



metroplan orlando  
A REGIONAL TRANSPORTATION PARTNERSHIP

# 2045

## Metropolitan Transportation Plan

Technical Series #10  
Health and Environmental Screening

Adopted: 12/09/2020

# What is in this document?

As part of the development of the 2045 Metropolitan Transportation Plan (MTP), MetroPlan Orlando is evaluating potential impacts to community health and the environment. This technical series document describes the approach taken to evaluate the potential impacts that planned projects may have on the environment, including the method of identifying and estimating potential health and environmental impacts.

This document also discusses the development of programmatic resiliency strategies and implementation responsibilities that will be established to guide the development of new transportation infrastructure.

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# Introduction

The Central Florida region's outstanding natural environment is an asset to economic progress and public health. Abundant natural resources, a beautiful setting, and vibrant communities make every industry more competitive in a global economy. Maintaining this advantage depends on a healthy natural and built environment with clean industries, good jobs, managed growth, and lively activity centers.

As an initial step in the long-range planning process, MetroPlan Orlando established five overarching goals that together advance our vision for *a regional transportation system that safely and efficiently moves people and goods through a variety of options that support the region's vitality*. To fulfill this vision, MetroPlan Orlando will continue to enhance the planning process to give greater emphasis to public health, equity, land use and other emerging issues.

The planning goal related to Health and Environment is to *Protect and preserve our region's public health and environmentally sensitive areas*. For each of the MTP Goals, a set of fixed and measurable objectives has been identified. The objectives related to health and the environment include:

- Provide transportation solutions that contribute to improved public health
- Expand conservation lands and minimize land consumption for future development
- Increase population/employment densities and mix of land uses
- Reduce per capita related air quality pollutants and greenhouse gas emissions
- Reduce adverse health impacts associated with physical inactivity
- Plan and develop transportation systems in a manner that protects and restores the function and character of the natural environment and avoids or minimizes adverse environmental impacts
- Reduce transportation system impacts caused by stormwater issues and flooding
- Prevent disproportionate adverse effects of transportation projects on minority and low-income communities

The 2045 Metropolitan Transportation Plan also addresses resiliency – the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions. MetroPlan Orlando has built in resilience throughout the planning process, starting with the goals and objectives and continuing through project prioritization. Programmatic resiliency strategies and implementation responsibilities will be established to guide the development of new transportation infrastructure.





# Approach

This section describes the approach taken to evaluate the potential impacts that planned projects may have on the environment.

## Environmental Related Objectives

There are five objectives under the Health and Environment goal that relate to protection of the natural and social environment. This section discusses each of these objectives and how MetroPlan Orlando plans to address each objective.



### 1. Conservation Lands

#### *Expand conservation lands and minimize land consumption for future development*

This objective looks to minimize impacts to existing conservation lands and to find opportunities to expand these conservation areas. The first step in this process is to identify where current conservation lands are located in relation to planned projects. By working with the region's Water Management Districts, Florida Department of Environmental Protection and other agencies, MetroPlan Orlando and partnering agencies identify properties that are planned for long-range land acquisition to be added to conservation plans.

### 2. Protect and Restore the Natural Environment

#### *Plan and develop transportation systems in a manner that protects and restores the function and character of the natural environment and avoids or minimizes adverse environmental impacts*

At a minimum, the region aims to avoid or minimize adverse environmental impacts from transportation projects. With some planning ahead and early coordination, there are opportunities to protect and restore the natural environment through our region's transportation projects.

Beyond the larger scale conservation lands discussed in the earlier objective, this objective looks for more localized environmental improvements, such as providing hydrologic and wetland restoration projects as part of a transportation project mitigation alternatives. Another example is to look for opportunities to connect wildlife corridors by providing wildlife crossings when public lands exist adjacent to both sides of the roadway.



### 3. Air Quality

#### **Reduce per capita related air quality pollutants and greenhouse gas emissions**

Previous long-range transportation plans evaluated the need for improvements based on a volume to capacity ratio that strictly focused on levels of automobile congestion, which resulted in mostly capacity (widening or new roadway) projects. This process gave higher emphasis to single occupancy vehicle usage, which in turn leads to higher greenhouse gas emissions.

The 2045 MTP evaluates needs and opportunities based on a comprehensive set of performance measures to identify mobility needs, resulting in a multimodal approach. Providing a more multimodal system will provide more options for people to get out of the single occupancy vehicle and aid in reducing greenhouse gas emissions.

### 4. Stormwater and Flooding

#### **Reduce transportation system impacts caused by stormwater issues and flooding**

The MetroPlan Orlando region, along with the rest of the state, has the potential for increased flooding due to changing climate, increased frequency and/or intensity of extreme weather events, and sea level rise. Flooding of our communities and roadways can have an impact on our ability to move around the region and to evacuate when necessary, which reinforces the need to have a reliable transportation network ready to support emergency evacuations. Evaluating the current and planned transportation network impact on floodplains, low-lying areas and bridge crossings to determine if flooding issues and overtopping may occur will aid in prioritizing project improvements, particularly if they are on an evacuation route. In addition, although the MetroPlan Orlando region does not include coastal communities, sea level rise and increased storm surge have the potential to push more coastal residents to move inland. This has been discussed in the Technical Series #8: Scenario Planning – Background and Development.

### 5. Environmental Justice

#### **Prevent disproportionate adverse effects of transportation projects on minority and low-income communities**

MetroPlan Orlando works to ensure that transportation decisions do not cause disproportionately high and adverse effects on low-income and minority populations – a concept known as environmental justice (EJ) or transportation equity.

Transportation Equity focus areas are used to guide proactive public participation efforts in traditionally underserved communities.

One way in which MetroPlan Orlando constantly evaluates projects is through performance measures for the transportation system. We have established transportation equity focus areas as a criteria. If the transportation system within these focus areas is under performing compared to the rest of the region, projects will be prioritized and programmed to meet established targets to help increase access to EJ communities.



# Environmental Screening Approach

For the 2045 MTP, MetroPlan Orlando recognized the need for increased environmental impact awareness and mitigation. The prioritization process includes a GIS-based, quantitative, multi-criteria analysis that uses the goals and objectives as a framework. The 2045 MTP looks at the potential environmental impacts of candidate transportation projects and quantifiable indicators to the project prioritization matrix.

*There are three steps to this process:*

1. Identify potential environmental impacts;
2. Develop high-level cost estimates for mitigation to use in project prioritization; and
3. Screen qualifying projects through FDOT's Efficient Transportation Decision Making (ETDM) tool

In addition to evaluating and analyzing future project specific environmental impacts, the 2045 MTP also established programmatic resiliency strategies and implementation responsibilities.

## Identifying Environmental Impacts

In order to include a quantitative analysis in such a high-level planning effort, the environmental impacts are focused on wetland and Environmental Justice/Transportation Equity focus areas (disproportionately high and adverse effects on low-income and minority populations).

### Wetlands

To determine mitigation strategies, we first need to have an idea of the extent that wetlands may be impacted by the planned transportation network. To determine the extent, we made some assumptions of the project scope and the potential footprint of the project.

For each widening or new roadway project on the needs list, GIS analyses were conducted using an estimated buffer width based on the planned number of lanes to determine the potential acres of wetlands that would be impacted. A variety of local, regional, and state planning documents were consulted for New Roadway and Widening projects to be included in the MTP. Upon determining candidate projects and their proposed improvements, general planning buffers were applied to each project based on the improvement type, as described in Table 10.1.

**Table 10.1 Assumed Corridor Widths for GIS Analysis**

Planned Improvement	Assumed Corridor Width (feet)
Widen or New Alignment to 4 lanes	200
Widen or New Alignment to 6 lanes	250
Widen or New Alignment to 8 lanes	300
Widen or New Alignment to 10 lanes	350
Widen or New Alignment to 12 lanes	400





To determine potential wetland impacts for each widening or new roadway project on the needs list, the South Florida Water Management District Land Use and Cover 2014 - 2016 and St. Johns River Management District Land Use and Cover - 2014 datasets, published by their respective agencies, were used to identify areas of impact with the buffered projects (ArcMap - Clip tool). Acreage for each impact area was calculated.

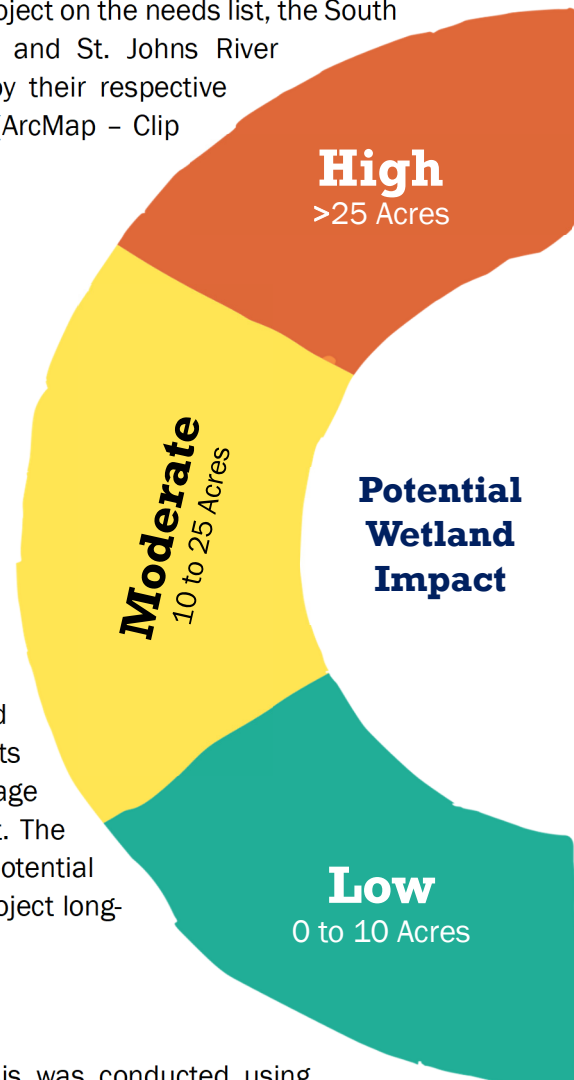
Impact severity was categorized based on a range of acreage outcomes:

- Low - potential impact of 0 to 10 acres
- Moderate - potential impact between 10 acres and 25 acres
- High - potential impact greater than 25 acres

#### Wetland Mitigation Cost Estimates

Adding the potential cost for environmental mitigation this early in the planning process is something that hasn't been done in past long range planning efforts. By adding this step, we hope to gain a better understanding of the overall project costs to aid in planning for future funding.

To estimate the potential wetland mitigation costs, the Uniform Mitigation Assessment Method (UMAM) was used to generally estimate the wetland functional loss for systems to be impacted and the number of mitigation credits required. These mitigation credits were then converted to an estimated acreage cost by using a mitigation bank with current price of \$135,000/dual credit. The estimated per impact acreage cost used is \$94,500. The results of the potential wetland impact analysis and mitigation costs are considered in preparing project long-range cost estimates as part of the Cost Feasible Plan.



## Transportation Equity

In order to analyze transportation equity within the region, a GIS analysis was conducted using United States Census data. Consistent with MetroPlan Orlando's *Title VI Program: Non-Discrimination & Language Plan*, Transportation Equity focus areas were identified by analyzing data from the following **seven populations** to locate high concentrations of underserved communities throughout the region:

1. Percent of population above age 75;
2. Percent of households below poverty level;
3. Percent of female households with child under 18 years;
4. Percent of population with disabilities (measured against non- institutionalized population);
5. Percent of minority population (population other than non-Hispanic white only);
6. Percent of population with limited English proficiency (includes all people who speak English "less than very well" and "not at all");
7. Percent of households with no vehicles.



For each of the identified transportation equity populations, the regional average was determined and a score of “1” was given if the percentage was above the regional average. The scores were then compiled into distinct ranges. Areas with scores of 4-7 correspond to transportation equity focus areas. All the data for this effort was collected using the five-year American Community Survey data at the census tract level.

To ensure that traditionally underrepresented populations receive needed transportation improvements, the transportation equity focus area scoring has been included in the project prioritization process. Corridors with a higher range of transportation equity areas (or Environmental Justice populations) receive a higher score for prioritization, as shown in Table 10.2.

**Table 10.2 | Transportation Equity: Criteria and Scoring Logic**

Indicator	Description	Scoring Thresholds										
<b>Transportation Equity / Environmental Justice (EJ) Populations</b>  Percentage of seven traditionally underserved communities (low income, minority, aging population, people with disabilities, zero-car households, limited English proficiency persons, female head of household with child), measured at the census tract level.  <i>Source: 5-year American Community Survey Data</i>	<p><b>Method:</b> A GIS assessment was conducted to determine the corresponding EJ score for the area adjacent to the corridor. The EJ score represents the number of underserved communities which exceed the regional average within a particular census block.</p> <p><b>Logic:</b> To ensure that transportation decisions do not cause disproportionately high and adverse effects on low-income and minority populations, corridors with higher EJ population will be prioritized for improvements.</p> <p><u>Greater the EJ population, greater the need, greater the point allocation</u></p> <p><b>Scenario Planning:</b> Existing measure, no impact to scenario planning</p>	<table><tr><th>Range</th><th>Score</th></tr><tr><td>1</td><td>0.25</td></tr><tr><td>2 - 3</td><td>0.50</td></tr><tr><td>4</td><td>0.75</td></tr><tr><td>Over 4</td><td>1</td></tr></table> <p>Unit: Score</p>	Range	Score	1	0.25	2 - 3	0.50	4	0.75	Over 4	1
Range	Score											
1	0.25											
2 - 3	0.50											
4	0.75											
Over 4	1											

Source: 2045 MTP, Technical Series # 6: Prioritization Process, September 2020

## FDOT's Efficient Transportation Decision Making (ETDM) Process

FDOT's Efficient Transportation Decision Making (ETDM) process will be used to screen qualifying projects. The list of candidate projects will be reviewed to determine which projects qualify for the ETDM screening process. FDOT's Efficient Transportation Decision Making process, developed in response to the Congress' Environmental Streamlining initiative, accomplishes major transportation project planning with early and continuous agency participation, efficient online electronically-managed environmental review and meaningful dispute resolution mechanisms. ETDM is carried out through the use of the Environmental Screening Tool (EST): <https://www.fdot.gov/environment/EST-Overview.shtm>.

The ETDM process consists of two stages of screening: Planning Screen and Programming Screen. Qualifying projects under review at the long-range planning process phase would begin with a Planning Screen. Qualifying projects are identified based on criteria including: project type, transportation system designation, potential funding source (federal, state, or local), and responsible agency.



The ETDM screening process includes GIS analyses using the data sets included in the Environmental Screening Tool (EST), such as wetlands, floodplains, protected species and their habitat, contaminated sites, historic and archaeological resources, and more. A detailed description of the ETDM process can be found in the FDOT's ETDM Manual available at <https://www.fdot.gov/environment/pubs/etdm/etdmmanual.shtm>.

Projects that do not require an ETDM screening will also be reviewed for potential environmental impacts. A GIS analysis using the data contained within the EST will be conducted to determine the potential for impacts to wetlands, floodplains, protected species, contaminated sites, historical and archaeological resources. An example of the ETDM Environmental Screening Tool (EST) map view showing wetlands in the vicinity of a project is included in Figure 10.1.

For the 2045 MTP development, projects that qualify for an ETDM screening but have not previously been screened will be developed for a Planning Screen. A 12-month project release schedule that identifies projects, the type of screening, and the anticipated screening release date for each project will be developed. An overview of the Planning Screen review process is shown in Figure 10.2.

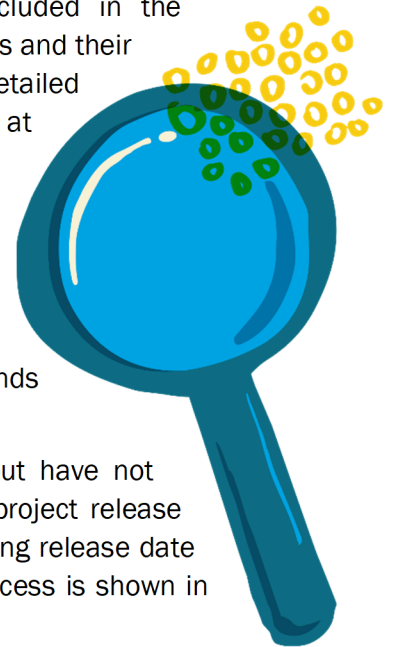
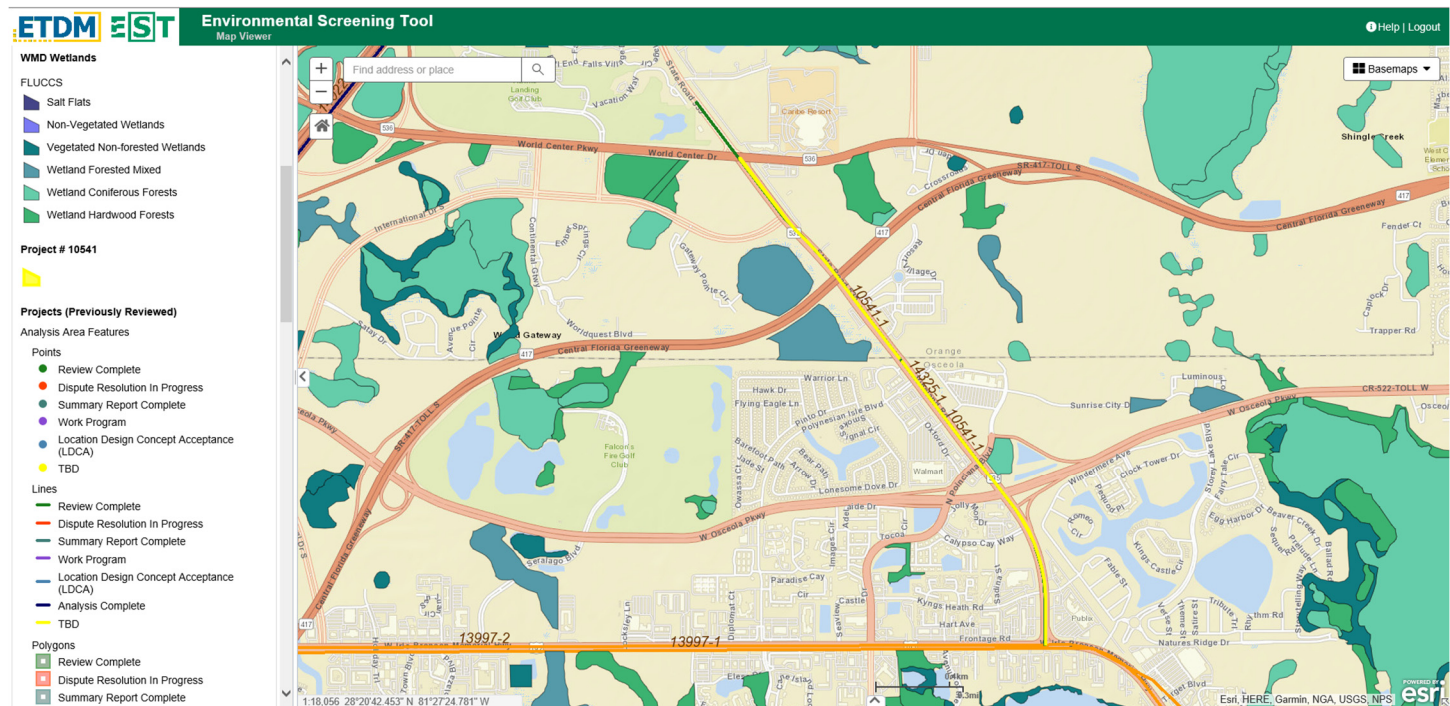


Figure 10.1 Example of ETDM Environmental Screening Tool (EST) Map View

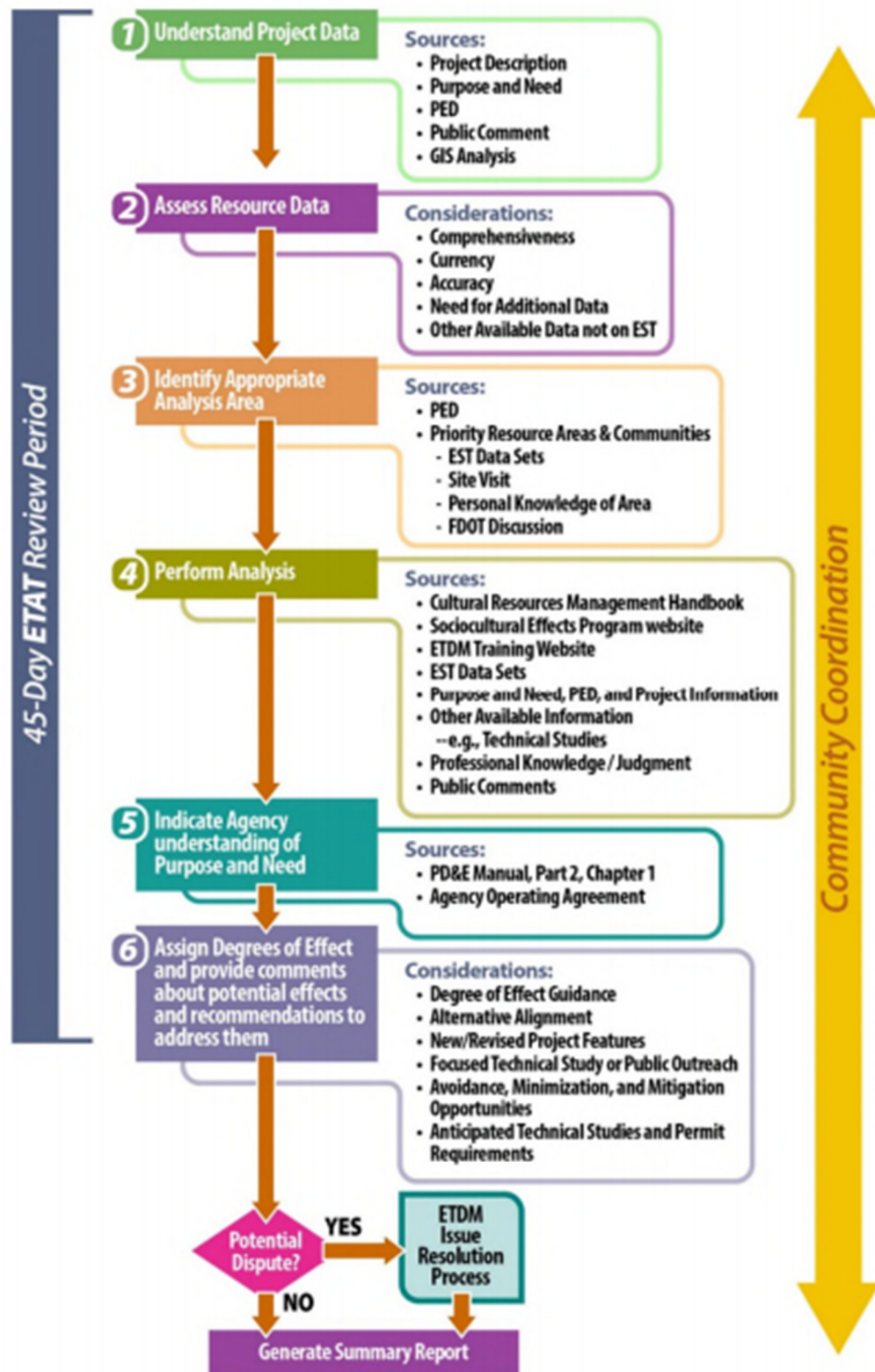


Source: FDOT, 2020





Figure 10.2 Overview of ETDM Planning Screen Review Process



Source: FDOT, ETDM Manual, Chapter 3 Planning Screen, Figure 3-3



# Conservation Lands and Mitigation Strategies

The 2045 MTP places importance on Florida Conservation Lands, designated parcels that have been identified as having natural resource value and that are being managed at least partially for conservation purposes. The Florida Natural Areas Inventory (FNAI) maintains geospatial databases documenting the Conservation Lands with data provided directly by the managing agencies

Figure 10.3 shows the county and city parks, managed lands, mitigation banks, and state parks within the urbanized region. City and county parks provide recreational activity for residents and visitors alike. Managed lands are typically environmentally sensitive lands that are generally conservation managed by local, state, or private agencies, such as the South Florida Water Management District or one of the counties. Florida state parks encompass land under the authority of the Florida Department of Environmental Protection, and provide conservation and tourism areas. Tourist attractions can range from trails, camping, freshwater springs, and other recreation activities. Mitigation banking is a practice in which an environmental enhancement and preservation project is conducted by a public agency or private entity (“banker”) to provide mitigation for unavoidable wetland impacts within a defined mitigation service area.

Some of the larger preservation areas include the 6,220-acre Lake Jessup Conservation Area in Seminole County, the 28,000-acre Tosohatchee State Reserve, the 14,000-acre Rock Springs Run State Reserve in Orange County, and the 63,000-acre Three Lakes Wildlife Management Area in Osceola County. These designated lands provide protection for area river basins, habitat preservation and recreational opportunities in the region.

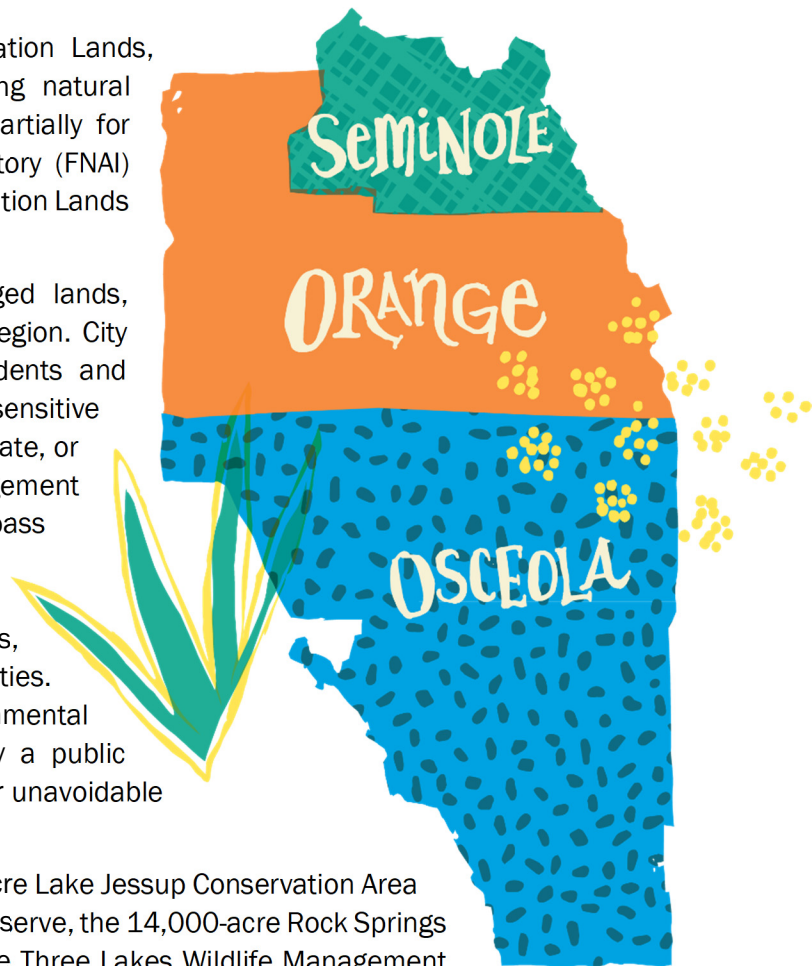
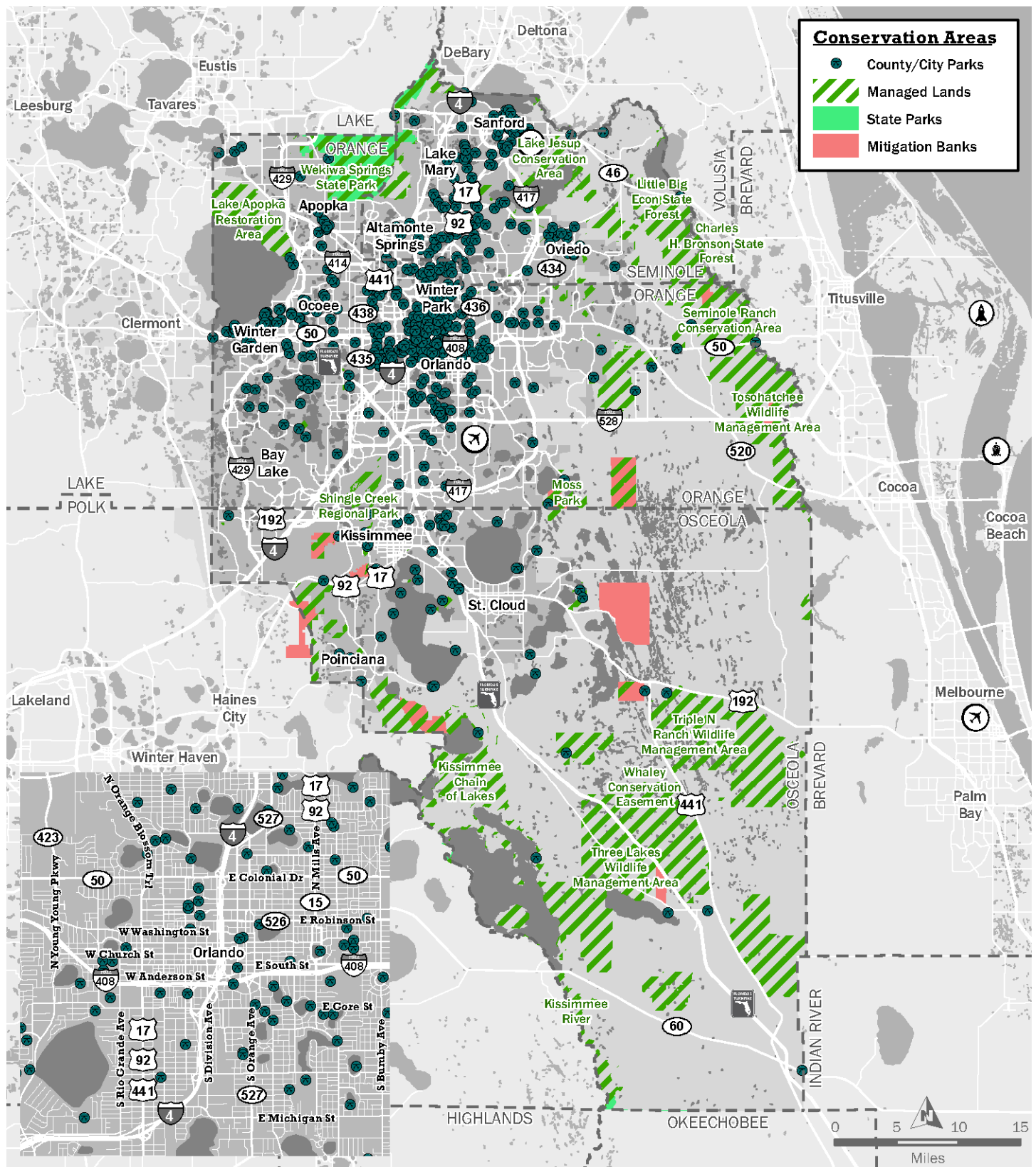




Figure 10.3 | Preserved Areas and Functional Wetlands



Source: Data Source: Florida Natural Areas Inventory, 2019





## FEMA Flood Zones

Federal Emergency Management Agency (FEMA) Flood Zones, also called FEMA Floodplains, are geographic areas that are defined by varying levels of flood risk. Figure 10.4 depicts a variety of Flood Zone levels in the region.

- Zone A: Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
- Zone AE: The base floodplain where base flood elevations are provided.
- Zone AH: Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
- Zone VE: Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
- Zone X: Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. Used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1-square mile.

Flooded areas can negatively impact travel by personal, commercial and transit vehicles.

## Mitigation Strategies

Several strategies are available to mitigate the environmental impacts of transportation projects in the region. The Florida Department of Transportation (FDOT) pursues wetland mitigation through regional, long range planning instead of conducting mitigation on a project-by-project basis. According to Section 373.4137, F.S. FDOT will fund and carry out the use of mitigation banks and other mitigation options that satisfy state and federal requirements. Local Water Management Districts prepare an annual inventory and Mitigation Plan. FDOT has agreements with the South Florida Water Management District and the St. Johns River Water Management District within the MetroPlan Orlando region.

Mitigation Banks are projects that enhance, restore, and/or preserve designated wetlands that serve to offset wetland impacts. The ecological benefits of mitigation projects are intended to compensate for the functional loss resulting from a permitted wetland impact. Florida Statute 373.4136, passed in 1996, provided the framework for permitting Mitigation Banks and established the FDOT Mitigation Program.

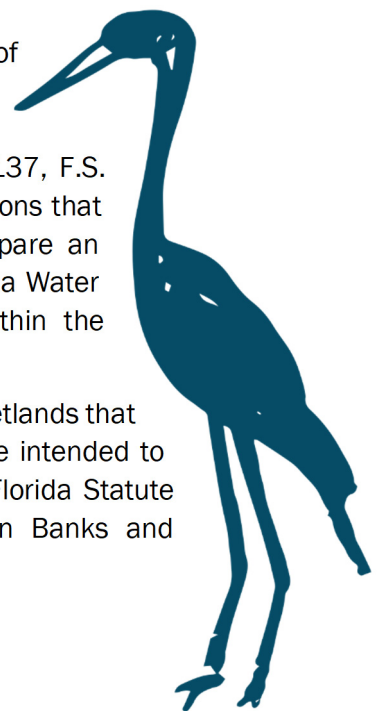
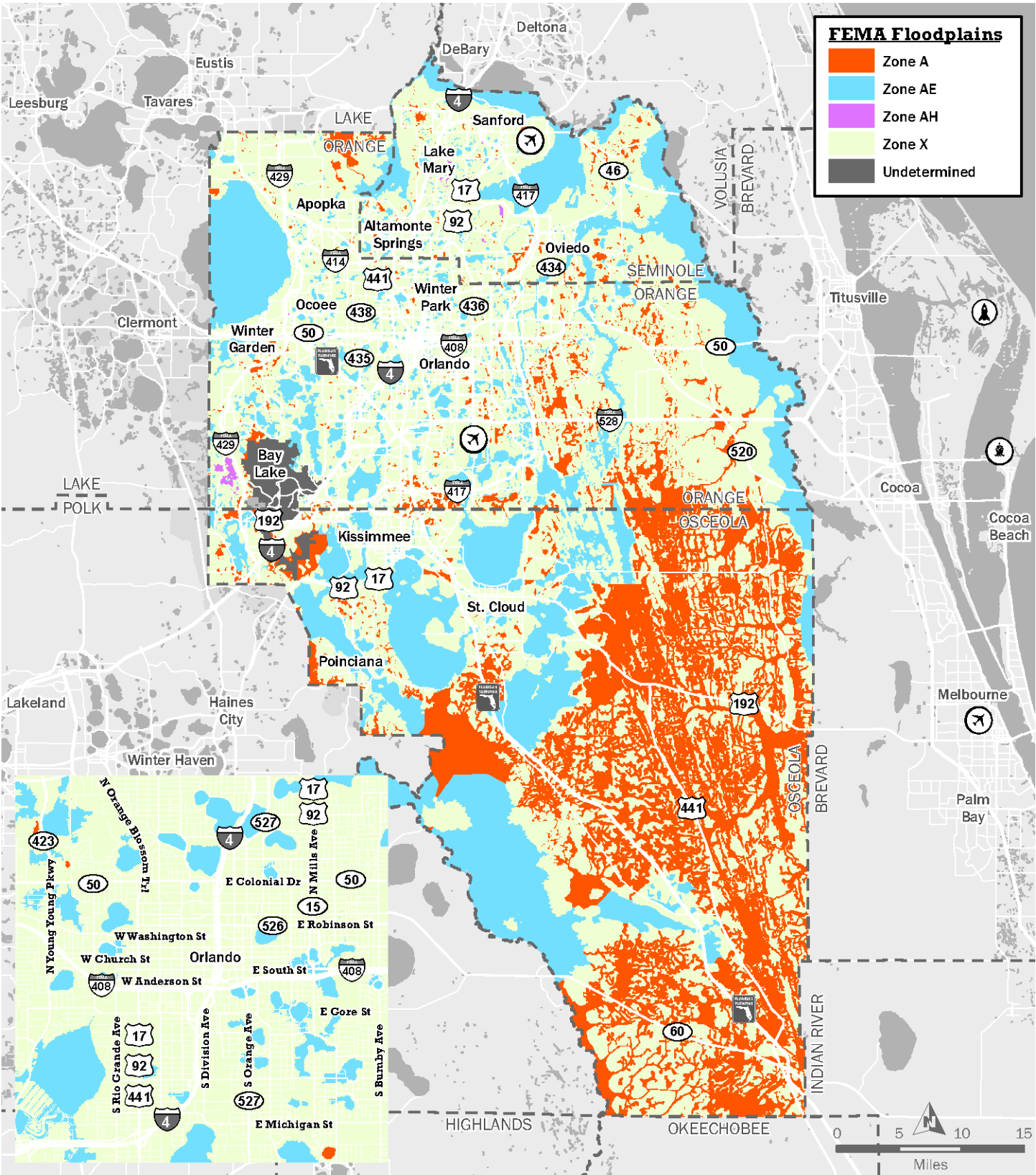


Figure 10.4 | FEMA Floodplains



Data Source: FEMA, 2018





# Resiliency Planning

Federal Regulation 23 CFR 450.306(b)(9) requires MPOs to “improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation” in the long-range transportation planning process. As a result, Florida’s MPOs must consider resiliency in assessing projects, strategies, and services to establish resilient communities and productive, inclusive transportation networks.

Resiliency is a term that can be defined in many ways, depending on the context. Resiliency is defined by the Federal Highway Administration (FHWA) as:

***“Resilience is the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.” – FHWA Order 5220.***

Vulnerability and exposure to disasters is increasing as more people and assets locate in areas of high risk and as we move in closer proximity to one another.

Figure 10.5 Example of Urbanization

## Since 1970:

- The world’s population has grown by 87%
- The proportion of people living in flood-prone river basins increased by 114%
- The proportion of people living on cyclone-exposed coastlines increased by 192%

## Moving Forward:

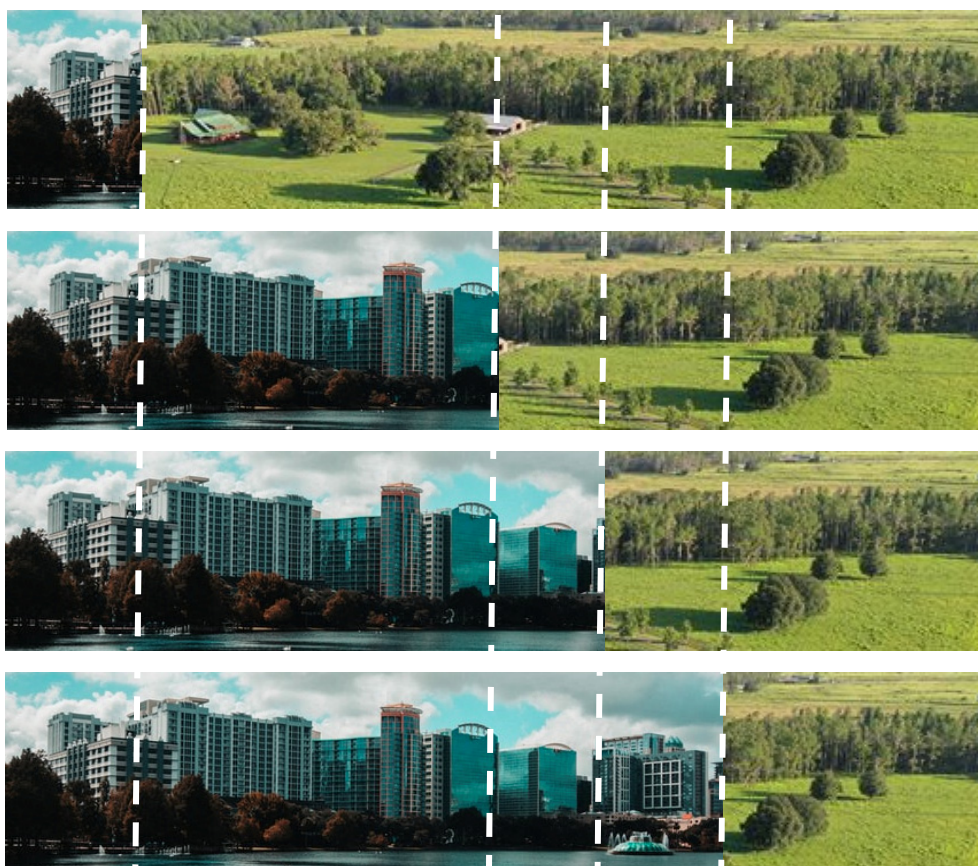
Rapid urbanization will increase exposure to climate hazards and health risks, as 1.4 million new people are moving into cities each week, nationwide.

1900

2007

2030

2040



10%

50%

70%

80%

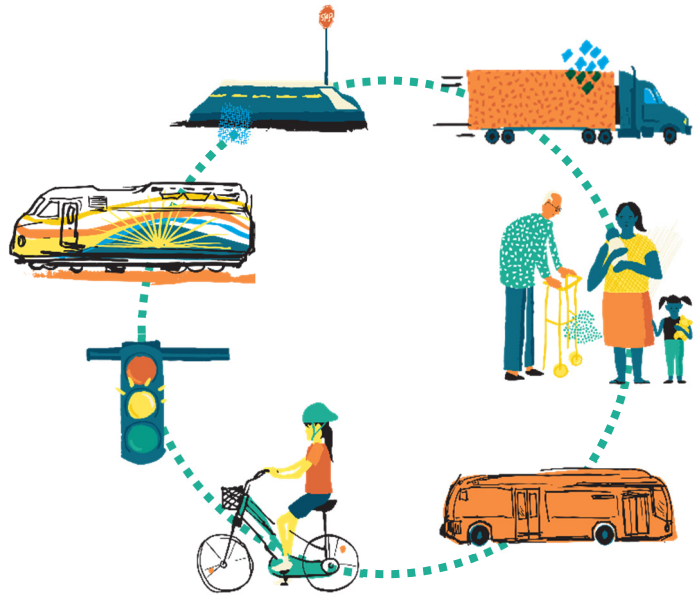




## Qualities of Resilient Systems

Resilient systems reflect the following qualities:

- **Reflective:** able to learn
- **Resourceful:** can easily repurpose resources
- **Robust:** limits spread of failure
- **Flexible:** has alternative strategies
- **Redundant:** has backup capacity
- **Inclusive:** broad consultation & communication
- **Integrated:** systems work together



## Developing Programmatic Resiliency Strategies

Building upon the set goals and data driven performance measures, MetroPlan Orlando began to identify vulnerabilities and mitigation strategies for a more resilient regional transportation system.

### Identify Risks and Vulnerabilities

Planning for resilience begins with understanding potential disruptions to the transportation network, and the 2045 MTP used scenario planning to identify potential risks and how they can impact the region. MetroPlan Orlando chose six key drivers of change: Population, Economy, Visitation, Development & Land Use, Technology, and Climate. These drivers were used to form four scenarios, or alternative futures, to help guide the planning and needs assessment.

1. **Traditional Trends** - What happens if historic trends and behaviors continue unchanged
2. **Climate Consequences** - Frequent extreme weather events and major sea level rise force the state's coastal residents to move inland
3. **Disruption Dilemmas** - Pandemics or other emergencies disrupt the region's population, visitor and economic growth, affecting travel and development patterns
4. **Technology Transformations** - Major technology and innovation changes make Central Florida a destination for businesses and a younger workforce

A risk is a measure of the probability that an asset will experience a particular impact and the severity of that impact on infrastructure, communities and individuals. It is important to identify early on which shocks and stressors may most impact the individual characteristics of the region as identified in Figure 10.6.

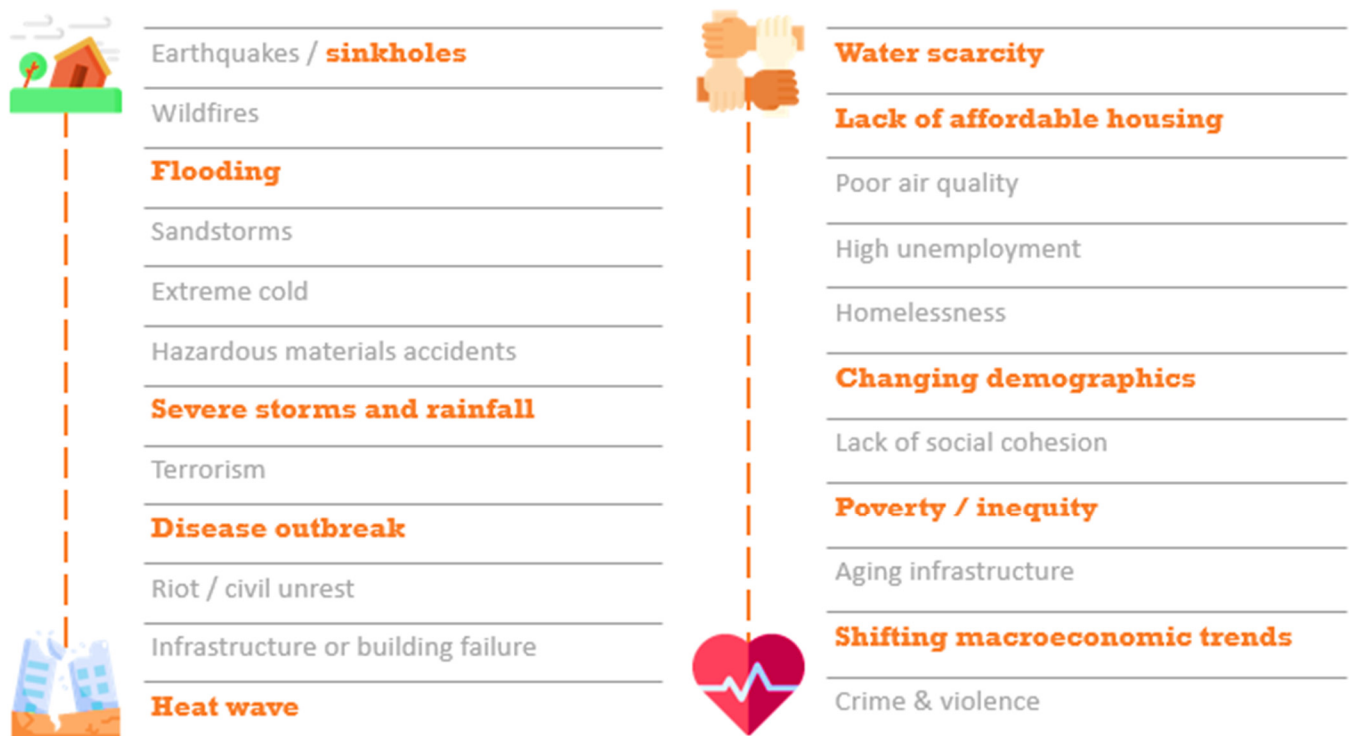


Additionally, in an analysis of the impacts of shocks and stressors, one should note that even though the probability of a specific occurrence may be low, the severity of impacts to the community may be high. Specific examples unique to the Central Florida region may include the prevalence of sink holes – and disease outbreaks given our high dependence on the tourism industry.

When assessing vulnerabilities and risks, determining where certain weather and environmental conditions such as extreme heat, variations in rainfall, sea level rise, hurricanes, or greater periods of drought will strain the transportation network is vital. Additional vulnerabilities or risks could include recessions, gaps in network connectivity, or cyberattacks.

Cultivating an accurate inventory of assets and conditions helps identify susceptible infrastructure and plan for potential adverse environmental, weather, economic, or operational conditions.

**Figure 10.6 Acute Shock and Chronic Stressors**



Source: VHB, 2020

### Identify Implementation Responsibilities

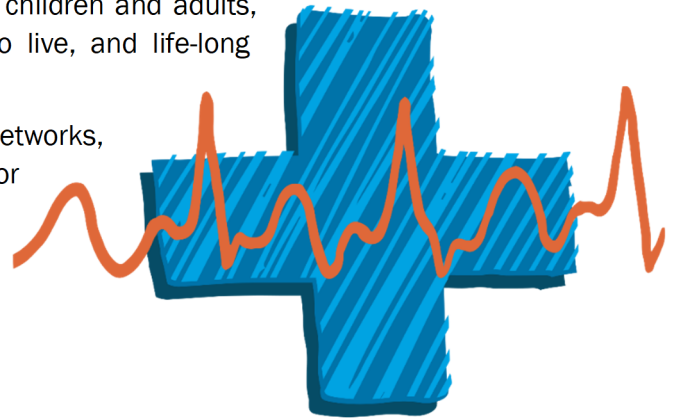
Resiliency is built in throughout the planning process, starting with the goals and objectives and continuing through the project prioritization. Programmatic resiliency strategies and implementation responsibilities will be established to guide the development of new transportation infrastructure. Resiliency will be considered in every facet of the 2045 MTP.



# Health Approach

A healthy community addresses not only the physical environment, but also education, employment, housing, infrastructure, social and environmental stewardship, and community engagement components. A healthy community is a place where every resident can readily make healthy lifestyle choices. Key components include easy access to safe parks and walking trails, recreational programs for both children and adults, healthy and affordable foods, safe and affordable places to live, and life-long learning programs and educational opportunities for all ages.

By planning and designing safe and accessible transportation networks, we can provide a built environment that makes it easier for Central Floridians to live healthy lifestyles. Public health is part of the screening criteria and analysis of existing conditions for the 2045 MTP, using the Healthy Mobility Model.



## Health Related Objectives

There are three objectives as part of the Health and Environment goal that relate to public health. This section discusses each of these objectives and how MetroPlan Orlando plans to address each objective.

### *Provide transportation solutions that contribute to improved public health*

Previous Long Range Transportation Plans evaluated bicycle and pedestrian needs by assessing where facilities currently exist and where there are gaps in the network to plan and prioritize projects. The 2045 MTP evaluates a comprehensive set of performance measures to identify mobility needs and then prioritize based on the goals and objectives. For example, to improve bicycle user's comfort, corridors are scored based on presence and type of bicycle facility, roadway speed, number of lanes, and volume. Improving safety for bicyclists and pedestrians will reduce the potential for severe injuries and fatal crashes, thereby improving public health for communities.

### *Increase population/employment densities and mix of land uses*

To reduce delay and increase affordability for transportation and housing choices, the region should have access to a full range of travel modes. As part of the 2045 MTP, corridors will be reviewed for residential (single family and multifamily dwelling units) and non-residential density within  $\frac{1}{4}$  mile of alternative modes of travel (transit, sidewalk, bike lane).

### *Reduce adverse health impacts associated with physical inactivity*

Obesity trends are rising in the United States and providing alternative modes of transportation that encourage physical activity is a goal of MetroPlan Orlando. The 2045 MTP will quantify the rate of population with health indicators associated with physical inactivity (Asthma, Obesity, and Diabetes) then compare to the availability of sidewalks and bike facilities. To reduce the health impacts associated with physical inactivity, corridors that serve areas with a higher risk for the associated chronic diseases should be prioritized.





# Healthy Mobility Tool

Understanding that healthy community design requires that public health, urban planning, and academia professionals to work together, a group of professionals from these areas helped to develop the Healthy Mobility Model. The Healthy Mobility Model includes two levels of analysis, and correlates socioeconomic, demographic, land use, urban design and transportation factors to the health of communities. The Healthy Mobility Model utilizes data that are readily available and allows for health to be factored into community and transportation planning decision making in a quantitative manner.

The risk assessment analysis provided by the Healthy Mobility Model establishes a baseline assessment of conditions using available Census data, including age, race, poverty and income, educational attainment, labor force participation, commute times/mode share, housing affordability, and population/employment density. These conditions are used to project health outcomes throughout the MetroPlan Orlando region and identify areas of concern or opportunity.

Creating an environment that promotes and encourages safe opportunities for physical activity is a critical component of improving a community's health. Understanding where the high-risk areas are located is necessary to develop strategies that address these components, including access to healthy food, recreation, education, health care and employment opportunities, as well as the physical makeup of the multimodal network. An analysis of the potential impacts to the high-risk areas of potential improvements was part of the evaluation process. The criteria and scoring logic for this assessment is summarized in Table 10.3.

**Table 10.3 | Public Health Indicator Rates Criteria and Scoring Logic**

Indicator	Description	Scoring Thresholds										
<b>Public Health Indicator Rates</b>	<b>Method:</b> Quantify rate of population with health indicators associated with physical inactivity (Asthma, Obesity, Diabetes) then compare to the availability of sidewalks and bike facilities	<table><tr><th>Range</th><th>Score</th></tr><tr><td>0 - 0.4</td><td>0</td></tr><tr><td>0.41 – 0.65</td><td>0.50</td></tr><tr><td>0.66 – 0.83</td><td>0.75</td></tr><tr><td>Over 0.83</td><td>1</td></tr></table>	Range	Score	0 - 0.4	0	0.41 – 0.65	0.50	0.66 – 0.83	0.75	Over 0.83	1
Range	Score											
0 - 0.4	0											
0.41 – 0.65	0.50											
0.66 – 0.83	0.75											
Over 0.83	1											
Risk score for chronic disease risk factors associated with physical inactivity along a corridor	<b>Logic:</b> To reduce the health impacts associated with physical inactivity, corridors that serve areas with a higher risk for the associated chronic diseases should be prioritized.	Unit: Score										
Source: Healthy Mobility Tool	<u>Greater the health risks, greater the need for active transportation facilities, greater the point allocation</u>											
	<b>Scenario Planning:</b> Existing measure, no impact to scenario planning											

## Potential Other Uses in MetroPlan Orlando Region

For individual project and project areas, the baseline projections provided by the Healthy Mobility Model can be supplemented with additional transportation network, urban design, and built environment factors. This second level of analysis helps to determine which mobility factors have the strongest correlation to the projected health outcomes in project areas and which potential improvements and policies may have the greatest impact on community health. These results can be used to inform decision makers as part of the evaluation and analysis of alternatives. The benefit of doing this analysis at a project level rather than at a regional level helps to tailor the analysis to the community potentially impacted by a project.

For this secondary project-by-project analysis, data collected for the MetroPlan Orlando MTP planning process, including through the Healthy Mobility Model projections and LOTIS data were used. This can allow efficient use of existing data to include a community health analysis of individual projects within the MetroPlan Orlando region.



# Next Steps

The projects identified within the 2045 MTP will be fully vetted through the comprehensive multimodal assessment and prioritized based on the contents described in Technical Series #6: Prioritization Process and as described within this document. This methodology differs from previous LRTP assessments, so it is understood that qualitative checks and balances will also be a key process within the prioritization process.

Environmental mitigation costs have been estimated for the projects on the Needs List based on the potential for wetland impacts as described in this document. These costs have been included in the overall estimated project costs within the Cost Feasible Plan. In addition to including the environmental costs in the 2045 MTP, MetroPlan Orlando is conducting more detailed environmental analysis than in previous LRTPs assessments. Using the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool data, projects will be analyzed to determine potential impacts to wetlands, floodplains, protected species and their habitat, contaminated sites, and historic and archaeological resources.

Upon completing the quantitative and qualitative assessments, the Cost Feasible Plan will be developed based on the prioritized ranking of each corridor/project and the revenue estimates developed within the MTP process.





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