

CHAPTER 9

Other Transportation Program Elements

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Goods Movement

Federal transportation legislation requires MPOs to develop and implement a Freight Movement Plan as part of this LRTP. The purpose of Freight Movement Plan is to meet the needs of Charlotte County and the City of Punta Gorda area by identifying and describing the existing facilities and process for identifying potential improvements that will aid in the movement of freight into and out of the Charlotte County/Punta Gorda area.

Airport Facilities

There are two public airports located within Charlotte County, one general aviation airport (Punta Gorda Airport) located approximately three miles southeast of Punta Gorda, and one private airport (Shell Creek Airport) located just northeast of Punta Gorda.

Punta Gorda Airport

The Charlotte County Airport Master Plan was updated in March 2008. The goal of the Master Plan is to provide guidelines for future development that will satisfy the demand for aviation services in a logical and feasible manner. Objectives to reach that goal include:

- Develop a 20-year plan for the ultimate layout of the Airport that is financially sound, responsive to environmental considerations, and capable of responding to continued growth of aviation activity
- Identify strategies to develop expanded opportunities for international and domestic trade through the Charlotte County Airport Commerce Park and Foreign Trade Zone
- Identify areas in the airport environs that may be suitable for future development that will maintain and potentially enhance the financial stability of the Airport

- Identify policies and processes to monitor key conditions that will promote flexibility in timing of development that is responsive to changing conditions

The Charlotte County Airport Authority envisions the Punta Gorda Airport as a fully developed airport and commerce park that is independent and financially self-sustaining. The Airport Authority's vision includes expanding aviation activities and services, such as flight training, aircraft rental and charter, aircraft maintenance and refurbishment, air cargo operations, and air carrier operations. The objectives identified by the Airport Authority to reach that goal include:

- Refine policies and ensure financial resources to maintain facilities and improve safety
- Expand aviation activities to include commercial service
- Further develop the Commerce Park with uses compatible with the operations of the airport (examples include a recreational or motor sports complex)
- Build an Air Traffic Control Tower; construct a terminal building to handle the demand that commercial service will add



Punta Gorda Airport Bailey Terminal

Great strides have been made to reach these objectives. Commercial service returned to the airport in 2007 and in 2009, taxiways A and C were resurfaced and widened. The objective to develop the Commerce Park and Charlotte County is actively underway with the recent construction of the Cheney Brothers distribution facility. The Airport Authority is looking to continue increasing the level of general and commercial aviation activities and add to the commerce surrounding the airport.

Shell Creek Airport

The Shell Creek Airport is a privately owned small single turf runway general aviation airport serving the needs of a small group of recreational flyers and businesses. Due to existing roadways and surrounding residential development, the airport's future role is limited. According to a report by CFASPP dated April of 2005, the airport has identified the need for low intensity runway lighting and two 10,000 square foot hangers in the future. The short runway and lack of an instrument approach make the airport unsuitable for providing future corporate, business/recreational, or air cargo service.

Trucking Facilities

Charlotte County is strategically located to serve a major role in goods movement in Southwest Florida. Currently, the highest volume freight carriers are private company trucks, such as for supermarkets and lumber companies, followed by for-hire trucks and air cargo. Commodity transportation is dominated by the Clay/Concrete/Glass category. A number of sand and fill mines exist in Charlotte County. Due to the impact of the current economic downturn and its associated impact on the local housing market, trucking from these mines has been greatly reduced.

Figure 9-1 shows the LOS for state routes, US routes, and interstates in Charlotte County. The highest volume of truck travel are occurring on the following state and

federal facilities: I-75, SR 776, El Jobean Road, US 41, and US 17. The entire length of I-75 and US 17 from I-75 to SR 60 in Polk County is designated as a SIS facility.

Seaport Facilities

Charlotte County has no designated seaport facility. However, the Gulf Intracoastal Waterway and shipping lane is designated as a SIS waterway. Other water transportation does take place at limited areas within the County. Charlotte County has three undesignated ports; they include Fisherman's Village, Don Pedro Ferry, and The Fishery:

- **Fishermen's Village** is a retail and condominium development rehabilitated from an old port area. Fishermen's Village includes an excursion cruise on a set schedule and provides trips to barrier islands and State Parks. It also accommodates commercial fishermen.
- **Palm Island Transit** provides passenger, automobile, and goods ferry service to Don Pedro Island, a barrier island. Each of the two ferries has an eight automobile capacity. Both residents of Don Pedro and individuals who wish to use the Don Pedro Park utilize the ferry.
- **The Fishery**, located in Placida, accommodates commercial fishermen, fish market, restaurants, gift and craft shops, museum, and an art gallery.



Photo Credit charlotteharbortravel.com

Fishermen's Village, Punta Gorda

2040 Transportation Plan

Charlotte County-Punta Gorda MPO

Rail Lines and Terminals

Florida Southern Railroad began service from Arcadia to Punta Gorda in the 1890s. Since then, many railroad tracks have been abandoned and converted to other uses. Currently, CSX Transportation owns the remaining active rail line. Seminole Gulf Railway leases the tracks from CSX and has provided freight transportation and logistics to southwest Florida since 1987. Seminole Gulf Railway currently operates 115 miles of track in Charlotte, Collier, DeSoto, Lee, Manatee, and Sarasota counties and operates various passenger excursion trains.



Punta Gorda Railroad Depot (now serves as a museum)

Projected Year 2040 Industrial Land Use

Industrial uses in 2040 are concentrated in a few key areas within Charlotte County. The projected industrial growth is focused on the following areas:

- US 41 south of the Sarasota County
- US 41 north of the Peace River
- I-75 and US 41 south of the Peace River (airport area)
- SR 765 (Burnt Store Road) north of Lee County line
- Eastern portion of Charlotte County

The forecast 2040 industrial employment by traffic analysis zone is shown in Appendix A. Most of these areas are served by US 41 and I-75. The areas showing industrial growth in the eastern part of Charlotte County along with the new industrial warehouse sites (WalMart, Home Depot, etc.) on US 17 in De Soto County will place demand on US 17, SR 31, and SR 74.

Transportation Safety and Security

Transportation safety and security are important elements for Charlotte County's transportation system. The United States Department of Transportation (USDOT) defines transportation safety as the freedom from harm for all multimodal users that is a result of unintentional acts or circumstances. Likewise, USDOT defines transportation security as the freedom from intentional acts and natural disasters that harm and threaten all multimodal users. Transportation safety and security are important elements of the transportation planning process, as both are federally-mandated.

Transportation Safety

With its passage in 2005, SAFETEA-LU required state DOTs to develop Strategic Highway Safety Plans (SHSPs) and MPOs to develop LRTPs consistent with their state SHSP. More recently, MAP-21 established a performance-based goal of reducing traffic fatalities and serious injuries.

Florida Department of Transportation

FDOT developed strategies and plans designed to improve transportation safety for all users, such as the SHSP, the Pedestrian and Bicycle Strategic Safety Plan (PBSSP), and the Highway Safety Plan (HSP). FDOT collaborated with FHWA and stakeholders to develop the state's first SHSP in 2006, and updated it in 2012. The SHSP addresses the 4 Es of improving safety in Florida — engineering, enforcement, education, and emergency response countermeasures — by identifying eight emphasis areas to reduce fatalities and serious injuries. **Chapter 8** details the SHSP emphasis areas and crash analysis for 2011 through 2013 in Charlotte County.

An extension to the SHSP, the PBSSP focuses resources to the areas with the greatest opportunity to improve bicycle and pedestrian safety. Adopted in 2015, the SHSP goals and objectives are used to distribute National Highway Traffic Safety Administration funds.

Figure 9-1: Level of Service on Charlotte County State Routes, US Routes, and Interstates



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Transportation Security

Although closely related to transportation safety, planning for transportation security focuses resources on preventing, managing, and responding to manmade threats and natural disasters. The Charlotte MPO partnered with Florida State University’s Department of Urban and Regional Planning as well as private consultants to conduct a hazard mitigation study for the 2035 LRTP update. The study evaluated the county’s vulnerability to natural disasters including sea level rise. Charlotte County and the MPO have also adopted local plans to help ensure transportation security, including the Continuity of Operations Plan (COOP), Local Mitigation Strategy (LMS), Comprehensive Emergency Management Plan (CEMP), and a Long-Term Recovery Plan. The following sections describe Charlotte County’s vulnerability, the MPO’s and local efforts to ensure transportation security, and the Hazard Mitigation Study.

Charlotte County’s Vulnerability

The county’s transportation system is vulnerable to manmade and natural events including hurricanes, tornadoes, wildfires, extreme cold and heat, drought, and coastal erosion. The Hazard Mitigation Study described below provides a more detailed discussion of the county’s vulnerability, including an analysis of sea level rise. **Table 9-1** summarizes the county’s vulnerability to natural threats that are identified in the 2010 LMS.

Hazard Mitigation Study

As a part of the 2035 LRTP update, the Florida State Department of Urban and Regional Planning, the CC-PG MPO conducted a Hazard Mitigation Study. As a result of the Study, miles of road vulnerable to flooding was determined, as shown in **Table 9-2**. The full Hazard Mitigation Study is provided in **Appendix G**. (Note: This study was conducted for 2035 LRTP and results were used for the 2040 update.)

Table 9-1: Vulnerability to Natural Threats

Threat	Damage
Coastal erosion	In 2009, an estimated 1.65 percent of the county’s buildings were in a coastal erosion hazard area, accounting for 5.5 percent of the county’s building value of \$653 million.
Drought and Extreme Heat	Charlotte County generally experiences a dry season between January and May. In 1998, a drought led to 100 wildfires that burned more than 1,000 acres of land.
Extreme Cold and Freezes	While freezes in Charlotte County are infrequent, they can happen. In 2003, the strawberry and tropical fish farms lost a combined \$8.5 million in the counties between Hillsborough and Lee Counties, which includes Charlotte.
Hurricanes	Between 1994 and 2008, 18 hurricanes and tropical storms have impacted Charlotte County, resulting in 16 deaths, 833 injuries, \$8.5 billion in property damage, and \$300.5 million in crop damage.
Tornadoes	Between 1950 and 2009, there have been 50 tornadoes in the county, causing an estimated \$14.2 million in property damage, two deaths and 11 injuries.
Wildfires	Between 2002 and 2009, wildfires caused approximately \$260,000 in property damage, no deaths, and one injury.

Table 9-2: Miles of Road Vulnerable to Flooding

Hazard Scenario	Miles of Tier 1
1.0m Sea Level Rise	2
Cat 2 Storm Surge	132
Cat 2 Storm Surge + 0.5m SLR	171
Cat 2 Storm Surge + 1.0m SLR	197

Study Recommendations

According to the transportation vulnerability analysis conducted as part of the hazard mitigation study, sea level rise through 2050 (0.5 meter rise relative to 1990) is not projected to impact any interstates, arterials, or major collectors within Charlotte County. Sea level rise projected for 2100 (1.0 meter relative to 1990) may begin to impact these major transportation facilities. Protection and relocation/retreat options that address sea level rise and associated impacts may be considered in future updates of the LRTP as the lifecycle of the vulnerable transportation infrastructure is more threatened by encroaching seas.

Advancing a specific mitigation project will depend on the hazard impact timeframe in relation to the plan horizon. For example, bridges proposed in long-range plans today will likely be designed to last beyond 2100. Other timeframes to consider will include funding source criteria. Regular updates of the LRTP vulnerability assessment with the most current projections of sea level rise will assist in monitoring when to begin considering the more difficult to implement protection and relocation/retreat options.

MPO's Role in Transportation Security

The CC-PG MPO's role is to collaborate with local, state, and federal agencies to inform the public of risks; prioritize projects that enhance transportation security; and address local transportation security concerns, including manmade and natural disasters. The following agencies have mutual aid agreements to coordinate activities and

address transportation security concerns:

- U.S. Coast Guard
- Transportation Security Administration
- Homeland Security
- Federal Emergency Management Agency
- Florida Highway Patrol
- Motor Carrier Compliance
- Charlotte County Sheriffs Department
- Seminole Gulf Railway Police
- Punta Gorda Police Department
- Division of Law Enforcement, Department of Environmental Protection
- Charlotte County Emergency Services
- City of Punta Gorda Fire Department

Federal and State Roles in Transportation Security

The attacks on September 11, 2001, changed the federal government's perspective on security. President George W. Bush established the Office of Homeland Security (OHS) within the White House in October 2001. Congress in turn created the Transportation Security Administration (TSA) in November 2001, which is now under the Department of Homeland Security (DHS), a stand-alone cabinet created by Congress in November 2002. While DHS was created in response to manmade threats, transportation systems' vulnerability to natural disasters and emergency evacuations are a major component of DHS, as the Federal Emergency Management Agency (FEMA) was also absorbed by the DHS in March 2003.

Federal and state planning guidance requires the inclusion of transportation safety in the planning process. In 2005, SAFETEA-LU made transportation security for motorized and non-motorized users a separate planning factor. MAP-21, which replaced SAFETEA-LU in 2012, maintained transportation security as a standalone planning factor. FHWA guidance also encourages MPOs and state DOTs to fund projects that address transportation security.

In Florida, transportation security is a goal and long range objective of the 2060 FTP, and Florida statute [339.1755(7) (a)] requires that the 2040 LRTP be consistent with the goals and objectives of the 2060 Plan.

Local Efforts to Ensure Transportation Security

The following sections describe relevant local efforts to plan for security, including the COOP, LMS, CEMP, and Long-Term Recovery Plan.

Continuity of Operations Plan

All levels of government are required to adopt a COOP to comply with Executive Order 12656. The CC-PG MPO adopted the most recent COOP in 2012. The value of the COOP is evident in Hurricane Charley, which destroyed the MPO offices in 2004. It ensures that the local government continues to deliver essential services and outlines a plan intended to keep the county's staff and citizens safe during manmade and natural emergencies. The COOP describes the federal requirements, presents goals and objectives, and identifies actions and precautionary measures for continuing operations, as well as methods for keeping vital records safe.

Local Mitigation Strategy

Federal regulations (44 CFR 201.6 and the Disaster Mitigation Act of 2000) require local governments to have a local disaster mitigation plan to minimize social, economic, environmental, and infrastructure losses. FEMA provides policy guidance to local governments for developing or updating the mitigation plan in its Local Mitigation Planning Handbook.

The Board of County Commissioners adopted the first Charlotte County LMS in 2000. Since then, the LMS is updated every five years by the LMS Working Group, made up of representatives from all local jurisdictions, emergency services such as the fire department, and private stakeholders. The most recent update was adopted in 2010. Among its accomplishments, the 2010

LMS identified:

- Goals and objectives for reducing the county's vulnerability, enhancing hazard mitigation planning, improving post-disaster recovery and dissemination of emergency management information, and protecting natural habitats
- Hazards and consequential level of risk threatening the county's communities
- Mitigation initiatives and funding sources to reduce risk from hurricanes, tornadoes, wildfires, drought, extreme heat and freezes, and coastal erosion.

Comprehensive Emergency Management Plan

Florida law (Section 252.35, F.S.) requires that local governments develop a CEMP as a part of emergency and disaster preparation that can be applied to all types of catastrophes. The current CEMP for Charlotte County covers 2014 through 2018, and the plan explains:

- How Charlotte County will plan and prepare for, respond to, and recover from large-scale disasters and emergencies
- The responsibilities for lead and supporting agencies as well as coordination with state and federal agencies

Long-Term Recovery Plan

Charlotte County's Long-Term Recovery Plan is a community-driven plan was developed over eight weeks between October and December 2004 as a part of the county's recovery efforts from Hurricane Charley in August 2004. More than 1,000 stakeholders, residents, and county officials participated in the plan's creation. The plan identified 31 projects and available funding aimed at revitalizing the county. The projects were spread across seven categories:

- Economic development
- Housing
- Community Facilities

- Environment
- Mitigation
- Transportation and infrastructure
- Community services

Socio-Cultural Effects and Environmental Justice

Environmental justice is defined by the US Environmental Protection Agency as “the fair treatment and meaningful involvement of all people regardless of race, color, sex, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies.” Environmental justice prohibits discrimination based on race, color, and national origin and requires the inclusion of minority and low-income populations. Compliance with environmental justice is required by Title VI of the Civil Rights Act of 1964 and reinforced by the Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994). Executive Order 12898 directs federal agencies to “identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law.” Title VI regulations direct federal agencies to identify and address the effects of all programs policies and activities on traditionally disadvantaged groups. A minority is defined as the following:

- **Black:** having origins in any of the black racial groups of Africa
- **Hispanic:** of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race

- **Asian American:** having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands
- **American Indian and Alaskan Native:** having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition

Title VI defines low-income as a person whose household income (or median household income for a community or group) is at or below the U.S. Department of Health poverty guidelines. The guidelines are defined by household size. The average household size for Charlotte County is currently 2.57 persons. The 2014 Federal poverty guidelines are displayed in **Table 9-3** and are based on Census data, the poverty threshold was set at below \$20,000.

Table 9-3: 2014 Federal Poverty Guidelines

Persons in family/ household	Poverty Guideline
1	\$11,670
2	\$15,730
3	\$19,790
4	\$23,850
5	\$27,910
6	\$31,970
7	\$36,030
8	\$40,090
9+	Additional \$5,080 for each additional person

The LRTP development process included efforts to assess countywide performance of transportation projects with regard to socio-cultural effects and environmental justice. The process also seeks to ensure equal access to transportation systems and the transportation planning process. The analysis focuses on areas with a high concentration of minority, low-income, and other traditionally under-served and under-represented populations. The potential positive and adverse impacts of proposed transportation projects were considered. Three major components are addressed in the planning process:

- Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental impacts, including social and economic effects, on minority and low-income populations.
- Ensure the participation of the traditionally under served and underrepresented segments of the population in the transportation plan development process.
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Community Facilities Inventory

The community analysis first identifies areas having the potential for being impacted by transportation projects included in the 2040 Needs and Cost Feasible Plans. In addition to identifying environmental justice areas (high concentrations of minority and/or low-income populations) and areas with higher elderly population, this also includes developing a community facilities inventory. Community-based facilities in Charlotte County were inventoried to identify major trip generators or employers within the county and that are likely to attract a variety of population segments due to their community-oriented nature. Community facilities included parks and recreation facilities, libraries, schools, and hospitals.

The assessment was performed using GIS software. The community facilities inventory was verified and updated as needed for the 2040 LRTP. A summary of these facilities is presented below.

Parks and Recreation Facilities

There are 63 park facilities managed by Charlotte County that span a total of 5,255 acres. These include wilderness parks, river parks, memorial parks, neighborhood parks, recreational and athletic complexes, and community centers. There are also three state owned parks within Charlotte County.

Libraries

Charlotte County operates four libraries providing an excellent knowledge base for Charlotte residents. They are located in Englewood, Port Charlotte, and Punta Gorda.

Schools

The Charlotte County School Board currently operates four high schools (one is a charter school), four middle schools, and 10 elementary schools. In addition, the Charlotte County School Board operates four other facilities, including technical, adult, and educational centers.

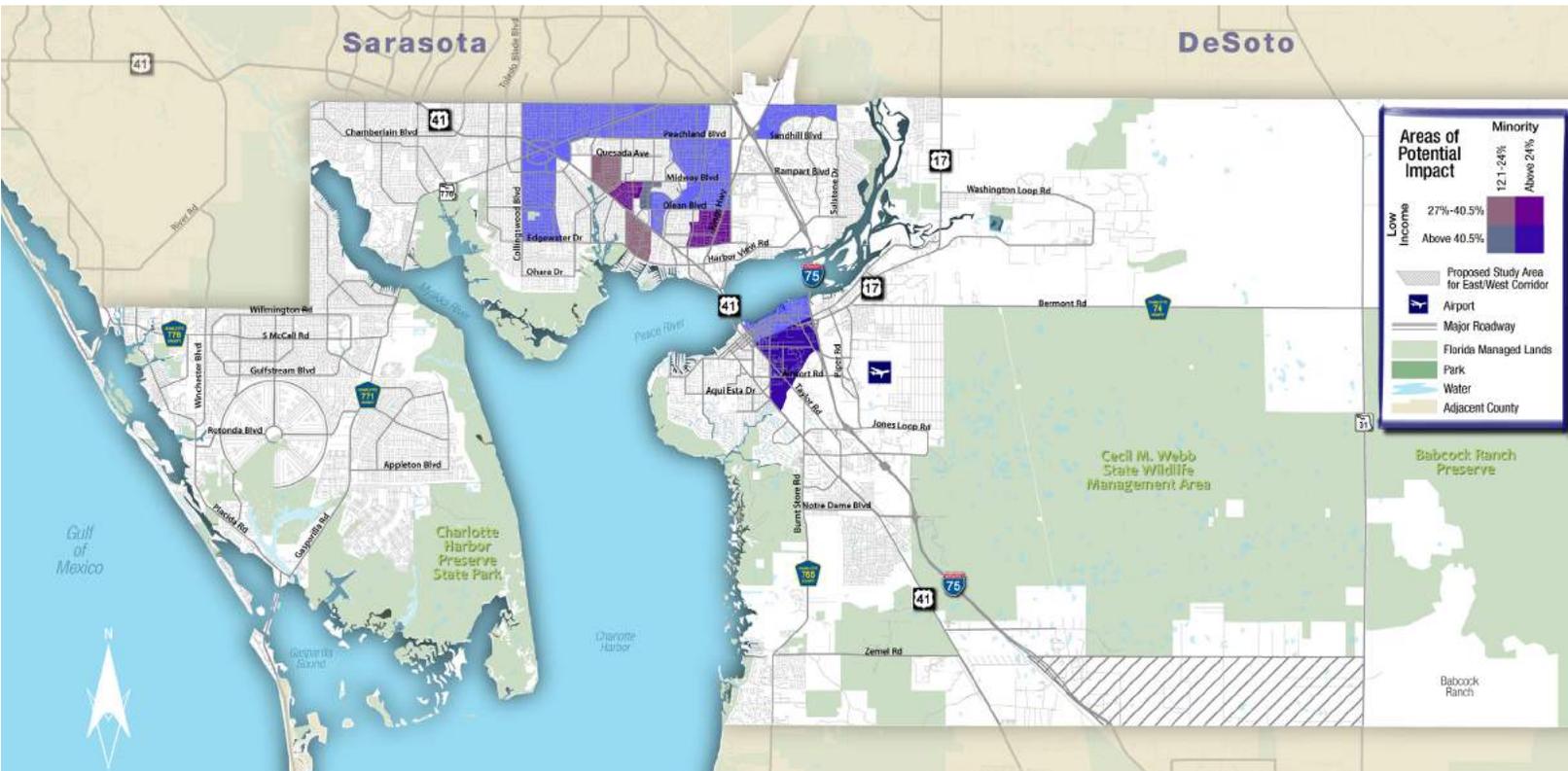
Hospitals

Charlotte County is served by four major hospitals/clinics, as well as a number of other wellness and other healthcare facilities, including urgent care centers, a weight management center, and nursing homes.

Environmental Justice Zones

Environmental justice areas were developed by identifying the areas with the highest minority populations and low-income, and are shown in **Figure 9-2**. In 2014, Charlotte County conducted an Environmental Justice analysis using the following thresholds: 27 percent (low income) and 12.1 percent (minority).

Figure 9-2: Charlotte County Environmental Justice Zones



To be consistent with Charlotte County’s analysis, the 2040 LRTP used the same category breakdown. The data was adjusted to show the areas of interest divided into two designations with opposing colors to show the intensity of the percentage breakdowns by type. Areas of only low income or minority (with no overlap) were removed. Utilizing Census 2010 GIS data, percent of poverty (low income) was categorized to highlight 27 percent or above, and overlaid with the percent minority of 12.1 percent and above. Where these two categories overlap show the Environmental Justice areas within the county.

Environmental Mitigation

Transportation projects can significantly impact many aspects of the environment including wildlife and their habitats, wetlands, and groundwater resources. In situations where impacts cannot be completely

avoided, mitigation or conservation efforts are required. Environmental mitigation is the process of addressing damage to the environment caused by transportation projects or programs. The process of mitigation is best accomplished through enhancement, restoration, creation and/or preservation projects that serve to offset unavoidable environmental impacts.

All Florida MPOs are committed to minimizing and mitigating the negative impacts of transportation projects on the natural and built environment in order to preserve and enhance the quality of life. In the State of Florida, environmental mitigation for transportation projects is completed through a partnership between the MPO, FDOT, and state and federal environmental resource and regulatory agencies, such as the Water Management Districts (WMDs) and the Florida Department of Environmental Protection (DEP).

These activities are directed through Section 373, F.S., which establishes the requirements for mitigation planning as well as the requirements for permitting, mitigation banking, and mitigation requirements for habitat impacts. Under this statute FDOT must identify projects requiring mitigation, determine a cost associated with the mitigation, and place funds into an escrow account within the Florida Transportation Trust Fund. State transportation trust funds are programmed in the FDOT work program for use by the WMDs to provide mitigation for the impacts identified in the annual inventory.

Section 373.4137, F.S., establishes the FDOT mitigation program that is administered by the state's WMDs, which are responsible for developing an annual mitigation plan with input from Federal and State regulatory and resource agencies, including representatives from public and private mitigation banks. Each mitigation plan must focus on land acquisition and restoration or enhancement activities that offer the best mitigation opportunity for that specific region. The mitigation plans are required to be updated annually to reflect the most current FDOT work program and project list of a transportation authority. The FDOT Mitigation Program is a great benefit to MPOs because it offers them an additional method to mitigate for impacts produced by transportation projects and it promotes coordination between federal and state regulatory agencies, MPOs, and local agencies.

When addressing mitigation there is a general rule to avoid all impacts, minimize impacts, and mitigate impacts when impacts are unavoidable. This rule can be applied at the planning level, when MPOs are identifying areas of potential environmental concern due to the development of a transportation project. A typical approach to mitigation that MPOs can follow is to:

- Avoid impacts altogether
- Minimize a proposed activity/project size or its involvement
- Rectify the impact by repairing, rehabilitating, or restoring the affected environment
- Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action
- Compensate for environmental impacts by providing appropriate or alternate environmental resources of equivalent or greater value, on or off-site

Sections 373.47137 and 373.4139, F.S. require that impacts to habitat be mitigated for through a variety of mitigation options, which include mitigation banks and mitigation through the Water Management District(s) and the DEP. **Table 9-4** on the following page outlines potential environmental mitigation opportunities that could be considered when addressing environmental impacts from future projects proposed by MPOs.

Planning for specific environmental mitigation strategies over the life of the long range transportation plan can be challenging. Potential mitigation challenges include lack of funding for mitigation projects and programs, lack of available wetland mitigation bank credits, improperly assessing cumulative impacts of projects, and permitting issues with the county, local, state and federal regulatory agencies. These challenges can be lessened when MPOs engage their stakeholders, including regulatory agencies, the public and other interested parties, through the public involvement process. The public involvement process provides MPOs an efficient method to gain input and address concerns about potential mitigation strategies and individual projects.

2040 Transportation Plan

Charlotte County-Punta Gorda MPO

In addition to the process outlined in the Florida Statutes and implemented by the MPO and its partner agencies, the ETDM process is used for seeking input on individual qualifying long range transportation projects allowing for more specific commentary. This provides assurance that mitigation opportunities are identified, considered

and available as the plan is developed and projects are advanced. Through these approaches, the State of Florida along with its MPO partners ensures that mitigation will occur to offset the adverse effects of proposed transportation projects.

Table 9-4: Potential Environmental Mitigation Strategies

Resource/Impacts	Potential Mitigation Strategy
Wetlands and Water Resources	<ul style="list-style-type: none"> • Restore degraded wetlands • Create new wetland habitats • Enhance or preserve existing wetlands • Improve storm water management • Purchase credits from a mitigation bank
Forested and other natural areas	<ul style="list-style-type: none"> • Use selective cutting and clearing • Replace or restore forested areas • Preserve existing vegetation
Habitats	<ul style="list-style-type: none"> • Construct underpasses, such as culverts • Other design measures to minimize potential fragmenting of animal habitats
Streams	<ul style="list-style-type: none"> • Stream restoration • Vegetative buffer zones • Strict erosion and sedimentation control measures
Threatened or Endangered Species	<ul style="list-style-type: none"> • Preservation • Enhancement or restoration of degraded habitat • Creation of new habitats • Establish buff areas around existing habitat