Florida Department of Transportation 2015 Performance Report

Environment

Stewardship, Energy and Quality Places

Produced by the Florida Department of Transportation
Office of Policy Planning
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ENVIRONMENT

This report is part of the Performance-Based Planning and Programming Process used by the Florida Department of Transportation (FDOT). For a description of that process, updates to this report and other transportation performance reporting initiatives of FDOT, go to FDOTPerforms.org.

INTRODUCTION

For maximum effectiveness, transportation should be integrated with land use, development, and environmental stewardship. Transportation decisions should be made with attention to enriching quality of life while ensuring responsible consideration of the natural, physical, and human environment. Quality of life is a highly important component of the broader umbrella of this environment performance report.

The Florida Department of Transportation's (FDOT) decision-making process uses various data and analytical tools to evaluate the environmental effects of transportation project alternatives. FDOT's environmental review process considers the physical, social, cultural, natural, and human issues associated with each transportation project. This results in avoided or mitigated impacts, public input, and ultimately project advancement with environmental permits.

2015 PERFORMANCE HIGHLIGHTS

FDOT delivers transportation capital investments through its Work Program as a steward of Florida's many environmental and community assets. Key performance highlights are:

- Between 2002 and 2014, air quality in Florida continued to improve. Maximum concentrations, measured by the statewide air monitoring network, of carbon monoxide (CO) decreased by 57 percent, nitrogen oxides (NO and NO_2) by 57 percent, volatile organic compounds (VOC) by 46 percent, and fine particulate matter (PM_{10} and $PM_{2.5}$) by 25 and 49 percent respectively.
- Between 2003 and 2015, 648 transportation projects were screened using the Efficient Transportation Decision Making (ETDM) process to identify and evaluate potential environmental impacts.
- By 2015, FDOT had 1,061 alternative fuel vehicles in its light passenger vehicle fleet. Ten years earlier FDOT's fleet had only 335 alternative fuel vehicles. This three-fold increase translates into fuel savings and improved air quality.

- Through 2014, FDOT had installed 515 noise barriers with an equivalent mileage length of 165 miles. This is a significant financial investment in noise mitigation and community quality of life.
- Six of Florida's 26 Scenic Highways (1,549 miles), have been designated National Scenic Byways and one (the Florida Keys Scenic Highway) has been awarded the special All-American Road designation. In 2004, Florida had 485 miles of designated Scenic Highways—the three-fold increase by 2015 underscores the state's exceptional natural beauty.
- Over the past 15 years, Florida advanced more than 1,700 transportation alternative / transportation enhancement projects such as trails, bicycle, and pedestrian facilities.
- In 2014, nearly 30 million trips were provided to transportation disadvantaged persons across Florida. These trips provide vital access to medical services, employment, and education. They also provide access to job training, day care facilities, and nutritional and other life sustaining activities.
- According to the Aging Road User Survey, more aging road users are aware of the Safe Mobility for Life Coalition (11 percent in 2013—most recent data available—as compared to 10 percent in 2012). Fifteen percent of survey respondents are preparing for when they can no longer safely drive.

Performance Profiles are included to highlight specific strategies and programs that support these performance measures.

WEKIVA PARKWAY
Completing Central Florida's Beltway

As a shining example of transportation planning in an environmentally sensitive area, the construction of the Wekiva Parkway includes the protection of more than 3,400 acres of land for conservation. When completed, the parkway will include numerous wildlife bridges, with the road being largely elevated to reduce accidents between vehicles and wildlife, while also preserving historic water flows. This $1.6 billion beltway in Central Florida is using innovative engineering to lessen the transportation impact on the surrounding environmental features.

AIR QUALITY

CORE MEASURE

FDOT has a long-standing commitment to maintaining air quality attainment levels, a core measure related to promoting quality of life and environmental stewardship, which is a primary goal of FDOT.

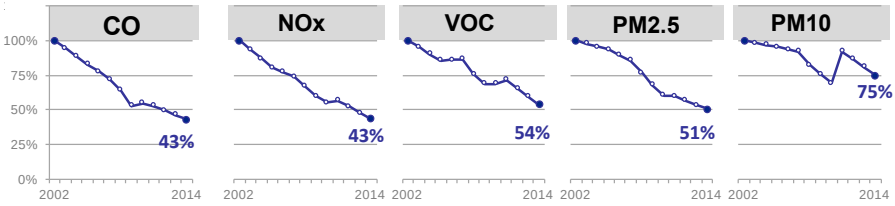
How we move people and goods impacts air quality. Fortunately, vehicles are now far less polluting. Technology has also helped to reduce transportation-related air pollution. Public transit, bicycle/pedestrian transportation, intermodal freight movement, transportation system demand management, and congestion reduction also help to sustain air quality. FDOT is committed to doing what it can within the span of its responsibilities to ensure clean air.

Motor vehicle pollutant emissions from the combustion of fuel have long been tied to air quality. The primary air pollutants associated with motor vehicles are carbon monoxide (CO), nitrogen oxides (NO_X), and volatile organic compounds (VOC), and to a lesser degree particulate matter (PM_{10} and $PM_{2.5}$). These pollutants are monitored by Florida to assess whether areas within the state are in attainment with the established National Ambient Air Quality Standards (NAAQS). Emissions of NO_X and VOC contribute to the formation of ground-level ozone, the primary component of what is commonly referred to as smog. On October 1, 2015 the U.S. Environmental Protection Agency lowered the NAAQS for ground-level ozone from 75 parts per billion (ppb) to 70 ppb. Even with the stricter standard, Florida expects to remain in attainment.

Figure 1 shows that vehicle emission standards and continued improvement in traffic flow have reduced fleet-wide pollutant emissions over the past decade. Further reductions are expected with the implementation of the U.S. Environmental Protection Agency's Tier 3 Standards for passenger cars and trucks, even as the number of motor vehicles on the road increases.

Florida is in compliance with the CO, NO_2, O_3, $PM_{2.5}$, and PM_{10} National Ambient Air Quality Standards.

Figure 1: Emissions Trends for Highway Vehicles (Relative to 2002)



SOURCE: Florida Department of Environmental Protection, Division of Air Resource Management

KEY STRATEGIES TO IMPROVE AIR QUALITY

FDOT will help ensure continued progress to improve its core measure of air quality through strategies such as those listed below:

- Congestion reduction and mitigation
- Improved and expanded public transit and increased use of bicycle and pedestrian modes
- Continued involvement in new initiatives to evaluate all facets of emerging autonomous vehicles technology, including environmental benefits

SUPPORTING MEASURES AND INFORMATION

In addition to its air quality core measure, FDOT has identified the following supporting measure:

Carbon Dioxide – CO_2

Carbon Dioxide (CO_2)

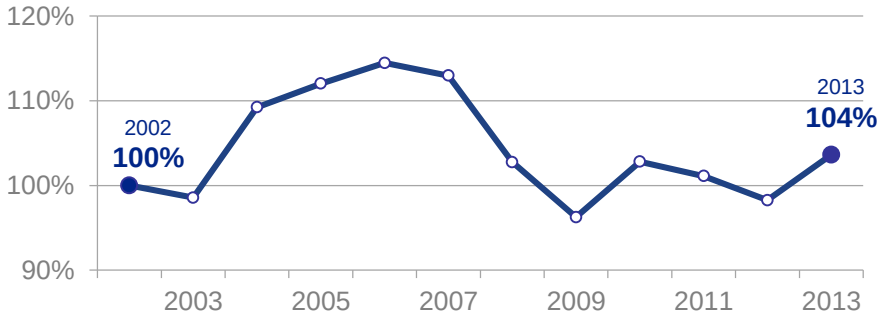
SUPPORTING MEASURE

The combustion of fuel in motor vehicles also results in the release of carbon dioxide (CO_2). Given the large number of motor vehicles, a significant portion of the total statewide CO_2 emissions are from this source. **Figure 2** shows transportation-related CO_2 emissions in Florida from 2002 through 2013. CO_2 emissions from motor vehicles can be reduced through such means as vehicle fuel efficiency improvements, increased use of public transit, and traffic flow improvements.

CO_2 emissions from motor vehicles can be reduced through vehicle fuel efficiency improvements, increased use of public transit, traffic flow improvements, and other means.

Figure 2: CO_2 Emissions from Florida Transportation Sector

(Relative to 2002 Emissions Level)



SOURCE: Florida Department of Environmental Protection, Division of Air Resource Management

Diverse Transportation Energy Sources

Florida's transportation partners are participating in efforts to expand the diversity of the state's transportation related energy sources. An early emphasis has been on compressed natural gas (CNG), liquefied natural gas (LNG), and propane, which are clean burning, domestically produced, and relatively safer and lower priced alternatives. JAXPORT made a major investment in infrastructure and equipment necessary to support container ships using LNG fuel.

ENVIRONMENTAL INITIATIVES

FDOT has identified additional supporting measures and indicators of progress that provide further detail and context about the performance of Florida's transportation system. For environmental initiatives, the supporting measures are:

- Water Quality – Wetland Mitigation
- Project Screenings
- Recycled Pavement
- Alternative Fuel Vehicles

SUPPORTING MEASURES AND INFORMATION

As a prominent employer with statewide visibility, FDOT strives to be resource efficient in terms of finances, processes, materials usage, and environmental stewardship responsibilities. The following sections highlight four varied initiatives that reflect FDOT environmental stewardship in the areas of water quality and wetland mitigation, transportation project delivery, resource recycling, and fleet management.

Water Quality – Wetland Mitigation

SUPPORTING MEASURE

Florida has more water assets than most other states in the nation. More than eighteen percent (18.5) of the state's total surface area is water, compared to 7 percent for the nation as a whole. Florida's water assets represent a key element of its environmental, recreational, and life-sustaining eco-system. FDOT therefore places a high priority on ensuring that transportation does not adversely impact the state's water quality.

FDOT follows various processes to avoid adverse water quality impacts. Where avoidance is not possible, in whole or in part, FDOT takes steps to minimize such impacts, in addition to mitigating impacts as necessary.

Figure 3 shows that FDOT's funding of wetland mitigation increased from $35.9 million in 2010 to $70.5 million in 2015. This has resulted in a total of $328.1 million in expenditures for wetland mitigation through FDOT's purchases of Mitigation Bank credits and funding of mitigation services through Florida's Water Management Districts.

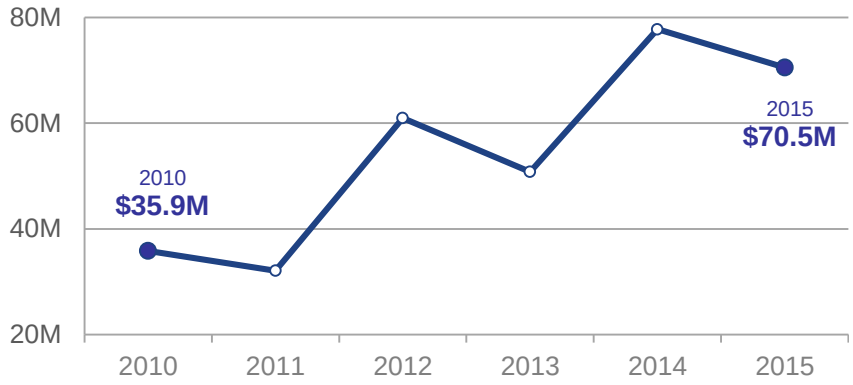
Wetland mitigation is a major focus area for FDOT.

It is important to note that investment in wetland mitigation is not a goal per se with annual targets. These expenditures reflect FDOT's strong commitment to water quality generally and wetland mitigation specifically in conjunction with stewardship-driven project development, but also in compliance with requirements under the Clean Water Act.

Spending between 2010 and 2015 nearly doubled for wetland mitigation, translating into the many benefits associated with wetlands including:

- Flood control
- Wildlife habitat
- Recreation
- Clean water (removing pollutants from water)
- Filtering of drinking water supplies
- Improving fisheries
- Various commercial benefits

Figure 3 Wetlands Mitigation



SOURCE: Florida Department of Transportation, Environmental Management Office

For all capacity adding construction projects, FDOT provides treatment of stormwater runoff to improve the quality of downstream waters. FDOT searches for opportunities to provide cooperative, regional stormwater treatment and beneficially reuse stormwater runoff to augment water supply. This includes multi-purposed activities that typically result in large environmental benefits and cost savings. Additionally, in cooperation with Florida regulatory agencies, FDOT is pioneering the development and implementation of water quality improvement for Florida's springs.

FDOT actively participates in FDEP's Basin Management Action Plans, cooperating with cities and counties to improve the quality of impaired waters. These efforts include educational outreach, elimination of illicit discharges to highways, and regional water quality improvements.

Threatened or Endangered Species

The Federal Endangered Species Act requires that FDOT investigate the potential impacts to threatened or endangered species prior to initiating an activity performed in conjunction with a highway construction project.

The table shows FDOT's expenditures during FY 2013 associated with the assessment and protection of threatened and endangered species.

Type	Costs
Mammals	$166,380
Birds	$1,006,965
Reptiles	$1,409,070
Amphibians	$14,270
Fishes	$55,360
Clams	$26,300
Flowering Plants	$297,120
Other/Multi-Species	$51,050
TOTAL	**$3,026,515**

Project Screenings

SUPPORTING MEASURE

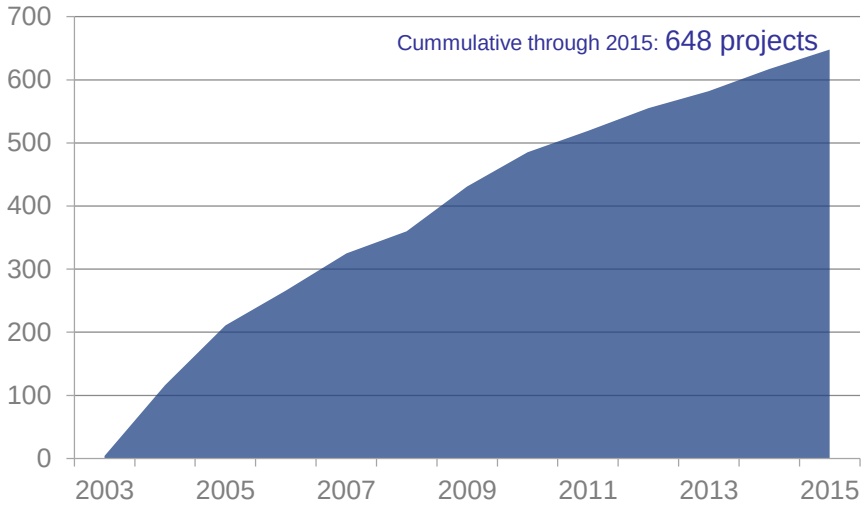
FDOT strives to integrate transportation improvements with surrounding environmental assets as effectively and efficiently as possible. FDOT has made significant progress using the Efficient Transportation Decision-Making (ETDM) project screening process. ETDM screenings occur in the planning and programming stages as an integral part of project delivery. They provide early coordination with environmental resource agencies through the Environmental Screening Tool. Coordination with agencies continues during the Project Development & Environment (PD&E) process when technical studies are completed to address agency concerns. Use of the ETDM process in collaboration with environmental resource agencies helps to avoid, minimize, and mitigate potential environmental effects of proposed transportation projects. It also helps preserve and enhance Florida's natural, physical, cultural, and social environment as FDOT develops, implements, and maintains transportation facilities as cost-effectively as possible.

Process improvements translate into project improvements ranging from early identification of environmental concerns (leading to avoidance or minimization of potential impacts to resources that preserve important environmental and historic assets) to adding project features such as roadway lighting schemes that minimize impacts to protected wildlife species. Mobility that respects the environment enhances and protects Florida's unique quality of life for the long-term.

FDOT collaborates with environmental resource agencies to link land use, transportation, cultural, and environmental planning initiatives. Along with agency-specific data, input from agencies and the public is used to augment identification of issues to help avoid or minimize potential impacts to natural and cultural resources. **Figure 4** shows that the ETDM process was used to screen 648 transportation projects between 2003 and 2015.

Between 2003 and 2015, 648 projects were screened using FDOT's ETDM process.

Figure 4: Projects Screened Through ETDM



SOURCE: Florida Department of Transportation, Environmental Management Office

Future Corridors

The Future Corridors Planning Process addresses Florida's major statewide transportation corridors over the next 50 years. This is a long-term, large-scale decision-making approach. The focus is on transforming existing corridors and developing new corridors in the combined context of environmental, economic development, and community goals. Guiding principles have been developed for the I-75 Reliever and the East Central Florida corridor as part of the corridor evaluation process. Concerns over impacts to wildlife, wetlands and communities are central to the discussions about how to plan these corridors.

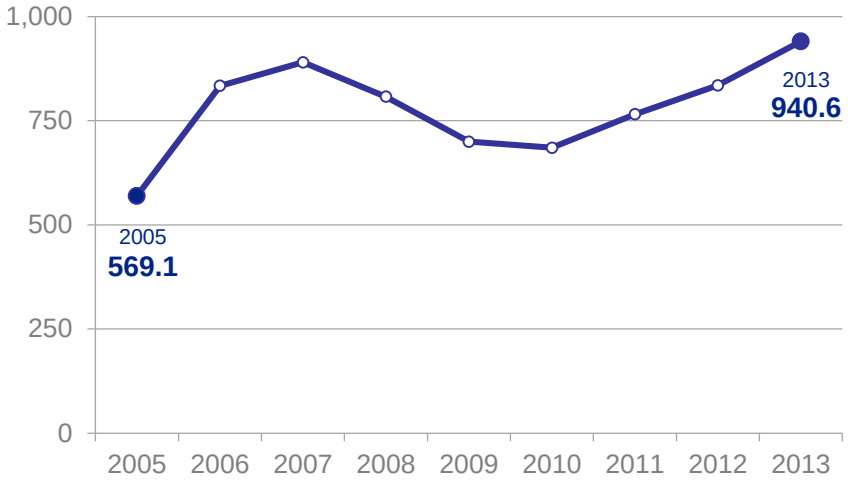
Recycled Pavement

SUPPORTING MEASURE

Recycled asphalt pavement has increased over 65 percent since 2005.

Roadway construction and reconstruction are increasingly using recycled materials for cost savings and environmental benefits. The estimated annual amount of recycled asphalt pavement has increased over 65 percent since 2005. **Figure 5** shows that nearly 941 tons of recycled asphalt pavement were applied to Florida highways in 2013. This was about a 13 percent increase over the prior year and the highest annual tonnage since FDOT started tracking this measure in 2005. In addition, steel, concrete, fill and other materials are occasionally recycled in construction projects.

Figure 5: Tons of FDOT Recycled Pavement



SOURCE: Florida Department of Transportation, State Materials Office

Recycled Asphalt

Florida has been a leader in pavement recycling since the 1970's. Most asphalt made in Florida contains between 20-30 percent of recycled asphalt. Florida is a leader in managing our natural resources while providing a smooth, reliable, and durable ride to its citizens and visitors.

Alternative Fuel Vehicles

SUPPORTING MEASURE

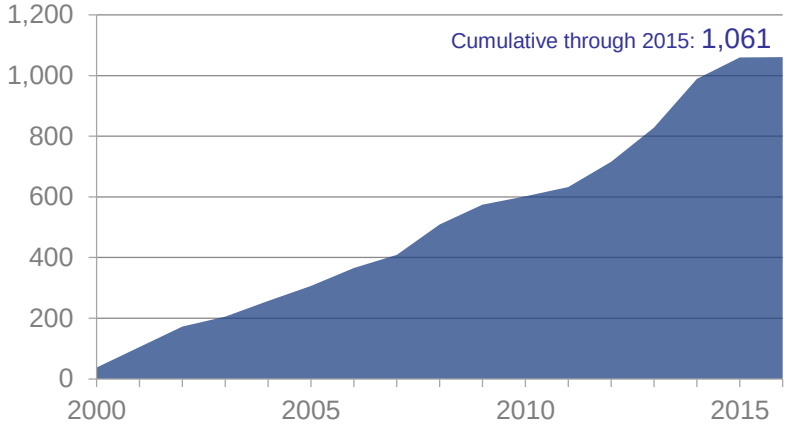
As an environmental steward, FDOT strives to be environmentally responsible in its business practices and operations. **Figure 6** shows that FDOT had 1,061 light passenger alternative fuel vehicles in its fleet by 2015, including:

- 37 bi-fuel (gas/natural gas)
- 17 bi-fuel (gas/propane)
- 1,002 flex-fuel (gas/ethanol-E85)
- 5 hybrid (gas/electric)

By comparison, ten years earlier FDOT's light passenger vehicle fleet had only 335 alternative fuel vehicles. This three-fold increase translates into fuel savings and demonstrates FDOT's active leadership for improving air quality. The vast majority of FDOT's alternative fuel vehicles can be powered by either gasoline or ethanol.

There are currently 2,404 light passenger vehicles in FDOT's inventory, of which 1,061 (44 percent) can be powered by an alternative fuel source.

Figure 6: Light Passenger Alternative Fuel Vehicles in FDOT Fleet



SOURCE: Florida Department of Transportation, Environmental Management Office

ENVIRONMENTAL AND WILDLIFE PROTECTION

FDOT has identified supporting measures and other indicators of progress that provide further detail and context about the performance of the transportation system. For environmental and wildlife protection, they are:

- Miles of Noise Walls
- Wildlife Crossings

SUPPORTING MEASURES AND INFORMATION

FDOT continues to improve the transportation system in ways that demonstrate care for Florida's unique wildlife resources as well as the needs of people. This section highlights FDOT's noise wall investments to mitigate highway noise (typically associated with projects that expand capacity) and consideration of wildlife crossings, which has resulted in approaches to facilitate the safe movement of wildlife over, under or around transportation facilities.

Miles of Noise Walls

SUPPORTING MEASURE

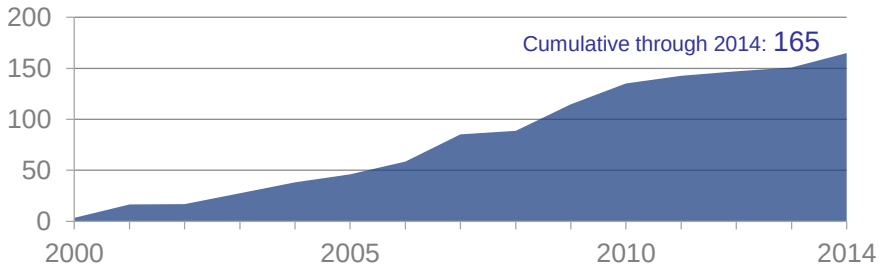
FDOT mitigates noise impacts where it is warranted, reasonable, and feasible to do so. All proposed highway capacity improvement projects are evaluated for potential noise impacts. Where noise impacts are predicted to occur, mitigation normally in the form of noise walls is considered.

Figure 7 shows that through 2014 FDOT installed 515 noise barriers with an equivalent mileage length of 165 miles. Over the past ten years, on average, FDOT installed 12 additional miles of noise walls per year. This is a significant investment in noise mitigation and community quality of life with positive impacts for many homeowners and neighborhoods. Miles of noise walls is an output measure for which data is available. It has an outcome that is more difficult to measure, but no less important, the number of homes, residents or properties that experience noise reduction as a result of mitigation.

Noise walls are not the only strategy for addressing highway noise. The motor vehicle industry, for example, continues to make advances with noise containment and reduction. Trucking companies have successfully deployed technologies that reduce vehicle idling/fuel consumption and the associated noise and pollutant impacts.

FDOT has installed more than 500 noise barriers totaling 165 miles.

Figure 7: Miles of FDOT Constructed Noise Walls



SOURCE: Florida Department of Transportation, Environmental Management Office

Wildlife Crossings

SUPPORTING MEASURE

Florida's natural beauty and quality of life are epitomized by its vast diversity of wildlife. The state is a national leader in developing wildlife crossing structures. FDOT has provided safe crossings for a wide range of indigenous Florida wildlife. Its innovative program provides for numerous types of crossings including:

- Pipe and culvert systems
- Modified box culverts with ledges for wildlife
- Modification of existing bridges to provide dry passage on wood or earthen shelves along edges
- Other methods to enhance motor vehicle/wildlife safety, such as the installation and ongoing evaluation of a Radio-Activated Detection System on a portion of U.S. 41 to warn motorists of the potential presence of the Florida Panther

FDOT provides safe crossings for a wide range of indigenous Florida wildlife.

FDOT routinely seeks out and evaluates innovative approaches to wildlife species protection for potential application to state transportation facilities.

FDOT established guidelines for statewide consistency in determining the appropriateness of wildlife crossings/exclusionary devices. The guidelines also help to provide consistency in the criteria to be considered when designing transportation projects.

Wildlife Crossings

Wildlife crossings like this one on I-75 in Alligator Alley save lives. Thirty endangered Florida panthers were killed in 2014; most were struck while crossing roads in shrinking habitat areas in Southwest Florida.

VIBRANT AND ATTRACTIVE COMMUNITIES

FDOT has identified supporting measures that provide further detail and context about the performance of the transportation system for vibrant and attractive communities. They are:

- Designated Scenic Highways
- Satisfaction with Florida Highways
- Roadside Attractiveness
- Roadsides Kept Litter Free
- Transportation Alternatives
- Transportation Disadvantaged Trips

SUPPORTING MEASURES AND INFORMATION

This section provides examples of the range of FDOT programs and activities that promote vibrant and attractive communities. FDOT makes a consistent effort to keep roadsides litter free as well as pleasing to the eye through various landscaping and beautification efforts. Some of our roadways traverse scenic vistas and have been designated as scenic highways. Further, FDOT invests in transportation alternative/enhancement projects that provide tremendous community benefits. Finally, support of transportation disadvantaged trips helps many people connect with their communities who otherwise would have limited or no mobility options. Having transportation is essential for maintaining quality of life for many of those who benefit from this service. Others benefit as well from the ability of those receiving the service to become active participants of the communities in which they live.

Highway Beautification

It is the policy of FDOT to conserve, protect, restore, and enhance Florida's natural resources and scenic beauty. The state strives to have the nation's most beautiful highways with safe roadsides that are durable, and ecologically and economically sustainable.

FDOT is implementing roadside beautification projects using large trees and shrubs. With thoughtful site-specific design, this approach will produce a visual impact with a distinctive sense of place at a low design, construction, and maintenance cost. Tall trees generously and safely placed at highly traveled interchanges and gateways into and through Florida communities create a welcoming and enjoyable experience, a first and lasting impression of the state and individual communities.

As FDOT's highest priority roadside landscapes are completed, beautification can be routinely integrated into the processes used to plan,

design, construct, and maintain roadways—roadways that accommodate bold performing landscapes that enhance private enterprise and public health, safety, and welfare. Roadside landscape projects, in addition to being aesthetically pleasing, can mimic natural processes that manage stormwater, filter air, shade pedestrians, conserve energy, and provide wildlife habitat.

Designated Scenic Highways

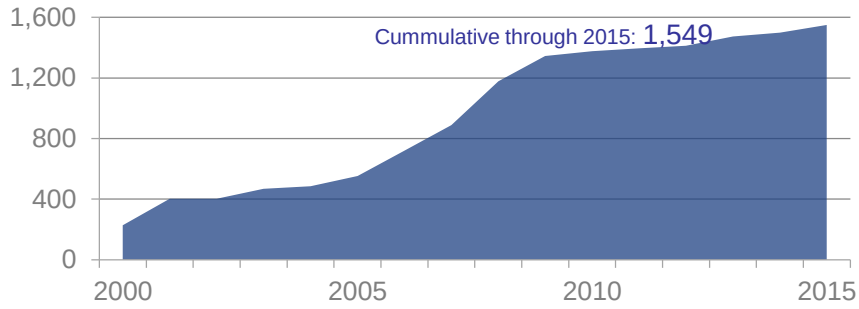
SUPPORTING MEASURE

FDOT's Scenic Highways Program promotes Florida as an attractive destination for travelers. **Figure 8** shows that Florida has 1,549 miles of designated scenic highways. Among Florida's 26 Scenic Highways, six have been designated National Scenic Byways and one (the Florida Keys Scenic Highway) was awarded the special All-American Road designation. For more information go to www.floridascenichighways.com.

Florida's designated scenic highways promote a heightened awareness of the state's exceptional resources and unique history through educational and visual experiences. FDOT's Scenic Highways Program was established to showcase outstanding cultural, historic, archaeological, recreational, natural and scenic resources along the state's highway system. The program promotes awareness of unique resources valued by Florida residents and visitors. It also focuses on locally based management while seeking to promote regional economic benefits that may result from scenic highway designations.

Of Florida's 26 Scenic Highways, six have been designated National Scenic Byways, and one was also awarded the special All-American Road designation.

Figure 8: Miles of Designated Scenic Highways



SOURCE: Florida Department of Transportation, Environmental Management Office

A1A Scenic & Historic Coastal Byway

This byway lies between the Atlantic Ocean and the Intracoastal Waterway on a narrow barrier island with breath-taking views. This byway supports a variety of wildlife, including 50 endangered species. Families enjoy touring the 72-mile byway from its northen terminus in Ponte Vedra Beach heading south to the oldest continually-occupied European settlement in the USA at St. Augustine, then heading past the nation's first oceanarium, Marineland, before terminating at the Tomoka Marsh Aquatic Preserve.

CUSTOMER SATISFACTION SURVEYS

Since 2000, FDOT has regularly surveyed Florida residents, visitors, commercial drivers, and public officials about our transportation products and services. The survey results help FDOT track its progress in improving customer satisfaction and to identify any areas that might require special attention.

FDOT conducted its most recent biennial customer satisfaction surveys in 2014 (August through December). More than six thousand (6,830) people responded, including Florida residents (3,189), visitors to Florida (403), public officials (432), and commercial drivers (2,806).

More than six thousand (6,830) people provided feedback through FDOT's 2014 customer satisfaction survey.

The following highlights from the customer satisfaction survey provide resident and visitor impressions of the quality of Florida's roadsides. For a complete review of FDOT's customer survey results, please visit the Florida Customer Satisfaction Survey webpage at: www.dot.state.fl.us/planning/customers. For customer satisfaction, FDOT's supporting measures are:

- Satisfaction with Florida Highways
- Roadside Attractiveness
- Roadside Kept Litter Free

Customer Satisfaction Improvements

Improved Satisfaction – 2014 compared to 2004:

- Access to businesses during construction (59% in 2014 vs. 58% in 2004)
- Timeliness of completing construction (43% in 2014 vs. 32% in 2004)
- Local input on roadway design (75% vs. 70% in 2004)
- Local input on statewide plans (85% vs. 71% in 2004)
- Local input on roadway priorities (80% vs. 67% in 2004)
- Feedback on how priorities were considered (72% vs. 62% in 2004)

Satisfaction with Florida Highways

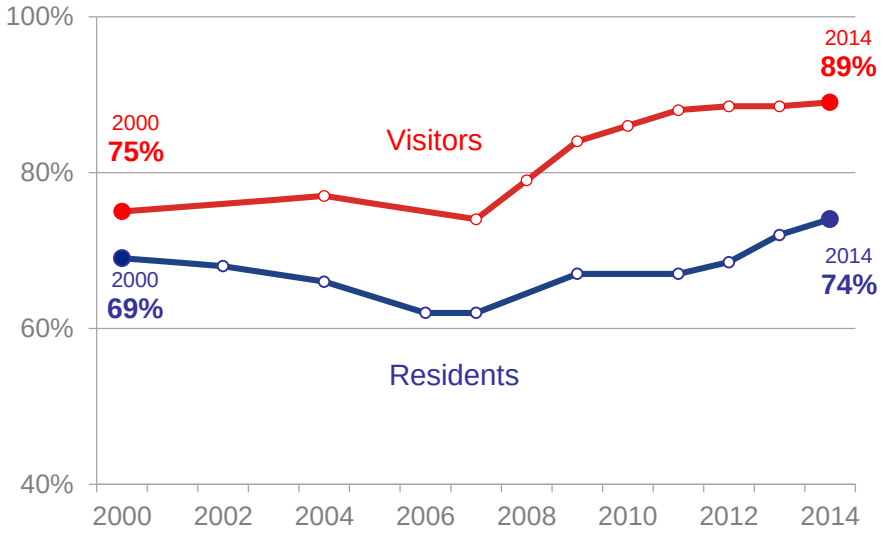
SUPPORTING MEASURE

89 percent of Florida visitors are satisfied with the State Highway System.

FDOT appreciates that the travel experience itself has significant value for transportation system users. Residents spend a considerable amount of time on Florida roads. For visitors, Florida roads play a vital role in the impressions formed of our state. For these and other reasons, FDOT periodically surveys residents and visitors as to their satisfaction with Florida roads.

Figure 9 shows the perception of Florida visitors and residents on satisfaction with the State Highway System (SHS), which has been increasing since 2007—74 percent to 89 percent for visitors and 62 percent to 74 percent for residents. This is an impressive gain over the period with the vast majority of both visitors and residents being satisfied with the SHS. This may be FDOT's most important metric for customer satisfaction.

Figure 9: Percent of Residents and Visitors Satisfied with the SHS



SOURCE: Florida Department of Transportation; Florida Resident and Visitor Customer Surveys, Statewide Detailed Results (2000-2014)

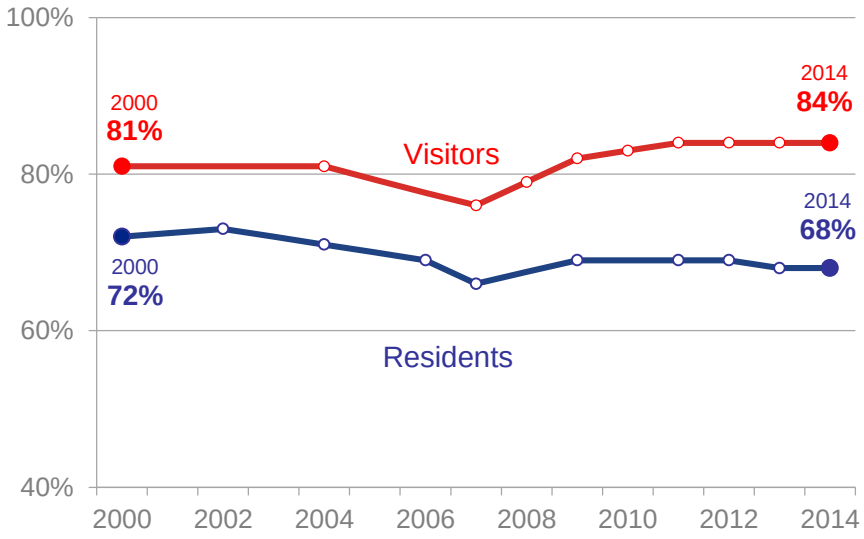
Roadside Attractiveness

SUPPORTING MEASURE

84 percent of Florida visitors feel that State Highway System roadsides are attractive.

Figure 10 shows the perception of Florida residents on roadside attractiveness for the State Highway System (SHS) decreased between 2000 and 2007 from 72 percent to 66 percent, but increased slightly thereafter to 68 percent. Similarly, visitor perception of SHS roadside attractiveness decreased between 2000 and 2007, and then rebounded to 84 percent. The large difference in perception between residents and visitors suggests that Florida's roadside conditions might be better than in many other states.

Figure 10: Percent of Residents and Visitors who Feel Roadsides on the State Highway System are Attractive



SOURCE: Florida Department of Transportation; Florida Resident and Visitor Customer Surveys, Statewide Detailed Results (2000-2014)

DRIVE IT HOME

FDOT, in partnership with the Federal Highway Administration, has launched a multi-year litter prevention education campaign. The message "DRIVE IT HOME…Keep Our Paradise Litter Free" is promoted statewide on billboards, television, radio, buses and social media. Sports and entertainment celebrities promote the message and community challenges have been offered to help tackle the litter problem.

Roadside Kept Litter Free

SUPPORTING MEASURE

FDOT manages an Adopt-A-Highway program and installs signs to discourage littering. In addition to the Adopt-A-Highway program and its volunteer resources, FDOT maintenance crews routinely remove highway litter. Various county-level efforts to discourage litter are also undertaken.

Volunteers enter into a two-year agreement with FDOT, agreeing to conduct litter removal at regularly scheduled intervals.

Volunteers agree to:

- "Adopt" a two-mile section of a state highway
- Dedicate two years to the program
- Follow specified DOT safety regulations
- Remove litter a minimum of four times each year

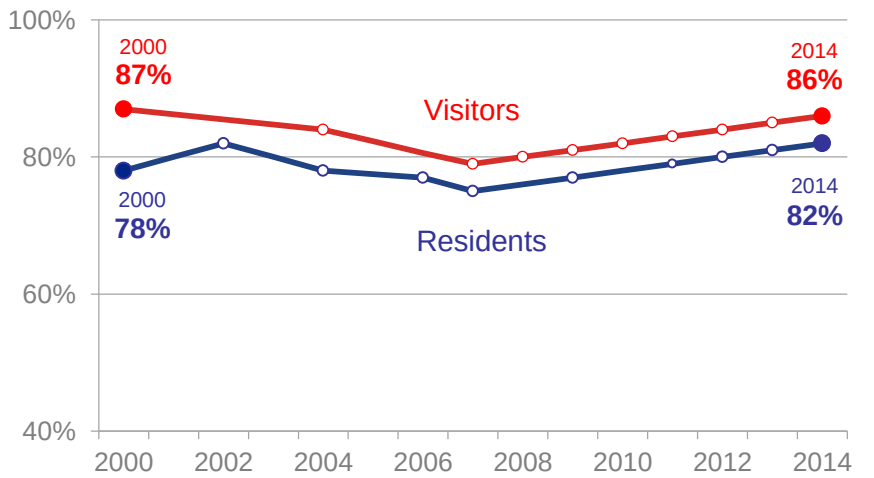
FDOT agrees to:

- Assist with safety meetings
- Provide safety vests and litter bags
- Pick up litter at specified locations
- Post Adopt-A-Highway signs commending organizations at both ends of their section.

A litter-free roadway is a highly ambitious goal since littering occurs daily. **Figure 11** shows that 86 percent of visitors to Florida perceive SHS roads to be litter free, while 82 percent of Florida residents have a similar perception. This is an extremely favorable rating when considered in light of the aspirational goal of being "litter-free."

86 percent of Florida's visitors feel that State Highway System roads are litter free.

Figure 11: Percent of Residents and Visitors who Feel Roadsides on the State Highway System are Litter Free



SOURCE: Florida Department of Transportation; Florida Resident and Visitor Customer Surveys, Statewide Detailed Results (2000-2014)

Transportation Alternatives

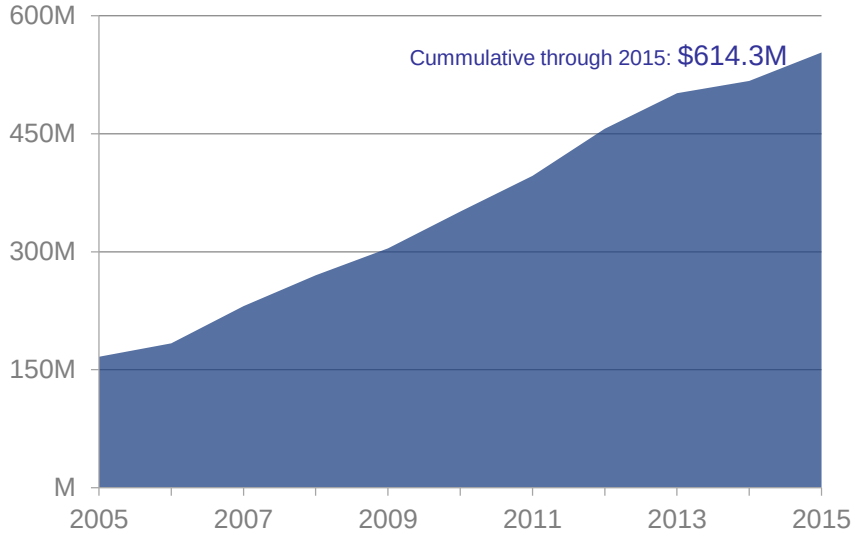
SUPPORTING MEASURE

Community visions and values are supported through implementation of projects under the federally funded Transportation Alternatives (TA)[1] program. FDOT currently receives an average program allocation of federal funding of about $50 million per year. TA projects can be community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of the transportation system. They can expand travel choice, strengthen the local economy, improve the quality of life, and protect the environment. On- and off-road pedestrian and bicycle facilities, improved access to public transit, community improvement activities, environmental mitigation, recreational trails, and safe routes to school projects are examples of TA projects.

FDOT has collaborated with numerous communities over the past two decades to provide opportunities to enhance community visions and interests through TA projects. **Figure 12** shows that these coordination efforts have resulted in the completion of 1,746 TA projects and investment totaling more than $614 million since 2000. This is a tremendous way for transportation to contribute to quality of life across Florida.

FDOT has programed over $614 million for Transportation Alternatives and Transportation Enhancement projects since 2000.

Figure 12: Transportation Alternatives & Transportation Enhancement Project Funding



SOURCE: Florida Department of Transportation, Environmental Management Office

[1] New federal legislation enacted in December 2015 called the "FAST Act" makes further changes in the funding for these projects.

Transportation Disadvantaged Trips

SUPPORTING MEASURE

Lack of transportation is one of the greatest barriers to community engagement. The transportation disadvantaged (TD) are people who are unable to transport themselves or purchase transportation because of physical or intellectual disability, income status, or age. The provision of trips is their means for accessing employment, health care, education, and participation in community and other activities. These trips include both fixed route and demand response transportation, and are provided through a Coordinated Transportation System.

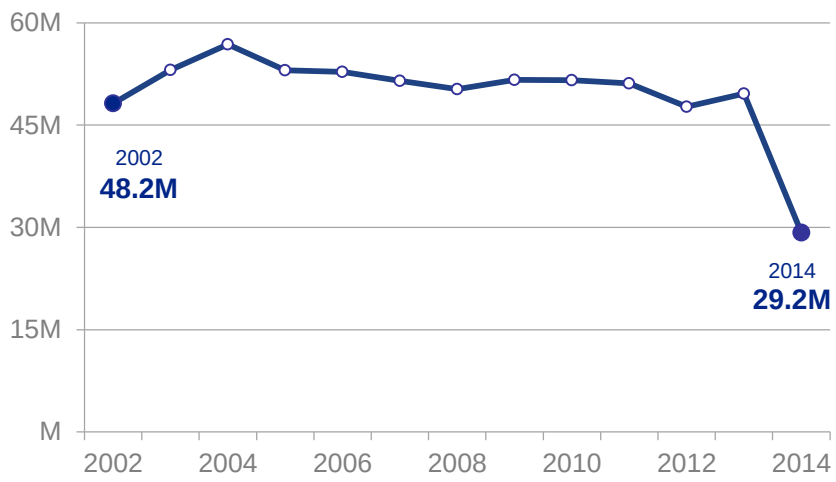
Transportation disadvantaged trips fall into five categories:

- Medical
- Employment
- Education / Training / Day Care
- Nutritional
- Life Sustaining / Other

Figure 13 shows that in 2014 nearly 30 million transportation disadvantaged trips were provided across Florida, which appears to be a significant decrease (over 41 percent) from the previous year. However, the decrease is based on a change in methodology for allocating trips for monthly and weekly bus passes. Previously the Florida Commission for the Transportation Disadvantaged (CTD) counted 40 trips for each monthly bus pass and 10 trips for each weekly bus pass. This was based on the assumption that people were using bus passes to travel to and from work. Over time, this assumption proved to be incorrect. While some people do use their bus passes for employment, most people use them for medical/social service appointments and other life-sustaining trips. If the previous year's methodology had been used, the system would have shown 48.6 million versus 29.2 million trips for 2014.

The number of transportation disadvantaged trips decreased due to a change in the methodology on how trips are counted.

Figure 13: Transportation Disadvantaged Trips (millions)



SOURCE: Florida Commission for the Transportation Disadvantaged - Annual Performance Reports

According to the Florida CTD, in 2014 medical and life-sustaining trips were the top purposes for people riding the Coordinated Transportation System, which accounted for nearly 74 percent of trips. Education trips accounted for 11 percent followed by employment trips at 10 percent, with nutritional trips at nearly 5 percent.

Commission for the Transportation Disadvantaged

The Florida Commission for the Transportation Disadvantaged (CTD) is an independent agency responsible for the coordination of transportation services for older adults, persons with disabilities, persons of low income and children at-risk. The Transportation Disadvantaged Program enhances the mobility of Floridians to achieve independence by providing medical, employment, education and other life sustaining trips to nearly 600,000 Floridians.

HEALTHY COMMUNITIES

In addition to its core and supporting measures, FDOT has identified several topics that provide further context about the performance of Florida's transportation system for healthy communities. These topics are:

- Safe Mobility for Life
- Public Health and Transportation

Safe Mobility for Life Program

FDOT participates in the Safe Mobility for Life Program (formerly The Elder Road Use Program) which promotes transportation safety for seniors. Recent progress is particularly significant in light of Florida's large and growing senior population:

- An Aging Road User Survey is conducted most years (2011 is the baseline)
- More aging road users have heard of the Safe Mobility for Life Coalition (11 percent in 2013 as compared to 10 percent in 2012)
- 15 percent of survey respondents are preparing for when they can no longer safely or comfortably drive

Public Health and Transportation

The U.S. Department of Transportation and other agencies and stakeholder organizations are focusing on the connection between public health and transportation, recognizing that community design and active transportation (e.g., walking and bicycling) can contribute to wellness and reduced costs associated with chronic disease. See transportation.gov/transportation-health-tool. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) promote health through their policies and programs. FHWA, FTA and FDOT have made significant investments in transit infrastructure; bicycle and pedestrian plans, coordinators, and facilities; Safe Routes to School programs; road safety; air quality improvements and congestion reduction; and the management and operations of regional transportation systems.

Transportation Health Tool

The Transportation and Health Tool (THT) was developed by the U.S. Department of Transportation and the Centers for Disease Control and Prevention to provide easy access to data that practitioners can use to examine the health impacts of transportation systems. Florida ranks in the top quartile compared to other states.

FOR THE FUTURE

FDOT strives to be forward thinking in regards to performance measurement. Many measures can be valuably used year after year. But DOTs and the states they serve continue to both lead change and adapt to change. This year we are introducing a section in each performance chapter that identifies potential measurement considerations for the future.

Water Quality

Water quality is an important component of both quality of life and environmental stewardship. FDOT engages in a wide range of activities to prevent, minimize, avoid, or mitigate water quality impacts (e.g. wetland preservation).

Efficient Transportation Decision-Making (ETDM) Process

FDOT carries out many activities in relation to the ETDM process. Presently our reported measures focus primarily on the number of projects that go through ETDM. There may be opportunities for broader reporting that reflects how FDOT protects the environment.

Complete Streets

Florida has made many advances with Complete Streets as the concept has taken hold in Florida and nationally. As it expands, new and meaningful ways of reporting performance may develop.

Landscaping

FDOT does an extensive amount of landscaping as a routine program activity. Consideration could be given to measures that reflect the extent of FDOT's effort in this area and the associated benefits.

Land Use

Transportation and land use linkages have been gaining greater attention nationally for good reason—land use impacts transportation and vice-versa. As Florida makes further advances in coordinating land use and transportation, we will be challenged in a positive way to measure benefits in a way that demonstrates progress.

Public Involvement

FDOT is a national leader in the area of public involvement and is highly engaged on both the state and nationals level to develop ways to measure its efforts to engage the public in its plans and projects.

Visioning

FDOT works with communities and regions on developing and implementing visions, with various partners on developing and implementing corridor oriented plans and repurposing urban roadways (e.g., lane elimination process and assistance with projects with complete streets elements), and with local governments on major updates to their comprehensive and transportation plans. In addition, FDOT provides technical assistance, with applied research playing an increasing role as we engage our partners to improve planning processes and outcomes.

Public Transit

New public transit options have been or are being studied and brought on line (e.g., SunRail, express bus on interstates in southeast Florida, FDOT leadership for the PD&E study for the Tri-Rail Coastal Link project, etc.).

LED Lighting

Light-emitting diode (LED) lighting can be used for roadway and pedestrian lighting since they are more energy efficient than current lighting technology. LED lights last longer, thereby reducing the need to replace them as frequently, which can reduce maintenance costs while improving safety. A potential measure could be number of units, miles of LEDs replacing conventional lighting, or miles of LEDs installed (which would capture both replacements and new facilities or newly illuminated facilities).

Additional Future Considerations

Other potential considerations for the future include: expanded coverage of alternative fuel vehicles, combined housing and transportation costs, provision of access to essential services (i.e., FHWA/FTA "ladders of opportunity" planning emphasis area for state DOTs and MPOs), access to transit and transit ridership for CO_2/greenhouse gas emission reduction, and the implementation of transit oriented development in Florida.