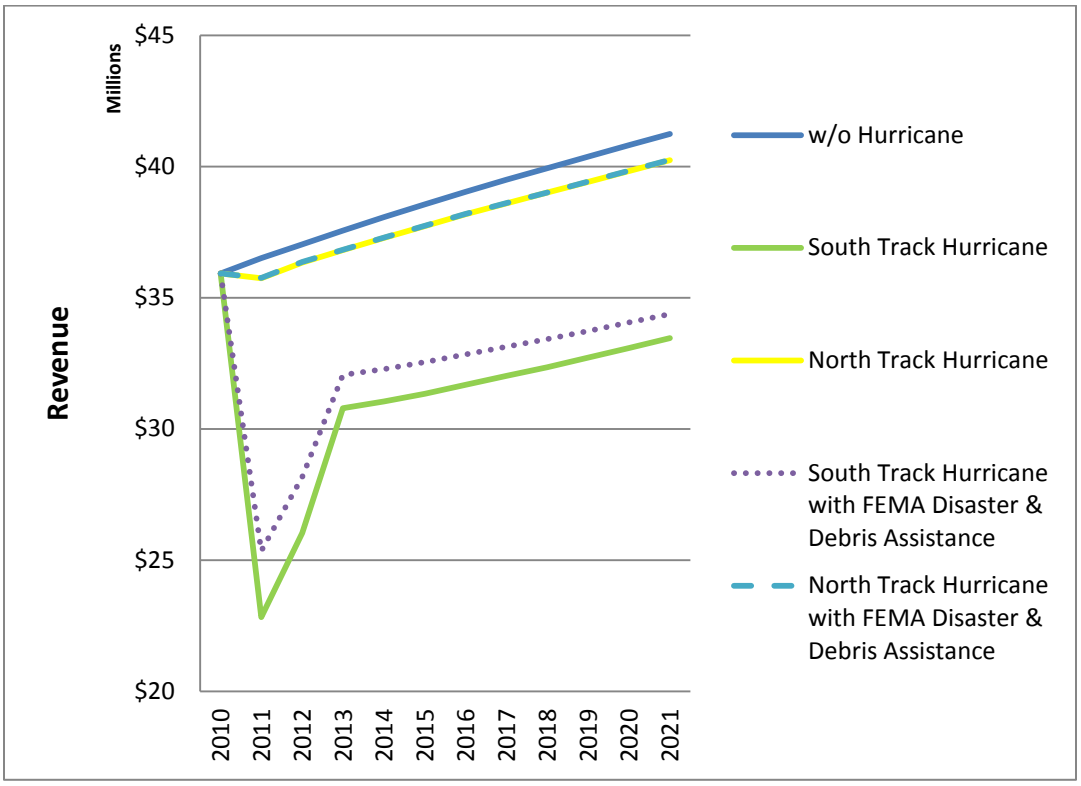
e. Bradford County - Total Impacts - County Government Revenue

County government revenue impacts in the County are presented in Figure IV-17. If no event were to occur, County government revenue is estimated at $36.5 million in 2011 and is projected to reach $41.2 million in 2021. The South Track hurricane causes the loss of $13.7 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $0.8 million.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $2.1 million in County government revenue, an 8.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County government revenue gradually decrease over the study period. By 2021, the net impact is approximately $0.9 million, a 2.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $22,000 in County government revenue, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $7,000, which is less a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-17: Bradford County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

F. Columbia County

1. Columbia County - Direct Impacts

a. Columbia County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Columbia County has an estimated capital stock value of $2.79 billion. The County is estimated to suffer a $0.86 billion capital stock loss, representing 30.0 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $0.52 billion capital stock loss, representing 18.6 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-38 and IV-39. An estimated 16.0 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 6.1 percent of all buildings are destroyed. For the South Track hurricane, an estimated 85.5 percent of all County buildings receive at least some damage. For the North Track hurricane, 75.2 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 92.2 percent for agriculture buildings to a low of 83.2 percent for religious buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranged from a high of 84.4 percent for education buildings to a low of 74.8 percent for residential buildings.

Table IV-38: Columbia County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
Use	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	11.8	17.7	27.5	31.4	11.8	100.0	6	9	14	16	6	51
Commercial	14.1	14.9	29.8	48.9	2.3	100.0	124	131	262	342	20	879
Education	12.1	12.1	27.3	48.5	0.0	100.0	4	4	9	16	0	33
Government	13.3	13.3	26.7	46.7	0.0	100.0	4	4	8	14	0	30
Industrial	15.2	13.9	26.2	41.8	2.9	100.0	37	34	64	102	7	244
Religion	16.8	20.6	29.0	32.7	0.9	100.0	18	22	31	35	1	107
Residential	16.6	20.6	27.8	18.2	16.8	100.0	3,965	4,293	6,643	4,344	4,010	23,885
Total	16.5	20.3	27.9	19.3	16.0	100.0	4,158	5,127	7,031	4,869	4,044	25,229

Source: North Central Florida Regional Planning Council, 2011.

Table IV-39: Columbia County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	15.7	27.5	29.4	21.6	5.9	100.0	8	14	15	11	3	51
Commercial	16.9	19.3	33.0	29.6	1.3	100.0	148	169	290	260	11	878
Education	15.6	18.8	31.3	34.4	0.0	100.0	5	6	10	11	0	32
Government	16.1	19.4	32.3	32.3	0.0	100.0	5	6	10	10	0	21
Industrial	16.5	17.3	29.6	33.7	2.9	100.0	40	42	72	82	7	243
Religion	17.8	26.2	31.8	24.3	0.0	100.0	19	28	34	26	0	107
Residential	25.2	30.1	28.6	9.8	6.4	100.0	6,023	7,186	6,826	2,331	1,520	23,886
Total	24.8	29.5	28.8	10.8	6.1	100.0	6,248	7,451	7,257	2,731	1,541	25,228

Source: North Central Florida Regional Planning Council, 2011.

b. Columbia County - Direct Impacts - Employment

Tables IV-40 and IV-41 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-40, the County is anticipated experience a net loss (gains minus losses) of 5,847 jobs, or 21.0 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 2,049 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane. Basic industry categories identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-41, the County is anticipated experience a net loss of 4,544 jobs, or 16.3 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 1,669 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-40: Columbia County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	4,736	(497)	(927)	(1,424)
Federal Government, Civilian	1,202	(218)	(143)	(361)
Federal Government, Military	143	0	(43)	(43)
Forestry, Fishing, Related Activities, and Other	188	(17)	(48)	(65)
Mining	0	0	0	0
Utilities	280	(58)	(27)	(85)
Construction	1,459	0	2,049	2,049
Manufacturing	1,911	0	(582)	(582)
Wholesale Trade	819	0	(239)	(239)
Retail Trade	3,415	(165)	(834)	(999)
Transportation and Warehousing	566	0	(172)	(172)
Information	240	0	(73)	(73)
Finance and Insurance	1,025	0	(300)	(300)
Real Estate and Rental and Leasing	826	0	(242)	(242)
Professional and Technical Services	762	0	(223)	(223)
Management of Companies and Enterprises	76	0	(22)	(22)
Administrative and Waste Services	1,748	(10)	(523)	(533)
Educational Services	181	0	(56)	(56)
Health Care and Social Assistance	3,327	(114)	(860)	(974)
Arts, Entertainment, and Recreation	182	0	(53)	(53)
Accommodation and Food Services	2,534	(168)	(574)	(742)
Other Services, except Public Administration	1,392	0	(407)	(407)
Farm	882	(162)	(139)	(301)
Total	27,894	(1,409)	(4,438)	(5,847)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-41: Columbia County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	4,736	(379)	(706)	(1,085)
Federal Government, Civilian	1,202	(166)	(109)	(275)
Federal Government, Military	143	0	(33)	(33)
Forestry, Fishing, Related Activities, and Other	188	(12)	(33)	(45)
Mining	0	0	0	0
Utilities	280	(49)	(23)	(72)
Construction	1,459	0	1,669	1,669
Manufacturing	1,911	0	(495)	(495)
Wholesale Trade	819	0	(188)	(188)
Retail Trade	3,415	(130)	(654)	(784)
Transportation and Warehousing	566	0	(147)	(147)
Information	240	0	(62)	(62)
Finance and Insurance	1,025	0	(235)	(235)
Real Estate and Rental and Leasing	826	0	(189)	(189)
Professional and Technical Services	762	0	(175)	(175)
Management of Companies and Enterprises	76	0	(17)	(17)
Administrative and Waste Services	1,748	(8)	(445)	(453)
Educational Services	181	0	(43)	(43)
Health Care and Social Assistance	3,327	(89)	(674)	(763)
Arts, Entertainment, and Recreation	182	0	(42)	(42)
Accommodation and Food Services	2,534	(131)	(450)	(581)
Other Services, except Public Administration	1,392	0	(319)	(319)
Farm	882	(115)	(95)	(210)
Total	27,894	(1,079)	(3,465)	(4,544)

Source: North Central Florida Regional Planning Council, 2011.

c. Columbia County - Direct Impacts - Population

Table IV-42 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 18,393 residents, 25.4 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 11,706 residents, 16.2 percent of its population, as a result of the North Track hurricane.

Table IV-42: Columbia County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	14,592	(1,479)	(645)
Age 18 - 64	46,286	(4,578)	(1,996)
Age 65+, White Non-Hispanic	9,512	(941)	(410)
Age 65+, Black Non-Hispanic	1,171	(116)	(50)
Age 65+, Other Non-Hispanic	233	(23)	(10)
Age 65+, Hispanic	277	(27)	(12)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	14,592	(663)	(498)
Age 18 - 64	46,286	(2,052)	(1,541)
Age 65+, White Non-Hispanic	9,512	0	0
Age 65+, Black Non-Hispanic	1,171	0	0
Age 65+, Other Non-Hispanic	233	0	0
Age 65+, Hispanic	277	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	14,592	(2,079)	(1,598)
Age 18 - 64	46,286	(6,435)	(4,946)
Age 65+, White Non-Hispanic	9,512	0	0
Age 65+, Black Non-Hispanic	1,171	0	0
Age 65+, Other Non-Hispanic	233	0	0
Age 65+, Hispanic	277	0	0
Total Population Change			
Age 0 - 17	14,592	(4,220)	(2,740)
Age 18 - 64	46,286	(13,065)	(8,483)
Age 65+, White Non-Hispanic	9,512	(941)	(410)
Age 65+, Black Non-Hispanic	1,171	(116)	(50)
Age 65+, Other Non-Hispanic	233	(23)	(10)
Age 65+, Hispanic	277	(27)	(12)
Total	72,071	(18,392)	(11,705)

Source: North Central Florida Regional Planning Council, 2011.

d. Columbia County - Direct Impacts - Hurricane Recovery Period

Tables IV-43 and IV-44 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-43, the 1,415 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2013. Similarly, Table IV-44 indicates that the 1,079 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2013.

Table IV-43: Columbia County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(497)	(314)	(225)	0	0	0	0
Federal Government, Civilian	(218)	(138)	(99)	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(17)	(11)	(8)	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	(58)	(37)	(26)	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(165)	(104)	(75)	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	(10)	(6)	(4)	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	(114)	(72)	(52)	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(168)	(106)	(76)	0	0	0	0
Other Services, except Public Administration	0	0	0	0	0	0	0
Farm	(168)	(106)	(76)	0	0	0	0
Total	(1,415)	(894)	(641)	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-44: Columbia County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(379)	(195)	(11)	0	0	0	0
Federal Government, Civilian	(166)	(85)	(5)	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(12)	(6)	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	(49)	(25)	(1)	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(130)	(67)	(4)	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	(8)	(4)	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	(89)	(46)	(3)	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(131)	(68)	(4)	0	0	0	0
Other Services, except Public Administration	0	0	0	0	0	0	0
Farm	(115)	(59)	(3)	0	0	0	0
Total	(1,079)	(555)	(31)	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-45 and IV-46 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-45, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2013. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 1,479 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-46, County population loss due to residential building damage from the North Track hurricane recovers in 2013. However, 655 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-45: Columbia County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 – 17	(1,479)	(1,047)	(676)	(305)	(305)	(305)	(305)	(305)
Age 18 – 64	(4,578)	(3,241)	(2,093)	(945)	(945)	(945)	(945)	(945)
Age 65+, White Non-Hispanic	(941)	(666)	(430)	(194)	(194)	(194)	(194)	(194)
Age 65+, Black Non-Hispanic	(116)	(82)	(53)	(24)	(24)	(24)	(24)	(24)
Age 65+, Other Non-Hispanic	(23)	(16)	(11)	(5)	(5)	(5)	(5)	(5)
Age 65+, Hispanic	(27)	(19)	(13)	(6)	(6)	(6)	(6)	(6)
Population Change Due to Basic Industry Job Loss								
Age 0 – 17	(663)	(406)	(283)	0	0	0	0	0
Age 18 – 64	(2,052)	(1,258)	(876)	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 – 17	(2,079)	(2,079)	(2,079)	(2,079)	(2,079)	(2,079)	(2,079)	(2,079)
Age 18 – 64	(6,435)	(6,435)	(6,435)	(6,435)	(6,435)	(6,435)	(6,435)	(6,435)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 – 17	(4,220)	688	494	654	0	0	0	0
Age 18 – 64	(13,065)	2,130	1,530	2,024	0	0	0	0
Age 65+, White Non-Hispanic	(941)	275	236	236	0	0	0	0
Age 65+, Black Non-Hispanic	(116)	34	29	29	0	0	0	0
Age 65+, Other Non-Hispanic	(23)	7	6	6	0	0	0	0
Age 65+, Hispanic	(27)	8	7	7	0	0	0	0
Total	(18,392)	3,142	2,302	2,956	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-46: Columbia County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 – 17	(645)	(397)	(190)	(135)	(135)	(135)	(135)	(135)
Age 18 – 64	(1,996)	(1,230)	(588)	(418)	(418)	(418)	(418)	(418)
Age 65+, White Non-Hispanic	(410)	(253)	(121)	(86)	(86)	(86)	(86)	(86)
Age 65+, Black Non-Hispanic	(50)	(31)	(15)	(11)	(11)	(11)	(11)	(11)
Age 65+, Other Non-Hispanic	(10)	(6)	(3)	(2)	(2)	(2)	(2)	(2)
Age 65+, Hispanic	(12)	(7)	(4)	(3)	(3)	(3)	(3)	(3)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(498)	(248)	(14)	0	0	0	0	0
Age 18 - 64	(1,541)	(769)	(44)	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(1,598)	(1,598)	(1,598)	(1,598)	(1,598)	(1,598)	(1,598)	(1,598)
Age 18 - 64	(4,946)	(4,946)	(4,946)	(4,946)	(4,946)	(4,946)	(4,946)	(4,946)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(2,740)	497	441	69	0	0	0	0
Age 18 - 64	(8,483)	1,538	1,367	214	0	0	0	0
Age 65+, White Non-Hispanic	(410)	157	132	35	0	0	0	0
Age 65+, Black Non-Hispanic	(50)	19	16	4	0	0	0	0
Age 65+, Other Non-Hispanic	(10)	4	3	1	0	0	0	0
Age 65+, Hispanic	(12)	5	4	1	0	0	0	0
Total	(11,705)	2,220	1,963	324	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Columbia County - Total Impacts

a. Columbia County - Total Impacts - Employment

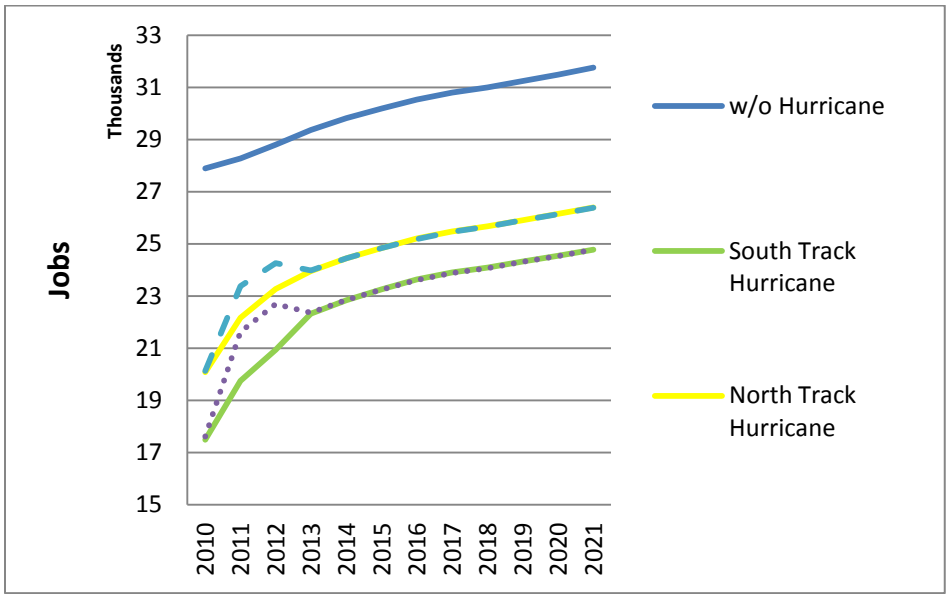
The total employment impacts in the County are presented in Figure IV-18. If no event were to occur, the estimated number of employees in the County is estimated to equal 27,891 in 2010. The South Track hurricane causes the loss of 10,396 jobs in the County, whereas the North Track hurricane results in the loss of County 7,809 jobs.

As previously noted, the direct impacts of the South Track hurricane account for a loss of 5,847 jobs in 2010, resulting in an additional 4,522 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 4,544, resulting in an additional 3,265 jobs lost as a result of indirect impacts.

The County does not return to pre-hurricane levels of employment for either hurricane during the study period. For the South Track hurricane, 2021 County employment is 24,782, which represents 88.9 percent of pre-hurricane employment. For the North Track hurricane, 2021 employment is 26,394, representing 94.6 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $257.1 million in Federal Emergency Management Agency disaster and debris assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 1,888 jobs, a 9.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013. For the North Track Hurricane, the Council estimates the County will receive approximately $168.8 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 1,216 jobs, a 5.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-18: Columbia County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Columbia County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-19. If no event were to occur, the population of the County is estimated at 72,429 in 2010 and is projected to reach 87,215 in 2021. The South Track hurricane causes the loss of 22,090 residents in the County, whereas the North Track hurricane results in the loss of County 14,099 residents.

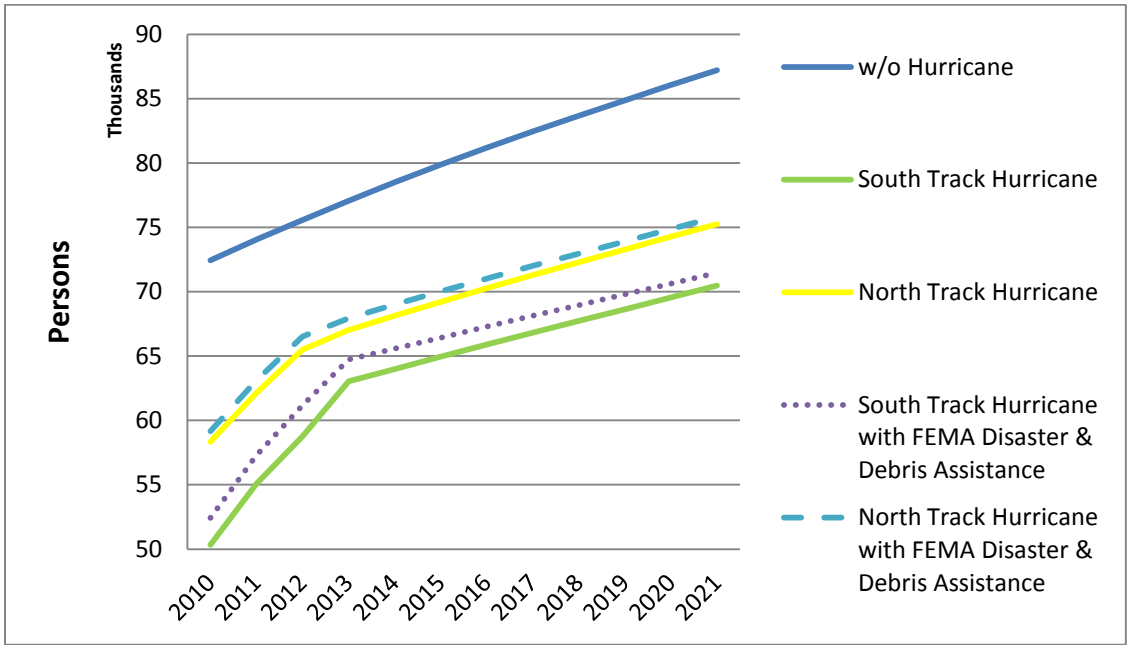
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 18,393 in 2010, resulting in an additional 3,697 residents lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a population loss of 11,706, resulting in an additional 2,393 residents lost as a result of indirect impacts.

The County returns to pre-hurricane levels of population in 2012 following the North Track hurricane. However, for the South Track hurricane, the County does not return to pre-hurricane population levels during the study period. In 2021, County population following the South Track hurricane is projected to reach 70,462, which represents 97.3 percent of pre-hurricane population levels.

Federal Emergency Management Agency disaster and debris removal assistance funding was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 2,192 residents, a 4.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane.

By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 1,010 residents, a 1.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane. For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 956 residents, a 1.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 561 residents, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-19: Columbia County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

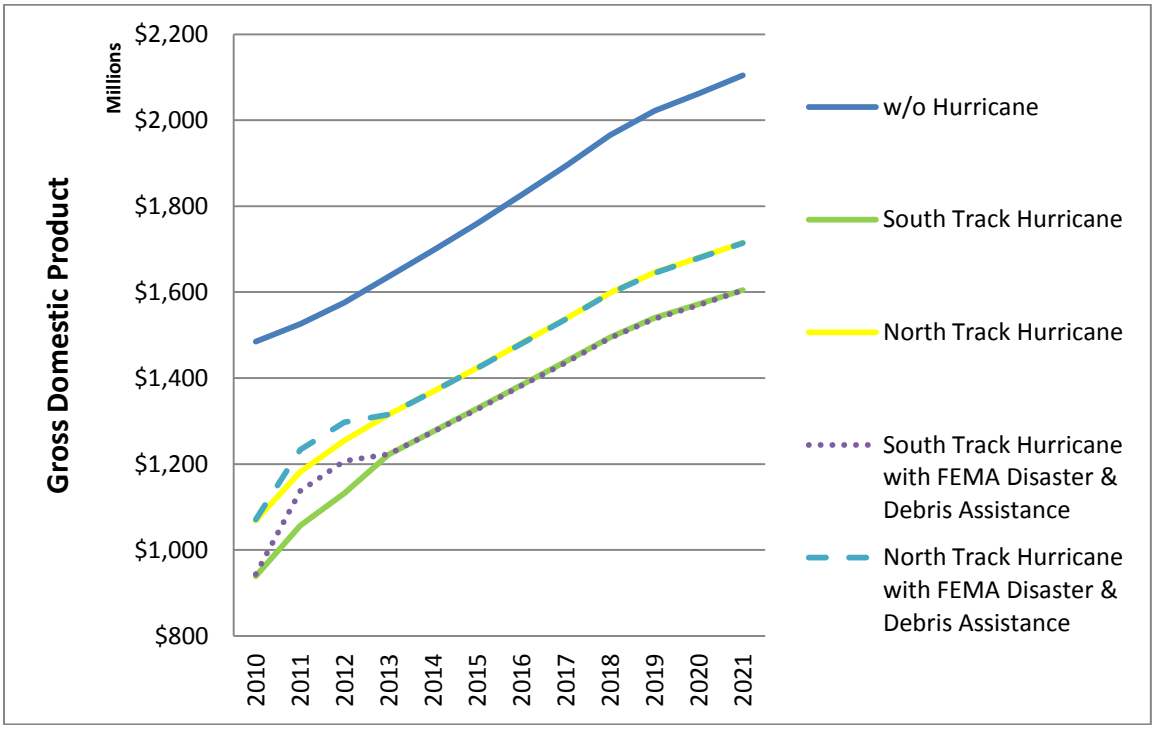
c. Columbia County - Total Impacts - County Gross Domestic Product

The total County gross domestic product impacts in the County are presented in Figure IV-20. If no event were to occur, the County gross domestic product is estimated at $1.49 billion in 2010 and is projected to reach $2.10 billion in 2021. The South Track hurricane causes the loss of $0.55 billion in 2010 County gross domestic product, whereas the North Track hurricane results in the loss of $1.07 billion.

The County returns to pre-hurricane levels of County gross domestic product for both hurricanes. For the South Track hurricane, County gross domestic product returns to pre-hurricane levels in 2018. For the North Track hurricane, County gross domestic product returns to pre-hurricane levels in 2017.

Federal Emergency Management Agency assistance funding was analyzed for impacts on County gross domestic product. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $80.0 million in County gross domestic product, a 7.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $51.0 million, a 4.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-20: Columbia County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Columbia County - Total Impacts - Combined Personal Income

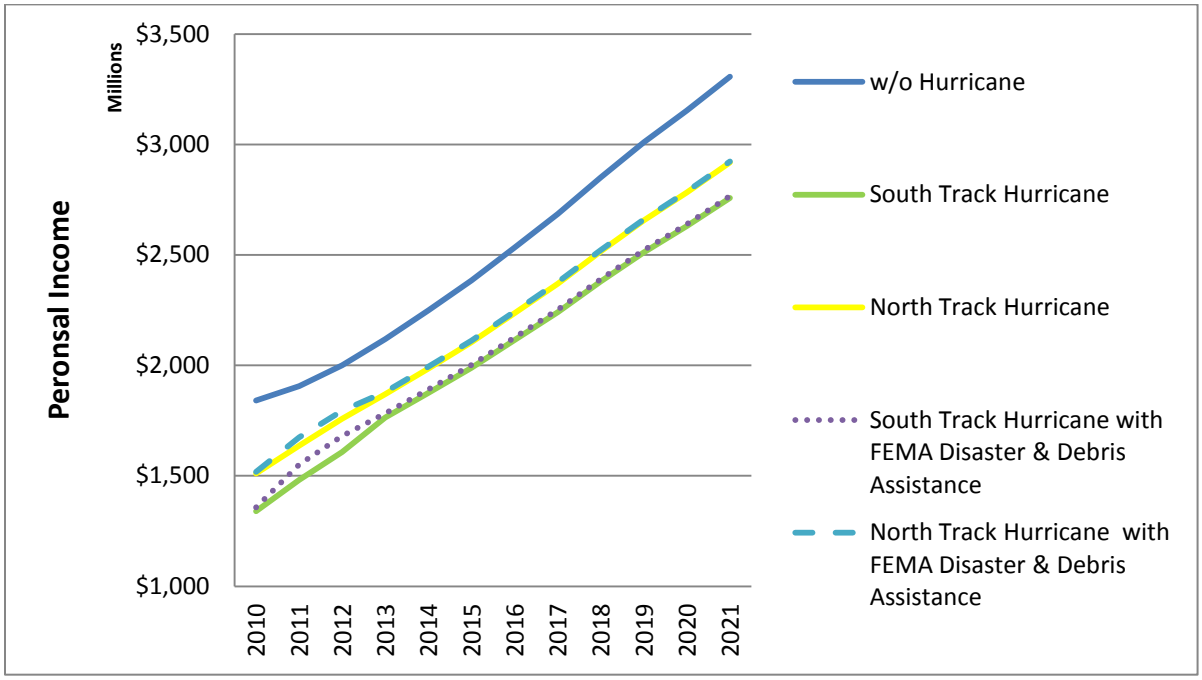
The total County combined personal income impacts in the County are presented in Figure IV-21. If no event were to occur, the County combined personal income is estimated at $1.84 billion in 2010 and is projected to reach $3.31 billion in 2021. The South Track hurricane causes the loss of $501.0 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $330.0 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2018. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2013.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $70.0 million in County combined personal income, a 4.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period.

By 2021, the net impact is $8.0 million, a 0.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $38.0 million to County combined personal income, a 2.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is $5.0 million, which is a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-21: Columbia County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Columbia County - Total Impacts - County Government Revenue

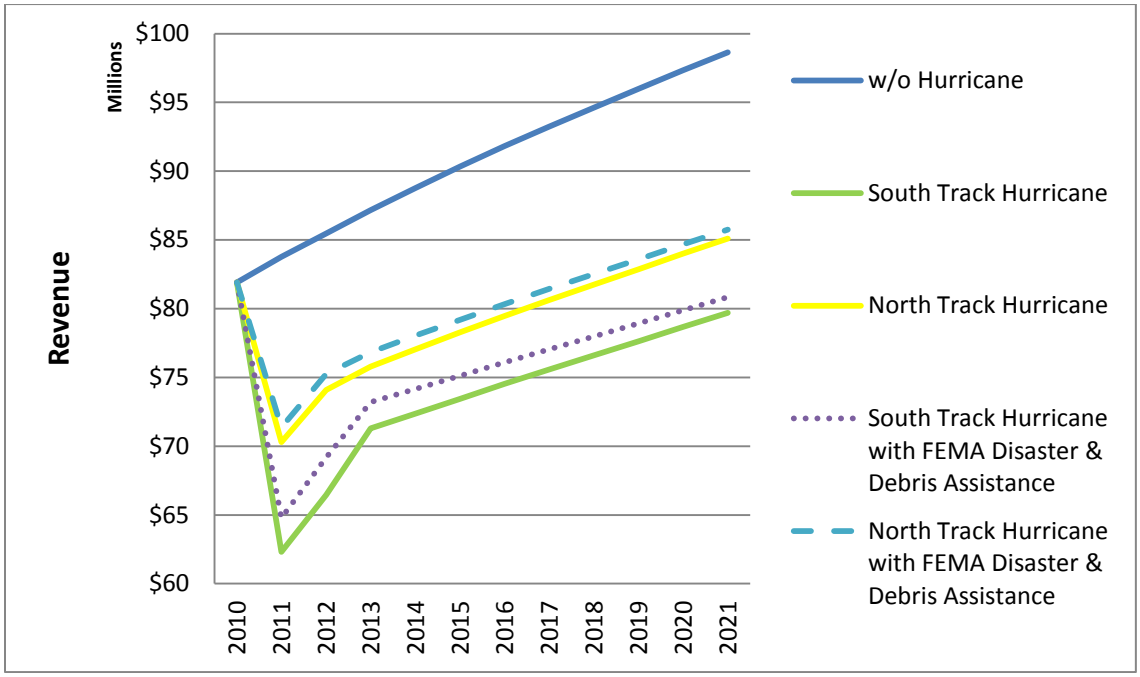
County government revenue impacts in the County are presented in Figure IV-22. If no event were to occur, County government revenue is estimated at $83.8 million in 2011 and is projected to reach $98.6 million in 2021. The South Track hurricane causes the loss of $21.5 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $13.5 million.

The County returns to pre-hurricane levels of County government revenue in 2019 for the North Track Hurricane. However, for the South Track hurricane, County government revenue does not return to pre-hurricane levels during the study period. In 2021, County government revenue following the South Track hurricane is projected to reach $79.7 million, which represents 97.3 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $2.5 million in County government revenue, a 4.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts gradually decrease over the study period. By 2021, the net impact is approximately $1.1 million, a 1.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $1.0 million in County government revenue, a 1.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $634,000, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-22: Columbia County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

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G. Dixie County

1. Dixie County - Direct Impacts

a. Dixie County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Dixie County has an estimated capital stock value of $0.57 billion. The County is estimated to suffer a $0.47 billion capital stock loss, representing 81.1 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $0.11 billion capital stock loss, representing 19.6 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-47 and IV-48. An estimated 64.4 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 7.5 percent of all buildings are destroyed. For the South Track hurricane, an estimated 99.7 percent of all County buildings receive at least some damage. For the North Track hurricane, 71.1 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 100.0 percent for agriculture, education, government, industrial, and religion buildings to a low of 99.7 percent for residential buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 88.9 percent for education and government buildings to a low of 70.8 percent for residential buildings.

Table IV-47: Dixie County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	0.0	0.0	11.1	55.6	33.3	100.0	0	0	1	5	3	9
Commercial	0.9	0.9	6.1	71.1	21.1	100.0	1	1	7	81	24	114
Education	0.0	0.0	11.1	77.8	11.1	100.0	0	0	1	7	1	9
Government	0.0	0.0	0.0	88.9	11.1	100.0	0	0	0	8	1	9
Industrial	0.0	0.0	5.3	79.0	15.8	100.0	0	0	2	30	6	38
Religion	0.0	0.0	7.7	77.0	15.4	100.0	0	0	1	10	2	13
Residential	0.3	1.7	8.9	23.6	65.5	100.0	24	132	686	1,929	5,078	7,749
Total	0.3	1.7	8.8	24.8	64.4	100.0	25	133	698	1,970	5,115	7,941

Source: North Central Florida Regional Planning Council, 2011.

Table IV-48: Dixie County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	20.0	30.0	20.0	20.0	10.0	100.0	2	3	2	2	1	10
Commercial	17.5	18.4	31.6	30.7	1.8	100.0	20	21	36	35	2	114
Education	11.1	22.2	33.3	33.3	0.0	100.0	1	2	3	3	0	9
Government	11.1	22.2	33.3	33.3	0.0	100.0	1	2	3	3	0	9
Industrial	15.4	18.0	28.2	33.3	5.1	100.0	6	7	11	13	2	39
Religion	16.7	25.0	33.3	25.0	0.0	100.0	2	3	4	3	0	12
Residential	29.2	27.8	26.6	8.8	7.7	100.0	2,265	2,150	2,063	678	593	7,749
Total	28.9	27.6	26.7	9.3	7.5	100.0	2,297	2,188	2,122	837	598	7,942

Source: North Central Florida Regional Planning Council, 2011.

b. Dixie County - Direct Impacts - Employment

Tables IV-49 and IV-50 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-49, the County is anticipated experience a net loss (gains minus losses) of 1,394 jobs, or 31.8 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 580 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane.

Basic industry categories which are identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-50, the County is anticipated experience a net loss of 4,544 jobs, or 16.3 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 1,669 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-49: Dixie County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	955	(211)	(218)	(429)
Federal Government, Civilian	16	0	(7)	(7)
Federal Government, Military	31	0	(14)	(14)
Forestry, Fishing, Related Activities, and Other	287	(148)	(12)	(160)
Mining	0	0	0	0
Utilities	13	0	(6)	(6)
Construction	300	134	447	580
Manufacturing	394	(35)	(148)	(183)
Wholesale Trade	81	0	(39)	(39)
Retail Trade	455	(4)	(219)	(223)
Transportation and Warehousing	184	(18)	(67)	(85)
Information	12	0	(5)	(5)
Finance and Insurance	68	0	(33)	(33)
Real Estate and Rental and Leasing	251	(23)	(100)	(123)
Professional and Technical Services	110	0	(54)	(54)
Management of Companies and Enterprises	4	0	(2)	(2)
Administrative and Waste Services	110	0	(51)	(51)
Educational Services	21	0	(9)	(9)
Health Care and Social Assistance	236	0	(115)	(115)
Arts, Entertainment, and Recreation	38	(2)	(19)	(21)
Accommodation and Food Services	299	0	(146)	(146)
Other Services, except Public Administration	308	(24)	(127)	(151)
Farm	212	(84)	(35)	(119)
Total	4,385	(415)	(979)	(1,394)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-50: Dixie County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	955	(174)	(180)	(354)
Federal Government, Civilian	16	0	(6)	(6)
Federal Government, Military	31	0	(11)	(11)
Forestry, Fishing, Related Activities, and Other	287	(95)	(8)	(103)
Mining	0	0	0	0
Utilities	13	0	(5)	(5)
Construction	300	83	278	361
Manufacturing	394	(30)	(126)	(156)
Wholesale Trade	81	0	(29)	(29)
Retail Trade	455	(3)	(160)	(163)
Transportation and Warehousing	184	(15)	(57)	(72)
Information	12	0	(5)	(5)
Finance and Insurance	68	0	(24)	(24)
Real Estate and Rental and Leasing	251	(17)	(74)	(91)
Professional and Technical Services	110	0	(40)	(40)
Management of Companies and Enterprises	4	0	(1)	(1)
Administrative and Waste Services	110	0	(44)	(44)
Educational Services	21	0	(8)	(8)
Health Care and Social Assistance	236	0	(84)	(84)
Arts, Entertainment, and Recreation	38	0	(14)	(14)
Accommodation and Food Services	299	0	(107)	(107)
Other Services, except Public Administration	308	(18)	(93)	(111)
Farm	212	(53)	(22)	(75)
Total	4,385	(322)	(820)	(1,142)

Source: North Central Florida Regional Planning Council, 2011.

c. Dixie County - Direct Impacts - Population

Table IV-51 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 8,910 residents, 59.2 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 3,940 residents, 26.2 percent of its population, as a result of the North Track hurricane.

Table IV-51: Dixie County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	2,709	(986)	(274)
Age 18 - 64	9,306	(3,388)	(940)
Age 65+, White Non-Hispanic	2,862	(1,042)	(289)
Age 65+, Black Non-Hispanic	101	(37)	(10)
Age 65+, Other Non-Hispanic	41	(15)	(4)
Age 65+, Hispanic	31	(11)	(3)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	2,709	(229)	(154)
Age 18 - 64	9,306	(788)	(528)
Age 65+, White Non-Hispanic	2,862	0	0
Age 65+, Black Non-Hispanic	101	0	0
Age 65+, Other Non-Hispanic	41	0	0
Age 65+, Hispanic	31	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	2,709	(544)	(392)
Age 18 - 64	9,306	(1,870)	(1,347)
Age 65+, White Non-Hispanic	2,862	0	0
Age 65+, Black Non-Hispanic	101	0	0
Age 65+, Other Non-Hispanic	41	0	0
Age 65+, Hispanic	31	0	0
Total Population Change			
Age 0 - 17	2,709	(1,760)	(819)
Age 18 - 64	9,306	(6,045)	(2,814)
Age 65+, White Non-Hispanic	2,862	(1,042)	(289)
Age 65+, Black Non-Hispanic	101	(37)	(10)
Age 65+, Other Non-Hispanic	41	(15)	(4)
Age 65+, Hispanic	31	(11)	(3)
Total	15,050	(8,910)	(3,940)

Source: North Central Florida Regional Planning Council, 2011.

d. Dixie County - Direct Impacts - Hurricane Recovery Period

Tables IV-52 and IV-53 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-52, the 413 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2016. Similarly, Table IV-53 indicates that the 322 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2012.

Table IV-52: Dixie County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(211)	(170)	(129)	(97)	(72)	(12)	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(148)	(120)	(91)	(68)	(50)	(9)	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	134	134	134	134	134	23	0
Manufacturing	(35)	(29)	(22)	(16)	(12)	(2)	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(4)	(3)	(2)	(2)	(1)	0	0
Transportation and Warehousing	(18)	(15)	(11)	(8)	(6)	(1)	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	(23)	(18)	(14)	(10)	(8)	(1)	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(24)	(20)	(15)	(11)	(8)	(1)	0
Farm	(84)	(67)	(51)	(38)	(28)	(5)	0
Total	(413)	(308)	201	(116)	(51)	(8)	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-53: Dixie County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(174)	(87)	(1)	0	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(95)	(47)	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	83	83	1	0	0	0	0
Manufacturing	(30)	(15)	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(3)	(1)	0	0	0	0	0
Transportation and Warehousing	(15)	(8)	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	(17)	(8)	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(18)	(9)	0	0	0	0	0
Farm	(53)	(27)	0	0	0	0	0
Total	(322)	(119)	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-54 and IV-55 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-54, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2016. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 1,689 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-55, County population loss due to residential building damage from the North Track hurricane recovers in 2013. However, 468 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-54: Dixie County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(986)	(854)	(722)	(591)	(459)	(382)	(304)	(304)
Age 18 - 64	(3,388)	(2,935)	(2,482)	(2,029)	(1,576)	(1,311)	(1,045)	(1,045)
Age 65+, White Non-Hispanic	(1,042)	(903)	(763)	(624)	(485)	(403)	(321)	(321)
Age 65+, Black Non-Hispanic	(37)	(32)	(27)	(22)	(17)	(14)	(11)	(11)
Age 65+, Other Non-Hispanic	(15)	(13)	(11)	(9)	(7)	(6)	(5)	(5)
Age 65+, Hispanic	(11)	(10)	(8)	(7)	(5)	(4)	(3)	(3)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(229)	(180)	(132)	(86)	(40)	(7)	0	0
Age 18 - 64	(788)	(619)	(455)	(295)	(139)	(24)	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(544)	(544)	(544)	(544)	(544)	(544)	(544)	(544)
Age 18 - 64	(1,870)	(1,870)	(1,870)	(1,870)	(1,870)	(1,870)	(1,870)	(1,870)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(1,760)	181	180	178	177	111	84	0
Age 18 - 64	(6,054)	621	617	613	609	381	289	0
Age 65+, White Non-Hispanic	(1,042)	139	139	139	139	82	82	0
Age 65+, Black Non-Hispanic	(37)	5	5	5	5	3	3	0
Age 65+, Other Non-Hispanic	(15)	2	2	2	2	1	1	0
Age 65+, Hispanic	(11)	2	2	2	2	1	1	0
Total	(8,919)	950	945	939	934	579	460	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-55: Dixie County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(274)	(179)	(112)	(84)	(84)	(84)	(84)	(84)
Age 18 - 64	(940)	(616)	(384)	(290)	(290)	(290)	(290)	(290)
Age 65+, White Non-Hispanic	(289)	(189)	(118)	(89)	(89)	(89)	(89)	(89)
Age 65+, Black Non-Hispanic	(10)	(7)	(4)	(3)	(3)	(3)	(3)	(3)
Age 65+, Other Non-Hispanic	(4)	(3)	(2)	(1)	(1)	(1)	(1)	(1)
Age 65+, Hispanic	(3)	(2)	(1)	(1)	(1)	(1)	(1)	(1)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(154)	(75)	0	0	0	0	0	0
Age 18 - 64	(528)	(258)	(2)	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(392)	(392)	(392)	(392)	(392)	(392)	(392)	(392)
Age 18 - 64	(1,347)	(1,347)	(1,347)	(1,347)	(1,347)	(1,347)	(1,347)	(1,347)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(819)	173	142	28	0	0	0	0
Age 18 - 64	(2,814)	594	488	96	0	0	0	0
Age 65+, White Non-Hispanic	(289)	100	71	29	0	0	0	0
Age 65+, Black Non-Hispanic	(10)	4	3	1	0	0	0	0
Age 65+, Other Non-Hispanic	(4)	1	1	0	0	0	0	0
Age 65+, Hispanic	(3)	1	1	0	0	0	0	0
Total	(3,939)	872	706	154	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Dixie County - Total Impacts

a. Dixie County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-23. If no event were to occur, the estimated number of employees in the County is estimated to equal 4,384 in 2010. The South Track hurricane causes the loss of 2,553 jobs in the County, whereas the North Track hurricane results in the loss of County 1,745 jobs.

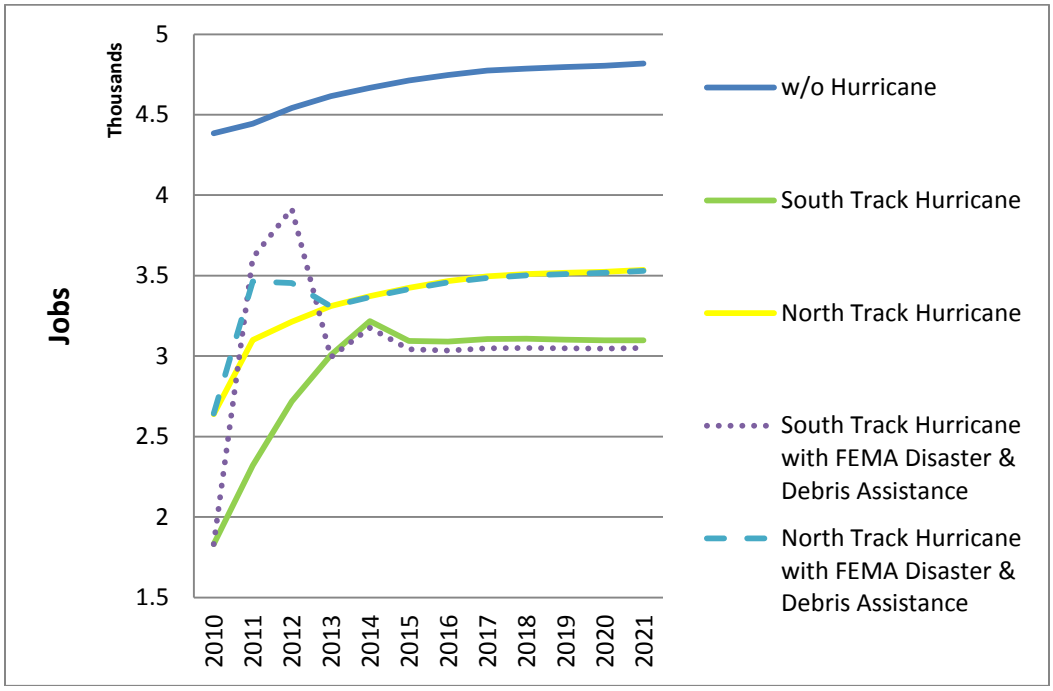
As previously noted, the direct impacts of the South Track hurricane account for a loss of 1,394 jobs in 2010, resulting in an additional 1,159 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 2,934, resulting in an additional 502 jobs lost as a result of indirect impacts.

The County does not return to pre-hurricane levels of employment for either hurricane during the study period. For the South Track hurricane, 2021 County employment is 3,098, which represents 70.7 percent of pre-hurricane employment. For the North Track hurricane, 2021 employment is 3,535, representing 80.6 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $141.9 million in Federal Emergency Management Agency assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 1,197 jobs, a 44.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, by 2021 the impacts of Federal Emergency Management Agency assistance result in a net decrease of 47 jobs, a 1.5 percent decrease over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, the Council estimates the County will receive approximately $38.4 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 364 jobs, a 11.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, by 2021 the impacts of Federal Emergency Management Agency assistance result in a net decrease of 6 jobs, a 0.2 percent decrease over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-23: Dixie County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Dixie County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-24. If no event were to occur, the population of the County is estimated at 15,050 in 2010 and is projected to reach 16,369 in 2021. The South Track hurricane causes the loss of 8,255 residents in the County, whereas the North Track hurricane results in the loss of County 4,450 residents.

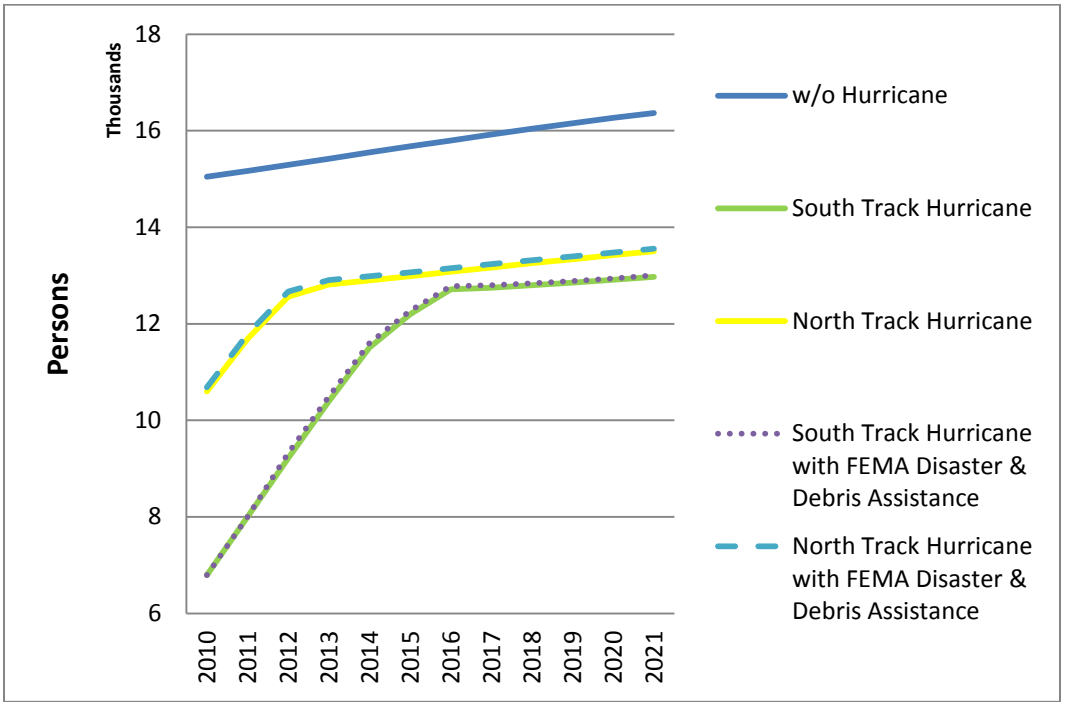
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 8,910 in 2010, resulting in a population gain of 655 residents as a result of indirect impacts. The direct impacts of the North Track hurricane account for a population loss of 3,940, resulting in an additional 510 residents lost as a result of indirect impacts.

The County does not return to pre-hurricane levels of population in the aftermath of either hurricane during the study period. In 2021, County population following the South Track hurricane is projected to reach 12,975, which represents 86.2 percent of pre-hurricane population levels. County population following the North Track hurricane is projected to reach 13,502 in 2021, which represents 89.7 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 107 residents, a 1.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 28 residents, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 106 residents, a 0.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 53 residents, a 0.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-24: Dixie County - Total Impacts -Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

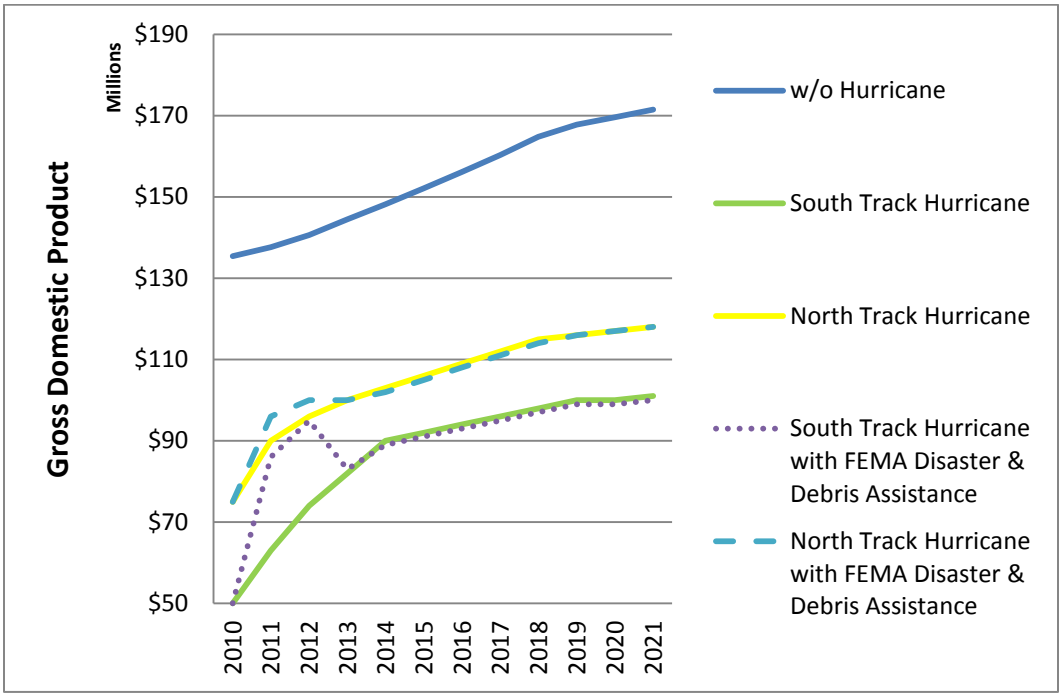
c. Dixie County - Total Impacts - County Gross Domestic Product

The total County gross domestic product impacts in the County are presented in Figure IV-25. If no event were to occur, the County gross domestic product is estimated at $135.4 million in 2010 and is projected to reach $171.5 million in 2021. The South Track hurricane causes the loss of $85.4 million in 2010 County gross domestic product, whereas the North Track hurricane results in the loss of $60.4 million.

The County does not return to pre-hurricane levels of County gross domestic product for either hurricane during the study period. For the South Track hurricane, the County gross domestic product is estimated to reach $100.0 million in 2021, which represents 74.6 percent of pre-hurricane levels. For the North Track hurricane, the County gross domestic product is estimated to reach $118.0 million in 2021, which represents 87.1 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. F or the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $21.0 million in County gross domestic product, a 28.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $4.0 million, a 4.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-25: Dixie County - Total Impacts -County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Dixie County - Total Impacts - Combined Personal Income

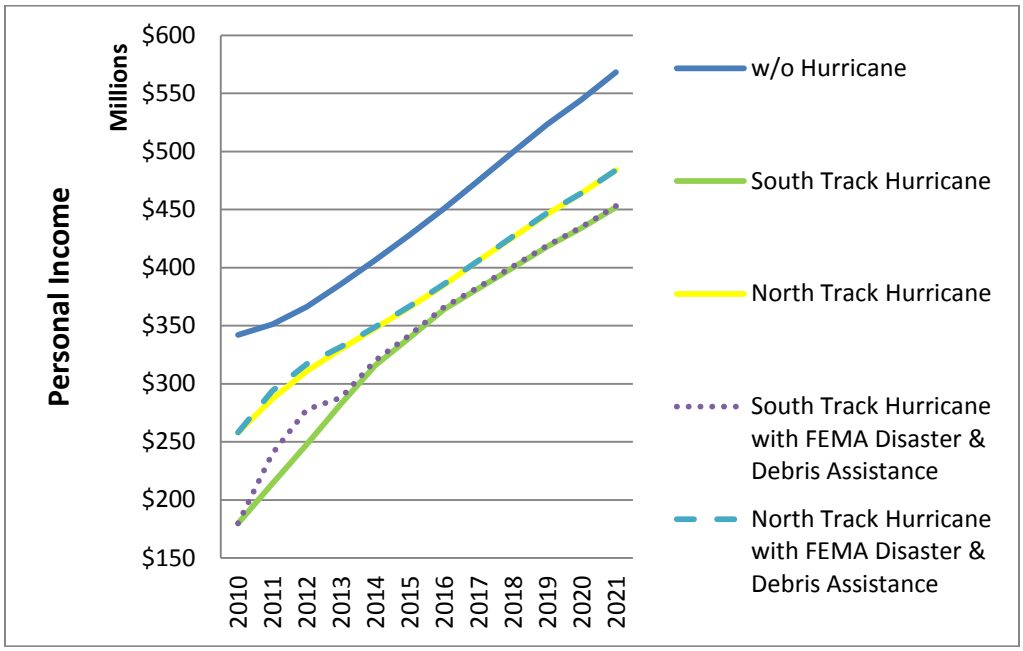
The total County combined personal income impacts in the County are presented in Figure IV-26. If no event were to occur, the County combined personal income is estimated at $340 million in 2010 and is projected to reach $570 million in 2021. The South Track hurricane causes the loss of $160 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $80 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2016. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2014.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $30.0 million in County combined personal income, a 12.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period. By 2021, the net impact is $1.0 million, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $6.0 million to County combined personal income, a 1.9 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. Federal Emergency Management Agency assistance for the North Track hurricane has no net impact on County combined personal income by 2021.

Figure IV-26: Dixie County - Total Impacts -Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Dixie County - Total Impacts - County Government Revenue

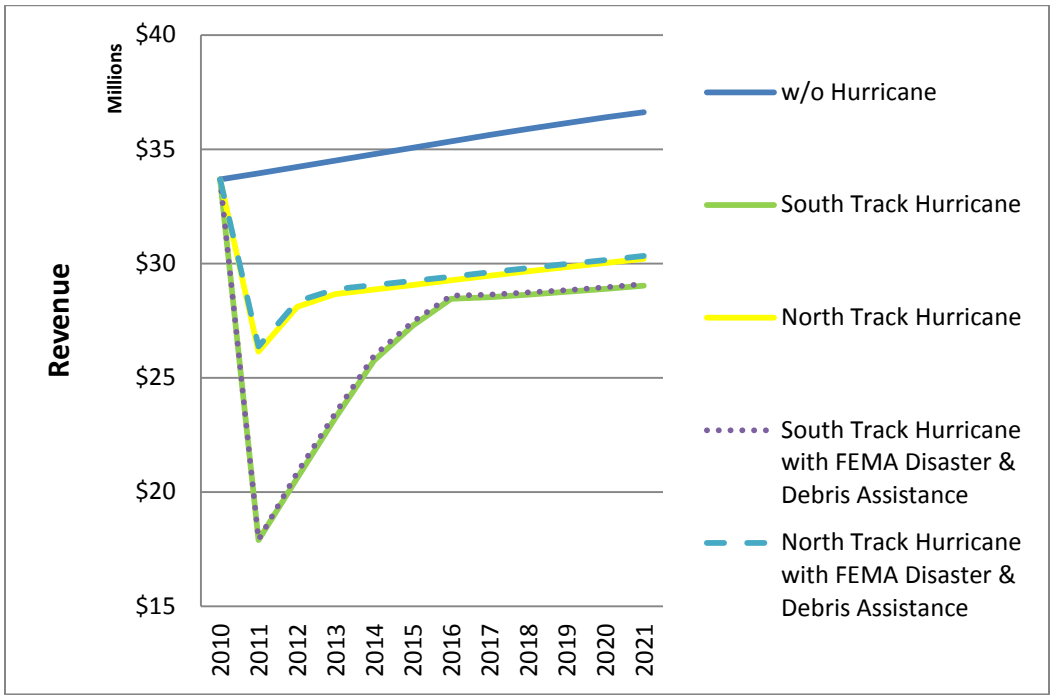
County government revenue impacts in the County are presented in Figure IV-27. If no event were to occur, County government revenue is estimated at $33.9 million in 2011 and is projected to reach $36.6 million in 2021. The South Track hurricane causes the loss of $16.0 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $7.8 million.

County revenues do not return to pre-hurricane levels for either hurricane during the study period. For the South Track hurricane, 2021 County government revenue is estimated reach $29.0 million, which represents 86.2 percent of pre-hurricane revenue. For the North Track hurricane, 2021 County government revenue is estimated to equal $30.2 million, representing 89.7 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $239,000 in County government revenue, a 1.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts gradually decrease over the study period. By 2021, the net impact is approximately $63,000, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $237,000 in County government revenue, a 0.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $119,000, a 0.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-27: Dixie County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

H. Gilchrist County

1. Gilchrist County - Direct Impacts

a. Gilchrist County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Gilchrist County has an estimated capital stock value of $0.55 billion. The County is estimated to suffer a $0.39 billion capital stock loss, representing 72.3 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $60 million capital stock loss, representing 11.3 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-56 and IV-57. An estimated 53.6 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 3.7 percent of all buildings are destroyed. For the South Track hurricane, an estimated 99.2 percent of all County buildings receive at least some damage. For the North Track hurricane, 56.3 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 100.0 percent for education, government, and religion buildings to a low of 99.0 percent for commercial buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 74.5 percent for agriculture buildings to a low of 66.6 percent for residential buildings.

Table IV-56: Gilchrist County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	0.0	1.9	13.0	57.4	27.8	100.0	0	1	7	31	15	54
Commercial	1.0	1.6	10.1	73.4	13.9	100.0	3	5	32	232	44	316
Education	0.0	0.0	8.3	83.3	8.3	100.0	0	0	1	10	1	12
Government	0.0	0.0	6.3	87.5	6.3	100.0	0	0	1	14	1	16
Industrial	0.8	1.6	8.2	78.7	10.7	100.0	1	2	10	96	13	122
Religion	0.0	3.3	13.3	73.3	10.0	100.0	0	1	4	22	3	30
Residential	0.8	3.2	12.7	26.3	57.1	100.0	48	201	804	1,664	3,610	6,327
Total	0.8	3.1	12.5	30.1	53.6	100.0	52	210	859	2,069	3,687	6,877

Source: North Central Florida Regional Planning Council, 2011.

Table IV-57: Gilchrist County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	25.5	30.9	23.6	16.4	3.6	100.0	14	17	13	9	2	55
Commercial	30.1	23.7	29.1	16.8	0.3	100.0	95	75	92	53	1	316
Education	33.3	25.0	25.0	16.7	0.0	100.0	4	3	3	2	0	12
Government	31.3	25.0	25.0	18.8	0.0	100.0	5	4	4	3	0	16
Industrial	29.3	22.0	26.8	20.3	1.6	100.0	36	27	33	25	2	123
Religion	30.0	30.0	26.7	13.3	0.0	100.0	9	9	8	4	0	30
Residential	43.4	28.4	20.0	4.1	4.0	100.0	2,749	1,800	1,266	262	252	6,329
Total	43.3	28.1	20.6	5.2	3.7	100.0	2,912	1,935	1,419	358	257	6,881

Source: North Central Florida Regional Planning Council, 2011.

b. Gilchrist County - Direct Impacts - Employment

Tables IV-58 and IV-59 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-58, the County is anticipated experience a net loss (gains minus losses) of 1,203 jobs, or 22.3 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 825 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane.

Basic industry categories which are identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-59, the County is anticipated experience a net loss of 471 jobs, or 8.3 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 384 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-58: Gilchrist County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,118	(207)	(202)	(409)
Federal Government, Civilian	38	(5)	(9)	(14)
Federal Government, Military	35	0	(13)	(13)
Forestry, Fishing, Related Activities, and Other	212	0	(103)	(103)
Mining	0	0	0	0
Utilities	22	0	(8)	(8)
Construction	370	0	825	825
Manufacturing	120	0	(46)	(46)
Wholesale Trade	86	0	(34)	(34)
Retail Trade	464	0	(185)	(185)
Transportation and Warehousing	197	0	(76)	(76)
Information	28	0	(11)	(11)
Finance and Insurance	146	0	(58)	(58)
Real Estate and Rental and Leasing	212	0	(85)	(85)
Professional and Technical Services	198	0	(79)	(79)
Management of Companies and Enterprises	78	0	(31)	(31)
Administrative and Waste Services	169	0	(65)	(65)
Educational Services	0	0	0	0
Health Care and Social Assistance	574	(58)	(172)	(230)
Arts, Entertainment, and Recreation	93	0	(37)	(37)
Accommodation and Food Services	189	(13)	(63)	(75)
Other Services, except Public Administration	443	0	(177)	(177)
Farm	598	0	(291)	(291)
Total	5,390	(283)	(920)	(1)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-59: Gilchrist County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,118	(94)	(92)	(186)
Federal Government, Civilian	38	(2)	(4)	(6)
Federal Government, Military	35	0	(6)	(6)
Forestry, Fishing, Related Activities, and Other	212	0	(39)	(39)
Mining	0	0	0	0
Utilities	22	0	(4)	(4)
Construction	370	0	384	384
Manufacturing	120	0	(22)	(22)
Wholesale Trade	86	0	(14)	(14)
Retail Trade	464	0	(77)	(77)
Transportation and Warehousing	197	0	(37)	(37)
Information	28	0	(5)	(5)
Finance and Insurance	146	0	(24)	(24)
Real Estate and Rental and Leasing	212	0	(35)	(35)
Professional and Technical Services	198	0	(33)	(33)
Management of Companies and Enterprises	78	0	(13)	(13)
Administrative and Waste Services	169	0	(31)	(31)
Educational Services	0	0	0	0
Health Care and Social Assistance	574	(24)	(71)	(94)
Arts, Entertainment, and Recreation	93	0	(15)	(15)
Accommodation and Food Services	189	(5)	(26)	(31)
Other Services, except Public Administration	443	0	(73)	(73)
Farm	598	0	(109)	(109)
Total	5,390	(125)	(346)	(471)

Source: North Central Florida Regional Planning Council, 2011.

c. Gilchrist County - Direct Impacts - Population

Table IV-60 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 8,137 residents, 44.5 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 1,548 residents, 8.5 percent of its population, as a result of the North Track hurricane.

Table IV-60: Gilchrist County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	3,724	(1,006)	(73)
Age 18 - 64	11,620	(3,138)	(227)
Age 65+, White Non-Hispanic	2,778	(750)	(54)
Age 65+, Black Non-Hispanic	66	(18)	(1)
Age 65+, Other Non-Hispanic	37	(10)	(1)
Age 65+, Hispanic	43	(12)	(1)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	3,724	(183)	(77)
Age 18 - 64	11,620	(571)	(240)
Age 65+, White Non-Hispanic	2,778	0	0
Age 65+, Black Non-Hispanic	66	0	0
Age 65+, Other Non-Hispanic	37	0	0
Age 65+, Hispanic	43	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	3,724	(595)	(212)
Age 18 - 64	11,620	(1,856)	(662)
Age 65+, White Non-Hispanic	2,778	0	0
Age 65+, Black Non-Hispanic	66	0	0
Age 65+, Other Non-Hispanic	37	0	0
Age 65+, Hispanic	43	0	0
Total Population Change			
Age 0 - 17	3,724	(1,783)	(362)
Age 18 - 64	11,620	(5,564)	(1,129)
Age 65+, White Non-Hispanic	2,778	(750)	(54)
Age 65+, Black Non-Hispanic	66	(18)	(1)
Age 65+, Other Non-Hispanic	37	(10)	(1)
Age 65+, Hispanic	43	(12)	(1)
Total	18,268	(8,137)	(1,548)

Source: North Central Florida Regional Planning Council, 2011.

d. Gilchrist County - Direct Impacts - Hurricane Recovery Period

Tables IV-61 and IV-62 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-61, the 283 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2015. Similarly, Table IV-62 indicates that the 125 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2012.

Table IV-61: Gilchrist County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(207)	(163)	(119)	(85)	(60)	0	0
Federal Government, Civilian	(5)	(4)	(3)	(2)	(1)	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	0	0	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	(58)	(45)	(33)	(24)	(17)	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(13)	(10)	(7)	(5)	(4)	0	0
Other Services, except Public Administration	0	0	0	0	0	0	0
Farm	0	0	0	0	0	0	0
Total	(283)	(222)	(162)	(116)	(82)	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-62: Gilchrist County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(94)	(55)	0	0	0	0	0
Federal Government, Civilian	(2)	(1)	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	0	0	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	(24)	(14)	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	(5)	(3)	0	0	0	0	0
Other Services, except Public Administration	0	0	0	0	0	0	0
Farm	0	0	0	0	0	0	0
Total	(125)	(73)	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-63 and IV-64 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-63, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2015. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 4,440 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-64, County population loss due to residential building damage from the North Track hurricane recovers in 2012. However, 70 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-63: Gilchrist County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(1,006)	(835)	(664)	(492)	(346)	(200)	(200)	(200)
Age 18 - 64	(3,138)	(2,604)	(2,070)	(1,537)	(1,080)	(623)	(623)	(623)
Age 65+, White Non-Hispanic	(750)	(623)	(495)	(367)	(258)	(149)	(149)	(149)
Age 65+, Black Non-Hispanic	(18)	(15)	(12)	(9)	(6)	(4)	(4)	(4)
Age 65+, Other Non-Hispanic	(10)	(8)	(7)	(5)	(3)	(2)	(2)	(2)
Age 65+, Hispanic	(12)	(10)	(8)	(6)	(4)	(2)	(2)	(2)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(183)	(138)	(94)	(53)	(36)	0	0	0
Age 18 - 64	(571)	(430)	(295)	(166)	(113)	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(595)	(595)	(595)	(595)	(595)	(595)	(595)	(595)
Age 18 - 64	(1,856)	(1,856)	(1,856)	(1,856)	(1,856)	(1,856)	(1,856)	(1,856)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(1,783)	216	214	212	163	183	0	0
Age 18 - 64	(5,564)	675	668	662	510	570	0	0
Age 65+, White Non-Hispanic	(750)	128	128	128	109	109	0	0
Age 65+, Black Non-Hispanic	(18)	3	3	3	3	3	0	0
Age 65+, Other Non-Hispanic	(10)	2	2	2	1	1	0	0
Age 65+, Hispanic	(10)	2	2	2	1	1	0	0
Total	(8,135)	1,026	1,017	1,009	787	867	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-64: Gilchrist County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(73)	(34)	(14)	(14)	(14)	(14)	(14)	(14)
Age 18 - 64	(227)	(105)	(45)	(45)	(45)	(45)	(45)	(45)
Age 65+, White Non-Hispanic	(54)	(25)	(11)	(11)	(11)	(11)	(11)	(11)
Age 65+, Black Non-Hispanic	(1)	(1)	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	(1)	0	0	0	0	0	0	0
Age 65+, Hispanic	(1)	0	0	0	0	0	0	0
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(77)	(43)	0	0	0	0	0	0
Age 18 - 64	(240)	(133)	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(212)	(212)	(212)	(212)	(212)	(212)	(212)	(212)
Age 18 - 64	(662)	(662)	(662)	(662)	(662)	(662)	(662)	(662)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(362)	73	62	0	0	0	0	0
Age 18 - 64	(1,129)	229	193	0	0	0	0	0
Age 65+, White Non-Hispanic	(54)	29	14	0	0	0	0	0
Age 65+, Black Non-Hispanic	(1)	1	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	(1)	0	0	0	0	0	0	0
Age 65+, Hispanic	(1)	0	0	0	0	0	0	0
Total	(1,548)	332	269	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Gilchrist County - Total Impacts

a. Gilchrist County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-28. If no event were to occur, the estimated number of employees in the County is estimated to equal 5,390 in 2010. The South Track hurricane causes the loss of 2,700 jobs in the County, whereas the North Track hurricane results in the loss of 962 jobs.

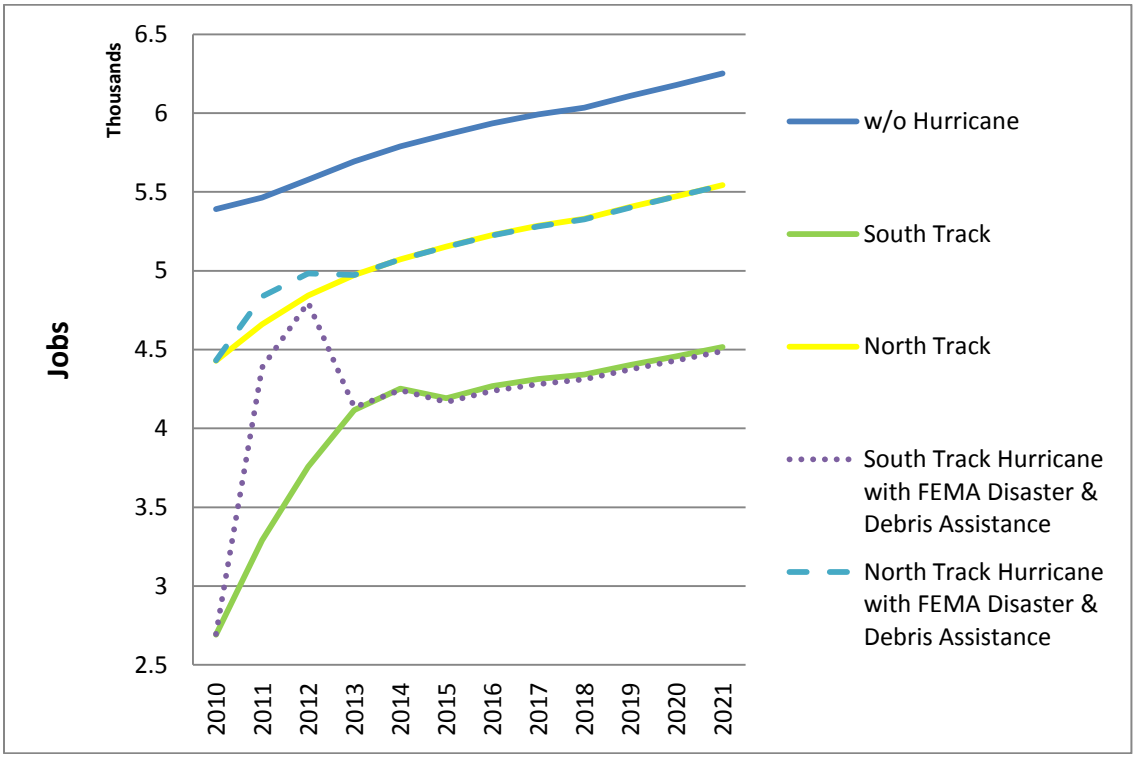
As previously noted, the direct impacts of the South Track hurricane account for a loss of 1,203 jobs in 2010, resulting in an additional 1,497 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 471, resulting in an additional 491 jobs lost as a result of indirect impacts.

The County returns to pre-hurricane levels of employment in 2019 following the North Track hurricane. H owever, the County does not return to pre-hurricane employment levels during the study period following the South Track hurricane. For the South Track hurricane, 2021 e mployment is projected to reach 4,515, which represents 83.8 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $100.1 million in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 1,041 jobs, a 27.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013.

For the North Track Hurricane, the Council estimates the County will receive approximately $18.6 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 139 jobs, a 2.9 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-28: Gilchrist County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Gilchrist County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-29. If no event were to occur, the population of the County is estimated at 18,270 in 2010 and is projected to reach 23,234 in 2021. The South Track hurricane causes the loss of 8,575 residents in the County, whereas the North Track hurricane results in the loss of County 1,758 residents.

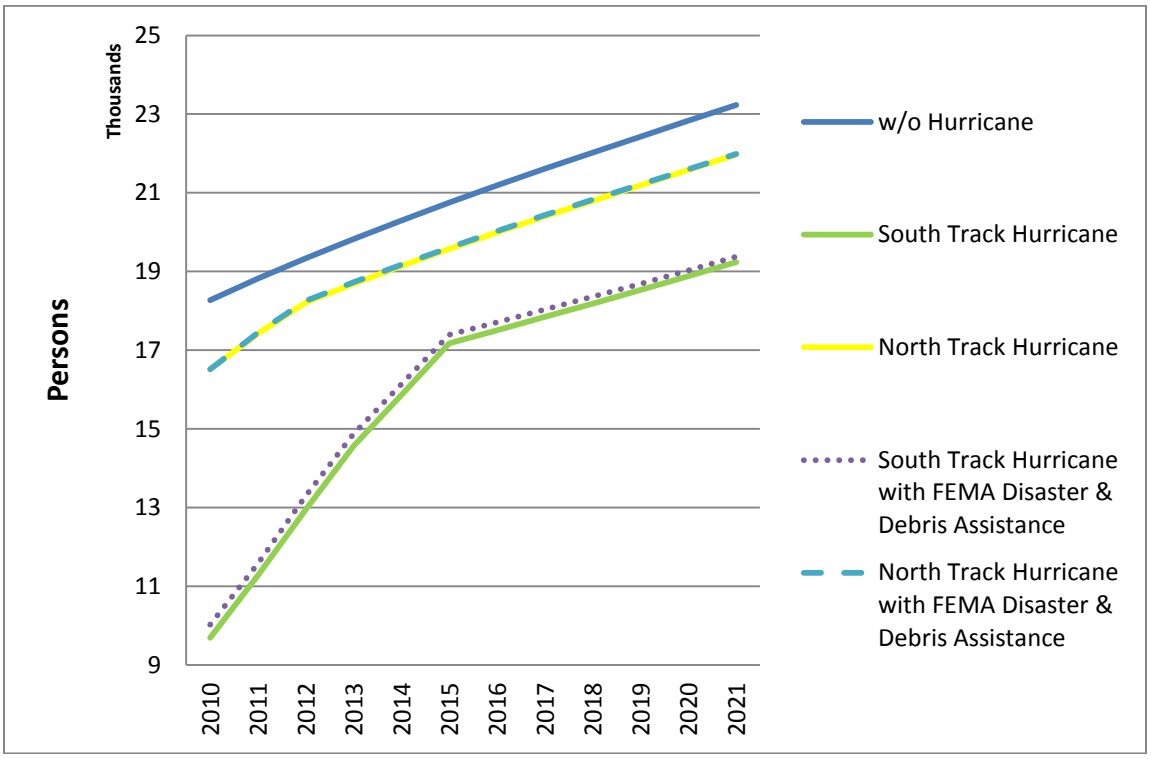
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 8,137 in 2010, resulting in an additional 438 residents lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a population loss of 1,548, resulting in an additional 210 residents lost as a result of indirect impacts.

The County is anticipated to return to pre-hurricane levels of population in the aftermath of both hurricanes during the study period. County population following the South Track hurricane is projected to return to pre-hurricane levels in 2019. County population following the North Track hurricane is projected to return to pre-hurricane levels in 2013.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 353 residents, a 2.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 137 residents, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 37 residents, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 44 residents, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 19 residents, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-29: Gilchrist County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

c. Gilchrist County - Total Impacts - County Gross Domestic Product

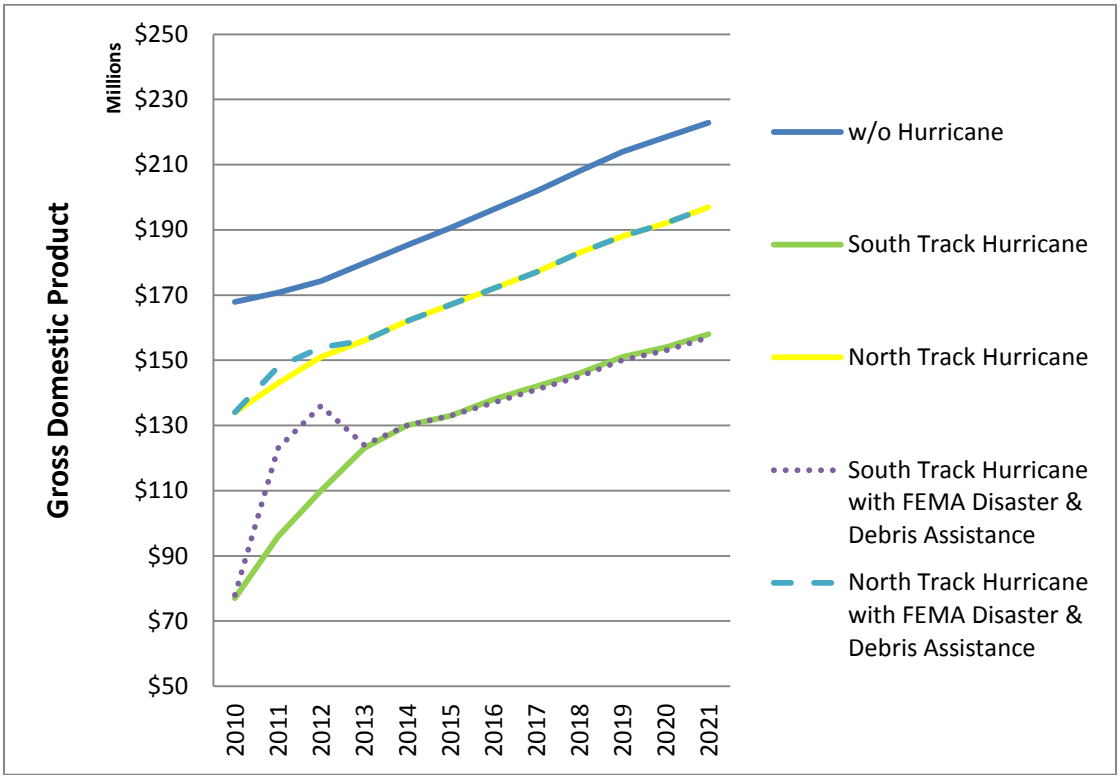
The total County gross domestic product impacts in the County are presented in Figure IV-30. If no event were to occur, the County gross domestic product is estimated at $167.9 million in 2010 and is projected to reach $222.9 million in 2021. The South Track hurricane causes the loss of $90.9 million in 2010 County gross domestic product, whereas the North Track hurricane results in the loss of $33.9 million.

The County returns to pre-hurricane levels of County gross domestic product in 2016 following the North Track hurricane. However, for the South Track hurricane, the County does not return to pre-hurricane levels of County gross domestic product during the study period. In 2021, County gross domestic product following the South Track hurricane is projected to reach $157.0 million, which represents 94.1 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. F or the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $26.0 million in County gross domestic product, a 23.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $3.0 million, a 2.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-30: Gilchrist County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Gilchrist County - Total Impacts - Combined Personal Income

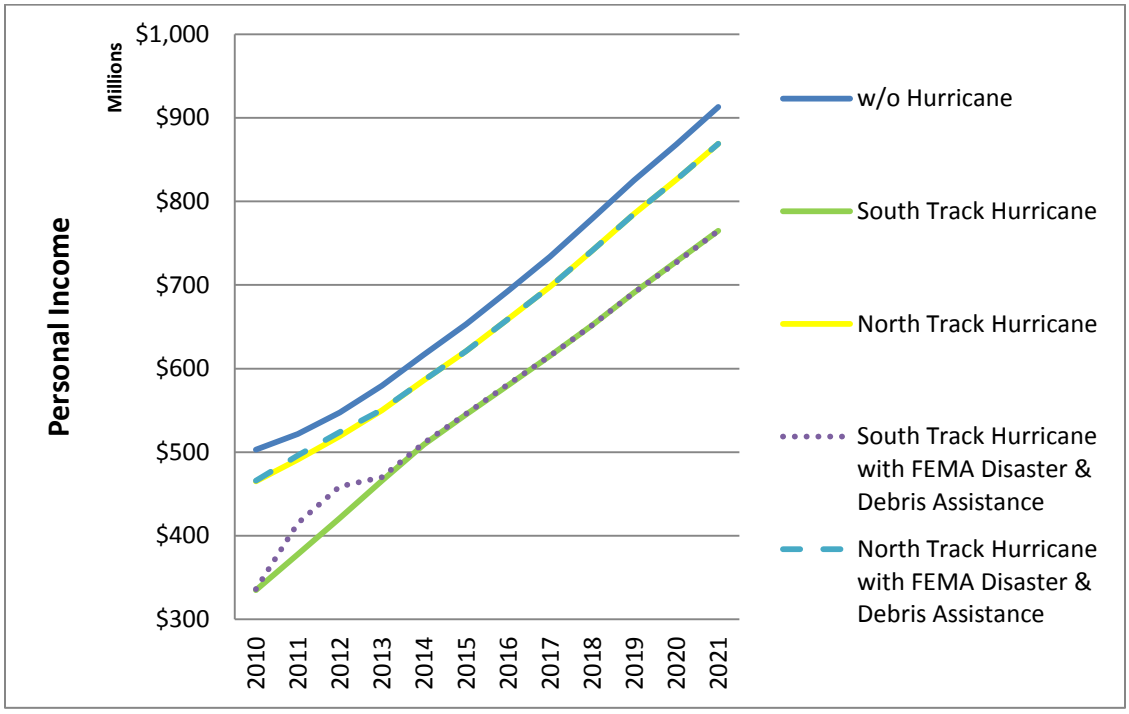
The total County combined personal income impacts in the County are presented in Figure IV-31. If no event were to occur, the County combined personal income is estimated at $503.1 million in 2010 and is projected to reach $913.0 million in 2021. The South Track hurricane causes the loss of $168.1 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $38.1 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2014. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2012.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $38.0 million in County combined personal income, a 9.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period. By 2021, Federal Emergency Management Agency assistance for the South Track hurricane has no net impact on County combined personal income.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $5.0 million to County combined personal income, a 1.0 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. Federal Emergency Management Agency assistance for the North Track hurricane has no net impact on County combined personal income by 2021.

Figure IV-31: Gilchrist County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Gilchrist County - Total Impacts - County Government Revenue

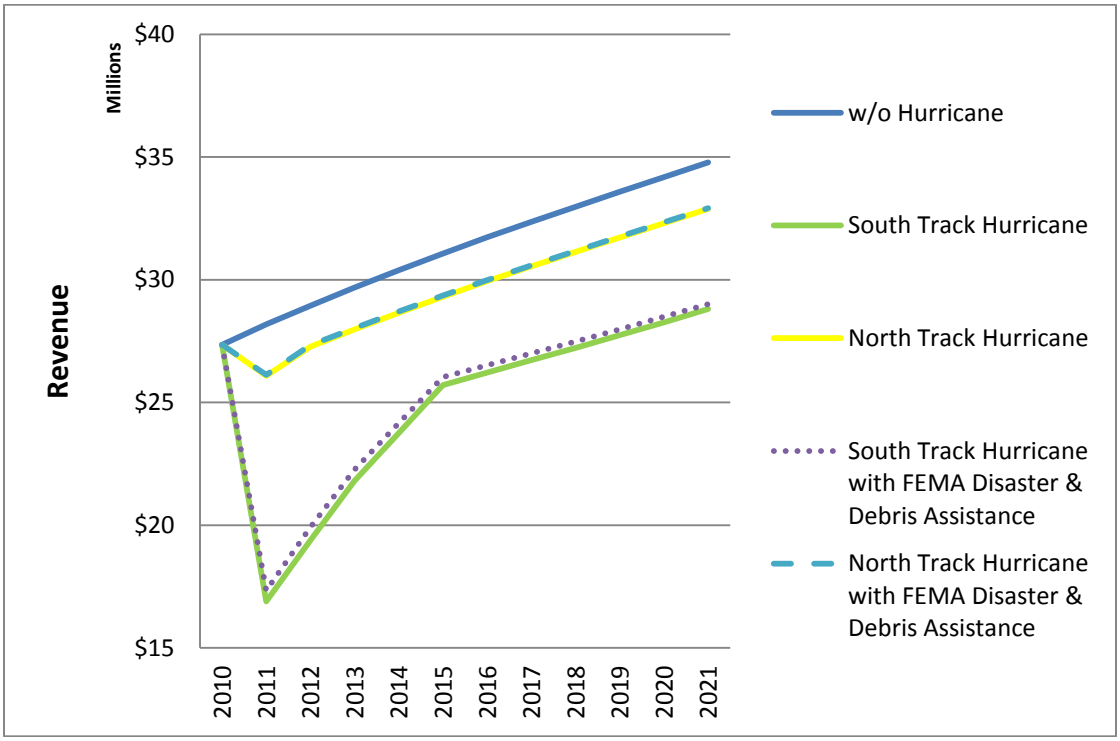
County government revenue impacts in the County are presented in Figure IV-32. If no event were to occur, County government revenue is estimated at $28.2 million in 2011 and is projected to reach $34.8 million in 2021. The South Track hurricane causes the loss of $11.3 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $2.1 million.

The County returns to pre-hurricane levels of County government revenue for both hurricanes. For the South Track hurricane, County government revenue is projected to return to pre-hurricane levels in 2019. For the North Track hurricane, County government revenue is projected to return to pre-hurricane levels in 2012.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $528,000 in County government revenue, a 2.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts gradually decrease over the study period. By 2021, the net impact is approximately $205,000, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $66,000 in County government revenue, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $24,000, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-32: Gilchrist County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

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I. Hamilton County

1. Hamilton County - Direct Impacts

a. Hamilton County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Hamilton County has an estimated capital stock value of $480 million. The County is estimated to suffer a $0.004 billion capital stock loss, representing 0.9 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $40 million capital stock loss, representing 8.8 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-65 and IV-66. An estimated 0.0 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 3.9 percent of all buildings are destroyed. For the South Track hurricane, an estimated 8.2 percent of all County buildings receive at least some damage. For the North Track hurricane, 57.1 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 11.6 percent for agriculture buildings to a low of 8.1 percent for residential buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 72.1 percent for agriculture buildings to a low of 54.5 percent for residential buildings.

Table IV-65: Hamilton County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged By Use

	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
Use	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	88.4	9.3	2.3	0.0	0.0	100.0	38	4	1	0	0	43
Commercial	90.0	7.8	2.1	0.4	0.0	100.0	219	19	5	1	0	244
Education	88.9	11.1	0.0	0.0	0.0	100.0	8	1	0	0	0	9
Government	92.3	7.7	0.0	0.0	0.0	100.0	12	1	0	0	0	13
Industrial	90.4	7.7	1.9	0.0	0.0	100.0	47	4	1	0	0	52
Religion	91.4	8.6	0.0	0.0	0.0	100.0	32	3	0	0	0	35
Residential	91.9	7.1	1.0	0.0	0.0	100.0	5,385	413	56	2	1	5,857
Total	91.8	7.1	1.0	0.1	0.0	100.0	5,741	445	63	3	1	6,263

Source: North Central Florida Regional Planning Council, 2011.

Table IV-66: Hamilton County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged By Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	27.9	32.6	23.3	14.0	2.3	100.0	12	14	10	6	1	43
Commercial	33.6	25.0	27.5	13.5	0.4	100.0	82	61	67	33	1	244
Education	37.5	25.0	25.0	12.5	0.0	100.0	3	2	2	1	0	8
Government	38.5	23.1	23.1	15.4	0.0	100.0	5	3	3	2	0	13
Industrial	33.3	24.1	25.9	14.8	1.9	100.0	18	13	14	8	1	54
Religion	33.3	30.6	25	11.1	0.0	100.0	12	11	9	4	0	36
Residential	45.5	31.5	19.5	3.3	2.2	100.0	2,550	1,845	1,143	191	128	5,857
Total	42.9	31.2	20.0	3.9	3.9	100.0	2,682	1,949	1,248	245	131	6,255

Source: North Central Florida Regional Planning Council, 2011.

b. Hamilton County - Direct Impacts - Employment

Tables IV-67 and IV-68 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-67, the County is anticipated experience a net loss (gains minus losses) of 41 jobs, or 0.9 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 18 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane.

Basic industry categories which are identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-68, the County is anticipated experience a net loss of 555 jobs, or 12.5 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 139 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-67: Hamilton County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,211	(7)	(5)	(12)
Federal Government, Civilian	35	0	0	0
Federal Government, Military	30	0	0	0
Forestry, Fishing, Related Activities, and Other	126	(2)	0	(2)
Mining	0	0	0	0
Utilities	8	0	0	0
Construction	180	0	18	18
Manufacturing	817	(7)	(5)	(12)
Wholesale Trade	61	0	(1)	(1)
Retail Trade	346	0	(6)	(6)
Transportation and Warehousing	214	(1)	(2)	(3)
Information	62	0	(1)	(1)
Finance and Insurance	103	0	(2)	(2)
Real Estate and Rental and Leasing	35	0	(1)	(1)
Professional and Technical Services	83	0	(1)	(1)
Management of Companies and Enterprises	0	0	0	0
Administrative and Waste Services	91	0	(1)	(1)
Educational Services	15	0	0	0
Health Care and Social Assistance	197	0	(3)	(3)
Arts, Entertainment, and Recreation	52	0	(1)	(1)
Accommodation and Food Services	160	0	(3)	(3)
Other Services, except Public Administration	307	(1)	(4)	(5)
Farm	299	(4)	(1)	(5)
Total	4,432	(22)	(19)	(41)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-68: Hamilton County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,211	(110)	(75)	(185)
Federal Government, Civilian	35	0	(5)	(5)
Federal Government, Military	30	0	(5)	(5)
Forestry, Fishing, Related Activities, and Other	126	(19)	(4)	(23)
Mining	0	0	0	0
Utilities	8	0	(1)	(1)
Construction	180	0	139	139
Manufacturing	817	(87)	(56)	(143)
Wholesale Trade	61	0	(10)	(10)
Retail Trade	346	0	(55)	(55)
Transportation and Warehousing	214	(12)	(26)	(38)
Information	62	0	(11)	(11)
Finance and Insurance	103	0	(16)	(16)
Real Estate and Rental and Leasing	35	0	(6)	(6)
Professional and Technical Services	83	0	(13)	(13)
Management of Companies and Enterprises	0	0	0	0
Administrative and Waste Services	91		(16)	(16)
Educational Services	15	0	(2)	(2)
Health Care and Social Assistance	197	0	(31)	(31)
Arts, Entertainment, and Recreation	52	0	(8)	(8)
Accommodation and Food Services	160	0	(25)	(25)
Other Services, except Public Administration	307	(7)	(41)	(48)
Farm	299	(42)	(11)	(54)
Total	4,432	(277)	(278)	(555)

Source: North Central Florida Regional Planning Council, 2011.

c. Hamilton County - Direct Impacts - Population

Table IV-69 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 115 residents, 0.8 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 1,683 residents, 11.5 percent of its population, as a result of the North Track hurricane.

Table IV-69: Hamilton County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	2,762	0	(51)
Age 18 - 64	9,864	(2)	(181)
Age 65+, White Non-Hispanic	1,442	0	(26)
Age 65+, Black Non-Hispanic	458	0	(8)
Age 65+, Other Non-Hispanic	25	0	0
Age 65+, Hispanic	35	0	(1)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	2,762	(13)	(154)
Age 18 - 64	9,864	(46)	(552)
Age 65+, White Non-Hispanic	1,442	0	0
Age 65+, Black Non-Hispanic	458	0	0
Age 65+, Other Non-Hispanic	25	0	0
Age 65+, Hispanic	35	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	2,762	(12)	(155)
Age 18 - 64	9,864	(41)	(554)
Age 65+, White Non-Hispanic	1,442	0	0
Age 65+, Black Non-Hispanic	458	0	0
Age 65+, Other Non-Hispanic	25	0	0
Age 65+, Hispanic	35	0	0
Total Population Change			
Age 0 - 17	2,762	(25)	(360)
Age 18 - 64	9,864	(89)	(1,287)
Age 65+, White Non-Hispanic	1,442	0	(26)
Age 65+, Black Non-Hispanic	458	0	(8)
Age 65+, Other Non-Hispanic	25	0	0
Age 65+, Hispanic	35	0	(1)
Total	14,586	(115)	(1,683)

Source: North Central Florida Regional Planning Council, 2011.

d. Hamilton County - Direct Impacts - Hurricane Recovery Period

Tables IV-70 and IV-71 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-70, the 22 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2011. Similarly, Table IV-71 indicates that the 277 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2012.

Table IV-70: Hamilton County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(7)	0	0	0	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(2)	0	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	(7)	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	(1)	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(1)	0	0	0	0	0	0
Farm	(4)	0	0	0	0	0	0
Total	(22)	0	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-71: Hamilton County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(110)	(49)	0	0	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(19)	(8)	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	(87)	(39)	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	(12)	(5)	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(7)	(3)	0	0	0	0	0
Farm	(42)	(19)	0	0	0	0	0
Total	(277)	(123)	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-72 and IV-73 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-72, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2011. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 54 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. As portrayed in Table IV-73, 780 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-72: Hamilton County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	0	0	0	0	0	0	0	0
Age 18 - 64	(2)	0	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(13)	(1)	0	0	0	0	0	0
Age 18 - 64	(46)	(2)	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Age 18 - 64	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(25)	13	1	0	0	0	0	0
Age 18 - 64	(89)	46	2	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total	(114)	59	3	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-73: Hamilton County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(51)	(17)	(14)	(14)	(14)	(14)	(14)	(14)
Age 18 - 64	(181)	(60)	(49)	(49)	(49)	(49)	(49)	(49)
Age 65+, White Non-Hispanic	(26)	(9)	(7)	(7)	(7)	(7)	(7)	(7)
Age 65+, Black Non-Hispanic	(8)	(3)	(2)	(2)	(2)	(2)	(2)	(2)
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	(1)	0	0	0	0	0	0	0
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(154)	(68)	0	0	0	0	0	0
Age 18 - 64	(552)	(244)	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(155)	(155)	(155)	(155)	(155)	(155)	(155)	(155)
Age 18 - 64	(554)	(554)	(554)	(554)	(554)	(554)	(554)	(554)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(360)	120	71	0	0	0	0	0
Age 18 - 64	(1,287)	429	255	0	0	0	0	0
Age 65+, White Non-Hispanic	(26)	18	2	0	0	0	0	0
Age 65+, Black Non-Hispanic	(8)	6	1	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	(1)	0	0	0	0	0	0	0
Total	(1,682)	573	329	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Hamilton County - Total Impacts

a. Hamilton County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-33. If no event were to occur, the estimated number of employees in the County is estimated at 4,430 in 2010. The South Track hurricane causes the loss of 98 jobs in the County, whereas the North Track hurricane results in the loss of County 913 jobs.

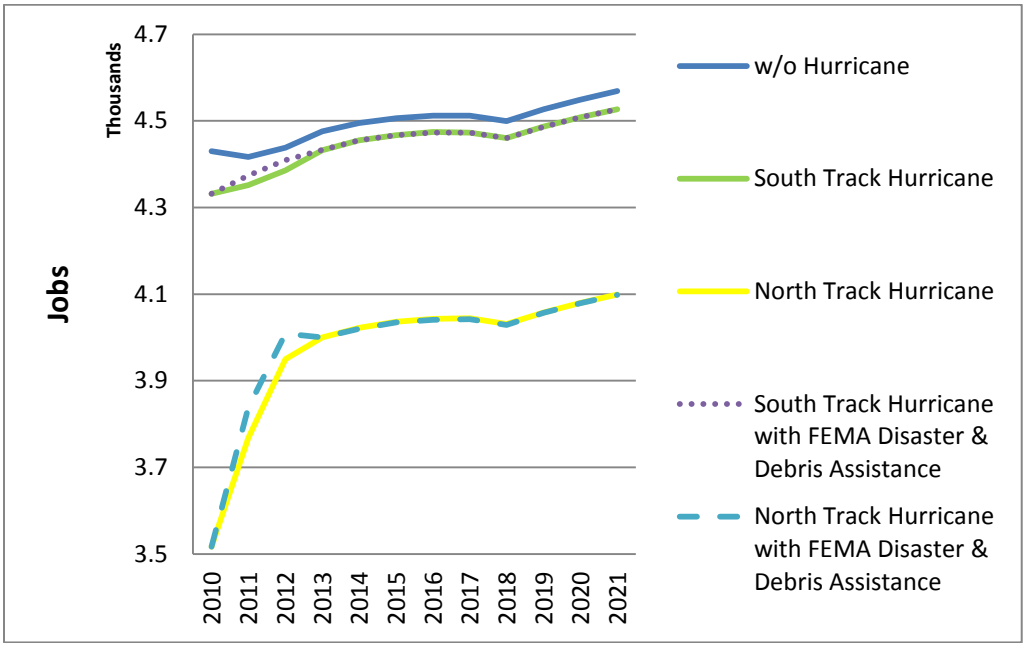
As previously noted, the direct impacts of the South Track hurricane account for a loss of 41 jobs in 2010, resulting in an additional 57 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 555, resulting in an additional 358 jobs lost as a result of indirect impacts.

The County returns to pre-hurricane levels of employment in 2013 following the South Track hurricane. However, the County does not return to pre-hurricane employment levels during the study period following the North Track hurricane. For the North Track hurricane, employment is projected to reach 4,099 in 2021, which represents 92.5 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $1.4 million in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 23 jobs, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013.

For the North Track Hurricane, the Council estimates the County will receive approximately $13.0 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 59 jobs, a 1.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-33: Hamilton County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Hamilton County - Total Impacts - Population

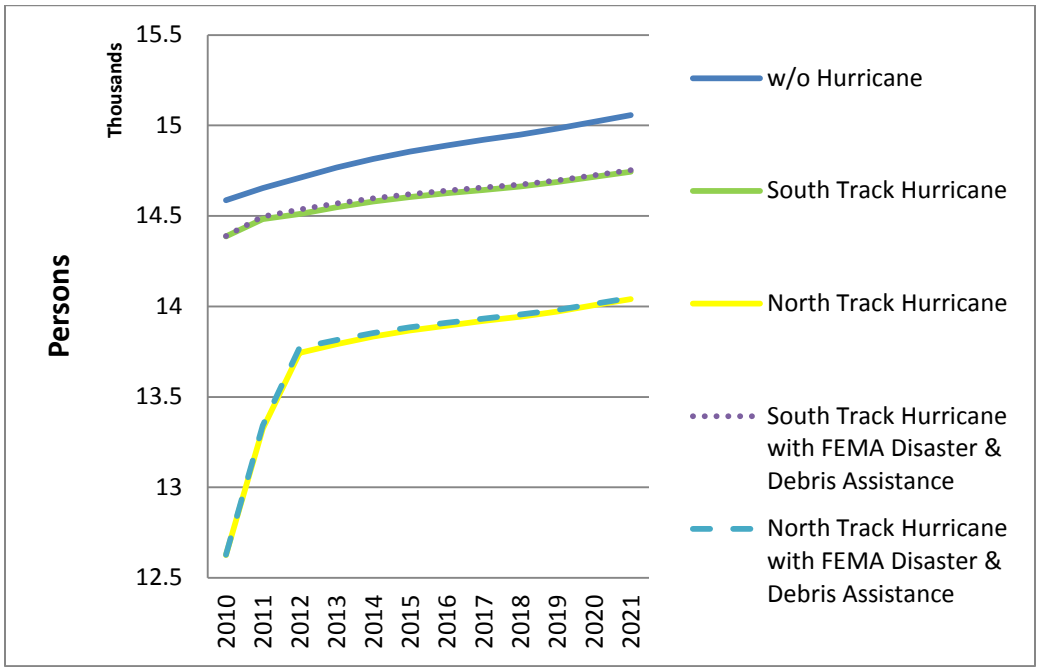
The total population impacts in the County are presented in Figure IV-34. If no event were to occur, the population of the County is estimated at 15,587 in 2010 and is projected to reach 15,057 in 2021. The South Track hurricane causes the loss of 200 residents in the County, whereas the North Track hurricane results in the loss of County 1,961 residents.

As previously noted, the direct impacts of the South Track hurricane account for a population loss of 115 in 2010, resulting in an additional 85 residents lost as a result of indirect impacts. Si milarly, the direct impacts of the North Track hurricane account for a population loss of 1,683, resulting in an additional 278 residents lost as a result of indirect impacts.

The County returns to pre-hurricane levels of population in 2012 following the South Track hurricane. However, for the North Track hurricane, the County does not return to pre-hurricane population levels during the study period. In 2021, County population following the North Track hurricane is projected to reach 14,041, which represents 96.3 percent of pre-hurricane population levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 25 residents, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 8 residents, which is a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane. For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 28 residents, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 7 residents, which is less than a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-34: Hamilton County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

c. Hamilton County - Total Impacts - County Gross Domestic Product

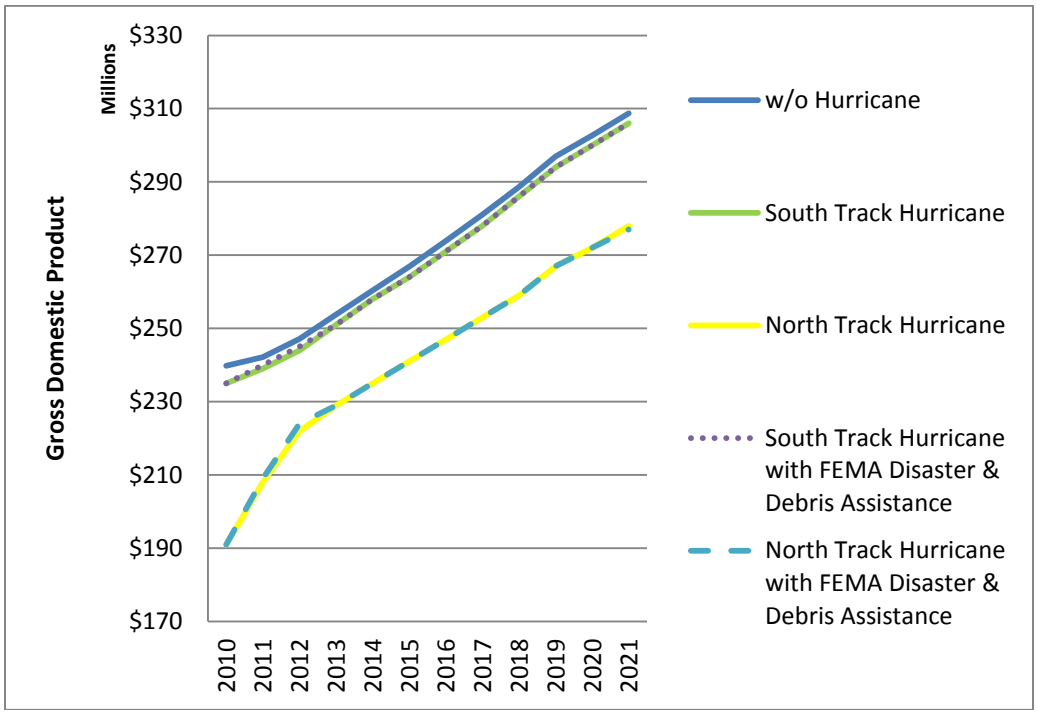
The total County gross domestic product impacts in the County are presented in Figure IV-35. If no event were to occur, the County gross domestic product is estimated at $239.8 million in 2010 and is projected to reach $308.7 million in 2021. The South Track hurricane causes the loss of $4.8 million in 2010 County gross domestic product, whereas the North Track hurricane results in the loss of $48.8 million.

The County returns to pre-hurricane levels of County gross domestic product for both hurricanes. For the South Track hurricane, County gross domestic product returns to pre-hurricane levels in 2011. For the North Track hurricane, County gross domestic product returns to pre-hurricane levels in 2015.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $1.0 million in County gross domestic product, a 0.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $2.0 million, a 0.9 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-35: Hamilton County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Hamilton County - Total Impacts - Combined Personal Income

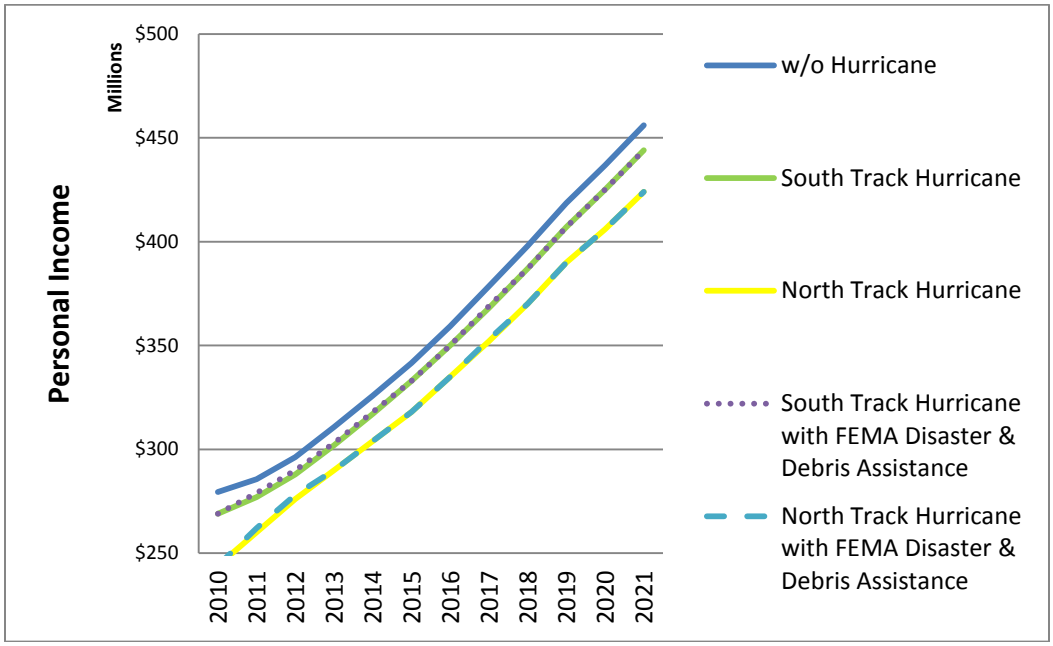
The total County combined personal income impacts in the County are presented in Figure IV-36. If no event were to occur, the County combined personal income is estimated at $279.4 million in 2010 and is projected to reach $456.1 million in 2021. The South Track hurricane causes the loss of $10.4 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $0.35.4 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2012. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2011.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $2.0 million in County combined personal income, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period. By 2021, Federal Emergency Management Agency assistance for the South Track hurricane has no net impact on County combined personal income.

For the North Track Hurricane, Federal Emergency Management Agency assistance also provides a 2012 net increase of $2.0 million to County combined personal income, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. Federal Emergency Management Agency assistance for the North Track hurricane has no net impact on County combined personal income by 2021.

Figure IV-36: Hamilton County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Hamilton County - Total Impacts - County Government Revenue

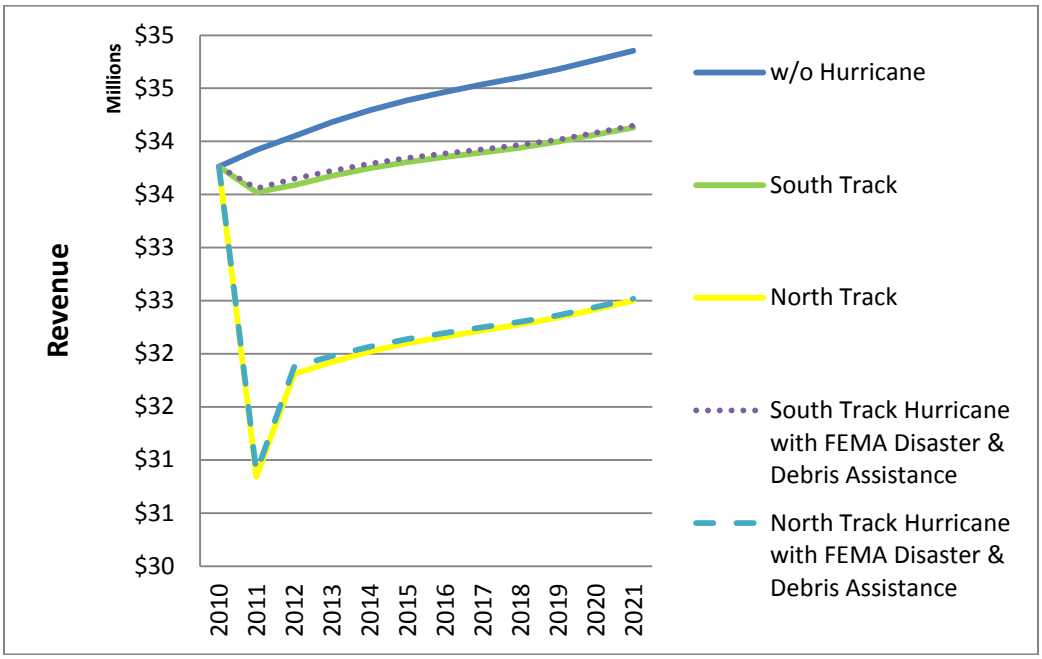
County government revenue impacts in the County are presented in Figure IV-37. If no event were to occur, County government revenue is estimated at $33.9 million in 2011 and is projected to reach $34.9 million in 2021. The South Track hurricane causes the loss of $0.4 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $3.1 million.

The County returns to pre-hurricane levels of County government revenue in 2015 for the South Track Hurricane. However, for the North Track hurricane, County government revenue does not return to pre-hurricane levels during the study period. In 2021, County government revenue following the North Track hurricane is projected to reach $32.5 million, which represents 96.3 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $58,00 in County government revenue, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County government revenue dissipate by 2013.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $65,000 million in County government revenue, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. As with the North Track hurricane, the impacts of Federal Emergency Management Agency assistance on County government revenue dissipate by 2013 for the South Track hurricane.

Figure IV-37: Hamilton County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

J. Lafayette County

1. Lafayette County - Direct Impacts

a. Lafayette County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Lafayette County has an estimated capital stock value of $0.29 billion. The County is estimated to suffer a $0.17 billion capital stock loss, representing 58.3 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $0.13 billion capital stock loss, representing 43.5 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-74 and IV-75. An estimated 41.0 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 23.0 percent of all buildings are destroyed. For the South Track hurricane, an estimated 97.2 percent of all County buildings receive at least some damage. For the North Track hurricane, 94.7 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 100.0 percent for agriculture, education, government, industrial, and religion buildings to a low of 97.2 percent for residential buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 100.0 percent for agriculture, education, government, and religion buildings to a low of 93.7 percent for industrial buildings.

Table IV-74: Lafayette County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	0.0	9.1	18.2	54.6	18.2	100.0	0	1	2	6	2	11
Commercial	2.3	2.3	13.6	70.5	11.4	100.0	1	1	6	31	5	44
Education	0.0	0.0	0.0	100.0	0.0	100.0	0	0	0	2	0	2
Government	0.0	0.0	16.7	83.3	0.0	100.0	0	0	1	5	0	6
Industrial	0.0	0.0	13.3	80.0	6.7	100.0	0	0	2	12	1	15
Religion	0.0	0.0	12.5	75.0	12.5	100.0	0	0	1	6	1	8
Residential	2.8	7.4	19.6	28.4	41.8	100.0	88	233	618	893	1,317	3,149
Total	2.8	7.3	19.5	29.5	41.0	100.0	89	235	630	955	1,326	3,235

Source: North Central Florida Regional Planning Council, 2011.

Table IV-75: Lafayette County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	0.0	9.1	27.3	45.5	18.2	100.0	0	1	3	5	2	11
Commercial	4.4	6.7	24.4	60.0	4.4	100.0	2	3	11	27	2	45
Education	0.0	0.0	33.3	66.7	0.0	100.0	0	0	1	2	0	3
Government	0.0	0.0	16.7	83.3	0.0	100.0	0	0	1	5	0	6
Industrial	6.3	6.3	18.8	62.5	6.3	100.0	1	1	3	10	1	16
Religion	0.0	14.3	28.6	57.1	0.0	100.0	0	1	2	4	0	7
Residential	5.2	14.5	30.3	26.5	23.5	100.0	164	458	955	833	739	3,149
Total	5.2	14.3	30.2	27.4	23.0	100.0	167	464	976	886	744	3,237

Source: North Central Florida Regional Planning Council, 2011.

b. Lafayette County - Direct Impacts - Employment

Tables IV-76 and IV-77 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-76, the County is anticipated experience a net loss (gains minus losses) of 985 jobs, or 40.0 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 255 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane.

Basic industry categories which are identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-77, the County is anticipated experience a net loss of 883 jobs, or 35.8 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 235 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-76: Lafayette County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	677	(206)	(138)	(344)
Federal Government, Civilian	18	0	(9)	(9)
Federal Government, Military	17	0	(9)	(9)
Forestry, Fishing, Related Activities, and Other	66	(28)	(6)	(34)
Mining	2	0	(1)	(1)
Utilities	0	0	0	0
Construction	129	0	255	255
Manufacturing	83	0	(46)	(46)
Wholesale Trade	30	0	(16)	(16)
Retail Trade	213	0	(116)	(116)
Transportation and Warehousing	90	(5)	(45)	(50)
Information	32	0	(17)	(17)
Finance and Insurance	50	0	(27)	(27)
Real Estate and Rental and Leasing	121	(3)	(63)	(66)
Professional and Technical Services	139	0	(76)	(76)
Management of Companies and Enterprises	1	0	0	0
Administrative and Waste Services	39	0	(21)	(21)
Educational Services	7	0	(4)	(4)
Health Care and Social Assistance	104	0	(57)	(57)
Arts, Entertainment, and Recreation	41	0	(22)	(22)
Accommodation and Food Services	90	0	(49)	(49)
Other Services, except Public Administration	177	(17)	(79)	(96)
Farm	338	(161)	(19)	(180)
Total	2,464	(420)	(565)	(985)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-77: Lafayette County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	677	(209)	(141)	(350)
Federal Government, Civilian	18	0	(9)	(9)
Federal Government, Military	17	0	(9)	(9)
Forestry, Fishing, Related Activities, and Other	66	(27)	(6)	(33)
Mining	2	0	(1)	(1)
Utilities	0	0	0	0
Construction	129	0	235	235
Manufacturing	83	0	(39)	(39)
Wholesale Trade	30	0	(13)	(13)
Retail Trade	213	0	(95)	(95)
Transportation and Warehousing	90	(4)	(38)	(42)
Information	32	0	(15)	(15)
Finance and Insurance	50	0	(22)	(22)
Real Estate and Rental and Leasing	121	(2)	(51)	(53)
Professional and Technical Services	139	0	(62)	(62)
Management of Companies and Enterprises	1	0	0	0
Administrative and Waste Services	39	0	(18)	(18)
Educational Services	7	0	(3)	(3)
Health Care and Social Assistance	104	0	(46)	(46)
Arts, Entertainment, and Recreation	41	0	(18)	(18)
Accommodation and Food Services	90	0	(40)	(40)
Other Services, except Public Administration	177	(14)	(65)	(79)
Farm	338	(153)	(18)	(171)
Total	2,464	(409)	(474)	(883)

Source: North Central Florida Regional Planning Council, 2011.

c. Lafayette County - Direct Impacts - Population

Table IV-78 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 5,180 residents, 60.4 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 3,874 residents, 45.2 percent of its population, as a result of the North Track hurricane.

Table IV-78: Lafayette County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	1,617	(543)	(337)
Age 18 - 64	5,922	(1,987)	(1,235)
Age 65+, White Non-Hispanic	965	(324)	(201)
Age 65+, Black Non-Hispanic	35	(12)	(7)
Age 65+, Other Non-Hispanic	7	(2)	(1)
Age 65+, Hispanic	31	(10)	(6)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	1,617	(210)	(207)
Age 18 - 64	5,922	(770)	(759)
Age 65+, White Non-Hispanic	965	0	0
Age 65+, Black Non-Hispanic	35	0	0
Age 65+, Other Non-Hispanic	7	0	0
Age 65+, Hispanic	31	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	1,617	(284)	(240)
Age 18 - 64	5,922	(1,039)	(879)
Age 65+, White Non-Hispanic	965	0	0
Age 65+, Black Non-Hispanic	35	0	0
Age 65+, Other Non-Hispanic	7	0	0
Age 65+, Hispanic	31	0	0
Total Population Change			
Age 0 - 17	1,617	(1,036)	(785)
Age 18 - 64	5,922	(3,796)	(2,873)
Age 65+, White Non-Hispanic	965	(324)	(201)
Age 65+, Black Non-Hispanic	35	(12)	(7)
Age 65+, Other Non-Hispanic	7	(2)	(1)
Age 65+, Hispanic	31	(10)	(6)
Total	8,577	(5,180)	(3,874)

Source: North Central Florida Regional Planning Council, 2011.

d. Lafayette County - Direct Impacts - Hurricane Recovery Period

Tables IV-79 and IV-80 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-79, the 420 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2014. Similarly, Table IV-80 indicates that the 409 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2014.

Table IV-79: Lafayette County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(206)	(154)	(102)	(97)	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(28)	(21)	(14)	(13)	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	(5)	(3)	(2)	(2)	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	(3)	(2)	(1)	(1)	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(17)	(13)	(9)	(8)	0	0	0
Farm	(161)	(120)	(79)	(76)	0	0	0
Total	(420)	(313)	(207)	(197)	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-80: Lafayette County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(209)	(144)	(79)	(16)	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(27)	(19)	(10)	(2)	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	(4)	(3)	(1)	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	(2)	(2)	(1)	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(14)	(10)	(5)	(1)	0	0	0
Farm	(153)	(105)	(57)	(12)	0	0	0
Total	(409)	(283)	(153)	(31)	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-81 and IV-82 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-81, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2014. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 662 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-82, County population loss due to residential building damage from the North Track hurricane recovers in 2014. However, 411 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-81: Lafayette County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(543)	(437)	(331)	(228)	(125)	(125)	(125)	(125)
Age 18 - 64	(1,987)	(1,600)	(1,213)	(835)	(457)	(457)	(457)	(457)
Age 65+, White Non-Hispanic	(324)	(261)	(198)	(136)	(74)	(74)	(74)	(74)
Age 65+, Black Non-Hispanic	(12)	(9)	(7)	(5)	(3)	(3)	(3)	(3)
Age 65+, Other Non-Hispanic	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(1)
Age 65+, Hispanic	(10)	(8)	(6)	(4)	(2)	(2)	(2)	(2)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(210)	(154)	(99)	(92)	0	0	0	0
Age 18 - 64	(770)	(563)	(361)	(338)	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(284)	(284)	(284)	(284)	(284)	(284)	(284)	(284)
Age 18 - 64	(1,039)	(1,039)	(1,039)	(1,039)	(1,039)	(1,039)	(1,039)	(1,039)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(1,036)	162	161	110	196	0	0	0
Age 18 - 64	(3,796)	593	589	401	716	0	0	0
Age 65+, White Non-Hispanic	(324)	63	63	62	62	0	0	0
Age 65+, Black Non-Hispanic	(12)	2	2	2	2	0	0	0
Age 65+, Other Non-Hispanic	(2)	0	0	0	0	0	0	0
Age 65+, Hispanic	(10)	2	2	2	2	0	0	0
Total	(5,180)	822	817	577	978	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-82: Lafayette County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(337)	(256)	(175)	(157)	(78)	(78)	(78)	(78)
Age 18 - 64	(1,235)	(938)	(642)	(575)	(284)	(284)	(284)	(284)
Age 65+, White Non-Hispanic	(201)	(153)	(105)	(94)	(46)	(46)	(46)	(46)
Age 65+, Black Non-Hispanic	(7)	(6)	(4)	(3)	(2)	(2)	(2)	(2)
Age 65+, Other Non-Hispanic	(1)	(1)	(1)	(1)	0	0	0	0
Age 65+, Hispanic	(6)	(5)	(3)	(3)	(1)	(1)	(1)	(1)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(207)	(140)	(73)	(15)	0	0	0	0
Age 18 - 64	(759)	(511)	(269)	(54)	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(240)	(240)	(240)	(240)	(240)	(240)	(240)	(240)
Age 18 - 64	(879)	(879)	(879)	(879)	(879)	(879)	(879)	(879)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(785)	149	147	77	94	0	0	0
Age 18 - 64	(2,873)	544	539	282	345	0	0	0
Age 65+, White Non-Hispanic	(201)	48	48	11	47	0	0	0
Age 65+, Black Non-Hispanic	(7)	2	2	0	2	0	0	0
Age 65+, Other Non-Hispanic	(1)	0	0	0	0	0	0	0
Age 65+, Hispanic	(6)	2	2	0	2	0	0	0
Total	(3,873)	745	738	370	490	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Lafayette County - Total Impacts

a. Lafayette County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-38. If no event were to occur, the estimated number of employees in the County is estimated at 2,463 in 2010 and is projected to reach 4,569 in 2021. The South Track hurricane causes the loss of 1,661 jobs in the County, whereas the North Track hurricane results in the loss of County 1,485 jobs.

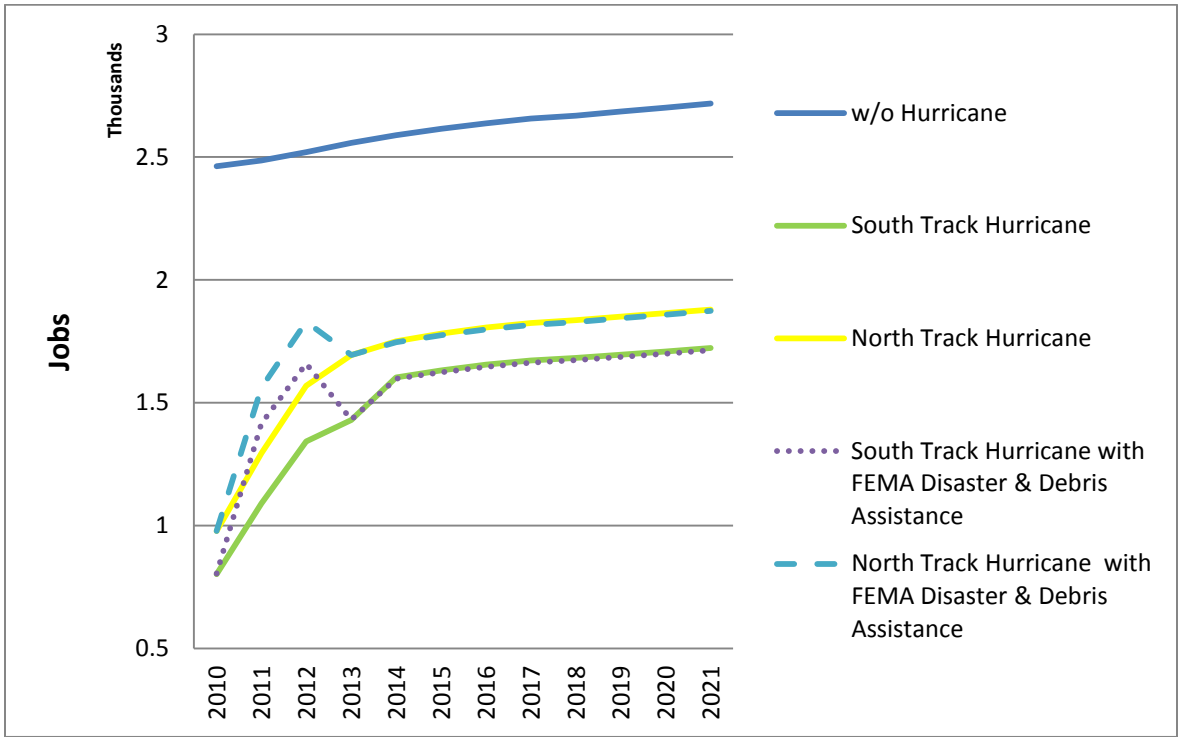
As previously noted, the direct impacts of the South Track hurricane account for a loss of 985 jobs in 2010, resulting in an additional 676 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 883, resulting in an additional 602 jobs lost as a result of indirect impacts.

The County does not return to pre-hurricane levels of employment in the aftermath of either hurricane. In 2021, County employment following the South Track hurricane is projected to reach 1,723, which represents 69.9 percent of pre-hurricane employment levels. County employment following the North Track hurricane is projected to reach 1,880 in 2021, which represents 76.3 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $48.6 million in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 316 jobs, a 23.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013.

For the North Track Hurricane, the Council estimates the County will receive approximately $38.1 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 260 jobs, a 16.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-38: Lafayette County - Total Impacts - Employment Impacts



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Lafayette County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-39. If no event were to occur, the population of the County is estimated at 8,578 in 2010 and is projected to reach 10,906 in 2021. The South Track hurricane causes the loss of 4,807 residents in the County, whereas the North Track hurricane results in the loss of County 3,891 residents.

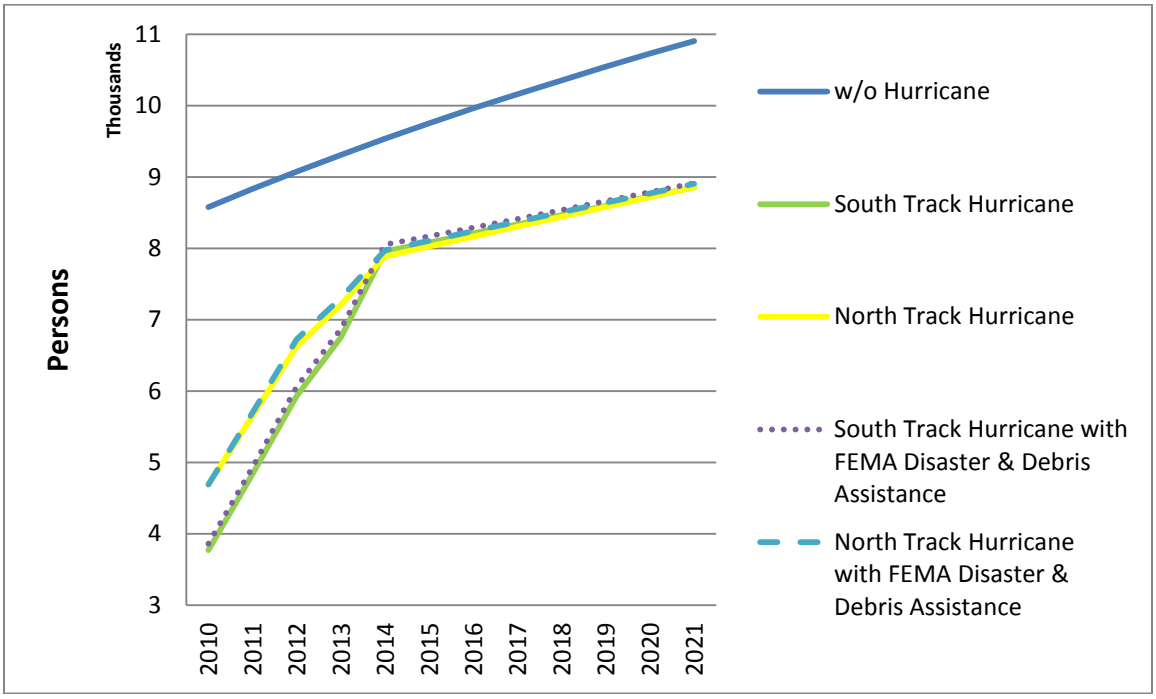
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 5,180 in 2010, resulting in a gain of 373 residents as a result of indirect impacts. The direct impacts of the North Track hurricane account for a population loss of 3,874, resulting in an additional 17 residents lost as a result of indirect impacts.

The County returns to pre-hurricane population levels in the aftermath of both hurricanes during the study period. For both hurricanes, the county returns to pre-hurricane population levels in 2019.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 132 residents, a 2.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 59 residents, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 n et increase of 99 residents, a 1.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 49 residents, a 0.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-39: Lafayette County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

c. Lafayette County - Total Impacts - County Gross Domestic Product

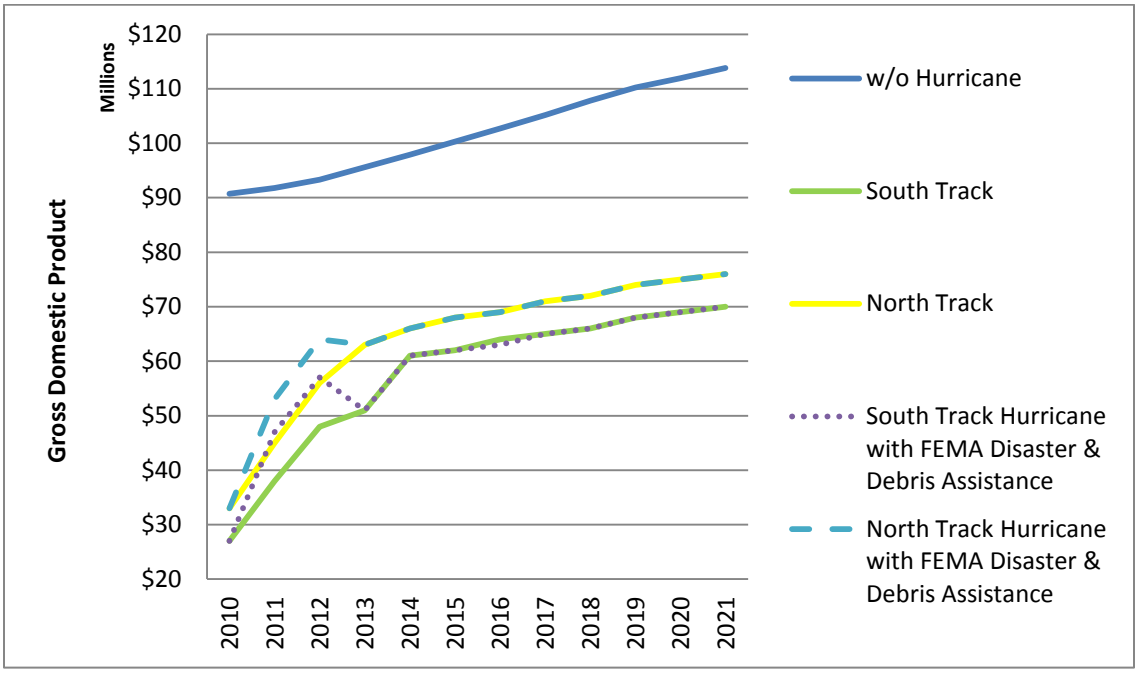
The total County gross domestic product impacts in the County are presented in Figure IV-40. If no event were to occur, the County gross domestic product is estimated at $90.7 million in 2010 and is projected to reach $113.8 million in 2021. The South Track hurricane causes the loss of $63.7 million in 2010 County gross domestic product, whereas the North Track hurricane results in a loss of $57.7 million.

The County does not return to pre-hurricane levels of County gross domestic product for either hurricane during the study period. For the South Track hurricane, the County gross domestic product is estimated to reach $70.0 million in 2021, which represents 77.2 percent of pre-hurricane levels. For the North Track hurricane, the County gross domestic product is estimated to reach $76.0 million in 2021, which represents 83.8 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. F or the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $9.0 million in County gross domestic product, an 18.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $8.0 million, a 14.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-40: Lafayette County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Lafayette County - Total Impacts - Combined Personal Income

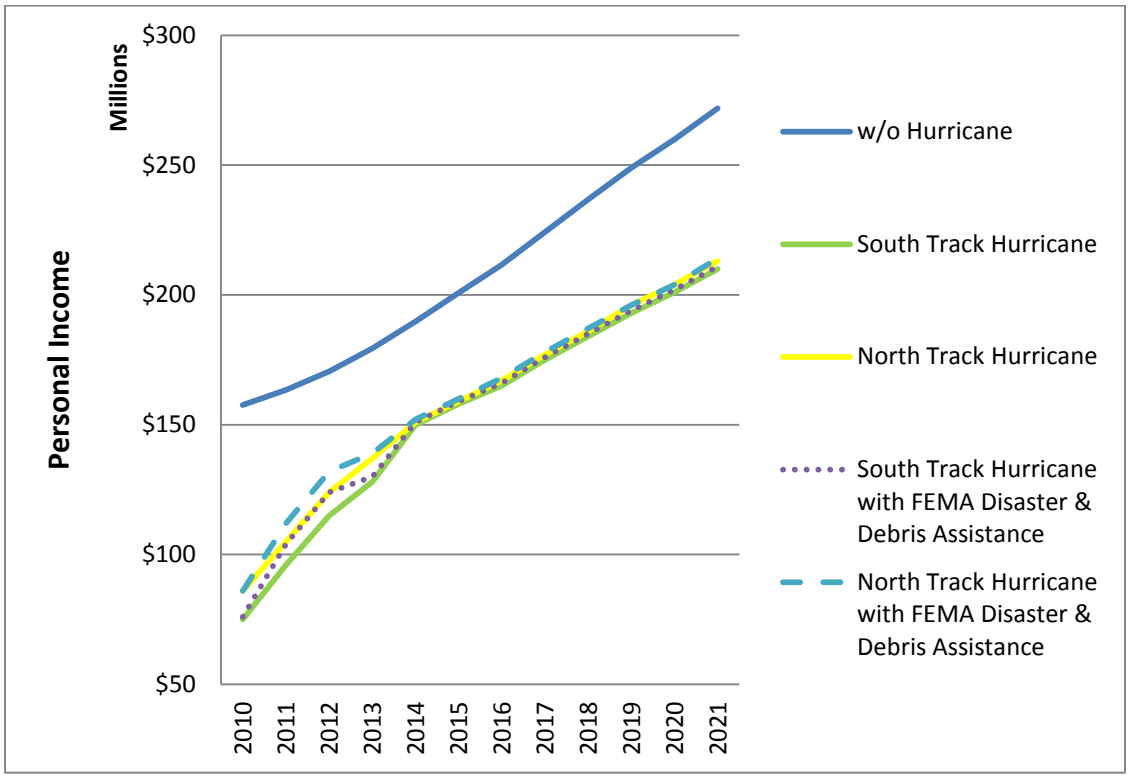
The total County combined personal income impacts in the County are presented in Figure IV-41. If no event were to occur, the County combined personal income is estimated at $157.6 million in 2010 and is projected to reach $271.9 million in 2021. The South Track hurricane causes the loss of $80 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $70 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2015. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2015.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $9.0 million in County combined personal income, a 7.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period. By 2021, the net impact is $1.0 million, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $8.0 million to County combined personal income, a 6.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is $1.0 million, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane.

Figure IV-41: Lafayette County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Lafayette County - Total Impacts - County Government Revenue

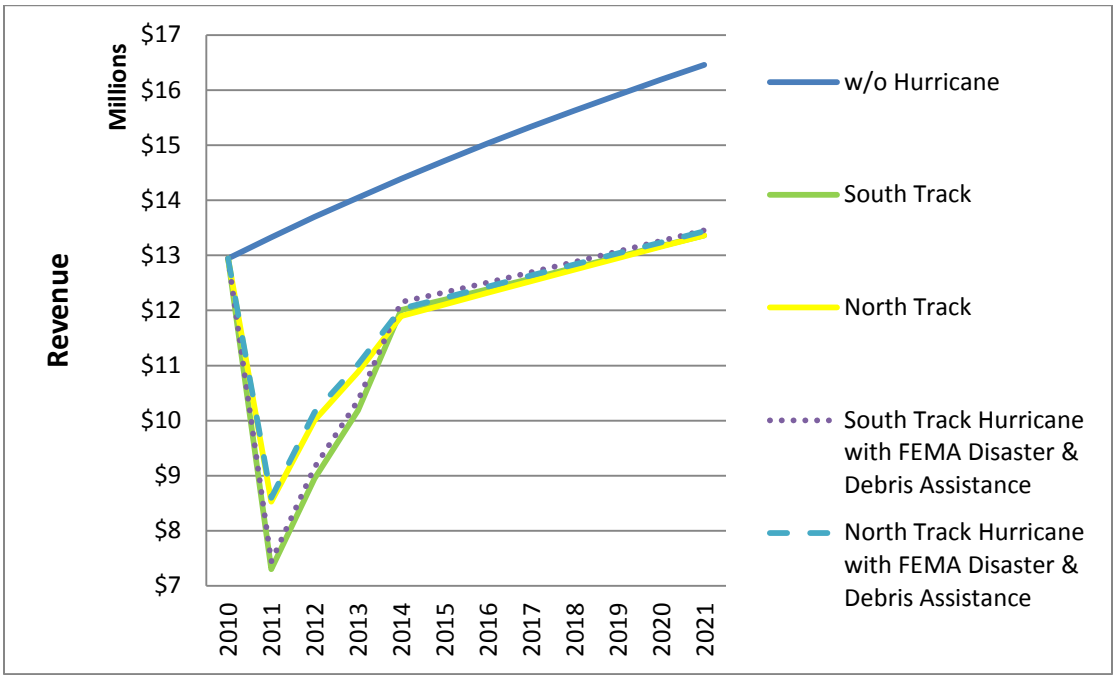
County government revenue impacts in the County are presented in Figure IV-42. If no event were to occur, County government revenue is estimated at $13.3 million in 2011 and is projected to reach $16.5 million in 2021. The South Track hurricane causes the loss of $6.0 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $4.8 million.

The County returns to pre-hurricane levels of County government revenue for both hurricanes. For the South Track hurricane, County government revenue is projected to return to pre-hurricane levels in 2019. For the North Track hurricane, County government revenue is also projected to return to pre-hurricane levels in 2019.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $199,000 in County government revenue, a 2.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts gradually decrease over the study period. By 2021, the net impact is approximately $89,000, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $149,000 in County government revenue, a 1.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $74,000, a 0.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-42: Lafayette County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

K. Madison County

1. Madison County - Direct Impacts

a. Madison County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Madison County has an estimated capital stock value of $0.77 billion. The County is estimated to suffer a $10 million capital stock loss, representing 1.8 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $0.21 billion capital stock loss, representing 27.5 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-83 and IV-84. An estimated 0.1 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 11.7 percent of all buildings are destroyed. For the South Track hurricane, an estimated 15.5 percent of all County buildings receive at least some damage. For the North Track hurricane, 84.0 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 36.4 percent for agriculture buildings to a low of 14.8 percent for residential buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 95.4 percent for agriculture buildings to a low of 85.7 percent for residential buildings.

Table IV-83: Madison County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
Use	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	63.6	22.7	9.1	4.6	0.0	100.0	14	5	2	1	0	22
Commercial	71.9	13.3	13.3	1.7	0.0	100.0	217	40	40	5	0	302
Education	81.8	9.1	9.1	0.0	0.0	100.0	9	1	1	0	0	11
Government	68.2	18.2	9.1	4.6	0.0	100.0	15	4	2	1	0	22
Industrial	80.7	14.0	3.5	1.8	0.0	100.0	46	8	2	1	0	57
Religion	75.5	18.4	6.1	0.0	0.0	100.0	37	9	3	0	0	49
Residential	85.2	14.5	0.0	0.2	0.1	100.0	6,647	1,129	3	14	11	7,804
Total	84.5	14.5	3.1	0.3	0.1	100.0	6,985	1,196	253	22	11	8,267

Source: North Central Florida Regional Planning Council, 2011.

Table IV-84: Madison County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	4.6	18.2	31.8	31.8	13.6	100.0	1	4	7	7	3	22
Commercial	11.0	13.9	29.5	43.1	2.5	100.0	31	39	83	121	7	281
Education	9.1	18.2	27.3	45.5	0.0	100.0	1	2	3	5	0	11
Government	9.1	13.6	27.3	50.0	0.0	100.0	2	3	6	11	0	22
Industrial	12.1	13.8	27.6	43.1	3.5	100.0	7	8	16	25	2	58
Religion	10.4	18.8	33.3	37.5	0.0	100.0	5	9	16	18	0	48
Residential	16.3	24.5	30.6	16.5	12.2	100.0	51,308	1,969	2,465	1,327	985	8,054
Total	16.0	23.9	30.6	17.8	11.7	100.0	1,355	2,034	2,596	1,514	997	8,496

Source: North Central Florida Regional Planning Council, 2011.

b. Madison County - Direct Impacts - Employment

Tables IV-85 and IV-86 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-85, the County is anticipated experience a net loss (gains minus losses) of 315 jobs, or 4.7 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 42 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane.

Basic industry categories which are identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-86, the County is anticipated experience a net loss of 1,602 jobs, or 23.9 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 285 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-85: Madison County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,410	(43)	(47)	(90)
Federal Government, Civilian	47	0	(3)	(3)
Federal Government, Military	39	0	(3)	(3)
Forestry, Fishing, Related Activities, and Other	219	(13)	(2)	(15)
Mining	0	0	0	0
Utilities	24	0	(1)	(1)
Construction	208	0	42	42
Manufacturing	440	0	(14)	(14)
Wholesale Trade	133	0	(7)	(7)
Retail Trade	661	0	(36)	(36)
Transportation and Warehousing	218	0	(7)	(7)
Information	126	0	(4)	(4)
Finance and Insurance	135		(7)	(7)
Real Estate and Rental and Leasing	166	0	(9)	(9)
Professional and Technical Services	189	0	(10)	(10)
Management of Companies and Enterprises	8		0	0
Administrative and Waste Services	181	0	(6)	(6)
Educational Services	68	0	(2)	(2)
Health Care and Social Assistance	834	(7)	(39)	(46)
Arts, Entertainment, and Recreation	98	0	(5)	(5)
Accommodation and Food Services	253	0	(14)	(14)
Other Services, except Public Administration	582	(10)	(22)	(32)
Farm	664	(39)	(7)	(46)
Total	6,703	(112)	(203)	(315)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-86: Madison County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,410	(191)	(212)	(403)
Federal Government, Civilian	47	0	(14)	(14)
Federal Government, Military	39	0	(11)	(11)
Forestry, Fishing, Related Activities, and Other	219	(63)	(11)	(74)
Mining	0	0	0	0
Utilities	24	(1)	(6)	(7)
Construction	208	0	285	285
Manufacturing	440	0	(126)	(126)
Wholesale Trade	133	0	(37)	(37)
Retail Trade	661	0	(185)	(185)
Transportation and Warehousing	218	0	(63)	(63)
Information	126	(2)	(34)	(36)
Finance and Insurance	135	0	(38)	(38)
Real Estate and Rental and Leasing	166	0	(46)	(46)
Professional and Technical Services	189	0	(53)	(53)
Management of Companies and Enterprises	8	0	(2)	(2)
Administrative and Waste Services	181	0	(52)	(52)
Educational Services	68	0	(18)	(18)
Health Care and Social Assistance	834	(36)	(198)	(234)
Arts, Entertainment, and Recreation	98	0	(27)	(27)
Accommodation and Food Services	253	0	(71)	(71)
Other Services, except Public Administration	582	(52)	(111)	(163)
Farm	664	(194)	(33)	(227)
Total	6,703	(539)	(1,063)	(1,602)

Source: North Central Florida Regional Planning Council, 2011.

c. Madison County - Direct Impacts - Population

Table IV-87 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 742 residents, 3.9 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 4,634 residents, 24.1 percent of its population, as a result of the North Track hurricane.

Table IV-87: Madison County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	3,939	(3)	(279)
Age 18 - 64	12,209	(10)	(866)
Age 65+, White Non-Hispanic	2,164	(2)	(154)
Age 65+, Black Non-Hispanic	812	(1)	(58)
Age 65+, Other Non-Hispanic	34	0	(2)
Age 65+, Hispanic	39	0	(3)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	3,939	(63)	(269)
Age 18 - 64	12,209	(195)	(834)
Age 65+, White Non-Hispanic	2,164	0	0
Age 65+, Black Non-Hispanic	812	0	0
Age 65+, Other Non-Hispanic	34	0	0
Age 65+, Hispanic	39	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	3,939	(114)	(529)
Age 18 - 64	12,209	(354)	(1,641)
Age 65+, White Non-Hispanic	2,164	0	0
Age 65+, Black Non-Hispanic	812	0	0
Age 65+, Other Non-Hispanic	34	0	0
Age 65+, Hispanic	39	0	0
Total Population Change			
Age 0 - 17	3,939	(180)	(1,078)
Age 18 - 64	12,209	(559)	3,340
Age 65+, White Non-Hispanic	2,164	(2)	(154)
Age 65+, Black Non-Hispanic	812	(1)	(58)
Age 65+, Other Non-Hispanic	34	0	(2)
Age 65+, Hispanic	39	0	(3)
Total	19,197	(742)	(4,634)

Source: North Central Florida Regional Planning Council, 2011.

d. Madison County - Direct Impacts - Hurricane Recovery Period

Tables IV-88 and IV-89 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-88, the 112 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2012. Similarly, Table IV-89 indicates that the 539 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2013.

Table IV-88: Madison County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(43)	(4)	0	0	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(13)	(1)	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	(7)	(1)	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(10)	(1)	0	0	0	0	0
Farm	(39)	(4)	0	0	0	0	0
Total	(112)	(11)	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-89: Madison County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(191)	(112)	(48)	0	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(63)	(37)	(16)	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	(1)	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	(2)	(1)	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	(36)	(21)	(9)	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(52)	(31)	(13)	0	0	0	0
Farm	(194)	(114)	(49)	0	0	0	0
Total	(539)	(316)	(135)	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-90 and IV-91 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-90, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2012. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 5 r esidents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-91, County population loss due to residential building damage from the North Track hurricane recovers in 2011. However, 25 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-90: Madison County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(3)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Age 18 - 64	(10)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Age 65+, White Non-Hispanic	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Age 65+, Black Non-Hispanic	(1)	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(63)	(6)	0	0	0	0	0	0
Age 18 - 64	(195)	(18)	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(114)	(114)	(114)	(114)	(114)	(114)	(114)	(114)
Age 18 - 64	(354)	(354)	(354)	(354)	(354)	(354)	(354)	(354)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(180)	60	5	0	0	0	0	0
Age 18 - 64	(559)	187	15	0	0	0	0	0
Age 65+, White Non-Hispanic	(2)	2	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	(1)	1	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total	(742)	250	20	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-91: Madison County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(279)	(196)	(137)	(77)	(77)	(77)	(77)	(77)
Age 18 - 64	(866)	(608)	(474)	(240)	(240)	(240)	(240)	(240)
Age 65+, White Non-Hispanic	(154)	(108)	(25)	(42)	(42)	(42)	(42)	(42)
Age 65+, Black Non-Hispanic	(58)	(40)	(38)	(16)	(16)	(16)	(16)	(16)
Age 65+, Other Non-Hispanic	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(1)
Age 65+, Hispanic	(3)	(2)	(1)	(1)	(1)	(1)	(1)	(1)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(269)	(155)	(65)	0	0	0	0	0
Age 18 - 64	(834)	(479)	(200)	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(529)	(529)	(529)	(529)	(529)	(529)	(529)	(529)
Age 18 – 64	(1,641)	(1,641)	(1,641)	(1,641)	(1,641)	(1,641)	(1,641)	(1,641)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 – 17	(1,078)	198	150	124	0	0	0	0
Age 18 – 64	(3,340)	612	648	200	0	0	0	0
Age 65+, White Non-Hispanic	(154)	46	65	0	0	0	0	0
Age 65+, Black Non-Hispanic	(58)	17	24	0	0	0	0	0
Age 65+, Other Non-Hispanic	(2)	1	1	0	0	0	0	0
Age 65+, Hispanic	(3)	1	1	0	0	0	0	0
Total	(4,635)	875	889	324	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Madison County - Total Impacts

a. Madison County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-43. If no event were to occur, the estimated number of employees in the County is estimated at 6,702 in 2010 and is projected to reach 7,430 in 2021. The South Track hurricane causes the loss of 457 jobs in the County, whereas the North Track hurricane results in the loss of County 2,387 jobs.

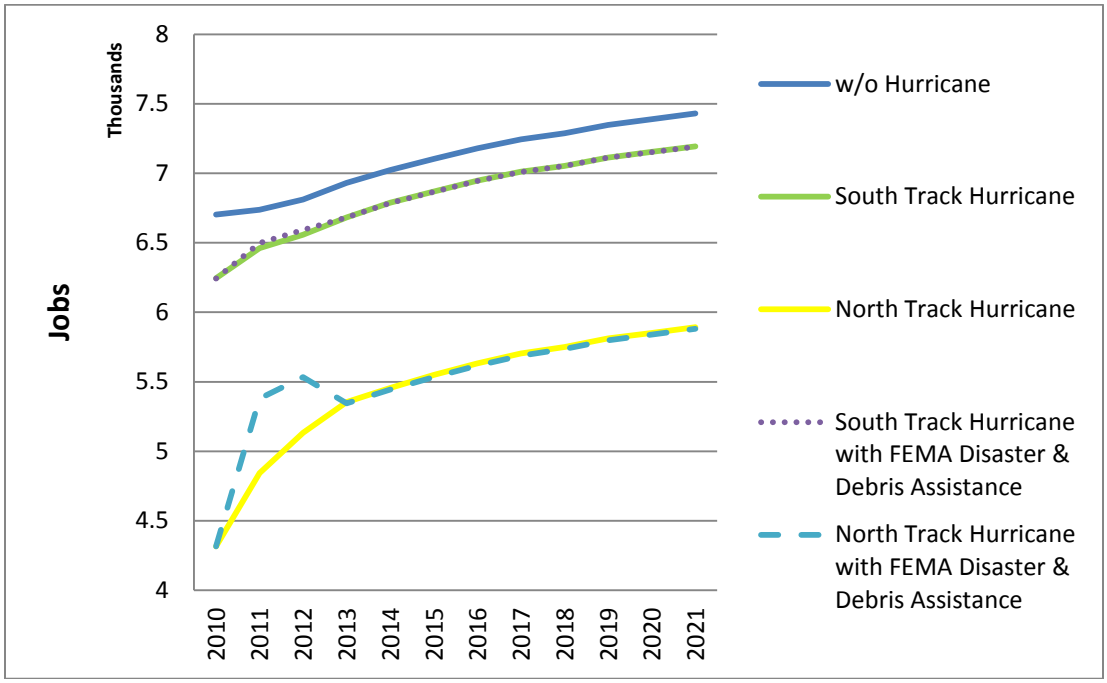
As previously noted, the direct impacts of the South Track hurricane account for a loss of 315 jobs in 2010, resulting in an additional 142 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 1,602, resulting in an additional 785 jobs lost as a result of indirect impacts.

The County returns to pre-hurricane levels of employment in 2014 following the South Track hurricane. However, for the North Track hurricane, the County does not return to pre-hurricane employment levels during the study period. For the North Track hurricane, employment is projected to reach 5,892 in 2021, which represents 87.9 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $4.2 million in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 35 jobs, a 0. 5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013.

For the North Track Hurricane, the Council estimates the County will receive approximately $70.9 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 402 jobs, a 7.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-43: Madison County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Madison County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-44. If no event were to occur, the population of the County is estimated at 19,199 in 2010 and is projected to reach 20,695 in 2021. The South Track hurricane causes the loss of 826 residents in the County, whereas the North Track hurricane results in the loss of County 5,263 residents.

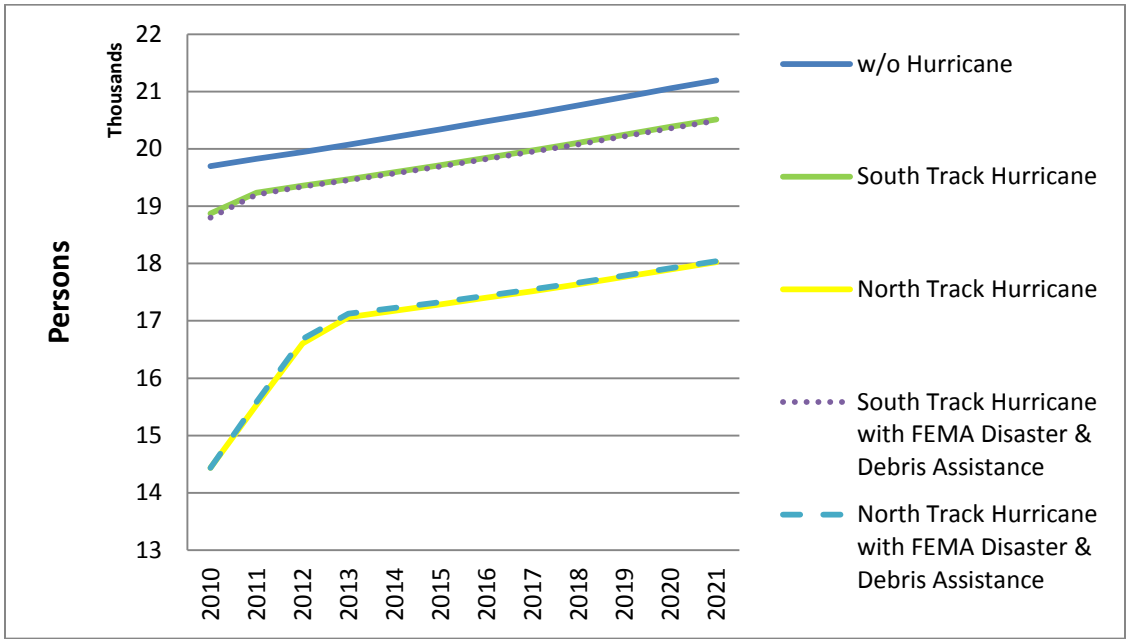
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 742 in 2010, resulting in an additional 84 residents lost as a result of indirect impacts. Si milarly, the direct impacts of the North Track hurricane account for a population loss of 4,634, resulting in an additional 629 residents lost as a result of indirect impacts.

The County returns to pre-hurricane levels of population in 2015 following the South Track hurricane. However, for the North Track hurricane, the County does not return to pre-hurricane population levels during the study period. In 2021, County population following the North Track hurricane is projected to reach 17,523, which represents 91.3 percent of pre-hurricane population levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance produces a 2012 net decrease of 15 residents, a 0.1 percent decrease from what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net decrease of 26 residents, a 0.1 percent decrease over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 75 residents, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 17 residents, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-44: Madison County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

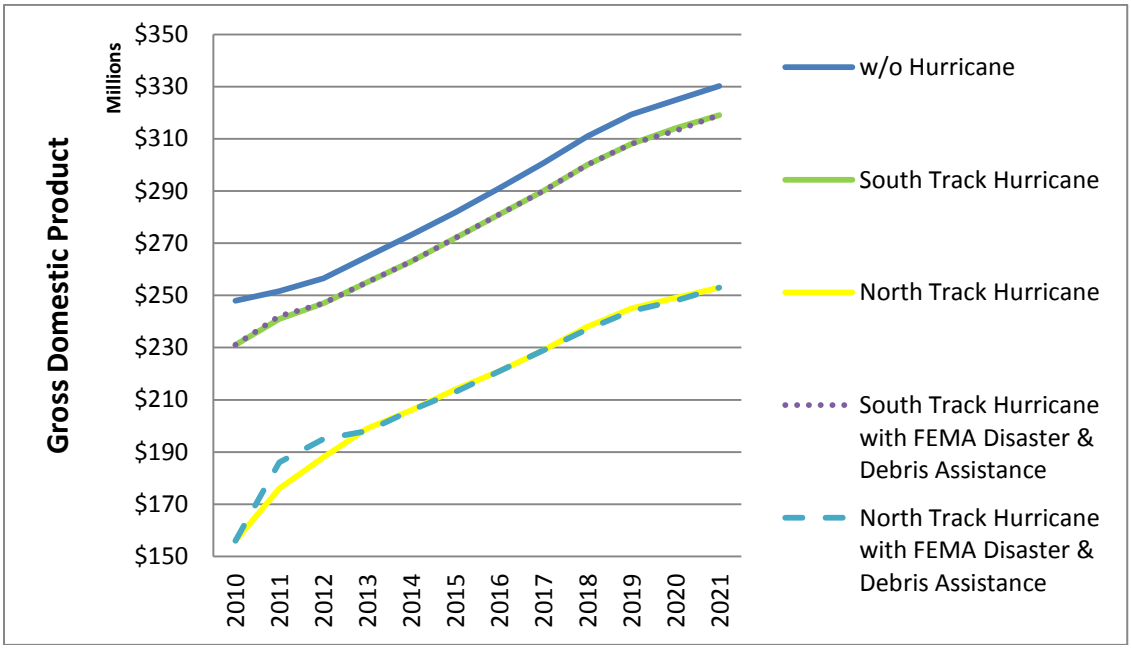
c. Madison County - Total Impacts - County Gross Domestic Product

The total County gross domestic product impacts in the County are presented in Figure IV-45. If no event were to occur, the County gross domestic product is estimated at $248.0 million in 2010 and is projected to reach $330.2 million in 2021. The South Track hurricane causes the loss of $17.0 million in 2010 County gross domestic product, whereas the North Track hurricane results in a 2010 loss of $920.0 million.

The County returns to pre-hurricane levels of County gross domestic product for both hurricanes. For the South Track hurricane, County gross domestic product returns to pre-hurricane levels in 2013. For the North Track hurricane, County gross domestic product returns to pre-hurricane levels in 2020.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. For the South Track Hurricane, Federal Emergency Management Agency assistance results in no significant changes to County gross domestic product during the study period. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $7.0 million, a 3.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. The impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-45: Madison County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Madison County - Total Impacts - Combined Personal Income

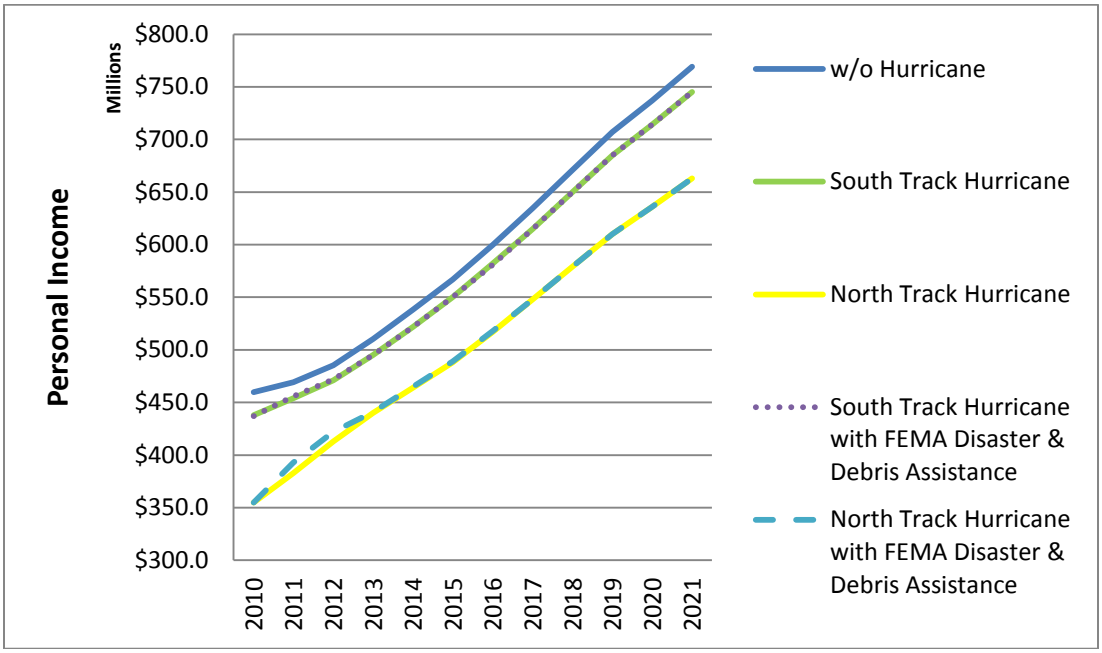
The total County combined personal income impacts in the County are presented in Figure IV-46. If no event were to occur, the County combined personal income is estimated at $459.7 million in 2010 and is projected to reach $769.1 million in 2021. The South Track hurricane causes the loss of $21.7 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $14.7 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2012. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2014.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $1.0 million in County combined personal income, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, Federal Emergency Management Agency assistance for the South Track hurricane has no net impact on County combined personal income.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $9.0 million to County combined personal income, a 2.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. Federal Emergency Management Agency assistance for the North Track hurricane has no net impact on County combined personal income by 2021.

Figure IV-46: Madison County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Madison County - Total Impacts - County Government Revenue

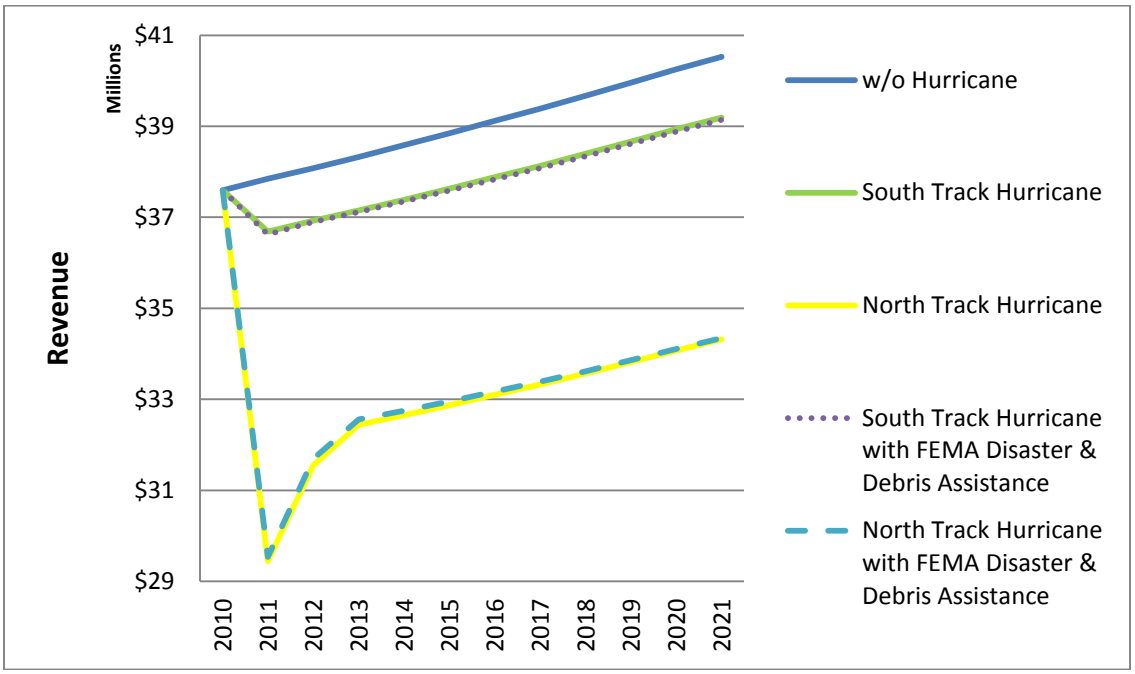
County government revenue impacts in the County are presented in Figure IV-47. If no event were to occur, County government revenue is estimated at $37.8 million in 2011 and is projected to reach $40.5 million in 2021. The South Track hurricane causes the loss of $1.2 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $8.4 million.

The County returns to pre-hurricane levels of County government revenue in 2015 for the South Track Hurricane. However, for the North Track hurricane, County government revenue does not return to pre-hurricane levels during the study period. In 2021, County government revenue following the North Track hurricane is projected to reach $34.3 million, which represents 91.3 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net decrease of approximately $29,000 in County government revenue, a 0.1 percent decrease over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County government revenue remain constant over the study period. By 2021, the net loss is approximately $51,000, a 0.1 percent decrease over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $147,000, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $33,000, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-47: Madison County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

L. Suwannee County

1. Suwannee County - Direct Impacts

a. Suwannee County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Suwannee County has an estimated capital stock value of $1.61 billion. The County is estimated to suffer a $0.32 billion capital stock loss, representing 20.1 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $0.50 billion capital stock loss, representing 31.1 percent of the County capital stock, as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-92 and IV-93. An estimated 0.1 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 11.7 percent of all buildings are destroyed. For the South Track hurricane, an estimated 15.5 percent of all County buildings receive at least some damage. For the North Track hurricane, 84.0 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 36.4 percent for agriculture buildings to a low of 14.8 percent for residential buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 95.4 percent for agriculture buildings to a low of 85.7 percent for residential buildings.

Table IV-92: Suwannee County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
Use	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	18.0	22.4	24.8	26.1	8.7	100.0	29	36	40	42	14	161
Commercial	28.4	18.5	25.3	26.1	1.7	100.0	237	154	211	218	14	834
Education	23.5	17.7	23.5	35.3	0.0	100.0	4	3	4	6	0	17
Government	27.3	18.2	22.7	31.8	0.0	100.0	6	4	5	7	0	22
Industrial	23.7	16.2	23.3	33.8	3.0	100.0	63	43	62	90	8	266
Religion	27.9	25.0	24.0	22.1	1.0	100.0	29	26	25	23	1	104
Residential	32.1	25.1	22.1	10.0	10.8	100.0	5,242	4,099	3,607	1,638	1,772	16,358
Total	31.6	24.6	22.3	11.4	10.2	100.0	5,610	4,365	3,954	2,024	1,809	17,762

Source: North Central Florida Regional Planning Council, 2011.

Table IV-93: Suwannee County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	5.6	18.0	31.1	33.5	11.8	100.0	9	29	50	54	19	161
Commercial	9.2	13.5	31.3	43.6	2.4	100.0	77	112	261	363	20	833
Education	11.1	11.1	27.8	50.0	0.0	100.0	2	2	5	9	0	18
Government	9.1	13.6	27.3	50.0	0.0	100.0	2	3	6	11	0	22
Industrial	8.7	11.7	27.2	49.1	3.4	100.0	23	31	72	130	9	265
Religion	7.8	18.5	33.0	39.8	1.0	100.0	8	19	34	41	1	103
Residential	13.0	22.3	32.1	17.4	15.3	100.0	2,125	3,655	5,246	2,838	2,495	16,359
Total	12.7	21.7	32.0	19.4	14.3	100.0	2,246	3,851	5,674	3,446	2,544	17,761

Source: North Central Florida Regional Planning Council, 2011.

b. Suwannee County - Direct Impacts - Employment

Tables IV-94 and IV-95 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-94, the County is anticipated experience a net loss (gains minus losses) of 2,928 jobs, or 19.5 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 1,025 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane.

Basic industry categories which are identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-95, the County is anticipated experience a net loss of 3,370 jobs, or 22.4 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 1,025 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-94: Suwannee County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,688	(7)	(448)	(455)
Federal Government, Civilian	123	0	(33)	(33)
Federal Government, Military	82	0	(22)	(22)
Forestry, Fishing, Related Activities, and Other	389	(104)	(25)	(129)
Mining	36	0	(11)	(11)
Utilities	211	(51)	(15)	(66)
Construction	874	98	927	1,025
Manufacturing	1,405	(97)	(339)	(436)
Wholesale Trade	428	0	(111)	(111)
Retail Trade	1,996	(119)	(398)	(517)
Transportation and Warehousing	450	0	(140)	(140)
Information	101	0	(31)	(31)
Finance and Insurance	418	0	(108)	(108)
Real Estate and Rental and Leasing	538	0	(139)	(139)
Professional and Technical Services	598	0	(155)	(155)
Management of Companies and Enterprises	71	0	(18)	(18)
Administrative and Waste Services	613	0	(190)	(190)
Educational Services	110	0	(32)	(32)
Health Care and Social Assistance	1,609	(7)	(410)	(417)
Arts, Entertainment, and Recreation	136	0	(35)	(35)
Accommodation and Food Services	826	0	(214)	(214)
Other Services, except Public Administration	1,122	(61)	(230)	(291)
Farm	1,213	(332)	(71)	(403)
Total	15,037	(680)	(2,248)	(2,928)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-95: Suwannee County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,688	(9)	(559)	(568)
Federal Government, Civilian	123	0	(41)	(41)
Federal Government, Military	82	0	(28)	(28)
Forestry, Fishing, Related Activities, and Other	389	(120)	(28)	(148)
Mining	36	0	(13)	(13)
Utilities	211	(59)	(17)	(77)
Construction	874	118	1,117	1,235
Manufacturing	1,405	(114)	(396)	(510)
Wholesale Trade	428	0	(144)	(144)
Retail Trade	1,996	(154)	(516)	(670)
Transportation and Warehousing	450	0	(163)	(163)
Information	101	0	(37)	(37)
Finance and Insurance	418	0	(140)	(140)
Real Estate and Rental and Leasing	538	0	(180)	(180)
Professional and Technical Services	598	0	(201)	(201)
Management of Companies and Enterprises	71	0	(24)	(24)
Administrative and Waste Services	613	0	(222)	(222)
Educational Services	110	0	(37)	(37)
Health Care and Social Assistance	1,609	(8)	(532)	(540)
Arts, Entertainment, and Recreation	136	0	(45)	(45)
Accommodation and Food Services	826	0	(277)	(277)
Other Services, except Public Administration	1,122	(79)	(298)	(377)
Farm	1,213	(382)	(82)	(464)
Total	15,037	(807)	(2,863)	(3,370)

Source: North Central Florida Regional Planning Council, 2011.

c. Suwannee County - Direct Impacts - Population

Table IV-96 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 8,487 residents, 20.4 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 11,652 residents, 28.0 percent of its population, as a result of the North Track hurricane.

Table IV-96: Suwannee County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	8,596	(601)	(1,007)
Age 18 - 64	25,026	(1,751)	(2,931)
Age 65+, White Non-Hispanic	7,016	(491)	(822)
Age 65+, Black Non-Hispanic	662	(46)	(78)
Age 65+, Other Non-Hispanic	131	(9)	(15)
Age 65+, Hispanic	178	(12)	(21)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	8,596	(331)	(381)
Age 18 - 64	25,026	(964)	(1,110)
Age 65+, White Non-Hispanic	7,016	0	0
Age 65+, Black Non-Hispanic	662	0	0
Age 65+, Other Non-Hispanic	131	0	0
Age 65+, Hispanic	178	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	8,596	(1,095)	(1,352)
Age 18 - 64	25,026	(3,187)	(3,936)
Age 65+, White Non-Hispanic	7,016	0	0
Age 65+, Black Non-Hispanic	662	0	0
Age 65+, Other Non-Hispanic	131	0	0
Age 65+, Hispanic	178	0	0
Total Population Change			
Age 0 - 17	8,596	(2,027)	(2,740)
Age 18 - 64	25,026	(5,901)	(7,977)
Age 65+, White Non-Hispanic	7,016	(491)	(822)
Age 65+, Black Non-Hispanic	662	(46)	(78)
Age 65+, Other Non-Hispanic	131	(9)	(15)
Age 65+, Hispanic	178	(12)	(21)
Total	41,609	(8,487)	(11,652)

Source: North Central Florida Regional Planning Council, 2011.

d. Suwannee County - Direct Impacts - Hurricane Recovery Period

Tables IV-97 and IV-98 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-97, the 680 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2013. Similarly, Table IV-98 indicates that the 807 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2013.

Table IV-97: Suwannee County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(7)	(4)	0	0	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(104)	(54)	(5)	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	(51)	(26)	(2)	0	0	0	0
Construction	98	98	8	0	0	0	0
Manufacturing	(97)	(51)	(4)	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(119)	(62)	(5)	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	(7)	(3)	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(61)	(32)	(3)	0	0	0	0
Farm	(332)	(173)	(15)	0	0	0	0
Total	(680)	(307)	(26)	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-98: Suwannee County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(9)	(6)	(4)	0	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(120)	(75)	(51)	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	(59)	(37)	(25)	0	0	0	0
Construction	118	118	80	0	0	0	0
Manufacturing	(114)	(71)	(48)	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(154)	(97)	(66)	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	(8)	(5)	(4)	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(79)	(50)	(34)	0	0	0	0
Farm	(382)	(239)	(163)	0	0	0	0
Total	(807)	(462)	(315)	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-99 and IV-100 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-99, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2013. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 795 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-100, County population loss due to residential building damage from the North Track hurricane recovers in 2013. However, 1,332 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-99: Suwannee County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(601)	(392)	(247)	(164)	(164)	(164)	(164)	(164)
Age 18 - 64	(1,751)	(1,140)	(719)	(478)	(478)	(478)	(478)	(478)
Age 65+, White Non-Hispanic	(491)	(320)	(202)	(134)	(134)	(134)	(134)	(134)
Age 65+, Black Non-Hispanic	(46)	(30)	(19)	(13)	(13)	(13)	(13)	(13)
Age 65+, Other Non-Hispanic	(9)	(6)	(4)	(3)	(3)	(3)	(3)	(3)
Age 65+, Hispanic	(12)	(8)	(5)	(3)	(3)	(3)	(3)	(3)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(331)	(167)	(14)	0	0	0	0	0
Age 18 - 64	(964)	(486)	(40)	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(1,095)	0	0	0	0	0	0	0
Age 18 - 64	(3,187)	0	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(2,027)	374	298	96	0	0	0	0
Age 18 - 64	(5,901)	1,088	867	281	0	0	0	0
Age 65+, White Non-Hispanic	(491)	171	118	68	0	0	0	0
Age 65+, Black Non-Hispanic	(46)	16	11	6	0	0	0	0
Age 65+, Other Non-Hispanic	(9)	3	2	1	0	0	0	0
Age 65+, Hispanic	(12)	4	3	2	0	0	0	0
Total	(8,486)	1,656	1,299	454	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-100: Suwannee County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(1,007)	(734)	(504)	(275)	(275)	(275)	(275)	(275)
Age 18 - 64	(2,931)	(2,136)	(1,469)	(801)	(801)	(801)	(801)	(801)
Age 65+, White Non-Hispanic	(822)	(599)	(412)	(225)	(225)	(225)	(225)	(225)
Age 65+, Black Non-Hispanic	(78)	(57)	(39)	(21)	(21)	(21)	(21)	(21)
Age 65+, Other Non-Hispanic	(15)	(11)	(8)	(4)	(4)	(4)	(4)	(4)
Age 65+, Hispanic	(21)	(15)	(10)	(6)	(6)	(6)	(6)	(6)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(381)	(232)	(153)	0	0	0	0	0
Age 18 - 64	(1,110)	(675)	(445)	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)
Age 18 - 64	(3,936)	(3,936)	(3,936)	(3,936)	(3,936)	(3,936)	(3,936)	(3,936)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(2,740)	423	308	382	0	0	0	0
Age 18 - 64	(7,977)	1,230	898	1,112	0	0	0	0
Age 65+, White Non-Hispanic	(822)	223	187	187	0	0	0	0
Age 65+, Black Non-Hispanic	(78)	21	18	18	0	0	0	0
Age 65+, Other Non-Hispanic	(15)	4	3	3	0	0	0	0
Age 65+, Hispanic	(21)	6	5	5	0	0	0	0
Total	(11,653)	1,907	1,419	1,707	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Suwannee County - Total Impacts

a. Suwannee County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-48. If no event were to occur, the estimated number of employees in the County is estimated at 15,035 in 2010 and is projected to reach 17,262 in 2021. The South Track hurricane causes the loss of 4,708 jobs in the County, whereas the North Track hurricane results in the loss of County 5,857 jobs.

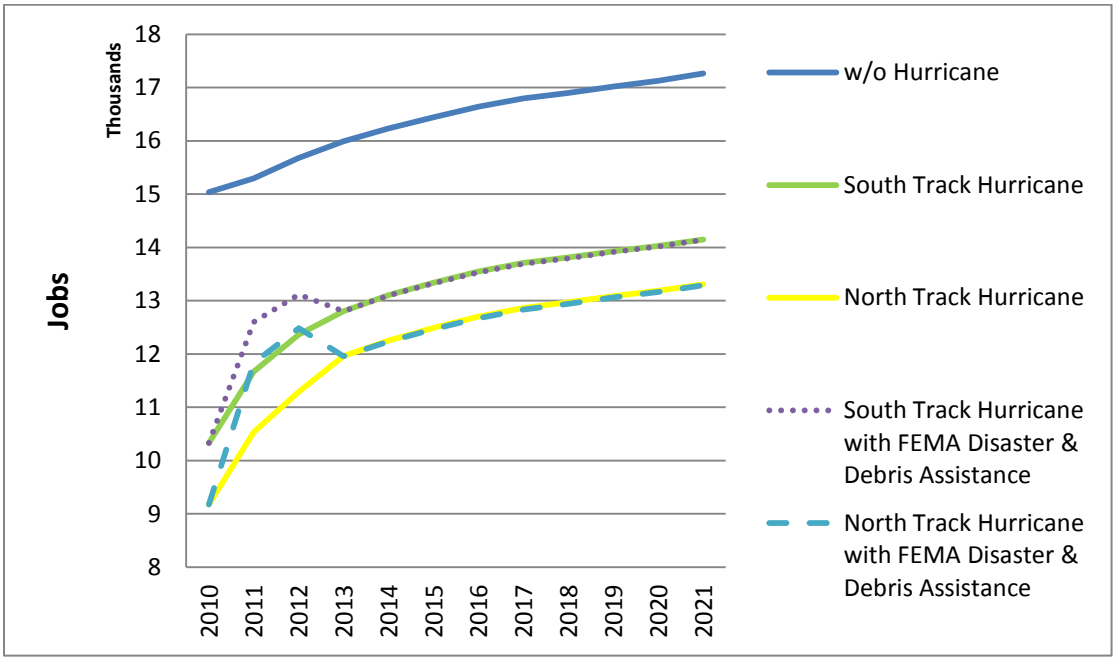
As previously noted, the direct impacts of the South Track hurricane account for a loss of 2,928 jobs in 2010, resulting in an additional 1,780 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 3,370, resulting in an additional 2,487 jobs lost as a result of indirect impacts.

The County does not return to pre-hurricane levels of employment in the aftermath of either hurricane. In 2021, County employment following the South Track hurricane is projected to reach 14,150, which represents 94.1 percent of pre-hurricane employment levels. County employment following the North Track hurricane is projected to reach 13,306 in 2021, which represents 88.5 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $110.7 million in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 750 jobs, a 6.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013.

For the North Track Hurricane, the Council estimates the County will receive approximately $162.1 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 1,193 jobs, a 10.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-48: Suwannee County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Suwannee County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-49. If no event were to occur, the population of the County is estimated at 41,611 in 2010 and is projected to reach 50,795 in 2021. The South Track hurricane causes the loss of 10,098 residents in the County, whereas the North Track hurricane results in the loss of County 13,487 residents.

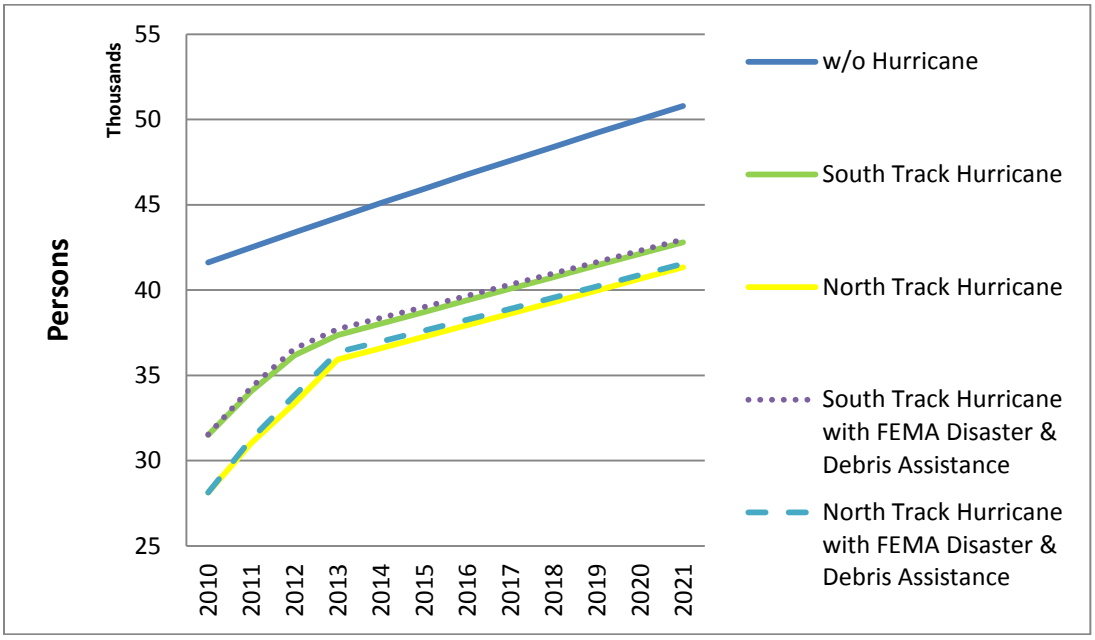
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 8,487 in 2010, resulting in an additional 1,611 residents lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a population loss of 11,652, resulting in an additional 1,835 residents lost as a result of indirect impacts.

The County returns to pre-hurricane levels of population in 2020 following the South Track hurricane. However, for the North Track hurricane, the County does not return to pre-hurricane population levels during the study period. In 2021, County population following the North Track hurricane is projected to reach 41,340, which represents 99.3 percent of pre-hurricane population levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 401 residents, a 1 .1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 168 residents, a 0.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 475 residents, a 1.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 206 residents, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-49: Suwannee County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

c. Suwannee County - Total Impacts - County Gross Domestic Product

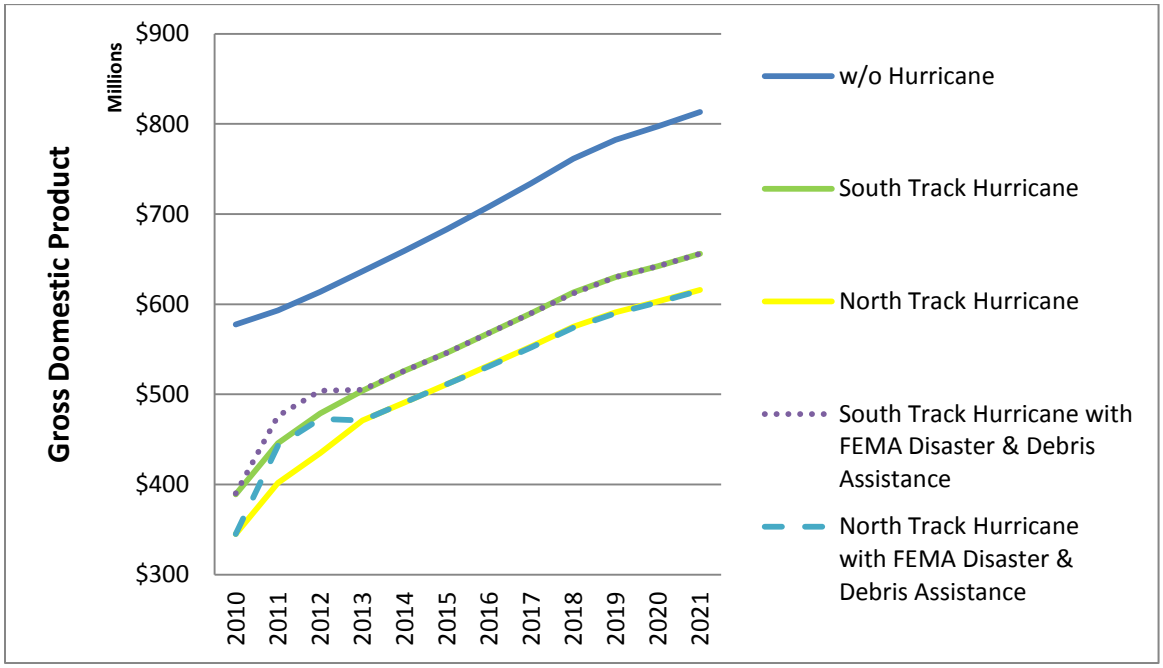
The total County gross domestic product impacts in the County are presented in Figure IV-50. If no event were to occur, the County gross domestic product is estimated at $577.6 million in 2010 and is projected to reach $813.3 million in 2021. The South Track hurricane causes the loss of $188.6 million in 2010 County gross domestic product, whereas the North Track hurricane results in a 2010 loss of $232.6 million.

The County returns to pre-hurricane levels of County gross domestic product for both hurricanes. For the South Track hurricane, County gross domestic product returns to pre-hurricane levels in 2017. For the North Track hurricane, County gross domestic product returns to pre-hurricane levels in 2019.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $25.0 million in County gross domestic product, a 5.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, Federal Emergency Management Agency assistance has no impact on County gross domestic product on for the South Track hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $38.0, an 8.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. By 2021, Federal Emergency Management Agency assistance results in a $1.0 million decrease in County gross domestic product, a 0.2 percent decrease over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane.

Figure IV-50: Suwannee County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Suwannee County - Total Impacts - Combined Personal Income

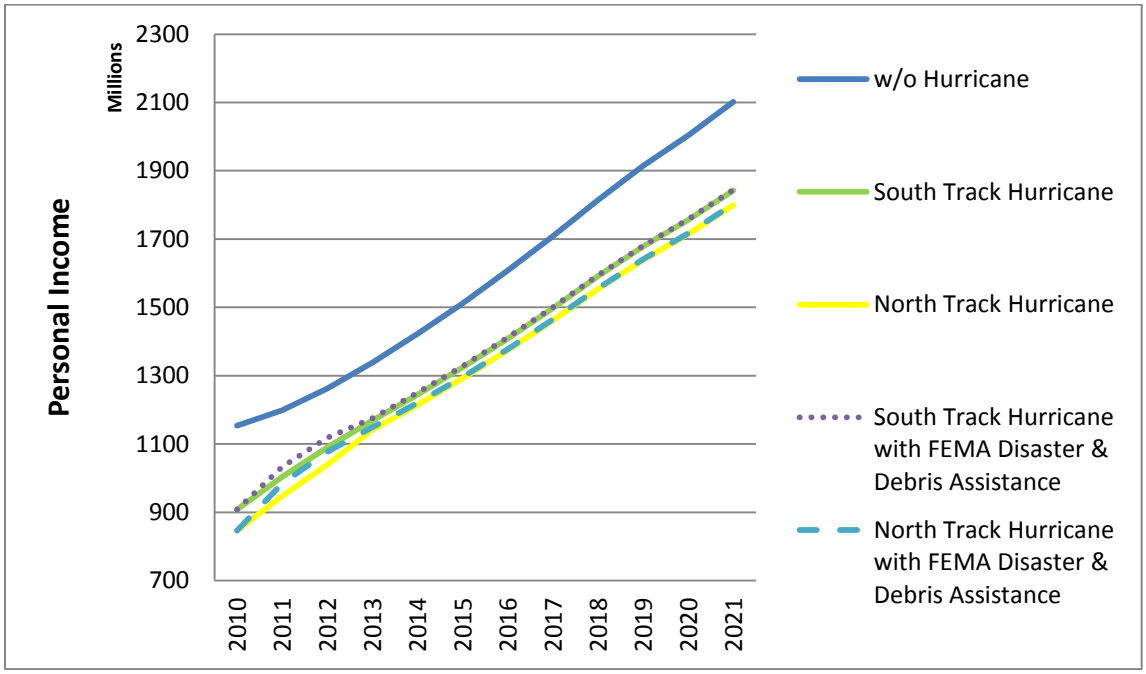
The total County combined personal income impacts in the County are presented in Figure IV-51. If no event were to occur, the County combined personal income is estimated at $1.15 billion in 2010 and is projected to reach $2.10 billion in 2021. The South Track hurricane causes the loss of $246.0 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $308.0 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2013. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2018.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $28.0 million in County combined personal income, a 2.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period. By 2021, the net impact is $2.0 million, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $38.0 million to County combined personal income, a 3.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is $3.0 million, a 0.2 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-51: Suwannee County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Suwannee County - Total Impacts - County Government Revenue

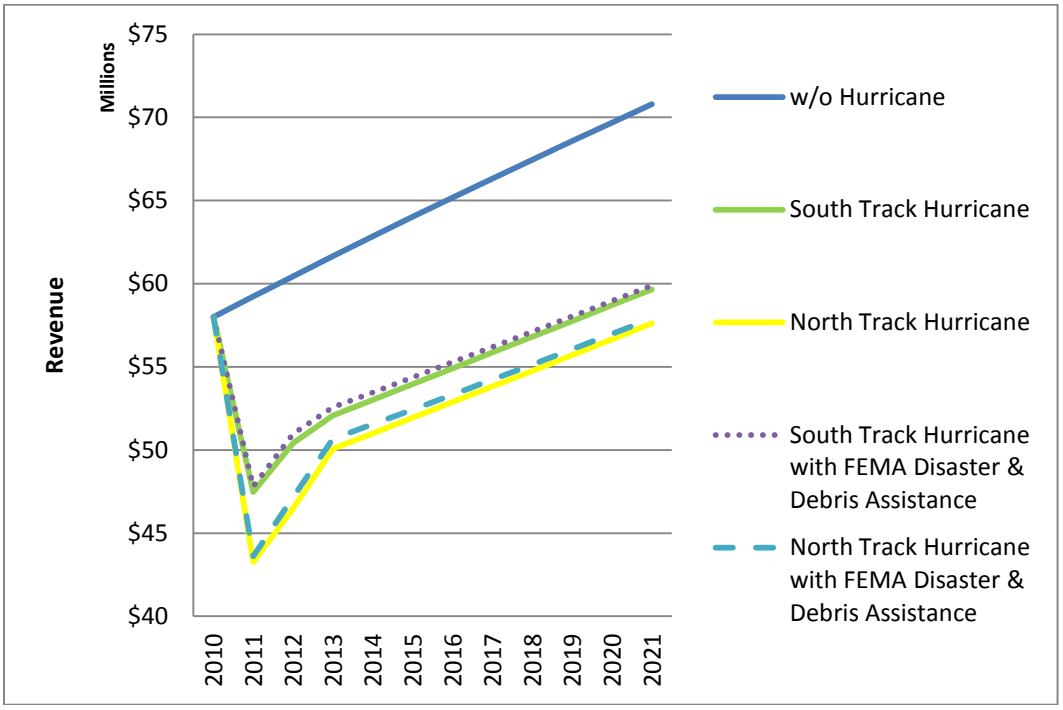
County government revenue impacts in the County are presented in Figure IV-52. If no event were to occur, County government revenue is estimated at $59.2 million in 2011 and is projected to reach $70.8 million in 2021. The South Track hurricane causes the loss of $11.8 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $16.0 million.

The County returns to pre-hurricane levels of County government revenue in 2020 for the South Track Hurricane. However, for the North Track hurricane, County government revenue does not return to pre-hurricane levels during the study period. In 2021, County government revenue following the North Track hurricane is projected to reach $57.6 million, which represents 99.3 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $0.5 million in County government revenue, a 1.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County government revenue gradually decrease over the study period. By 2021, the net impact is approximately $234,000, a 0.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $0.6 million, a 1.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $287,000, a 0.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-52: Suwannee County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

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M. Taylor County

1. Taylor County - Direct Impacts

a. Taylor County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Taylor County has an estimated capital stock value of $1.01 billion. The County is estimated to suffer a $0.54 billion capital stock loss, representing 42.6 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $0.81 billion capital stock loss, representing 79.9 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-101 and IV-102. An estimated 34.2 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 61.8 percent of all buildings are destroyed. For the South Track hurricane, an estimated 96.4 percent of all County buildings receive at least some damage. For the North Track hurricane, 99.8 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 97.0 percent for agriculture buildings to a low of 92.3 percent for education buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 100.0 percent for agriculture, education, government, and religion buildings to a low of 99.2 percent for industrial buildings.

Table IV-101: Taylor County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	3.0	6.1	21.2	48.5	21.2	100.0	1	2	7	16	7	33
Commercial	3.8	6.5	20.5	61.0	8.4	100.0	18	31	98	292	40	479
Education	7.7	7.7	23.1	61.5	0.0	100.0	1	1	3	8	0	13
Government	4.2	8.3	20.8	66.7	0.0	100.0	1	2	5	16	0	24
Industrial	3.0	4.5	15.0	66.2	11.3	100.0	4	6	20	88	15	133
Religion	3.0	7.6	22.7	60.6	6.0	100.0	2	5	15	40	4	66
Residential	3.6	10.6	22.4	27.2	36.2	100.0	339	1,006	2,123	2,574	3,422	9,464
Total	3.6	10.3	22.2	29.7	34.2	100.0	366	1,053	2,271	3,488	3,488	10,212

Source: North Central Florida Regional Planning Council, 2011.

Table IV-102: Taylor County - Direct Impacts -North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	0.0	0.0	6.1	54.6	39.4	100.0	0	0	2	18	13	33
Commercial	0.4	0.8	6.0	69.6	23.1	100.0	2	4	29	334	111	480
Education	0.0	0.0	7.7	84.6	7.7	100.0	0	0	1	11	1	13
Government	0.0	0.0	8.0	84.0	8.0	100.0	0	0	2	21	2	25
Industrial	0.8	0.8	4.5	73.9	20.2	100.0	1	1	6	99	27	134
Religion	0.0	1.5	6.1	71.2	21.2	100.0	0	1	4	47	14	66
Residential	0.2	1.3	7.7	25.9	64.9	100.0	19	125	730	2,451	6,140	9,465
Total	0.2	1.3	7.6	29.2	61.8	100.0	22	131	774	2,981	6,308	10,216

Source: North Central Florida Regional Planning Council, 2011.

b. Taylor County - Direct Impacts - Employment

Tables IV-103 and IV-104 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-103, the County is anticipated experience a net loss (gains minus losses) of 1,855 jobs, or 21.3 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 1,018 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane.

Basic industry categories which are identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-104, the County is anticipated experience a net loss of 3,534 jobs, or 40.6 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 1,163 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-103: Taylor County - Direct Impacts -South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,690	(212)	(281)	(493)
Federal Government, Civilian	35	0	(10)	(10)
Federal Government, Military	45	0	(13)	(13)
Forestry, Fishing, Related Activities, and Other	328	(123)	(19)	(142)
Mining	58	(3)	(20)	(23)
Utilities	40	(5)	(11)	(16)
Construction	580	214	804	1,018
Manufacturing	1,518	(350)	(249)	(599)
Wholesale Trade	211	0	(74)	(74)
Retail Trade	1,175	(100)	(312)	(412)
Transportation and Warehousing	144	0	(57)	(57)
Information	60	0	(24)	(24)
Finance and Insurance	208	0	(73)	(73)
Real Estate and Rental and Leasing	183	0	(64)	(64)
Professional and Technical Services	243	0	(85)	(85)
Management of Companies and Enterprises	9	0	(3)	(3)
Administrative and Waste Services	276	0	(109)	(109)
Educational Services	51	0	(14)	(14)
Health Care and Social Assistance	526	0	(185)	(185)
Arts, Entertainment, and Recreation	73	0	(26)	(26)
Accommodation and Food Services	556	0	(195)	(195)
Other Services, except Public Administration	563	(17)	(180)	(197)
Farm	136	(5)	(54)	(59)
Total	8,708	(601)	(1,254)	(1,855)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-104: Taylor County - Direct Impacts -North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	1,690	(378)	(501)	(879)
Federal Government, Civilian	35	0	(18)	(18)
Federal Government, Military	45	0	(23)	(23)
Forestry, Fishing, Related Activities, and Other	328	(194)	(29)	(223)
Mining	58	(5)	(29)	(34)
Utilities	40	(7)	(16)	(23)
Construction	580	245	918	1,163
Manufacturing	1,518	(516)	(368)	(884)
Wholesale Trade	211	0	(126)	(126)
Retail Trade	1,175	(170)	(530)	(700)
Transportation and Warehousing	144	0	(84)	(84)
Information	60	0	(35)	(35)
Finance and Insurance	208	0	(124)	(124)
Real Estate and Rental and Leasing	183	0	(109)	(109)
Professional and Technical Services	243	0	(145)	(145)
Management of Companies and Enterprises	9	0	(6)	(6)
Administrative and Waste Services	276	0	(161)	(161)
Educational Services	51	0	(27)	(27)
Health Care and Social Assistance	526	0	(313)	(313)
Arts, Entertainment, and Recreation	73	0	(44)	(44)
Accommodation and Food Services	556	0	(331)	(331)
Other Services, except Public Administration	563	(29)	(306)	(335)
Farm	136	(8)	(85)	(93)
Total	8,708	(1,062)	(2,492)	(3,534)

Source: North Central Florida Regional Planning Council, 2011.

c. Taylor County - Direct Impacts - Population

Table IV-105 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 8,444 residents, 38.4 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 16,927 residents, 77.0 percent of its population, as a result of the North Track hurricane.

Table IV-105: Taylor County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	4,202	(747)	(1,802)
Age 18 - 64	14,623	(2,602)	(6,271)
Age 65+, White Non-Hispanic	2,735	(487)	(1,173)
Age 65+, Black Non-Hispanic	334	(59)	(143)
Age 65+, Other Non-Hispanic	78	(14)	(33)
Age 65+, Hispanic	24	(4)	(10)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	4,202	(258)	(395)
Age 18 - 64	14,623	(1,209)	(1,847)
Age 65+, White Non-Hispanic	2,735	0	0
Age 65+, Black Non-Hispanic	334	0	0
Age 65+, Other Non-Hispanic	78	0	0
Age 65+, Hispanic	24	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	4,202	(540)	(925)
Age 18 - 64	14,623	(2,524)	(4,327)
Age 65+, White Non-Hispanic	2,735	0	0
Age 65+, Black Non-Hispanic	334	0	0
Age 65+, Other Non-Hispanic	78	0	0
Age 65+, Hispanic	24	0	0
Total Population Change			
Age 0 - 17	4,202	(1,546)	(3,122)
Age 18 - 64	14,623	(6,335)	(12,445)
Age 65+, White Non-Hispanic	2,735	(487)	(1,173)
Age 65+, Black Non-Hispanic	334	(59)	(143)
Age 65+, Other Non-Hispanic	78	(14)	(33)
Age 65+, Hispanic	24	(4)	(10)
Total	21,996	(8,444)	(16,927)

Source: North Central Florida Regional Planning Council, 2011.

d. Taylor County - Direct Impacts - Hurricane Recovery Period

Tables IV-106 and IV-107 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-106, the 601 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2015. Similarly, Table IV-107 indicates that the 1,062 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2016.

Table IV-106: Taylor County - Direct Impacts -South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(212)	(156)	(100)	(78)	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(123)	(90)	(58)	(45)	(50)	0	0
Mining	(3)	(3)	(2)	(1)	0	0	0
Utilities	(5)	(4)	(2)	(2)	0	0	0
Construction	214	214	214	168	0	0	0
Manufacturing	(350)	(257)	(165)	(129)	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(100)	(74)	(47)	(37)	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(17)	(13)	(8)	(6)	0	0	0
Farm	(5)	(4)	(2)	(2)	0	0	0
Total	(601)	(387)	(170)	(132)	(50)	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-107: Taylor County - Direct Impacts -North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(378)	(306)	(233)	(174)	(129)	(25)	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(194)	(157)	(120)	(89)	(66)	(13)	0
Mining	(5)	(4)	(3)	(2)	(2)	0	0
Utilities	(7)	(6)	(4)	(3)	(2)	0	0
Construction	245	245	245	245	245	48	0
Manufacturing	(516)	(417)	(318)	(237)	(176)	(35)	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	(170)	(137)	(104)	(78)	(58)	(11)	0
Transportation and Warehousing	0	0	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	(29)	(24)	(18)	(13)	(10)	(2)	0
Farm	(8)	(6)	(5)	(4)	(3)	(1)	0
Total	(1,062)	(812)	(560)	(355)	(201)	(39)	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-108 and IV-109 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-108, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2014. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 1,031 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-109, County population loss due to residential building damage from the North Track hurricane recovers in 2016. However, 2,484 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-108: Taylor County - Direct Impacts -South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(747)	(602)	(456)	(327)	(197)	(197)	(197)	(197)
Age 18 - 64	(2,602)	(2,095)	(1,588)	(1,137)	(685)	(685)	(685)	(685)
Age 65+, White Non-Hispanic	(487)	(392)	(297)	(213)	(128)	(128)	(128)	(128)
Age 65+, Black Non-Hispanic	(59)	(48)	(36)	(26)	(16)	(16)	(16)	(16)
Age 65+, Other Non-Hispanic	(14)	(11)	(8)	(6)	(4)	(4)	(4)	(4)
Age 65+, Hispanic	(4)	(3)	(3)	(2)	(1)	(1)	(1)	(1)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(258)	(187)	(116)	(89)	0	0	0	0
Age 18 - 64	(1,209)	(873)	(543)	(417)	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(540)	(540)	(540)	(540)	(540)	(540)	(540)	(540)
Age 18 - 64	(2,524)	(2,524)	(2,524)	(2,524)	(2,524)	(2,524)	(2,524)	(2,524)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(1,546)	217	216	157	219	0	0	0
Age 18 - 64	(6,335)	843	837	578	869	0	0	0
Age 65+, White Non-Hispanic	(487)	95	95	84	84	0	0	0
Age 65+, Black Non-Hispanic	(59)	12	12	10	10	0	0	0
Age 65+, Other Non-Hispanic	(14)	3	3	2	2	0	0	0
Age 65+, Hispanic	(4)	1	1	1	1	0	0	0
Total	(8,445)	1,171	1,164	832	1,185	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-109: Taylor County - Direct Impacts -North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(1,802)	(1,546)	(1,291)	(1,036)	(780)	(627)	(474)	(474)
Age 18 - 64	(6,271)	(5,382)	(4,493)	(3,604)	(2,715)	(2,183)	(1,651)	(1,651)
Age 65+, White Non-Hispanic	(1,173)	(1,007)	(840)	(674)	(508)	(408)	(309)	(309)
Age 65+, Black Non-Hispanic	(143)	(123)	(103)	(82)	(62)	(50)	(38)	(38)
Age 65+, Other Non-Hispanic	(33)	(29)	(24)	(19)	(14)	(12)	(9)	(9)
Age 65+, Hispanic	(10)	(9)	(7)	(6)	(4)	(4)	(3)	(3)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(395)	(313)	(233)	(154)	(76)	(15)	0	0
Age 18 - 64	(1,847)	(1,465)	(1,089)	(720)	(358)	(69)	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(925)	(925)	(925)	(925)	(925)	(925)	(925)	(925)
Age 18 - 64	(4,327)	(4,327)	(4,327)	(4,327)	(4,327)	(4,327)	(4,327)	(4,327)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(3,122)	337	336	334	333	215	168	0
Age 18 - 64	(12,445)	1,272	1,265	1,258	1,251	820	601	0
Age 65+, White Non-Hispanic	(1,173)	166	166	166	166	100	100	0
Age 65+, Black Non-Hispanic	(143)	20	20	20	20	12	12	0
Age 65+, Other Non-Hispanic	(33)	5	5	5	5	3	3	0
Age 65+, Hispanic	(10)	1	1	1	1	1	1	0
Total	(16,926)	1,801	1,793	1,784	1,776	1,151	885	0

Source: North Central Florida Regional Planning Council, 2011.

2. Taylor County - Total Impacts

a. Taylor County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-53. If no event were to occur, the estimated number of employees in the County is estimated at 8,710 in 2010 and is projected to reach 9,512 in 2021. The South Track hurricane causes the loss of 3,413 jobs in the County, whereas the North Track hurricane results in the loss of County 5,807 jobs.

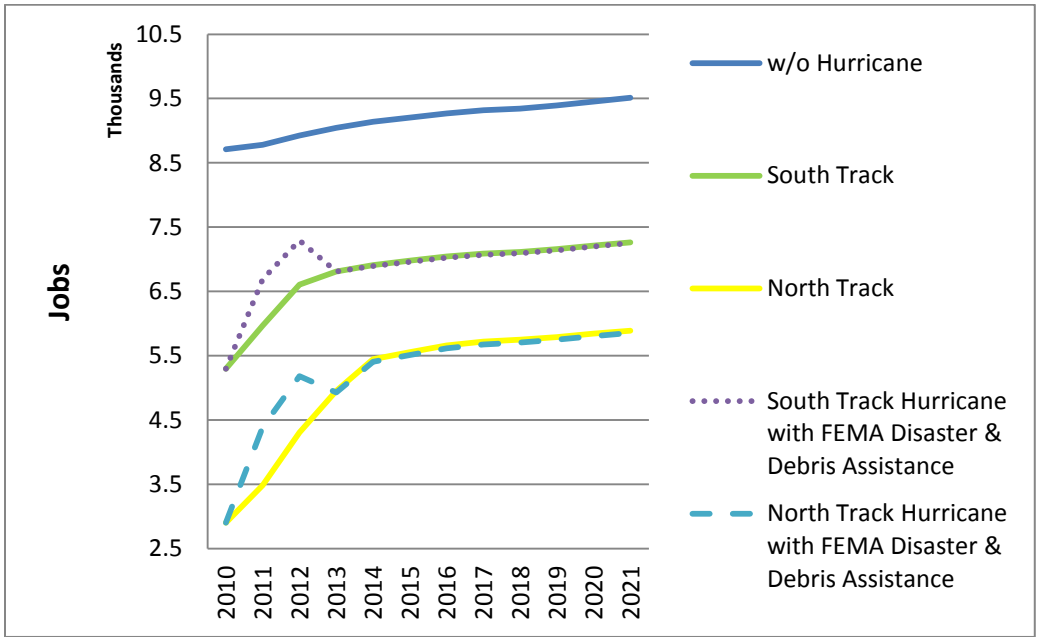
As previously noted, the direct impacts of the South Track hurricane account for a loss of 1,855 jobs in 2010, resulting in an additional 1,558 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 3,534, resulting in an additional 2,273 jobs lost as a result of indirect impacts.

The County does not return to pre-hurricane levels of employment in the aftermath of either hurricane. In 2021, County employment following the South Track hurricane is projected to reach 7,263, which represents 83.4 percent of pre-hurricane employment levels. County employment following the North Track hurricane is projected to reach 5,887 in 2021, which represents 67.5 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $165.2 million in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 691 jobs, a 10.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013.

For the North Track Hurricane, the Council estimates the County will receive approximately $255.8 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 879 jobs, a 20.4 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-53: Taylor County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Taylor County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-54. If no event were to occur, the population of the County is estimated at 21,950 in 2010 and is projected to reach 25,057 in 2021. The South Track hurricane causes the loss of 9,083 residents in the County, whereas the North Track hurricane results in the loss of County 14,857 residents.

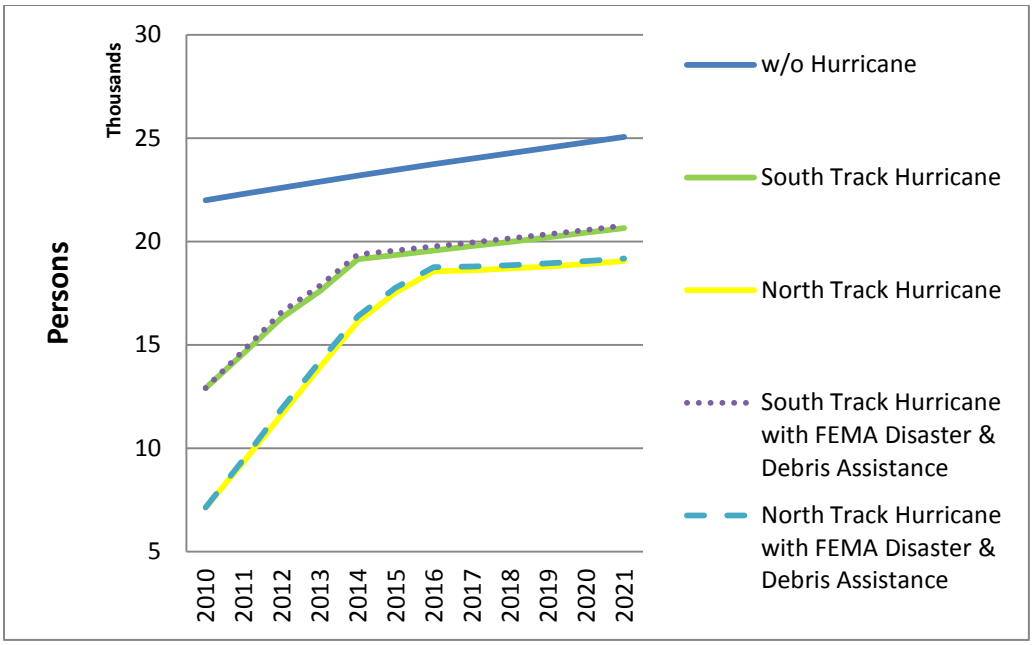
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 8,444 in 2010, resulting in an additional 639 residents lost as a result of indirect impacts. However, the direct impacts of the North Track hurricane account for a population loss of 16,927, resulting in a gain of 2,070 residents as a result of indirect impacts.

The County does not return to pre-hurricane levels of population in the aftermath of either hurricane during the study period. In 2021, County population following the South Track hurricane is projected to reach 20,645, which represents 93.9 percent of pre-hurricane population levels. County population following the North Track hurricane is projected to reach 19,052 in 2021, which represents 86.6 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 278 residents, a 1.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 119 residents, a 0.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 292 residents, a 2.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 122 residents, a 0.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-54: Taylor County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

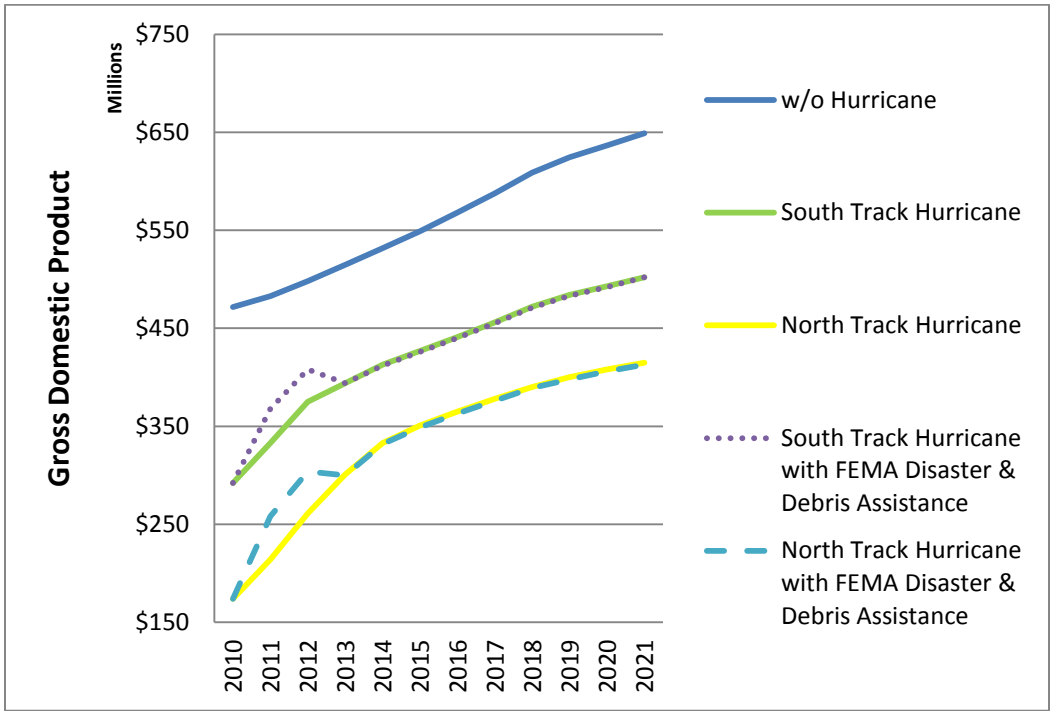
c. Taylor County - Total Impacts - County Gross Domestic Product

The total County gross domestic product impacts in the County are presented in Figure IV-55. If no event were to occur, the County gross domestic product is estimated at $471.8 million in 2010 and is projected to reach $648.8 million in 2021. The South Track hurricane causes the loss of $179.8 million in 2010 County gross domestic product, whereas the North Track hurricane results in a 2010 loss of $297.8 million.

The County returns to pre-hurricane levels of County gross domestic product in 2015 following the South Track hurricane. However, for the North Track hurricane, the County does not return to pre-hurricane levels of County gross domestic product during the study period. In 2021, County gross domestic product following the North Track hurricane is projected to reach $415.0 million, which represents 88.0 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $33.0 million in County gross domestic product, an 8.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013. For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $43.0 million, a 16.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-55: Taylor County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Taylor County - Total Impacts - Combined Personal Income

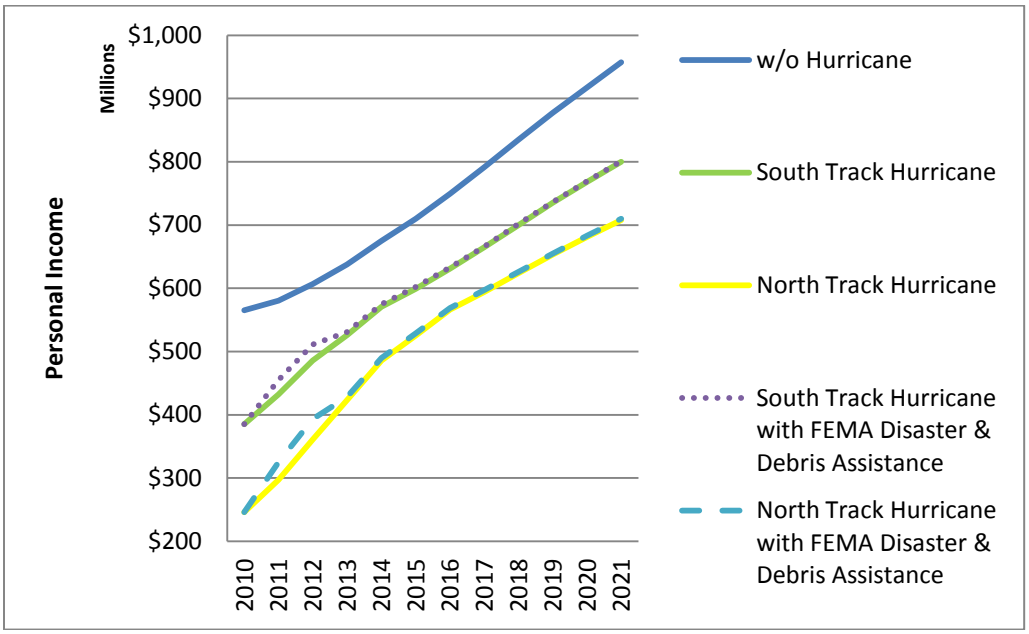
The total County combined personal income impacts in the County are presented in Figure IV-56. If no event were to occur, the County combined personal income is estimated at $0.57 billion in 2010 and is projected to reach $0.96 billion in 2021. The South Track hurricane causes the loss of $0.18 billion in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $0.32 billion.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2014. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2016.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $25.0 million in County combined personal income, a 5.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County combined personal income gradually decrease over the study period. By 2021, the net impact is $1.0 million, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $32.0 million to County combined personal income, an 8.9 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is $2.0 million, a 0.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-56: Taylor County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Taylor County - Total Impacts - County Government Revenue

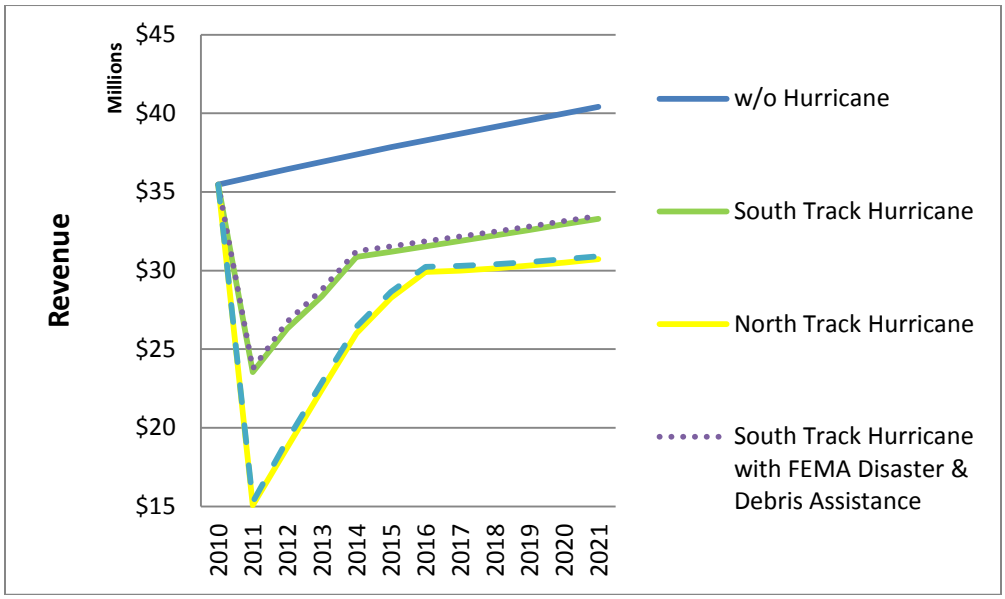
County government revenue impacts in the County are presented in Figure IV-57. If no event were to occur, County government revenue is estimated at $36.0 million in 2011 and is projected to reach $40.4 million in 2021. The South Track hurricane causes the loss of $12.4 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $20.9 million.

County revenues do not return to pre-hurricane levels for either hurricane during the study period. For the South Track hurricane, 2021 County government revenue is projected reach $33.3 million, which represents 93.9 percent of pre-hurricane revenue. For the North Track hurricane, 2021 County government revenue is projected to equal $30.7 million, representing 86.6 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $448,000 in County government revenue, a 1.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County government revenue gradually decrease over the study period. By 2021, the net impact is approximately $192,000, a 0.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $471,000, a 2.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $197,000, a 0.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-57: Taylor County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

N. Union County

1. Union County - Direct Impacts

a. Union County - Direct Impacts - Building Damage

As indicated in Tables IV-9 and IV-10, Union County has an estimated capital stock value of $0.44 billion. The County is estimated to suffer a $0.19 billion capital stock loss, representing 42.6 percent of the County capital stock, as a result of the South Track hurricane. The County is anticipated to incur a $40 million capital stock loss, representing 9.0 percent of the County capital stock as a result of the North Track hurricane.

Building damage by severity of damage in the County as a result of the South Track and North Track hurricanes is presented in Tables IV-110 and IV-111. An estimated 23.7 percent of all buildings are destroyed by the South Track hurricane. For the North Track hurricane, 2.3 percent of all buildings are destroyed. For the South Track hurricane, an estimated 95.0 percent of all County buildings receive at least some damage. For the North Track hurricane, 41.1 percent of all County buildings are estimated to receive some building damage. The percentage of building damage by use ranges from a high of 100.0 percent for agriculture, education, and religion buildings to a low of 93.3 percent for government buildings for the South Track hurricane. The percentage of building damage by use for the North Track hurricane ranges from a high of 75.0 percent for agriculture buildings to a low of 58.5 percent for residential buildings.

Table IV-110: Union County - Direct Impacts - South Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	0.0	9.1	27.3	45.5	18.2	100.0	0	1	3	5	2	11
Commercial	4.2	7.5	23.3	59.2	5.8	100.0	5	9	28	71	7	120
Education	0.0	0.0	25.0	75.0	0.0	100.0	0	0	1	3	0	4
Government	6.7	10.0	23.3	60.0	0.0	100.0	2	3	7	18	0	30
Industrial	3.7	7.4	18.5	66.7	3.7	100.0	1	2	5	18	1	27
Religion	0.0	8.3	33.3	58.3	0.0	100.0	0	1	4	7	0	12
Residential	5.1	13.4	30.0	27.0	24.6	100.0	226	596	1,336	1,203	1,095	4,456
Total	5.0	13.2	29.7	28.4	23.7	100.0	234	612	1,384	1,325	1,105	4,660

Source: North Central Florida Regional Planning Council, 2011.

Table IV-111: Union County - Direct Impacts - North Track Hurricane - Number of Buildings Damaged by Use

Use	Degree of Damage											
	Percentage of Buildings						Number of Buildings					
	None	Minor	Moderate	Severe	Destroyed	Total	None	Minor	Moderate	Severe	Destroyed	Total
Agriculture	25.0	33.3	25.0	16.7	0.0	100.0	3	4	3	2	0	12
Commercial	32.8	24.4	27.7	14.3	0.8	100.0	39	29	33	17	1	119
Education	40.0	20.0	20.0	20.0	0.0	100.0	2	1	1	1	0	5
Government	36.7	23.3	26.7	13.3	0.0	100.0	11	7	8	4	0	30
Industrial	30.8	23.1	26.9	19.2	0.0	100.0	8	6	7	5	0	26
Religion	33.3	33.3	25.0	8.3	0.0	100.0	4	4	3	1	0	12
Residential	41.5	31.4	21.1	3.5	2.4	100.0	1,850	1,399	942	157	108	4,456
Total	41.1	31.1	21.4	4.0	2.3	100.0	1,917	1,450	997	187	109	4,660

Source: North Central Florida Regional Planning Council, 2011.

b. Union County - Direct Impacts - Employment

Tables IV-112 and IV-113 present estimated direct impacts to employment by industry as a result of South Track hurricane and North Track hurricane. The tables further classify job changes by basic and non-basic industry. As can be seen in Table IV-112, the County is anticipated experience a net loss (gains minus losses) of 2,190 jobs, or 42.5 percent of all County jobs, as a result of the South Track Hurricane. Additionally, the County is anticipated to gain 391 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the South Track hurricane.

Basic industry categories which are identified as having no employment changes are either not classified as basic industry in the County or are industries where the degree of building damage was insufficient to result in basic industry job loss. As shown in Table IV-113, the County is anticipated experience a net loss of 592 jobs, or 11.5 percent of all County jobs, as a result of the North Track hurricane. Additionally, the County is anticipated to gain 180 construction jobs engaged in the repair and reconstruction of buildings either damaged or destroyed by the North Track hurricane.

Table IV-112: Union County - Direct Impacts - South Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	2,446	(926)	(281)	(1,207)
Federal Government, Civilian	20	0	(10)	(10)
Federal Government, Military	31	0	(15)	(15)
Forestry, Fishing, Related Activities, and Other	124	(58)	(15)	(73)
Mining	4	0	(2)	(2)
Utilities	0	0	0	0
Construction	211	0	391	391
Manufacturing	179	0	(100)	(100)
Wholesale Trade	56	0	(30)	(30)
Retail Trade	344	0	(186)	(186)
Transportation and Warehousing	443	(152)	(95)	(247)
Information	61	0	(34)	(34)
Finance and Insurance	66	0	(36)	(36)
Real Estate and Rental and Leasing	81	0	(44)	(44)
Professional and Technical Services	92	0	(50)	(50)
Management of Companies and Enterprises	1	0	0	0
Administrative and Waste Services	80	0	(45)	(45)
Educational Services	11	0	(6)	(6)
Health Care and Social Assistance	194	0	(105)	(105)
Arts, Entertainment, and Recreation	45	0	(24)	(24)
Accommodation and Food Services	170	0	(92)	(92)
Other Services, except Public Administration	256	0	(138)	(138)
Farm	235	(95)	(43)	(138)
Total	5,150	(1,231)	(960)	(2,191)

Source: North Central Florida Regional Planning Council, 2011.

Table IV-113: Union County - Direct Impacts - North Track Hurricane - Employment

Industry	2010 Jobs Without Hurricane	2010 Hurricane Impacts		
		Basic Industry Job Change	Non-basic Industry Job Change	Total Job Change
State and Local Government	2,446	(273)	(83)	(356)
Federal Government, Civilian	20	0	(3)	(3)
Federal Government, Military	31	0	(5)	(5)
Forestry, Fishing, Related Activities, and Other	124	(17)	(4)	(21)
Mining	4	0	(1)	(1)
Utilities	0	0	0	0
Construction	211	0	180	180
Manufacturing	179	0	(31)	(31)
Wholesale Trade	56	0	(9)	(9)
Retail Trade	344	0	(56)	(56)
Transportation and Warehousing	443	(48)	(30)	(78)
Information	61	0	(11)	(11)
Finance and Insurance	66	0	(11)	(11)
Real Estate and Rental and Leasing	81	0	(13)	(13)
Professional and Technical Services	92	0	(15)	(15)
Management of Companies and Enterprises	1	0	0	0
Administrative and Waste Services	80		(14)	(14)
Educational Services	11	0	(2)	(2)
Health Care and Social Assistance	194	0	(31)	(31)
Arts, Entertainment, and Recreation	45	0	(7)	(7)
Accommodation and Food Services	170	0	(28)	(28)
Other Services, except Public Administration	256	0	(41)	(41)
Farm	235	(27)	(12)	(39)
Total	5,150	(365)	(227)	(592)

Source: North Central Florida Regional Planning Council, 2011.

c. Union County - Direct Impacts - Population

Table IV-114 identifies County population loss as a direct result of the South Track and North Track hurricanes. Population loss is caused by damage to residential buildings, basic industry job loss, and non-basic industry job loss. The second column, 2010 Population Without Hurricane, presents the population of the County by age and, in the case of persons age 65 and over, by ethnicity. The population of the County is repeated for the three different sources of population loss and is also repeated in the Total Population Change rows.

As can be seen in the table, the County is estimated to lose 8,684 residents, 57.3 percent of its population, as a result of the South Track hurricane. The County is estimated to lose 1,714 residents, 11.3 percent of its population, as a result of the North Track hurricane.

Table IV-114: Union County - Direct Impacts - Population

Population Change due to Residential Building Damage	2010 Population Without Hurricane	2010 Population Change With South Track Hurricane	2010 Population Change With North Track Hurricane
Age 0 - 17	2,648	(768)	(50)
Age 18 - 64	11,128	(3,229)	(211)
Age 65+, White Non-Hispanic	1,152	(334)	(22)
Age 65+, Black Non-Hispanic	164	(48)	(3)
Age 65+, Other Non-Hispanic	26	(8)	0
Age 65+, Hispanic	29	(8)	(1)
Population Change Due to Basic Industry Job Loss			
Age 0 - 17	2,648	(463)	(169)
Age 18 - 64	11,128	(1,945)	(711)
Age 65+, White Non-Hispanic	1,152	0	0
Age 65+, Black Non-Hispanic	164	0	0
Age 65+, Other Non-Hispanic	26	0	0
Age 65+, Hispanic	29	0	0
Population Change Due to Non-Basic Industry Job Loss			
Age 0 - 17	2,648	(361)	(105)
Age 18 - 64	11,128	(1,519)	(441)
Age 65+, White Non-Hispanic	1,152	0	0
Age 65+, Black Non-Hispanic	164	0	0
Age 65+, Other Non-Hispanic	26	0	0
Age 65+, Hispanic	29	0	0
Total Population Change			
Age 0 - 17	2,648	(1,593)	(324)
Age 18 - 64	11,128	(6,694)	(1,363)
Age 65+, White Non-Hispanic	1,152	(334)	(22)
Age 65+, Black Non-Hispanic	164	(48)	(3)
Age 65+, Other Non-Hispanic	26	(8)	0
Age 65+, Hispanic	29	(8)	(1)
Total	15,147	(8,684)	(1,714)

Source: North Central Florida Regional Planning Council, 2011.

d. Union County - Direct Impacts - Hurricane Recovery Period

Tables IV-115 and IV-116 report the recovery of County basic industry jobs lost as a result of the South Track and North Track hurricanes. As indicated in Table IV-115, the 1,231 lost basic industry jobs as a result of the South Track hurricane are anticipated to return to the County by 2014. Similarly, Table IV-116 indicates that the 365 basic industry jobs lost as a result of the North Track hurricane are anticipated to return to the County by 2012.

Table IV-115: Union County - Direct Impacts - South Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(926)	(634)	(343)	(61)	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(58)	(40)	(21)	(4)	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	(152)	(104)	(56)	(10)	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0		0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	0	0	0	0	0	0	0
Farm	(95)	(65)	(35)	(6)	0	0	0
Total	(1,231)	(843)	(455)	(81)	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-116: Union County - Direct Impacts - North Track Hurricane - Recovery of Direct Impacts, Basic Industry Employment

Industry	2010	2011	2012	2013	2014	2015	2016
State and Local Government	(273)	(126)	0	0	0	0	0
Federal Government, Civilian	0	0	0	0	0	0	0
Federal Government, Military	0	0	0	0	0	0	0
Forestry, Fishing, Related Activities, and Other	(17)	(8)	0	0	0	0	0
Mining	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0
Transportation and Warehousing	(48)	(22)	0	0	0	0	0
Information	0	0	0	0	0	0	0
Finance and Insurance	0	0	0	0	0	0	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Professional and Technical Services	0	0	0	0	0	0	0
Management of Companies and Enterprises	0	0	0	0	0	0	0
Administrative and Waste Services	0	0	0	0	0	0	0
Educational Services	0	0	0	0	0	0	0
Health Care and Social Assistance	0	0	0	0	0	0	0
Arts, Entertainment, and Recreation	0	0	0	0	0	0	0
Accommodation and Food Services	0	0	0	0	0	0	0
Other Services, except Public Administration	0	0	0	0	0	0	0
Farm	(27)	(13)	0	0	0	0	0
Total	(365)	(169)	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Tables IV-117 and IV-118 portray County population lost as a direct result of the South Track and North Track hurricanes as well as the recovery of the lost population due to residential building damage and population lost due to basic industry job loss. As can be seen in Table IV-117, County population loss due to residential building damage from the South Track hurricane gradually recovers through 2014. However, not all of the lost population returns to the County. Due to the lack of homeowners insurance, 679 residents lost due to residential building damage resulting from the South Track hurricane do not return to the County. In Table IV-118, County population loss due to residential building damage from the North Track hurricane recovers in 2012. However, 44 residents lost due to residential building damage from the North Track hurricane do not return to the County.

Table IV-117: Union County - Direct Impacts - South Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(768)	(564)	(360)	(231)	(119)	(119)	(119)	(119)
Age 18 - 64	(3,229)	(2,370)	(1,511)	(971)	(499)	(499)	(499)	(499)
Age 65+, White Non-Hispanic	(334)	(245)	(156)	(101)	(52)	(52)	(52)	(52)
Age 65+, Black Non-Hispanic	(48)	(35)	(22)	(14)	(7)	(7)	(7)	(7)
Age 65+, Other Non-Hispanic	(8)	(6)	(4)	(2)	(1)	(1)	(1)	(1)
Age 65+, Hispanic	(8)	(6)	(4)	(3)	(1)	(1)	(1)	(1)
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(463)	(313)	(166)	(29)	0	0	0	0
Age 18 - 64	(1,945)	(1,317)	(696)	(123)	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(361)	(361)	(361)	(361)	(361)	(361)	(361)	(361)
Age 18 - 64	(1,519)	(1,519)	(1,519)	(1,519)	(1,519)	(1,519)	(1,519)	(1,519)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(1,593)	354	352	265	142	0	0	0
Age 18 - 64	(6,694)	1,488	1,480	1,113	595	0	0	0
Age 65+, White Non-Hispanic	(334)	89	89	56	49	0	0	0
Age 65+, Black Non-Hispanic	(48)	13	13	8	7	0	0	0
Age 65+, Other Non-Hispanic	(8)	2	2	1	1	0	0	0
Age 65+, Hispanic	(8)	2	2	1	1	0	0	0
Total	(8,685)	1,948	1,938	1,444	795	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

Table IV-118: Union County - Direct Impacts - North Track Hurricane - Recovery of Lost Population as a Result of Direct Impacts

Population Change due to Residential Building Damage	2010	2011	2012	2013	2014	2015	2016	2017
Age 0 - 17	(50)	(20)	(8)	(8)	(8)	(8)	(8)	(8)
Age 18 - 64	(211)	(82)	(33)	(33)	(33)	(33)	(33)	(33)
Age 65+, White Non-Hispanic	(22)	(9)	(3)	(3)	(3)	(3)	(3)	(3)
Age 65+, Black Non-Hispanic	(3)	(1)	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	(1)	0	0	0	0	0	0	0
Population Change Due to Basic Industry Job Loss								
Age 0 - 17	(169)	(77)	0	0	0	0	0	0
Age 18 - 64	(711)	(323)	0	0	0	0	0	0
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Population Change Due to Non-Basic Industry Job Loss								
Age 0 - 17	(105)	(105)	(105)	(105)	(105)	(105)	(105)	(105)
Age 18 - 64	(441)	(441)	(441)	(441)	(441)	(441)	(441)	(441)
Age 65+, White Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Black Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	0	0	0	0	0	0	0	0
Total Population Change (REMI Data Entry)								
Age 0 - 17	(324)	123	89	0	0	0	0	0
Age 18 - 64	(1,363)	517	373	0	0	0	0	0
Age 65+, White Non-Hispanic	(22)	13	5	0	0	0	0	0
Age 65+, Black Non-Hispanic	(3)	2	1	0	0	0	0	0
Age 65+, Other Non-Hispanic	0	0	0	0	0	0	0	0
Age 65+, Hispanic	(1)	0	0	0	0	0	0	0
Total	(1,713)	655	468	0	0	0	0	0

Source: North Central Florida Regional Planning Council, 2011.

2. Union County - Total Impacts

a. Union County - Total Impacts - Employment

The total employment impacts in the County are presented in Figure IV-58. If no event were to occur, the estimated number of employees in the County is estimated at 5,149 in 2010 and is projected to reach 5,376 in 2021. The South Track hurricane causes the loss of 4,008 jobs in the County, whereas the North Track hurricane results in the loss of County 1,116 jobs.

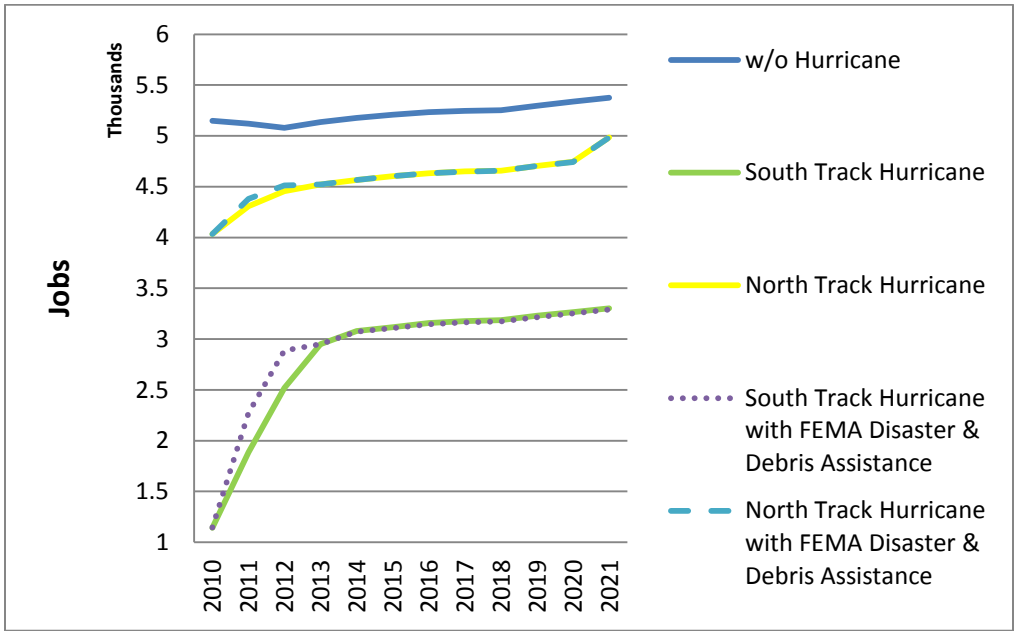
As previously noted, the direct impacts of the South Track hurricane account for a loss of 2,191 jobs in 2010, resulting in an additional 1,817 jobs lost as a result of indirect impacts. Similarly, the direct impacts of the North Track hurricane account for a job loss of 592, resulting in an additional 524 jobs lost as a result of indirect impacts.

The County does not return to pre-hurricane levels of employment in the aftermath of either hurricane. In 2021, County employment following the South Track hurricane is projected to reach 3,303, which represents 64.1 percent of pre-hurricane employment levels. County employment following the North Track hurricane is projected to reach 4,984 in 2021, which represents 96.8 percent of pre-hurricane employment.

The Council estimates that the County will receive approximately $41.2 million in Federal Emergency Management Agency disaster and debris removal assistance between 2011 and 2012 for the South Track Hurricane. Therefore, Federal Emergency Management Agency assistance was analyzed for impacts on County employment. Federal Emergency Management Agency assistance provides a 2012 net increase of 370 jobs, a 14.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. However, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013.

For the North Track Hurricane, the Council estimates the County will receive approximately $11.0 million in Federal Emergency Management Agency assistance over the same two-year period. Federal Emergency Management Agency assistance provides a 2012 net increase of 58 jobs, a 1.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on net jobs dissipate by 2013 for the North Track Hurricane.

Figure IV-58: Union County - Total Impacts - Employment



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

b. Union County - Total Impacts - Population

The total population impacts in the County are presented in Figure IV-59. If no event were to occur, the population of the County is estimated at 15,146 in 2010 and is projected to reach 16,356 in 2021. The South Track hurricane causes the loss of 7,923 residents in the County, whereas the North Track hurricane results in the loss of County 1,948 residents.

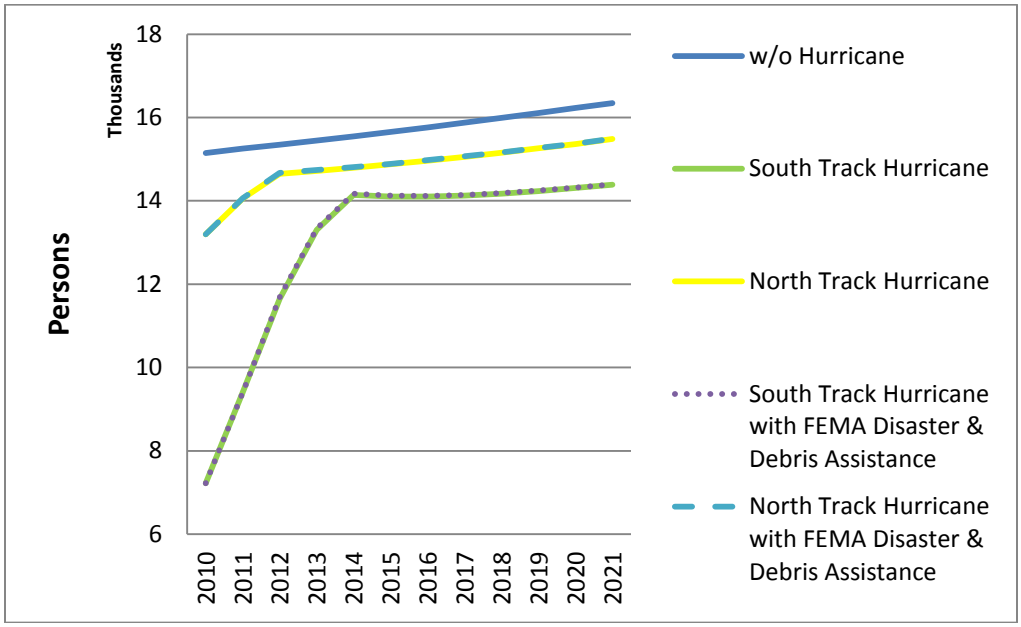
As previously noted, the direct impacts of the South Track hurricane account for a population loss of 8,684 residents in 2010, resulting in a gain of 761 residents as a result of indirect impacts. The direct impacts of the North Track hurricane account for a population loss of 1,714, resulting in a gain of 234 residents as a result of indirect impacts.

The County returns to pre-hurricane levels of population in 2018 following the North Track hurricane. However, for the South Track hurricane, the County does not return to pre-hurricane population levels during the study period. In 2021, County population following the South Track hurricane is projected to reach 14,388, which represents 95.0 percent of pre-hurricane population levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County population. Federal Emergency Management Agency assistance provides a 2012 net increase of 39 residents, a 0.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track hurricane. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 8 residents, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the South Track Hurricane.

For the North Track Hurricane, Federal Emergency Management Agency assistance results in a 2012 net increase of 21 residents, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the Federal Emergency Management Agency assistance net population impacts result in a net increase of 7 residents, which is less than a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane.

Figure IV-59: Union County - Total Impacts - Population



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

c. Union County - Total Impacts - County Gross Domestic Product

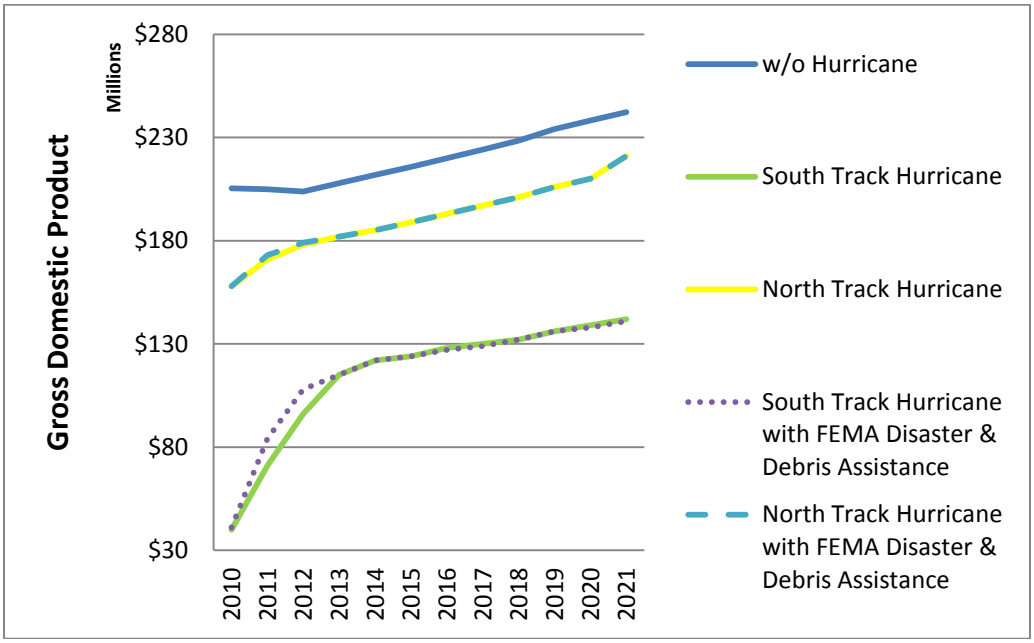
The total County gross domestic product impacts in the County are presented in Figure IV-60. If no event were to occur, the County gross domestic product is estimated at $205.3 million in 2010 and is projected to reach $242.3 million in 2021. The South Track hurricane causes the loss of $165.3 million in 2010 County gross domestic product, whereas the North Track hurricane results in a 2010 loss of $47.3 million.

The County returns to pre-hurricane levels of County gross domestic product in 2019 following the North Track hurricane. However, for the South Track hurricane, the County does not return to pre-hurricane levels of County gross domestic product during the study period. In 2021, County gross domestic product following the South Track hurricane is projected to reach $142.0 million, which represents 69.2 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County gross domestic product. F or the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $12.0 million in County gross domestic product, a 12.5 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $1.0 million, a 0.6 percent increase over what is projected to occur without Federal Emergency Management Agency assistance, for the North Track Hurricane. As with the South Track Hurricane, the impacts of Federal Emergency Management Agency assistance on County gross domestic product dissipate by 2013 for the North Track Hurricane.

Figure IV-60: Union County - Total Impacts - County Gross Domestic Product



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

d. Union County - Total Impacts - Combined Personal Income

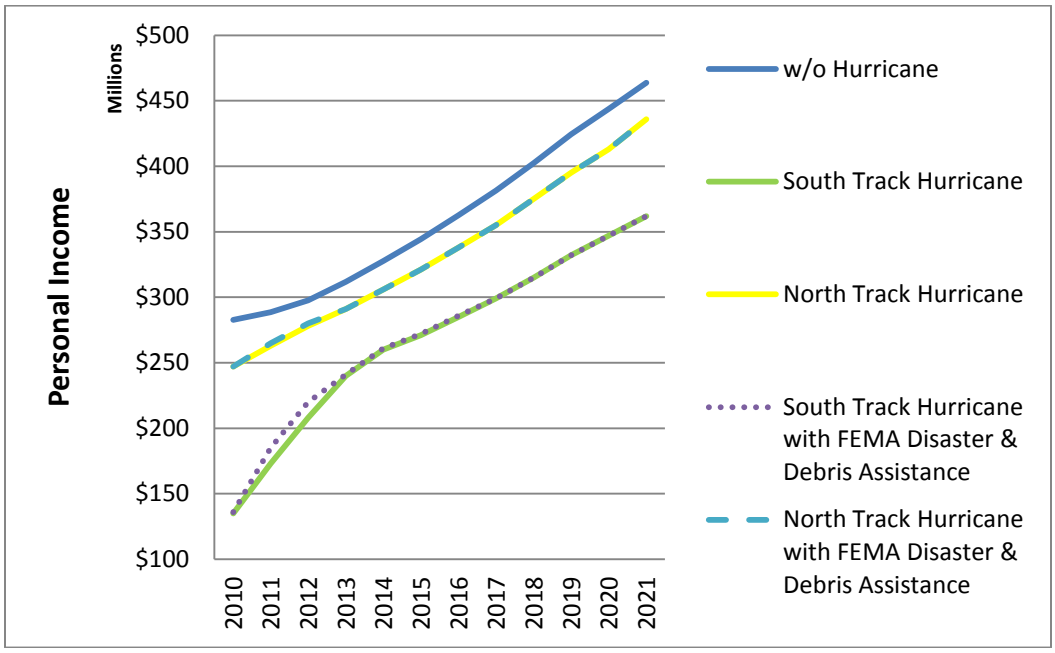
The County combined personal income impacts in the County are presented in Figure IV-61. If no event were to occur, the County combined personal income is estimated at $282.7 million in 2010 and is projected to reach $463.8 million in 2021. The South Track hurricane causes the loss of $0.147.7 million in County combined personal income 2010, whereas the North Track hurricane results in a 2010 loss of $35.7 million.

The County returns to pre-hurricane levels of County combined personal income for both hurricanes. For the South Track hurricane, County combined personal income returns to pre-hurricane levels in 2016. For the North Track hurricane, County combined personal income returns to pre-hurricane levels in 2013.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County combined personal income. For the South Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $12.0 million in County combined personal income, a 5.8 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. However, the impacts of Federal Emergency Management Agency assistance on combined County personal income dissipate by 2017.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $2.0 million to County combined personal income, a 0.7 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance for the North Track hurricane on combined County personal income dissipate by 2013.

Figure IV-61: Union County - Total Impacts - Combined Personal Income



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

e. Union County - Total Impacts - County Government Revenue

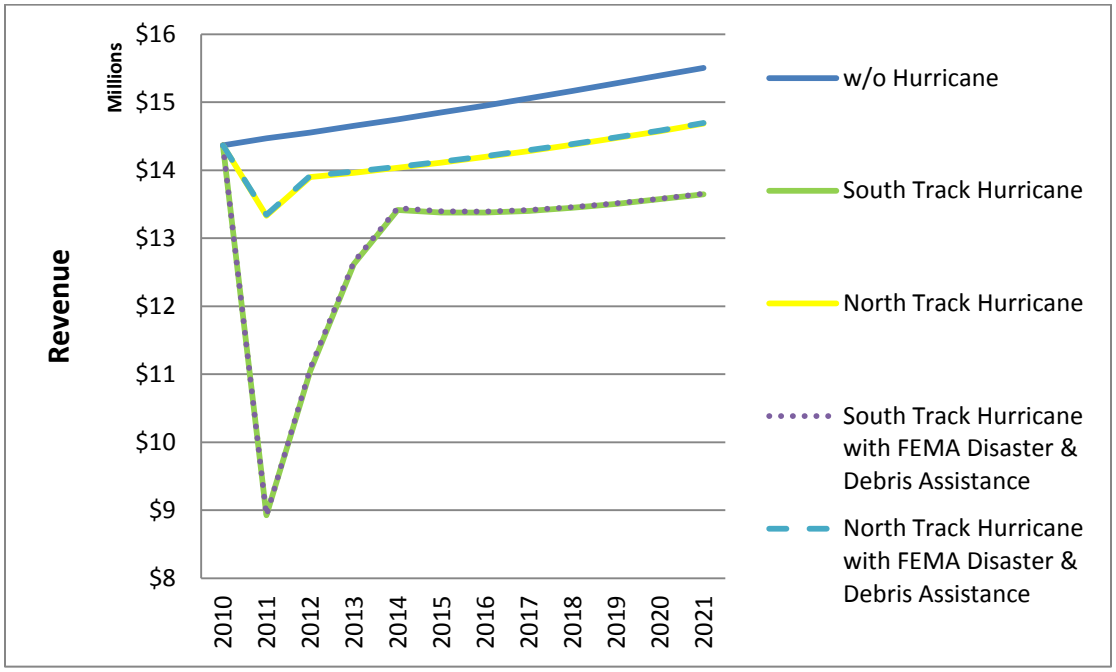
County government revenue impacts in the County are presented in Figure IV-62. If no event were to occur, County government revenue is estimated at $14.5 million in 2011 and is projected to reach $15.5 million in 2021. The South Track hurricane causes the loss of $5.5 million in County government revenue in 2011, whereas the North Track hurricane results in a 2011 loss of $1.1 million.

The County returns to pre-hurricane levels of County government revenue in 2018 for the North Track Hurricane. However, for the South Track hurricane, County government revenue does not return to pre-hurricane levels during the study period. In 2021, County government revenue following the South Track hurricane is projected to reach $13.6 million, which represents 95.0 percent of pre-hurricane levels.

Federal Emergency Management Agency disaster and debris removal assistance was analyzed for impacts on County government revenue. For the South Track hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of $37,000 in County government revenue, a 0.3 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. The impacts of Federal Emergency Management Agency assistance on County government revenue gradually decrease over the study period. By 2021, the net impact is approximately $8,000, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the North Track Hurricane, Federal Emergency Management Agency assistance provides a 2012 net increase of approximately $20,000, a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. By 2021, the net impact is approximately $7,000, which is less than a 0.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

Figure IV-62: Union County - Total Impacts - County Government Revenue



Source: North Central Florida Regional Planning Council, 2011.
Note: FEMA (Federal Emergency Management Agency).

Chapter V
Economic Resiliency

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CHAPTER V
ECONOMIC RESILIENCY

A. Florida Business Disaster Survival Kit

Almost 40 percent of small businesses that close due to a disaster event never re-open. Every year emergencies take their toll on business and industry, in both lives and dollars. But something can be done. Business and industry can limit injuries and damages and return more quickly to normal operations if they plan ahead.

The State of Florida Division of Emergency Management has made available a "Florida Business Disaster Survival Kit" to help businesses become more resilient to the adverse economic impacts from a hurricane.

The Florida tool kit provides step-by step advice on how to create and maintain a comprehensive emergency management program. The first thing that is needed is the authority to create a plan and a commitment from the chief executive officer to make emergency management part of the corporate culture.

The planning process is organized in four main sections.

Section 1: Four Steps in the Planning Process — how to form a planning team; how to conduct a vulnerability analysis; how to develop a plan; and how to implement the plan. The information can be applied to virtually any type of business or industry.

Section 2: Emergency Management Considerations — how to build such emergency management capabilities as life safety, property protection, communications and community outreach.

Section 3: Hazard-Specific Information — technical information about specific hazards your facility may face.

Section 4: Information Sources — where to turn for additional information.

Economic resiliency can be greatly enhanced when a business uses the on-line toolkit to address the hazards and vulnerabilities identified in this study.

B. Post Disaster Redevelopment Planning

An important aspect of economic resiliency is having employees and customers also survive the impacts of a hurricane. The results of this study show the importance to many business sectors of the North Central Florida Region of not losing a significant portion of the Region's population after a catastrophic hurricane impact.

This is an area where it is important that the community have a Post Disaster Redevelopment Plan. For example, the "Post-Disaster Redevelopment Planning - A Guide for Florida Communities" published by the Florida Department of Community Affairs states:

Economic Redevelopment

> *The ability of a local economy to rebound after a disaster dictates the success of the community's long term recovery. The return of jobs, tourism, capital investments, and other indicators of economic health are interdependent with housing recovery, infrastructure restoration, environmental restoration and social service provision. The involvement of the private sector in the post-disaster planning process is imperative for determining the priorities and actions that will be beneficial in restoring your local economy. Consideration must be given to the different obstacles that could potentially hinder economic recovery, such as those that small businesses will face, decisions large employers will have to make on whether to relocate, opportunities for sustainable diversification of the economic base, and job training and workforce recruitment to meet changed market conditions after a major disaster.*

Resumption and Retention of Major Employers

> *Rapid resumption of existing major employers is key to a community's economic recovery after a disaster, especially as employment provides a reason for most residents to return and rebuild quickly. Typically, the major employers in your community are already going to have business continuity plans and will not need the basic disaster preparedness education necessary for smaller businesses. These companies will be able to work with the local government as partners in planning for post-disaster redevelopment and provide insight as to what government assistance they could use to ensure rapid resumption. Major employers may also have the means to assist in actions to support workforce retention if included in the planning process.*

While large company recovery assistance will vary based on the industries and vulnerabilities of your community, typically businesses located in hazardous areas or older structures may need assistance to reopen or relocate, temporarily or permanently, within the area. Actions such as the credentialing of major employers' Business Continuity Managers so that they can enter the disaster zone before the general public to assess what it will take to resume operations and the implementation of procedures for the expedited permitting of disaster repairs for businesses can provide large companies the tools they need for rapid resumption of business, thereby contributing to long-term recovery by getting people back to work and recreating demand for all of the smaller, supporting companies.

If businesses do not feel a sense of connection to the community or fear that recovery will not be successful, there is a chance that they will relocate their company elsewhere after a disaster. This is especially the case for corporate headquarters and industries that are not location-dependent or whose location choice is tied to quality of life factors. The Post-Disaster Redevelopment Plan can provide the private sector with confidence in the community's ability to recover and continue providing the market environment necessary for them to conduct their business. Some factors that may aid the retention of major employers include a high level of communication before and after a disaster about post-disaster redevelopment goals and expectations and/or incentives to ensure retention, if necessary.

Ability to Reconstruct Homes Rapidly

Expedited post-disaster repair permitting and inspection processes can increase a community's ability to reconstruct homes rapidly. An important pre-disaster action for the Post-Disaster Redevelopment Plan is to analyze permitting and inspection procedures for opportunities to make temporary changes post-disaster that will allow for faster operations without compromising quality. Augmented staffing will likely be necessary post-disaster. Memorandums of agreement with other local governments can be pursued as well as cross-training of other local government staff for short-term increases while new, temporary hires may be needed for the duration of the redevelopment period.

Workforce Retention

At the same time as trying to retain existing businesses, efforts must also address retaining the workforce that supports those businesses. Actions such as ensuring that schools reopen and childcare is available, allowing temporary on-site housing for employees, and communication of a community's post-disaster plan can assist in getting employees back to jobs as soon as the businesses have reopened.

After a disaster, the market for certain businesses may decrease or be eliminated due to financial troubles or customer demand changes. However, other industries may provide employment opportunities, such as the construction industry, which will boom temporarily due to rebuilding needs. Workforce training programs are important to provide residents with appropriate skill sets to fill newly available positions due to recovery efforts and to adjust workforce skills to other industries that may take a more permanent hold in the community due to post-disaster business recruitment efforts. Providing locals with first preference for temporary recovery work is important for keeping workers in the tourism industry who may be temporarily out of work until tourism levels rebound from moving out of the area.

Chapter VI
Conclusions

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CHAPTER VI
CONCLUSIONS

A. GENERAL CONCLUSIONS

A Category Five hurricane crossing the North Central Florida Region produces significant and long-lasting damage to the regional and county economies. Only Hamilton County for the South Track hurricane and Alachua and Bradford Counties for the North Track hurricane generate sufficient population and employment recovery combined with additional economic growth to return to levels equivalent to the no-hurricane scenario within the study period.

The South Track hurricane, which traverses the southern portion of the Region, is estimated to cause a 46.6 percent loss to regional capital structure (building damage), a 38.8 percent job loss, and 34.0 percent loss of population of the Region. The North Track hurricane, which passes through a less populated area of the Region, results in the loss of 9.9 percent of regional capital structure, a 13.9 percent job loss, and a population decline of 13.5 percent.

The impact analysis indicates that property damage caused by the South Track and North Track hurricanes generally lessen as they move inland. However, they nevertheless cause significant property damage to inland portions of the North Central Florida Region. For example, Dixie County, one of the two coastal counties in the Region, is estimated to experience a 58.2 percent job loss and a 54.9 percent population loss from the South Track hurricane while Taylor County, the Region's other coastal county, is estimated to experience a 66.7 percent job loss and a 67.7 percent population decline as a result of the North Track hurricane.

Union County, the most inland county in the Region, experiences an even higher rate of job loss and a similarly high rate of population loss. The County is estimated to lose 77.8 percent of its employment and 52.3 percent of its population as a result of the South Track hurricane. Gilchrist County also experiences significant impacts. The County is estimated to lose 50.0 percent of its jobs and 46.9 percent of its population as a result of the South Track hurricane. Lafayette County is estimated experience significant losses from both hurricane tracks. The County is estimated to experience a 67.4 percent job loss and a 56.0 percent population loss as a result of the South Track hurricane. It is also estimated to lose 60.3 percent of its employment base and 45.5 percent of its population in the aftermath of the North Track hurricane.

B. HURRICANE RECOVERY TIMES

Hurricane recovery times from the direct impacts of building damage, basic industry job and population loss, as well as population loss due to residential building damage varies significantly from county to county depending on the amount and severity of property damage. The longest hurricane recovery period for these direct impacts is six years in Alachua County for the South Track hurricane, six years in Dixie County for the South Track hurricane, and six years in Taylor County for the North Track hurricane. The shortest hurricane recovery time is one year for Hamilton County for the South Track hurricane.
The following counties recovered from the direct impacts of building damage, basic industry job and population losses, as well as population loss due to residential building damage in two years: Alachua County for the North Track hurricane, Bradford County for the North Track hurricane, Gilchrist County for the North Track hurricane, Hamilton County for the North Track hurricane, Madison County for the South Track hurricane, and Union County for the North Track hurricane.

Hurricane recovery times to pre-hurricane population and employment levels are generally longer than the recovery times for the direct impacts noted above. The shortest recovery time to pre-hurricane employment levels is 2012 for Alachua County and Bradford County for the North Track hurricane. The shortest recovery time to pre-hurricane population levels for the South Track Hurricane is 2012 for Hamilton County.

However, several counties never return to pre-hurricane employment and population levels during the study period. Counties which do not return to pre-hurricane employment levels are Alachua County for the South Track hurricane, Bradford County for the South Track hurricane, Columbia County for the North Track hurricane, Dixie County for both South Track and North Track hurricanes, Gilchrist County for the South Track hurricane, Hamilton County for the North Track hurricane, Lafayette County for both the South Track and North Track hurricanes, Madison County for the North Track hurricane, Suwannee County for the North Track hurricane, Taylor County for both the South Track and North Track hurricanes, and Union County for both the South Track and North Track hurricanes.

The following counties do not return to pre-hurricane population levels during the study period: Alachua County for the South Track hurricane, Bradford County for the South Track hurricane, Columbia County for the North Track hurricane, Dixie County for both the South Track and North Track hurricanes, Hamilton County for the North Track hurricane, Madison County for the North Track hurricane, Suwannee County for the North Track hurricane, Taylor County for both the South Track and North Track hurricanes, and Union County for the South Track hurricane.

C. DIRECT AND INDIRECT IMPACTS

Direct and indirect impacts are differentiated from total impacts for employment and population. Regional employment losses are relatively evenly split between direct and indirect impacts. Direct employment losses account for 57.0 percent of all employment losses for the South Track hurricane, whereas employment losses due to indirect impacts account for 43.0 percent of all employment losses. Direct employment losses accounted for 58.9 percent of all employment losses for the North Track hurricane, whereas indirect employment losses accounted for 41.1 percent of total employment losses.
Population losses are almost entirely attributable to direct impacts. Regional population losses attributable to direct impacts accounted for 88.9 percent of all population losses for the South Track hurricane, whereas population loss due to indirect impacts accounted for 11.1 percent. For the North Track hurricane, direct population losses accounted for 92.0 percent of all population losses. Indirect population losses accounted for 8.0 percent of all population losses.

D. FEDERAL EMERGENCY MANAGEMENT AGENCY DISASTER AND DEBRIS REMOVAL ASSISTANCE

Federal Emergency Management Agency disaster assistance has a notably positive, but brief, impact on regional employment, gross domestic product and combined personal income. The net impacts of Federal Emergency Management Agency assistance dissipate by 2013. However, the temporary increases occur during the years (2011 - 2013) when the Region experiences the worst of the economic impacts. The greatest impact of Federal Emergency Management Agency disaster assistance on a percentage basis occurs with regional employment. For the South Track hurricane in 2012, Federal Emergency Management Agency assistance is projected to result a net increase of 17,980 jobs in the Region, a 10.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance. For the North Track hurricane in 2012, Federal Emergency Management Agency assistance is projected to result in a net increase of 4,711 jobs in the Region, a 2.1 percent increase over what is projected to occur without Federal Emergency Management Agency assistance.

For the South Track Hurricane, north central Florida counties receiving the largest percentage increases in 2012 jobs as a result of Federal Emergency Management Agency disaster assistance are Dixie County, at 44.0 percent; Gilchrist County, at 27.7 percent; Lafayette County, at 23.5 percent; and Bradford County, at 22.7 percent. For the North Track Hurricane, North Central Florida Region counties experiencing the largest percentage increases in 2012 jobs are Taylor County, at 20.4 percent; Lafayette County, at 16.6 percent; Suwannee County, at 10.6 percent; and Madison County, at 7.8 percent.

E. AREAS OF FURTHER STUDY

The large percentage of population loss attributable to direct impacts may have a significant role in job losses attributable to indirect impacts. This possible relationship suggests that adverse economic impacts as well as hurricane recovery periods may be reduced by reducing the percentage of population which leaves the Region and their home counties in the aftermath of a hurricane. Additionally, hastening the recovery period of basic industries may further reduce the severity of economic impacts and shorten the hurricane recovery period. Further analysis is needed to determine the effectiveness of these two impact recovery strategies.

Finally, the impact of downed trees on the regional timber industry was not addressed as part of the direct economic impacts. This was due to the difficulty of determining the percentage of total commercial forest represented by the lost trees reported by Hazus. Given the 15 to 20 year time period for commercial softwood trees to reach maturity, a significant loss of trees as a direct impact of the a hurricane is likely to have significant long-term impacts on the regional forestry industry. Further analysis is needed to determine the direct impacts of tree damage on the commercial forest industry.

North Central Florida Regional Planning Council

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