

River to Sea TPO FY 2018/19 Annual Report



A Welcome Message from the River to Sea TPO Chairperson Daytona Beach Vice Mayor Robert Gilliland

By all indicators, the local economy, like the national economy, in fiscal year 2018/19, was strong. Wages, employment, manufacturing and construction figures are all up. In the last year, construction permits for new residential units totaled 2,906 in Volusia County alone, with an estimated value of close to \$900 million; 187 commercial permits were recorded with a total value of \$448.8 million.

With a booming economy, however, comes the recognition that increased activity places a strain on infrastructure, and more specifically on our transportation system. The River to Sea Transportation Planning Organization (TPO) is keenly aware of the need to keep pace with a growing economy. Core activities of the TPO include comprehensive and continuous planning efforts and coordination among various entities that manage and plan for the transportation needs throughout Volusia and Flagler Counties.



Effective management of our transportation system requires that we respond to the *existing* pressures of growth and development. Planning, however, requires that we look into the *future* as well to forecast potential transportation demands and to identify the projects and funding that will be available to satisfy that demand. The TPO accomplishes this through the development of a long-range transportation plan with a 25-year horizon. This planning effort uses growth forecasts in population and employment to predict overall demand for transportation and balances that against the potential revenue that will fund transportation improvements. An update to this plan, entitled “Connect 2045” is currently underway.

Your input in developing this plan is needed more than ever because of the unique challenges we face in considering our future. More specifically, there are three areas that make a long-range forecast particularly difficult:

1. **Resiliency** – This regards the ability of the transportation system to recover after a disruptive event. Examples include extreme weather events such as a hurricane or a traffic incident that closes a roadway. As traffic volumes increase and weather-related flooding becomes more common, maintaining and restoring operations becomes a greater challenge. In addition, building systems that are more resilient comes at a higher price.
2. **Technology** – We’re in a period of tremendous evolution in transportation. The Internet of Things (IoT) is allowing us to link traffic signals together and to the vehicles on the road. Lighting systems can recognize pedestrian and vehicle activity and improve visibility at night. Smart phone apps let people know when their bus is due to arrive and in-vehicle technology includes safety features that help reduce crashes. These improvements coupled with ride hailing services such as Uber and Lyft contribute to a future that will look quite different than the past.
3. **Funding** – State and local governments are facing significant pressure in their ability to fund maintenance of the existing transportation system in addition to meeting the needs of an expanding population. The federal gas tax was last raised in 1993, transportation infrastructures are aging and electric vehicles will further reduce revenues generated from fuel sales. Additionally, as construction costs climb and funding is diverted to repair storm damaged facilities, it’s becoming more difficult to meet the needs of a growing economy.

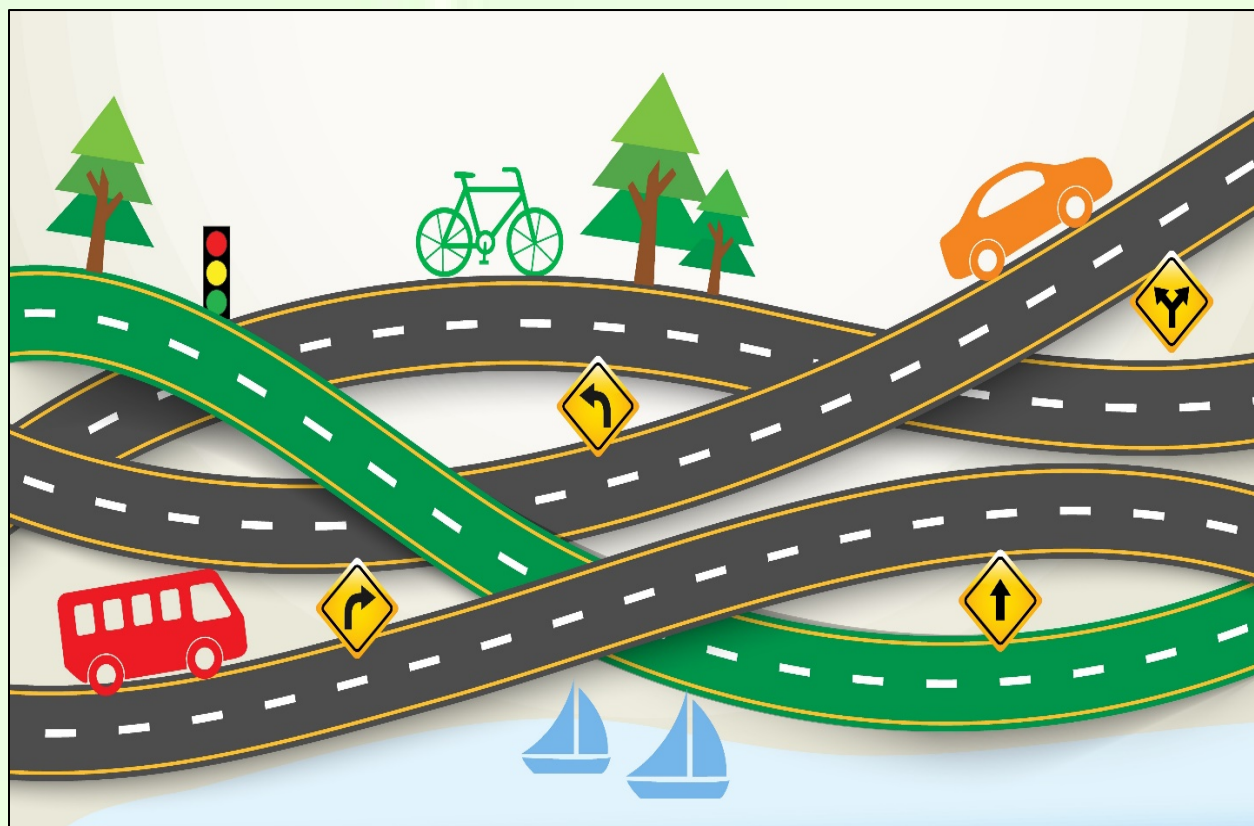
As you read through this annual report you’ll see a number of planning activities being undertaken by the TPO to examine the potential impacts of these issues. While each study and forecast is important, the job of the long-range transportation plan is to consider the range of factors that will impact our future so we can be proactive in meeting the needs of our community. I hope you’ll appreciate reading about the work we’ve accomplished in this past year and will consider joining us in the development of “Connect 2045 - Your Community Transportation Plan.” (<https://r2ctpoconnect2045.com/>)

Introduction

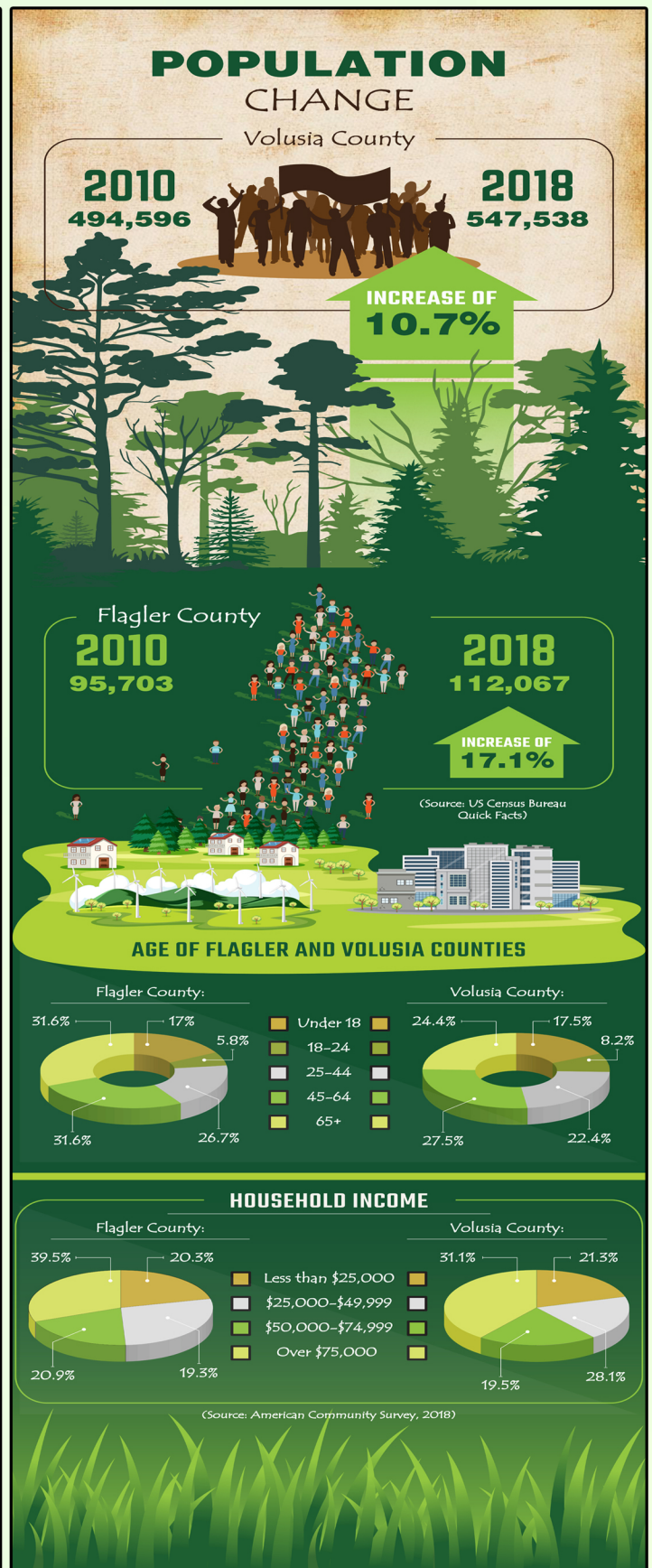
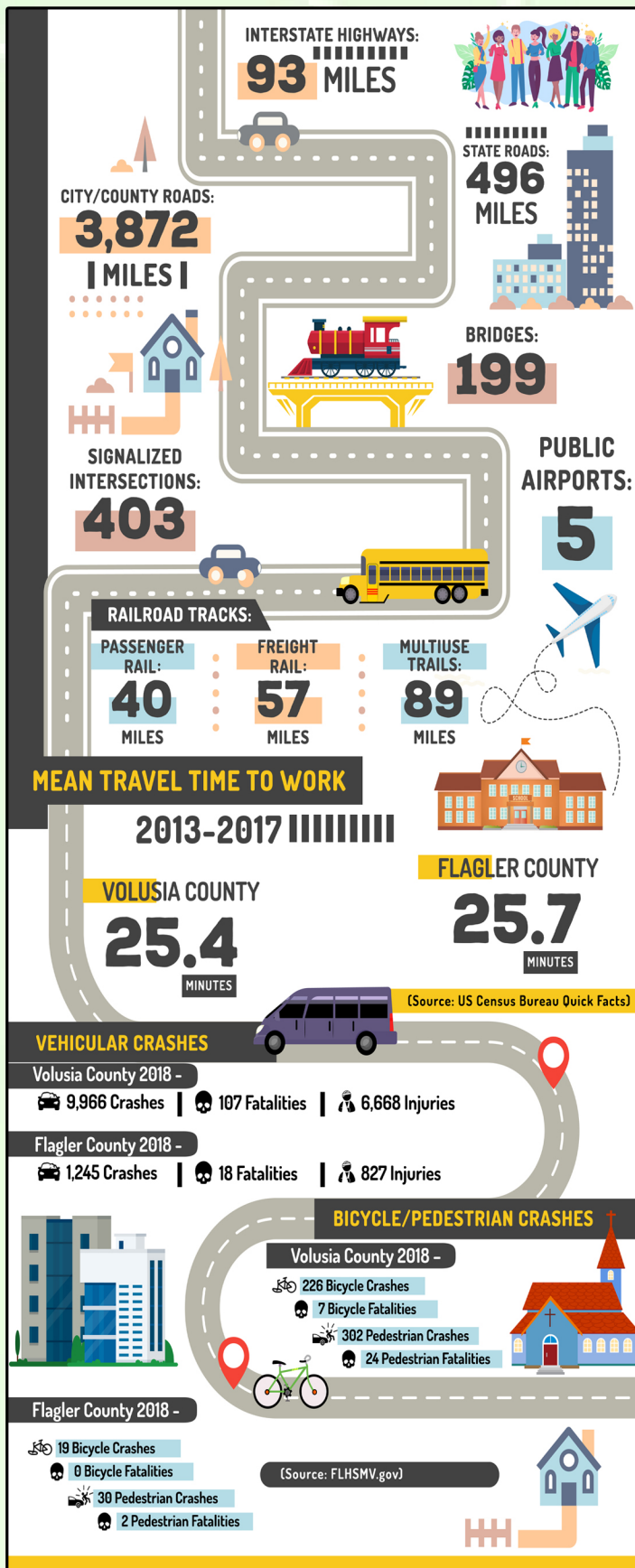
The River to Sea TPO is an organization where elected officials from member local governments and citizens voice concerns, identify transportation priorities and plan for transportation improvements across all modes of transportation – roads, public transit and bicycle and pedestrian facilities. Our metropolitan planning area includes all of Volusia County, and the developed areas of eastern Flagler County including Beverly Beach and Flagler Beach as well as portions of Palm Coast and Bunnell.

The responsibility of the River to Sea Transportation Planning Organization (TPO) is to manage a “3-C” planning process (continuing, cooperative and comprehensive) that results in the development of a safe, efficient, interconnected transportation system. The TPO provides a forum for cooperative decision-making by elected officials of affected local governmental entities with input from citizens and stakeholder groups. These plans serve as the framework for making transportation investment decisions in Volusia and Flagler Counties. Public participation is a key component of transportation planning and one of the core functions of the River to Sea TPO. Meaningful and effective public involvement brings a diverse set of views into the discussion and improves decision-making by generating ideas for how the transportation system may be improved.

The River to Sea TPO’s vision is to ensure our transportation system provides a safe and accessible range of transportation options that enhance existing communities while providing mobility in a fiscally responsible, energy efficient and environmentally compatible manner. This integrated, connected system will support economic development, allowing for the effective movement of all people, goods, and services necessary to maintain and enhance our quality of life.



Current Trends and Issues and Demographics



Advancing Technology

Transportation technology is in the midst of a revolution, with autonomous vehicles on the horizon, the introduction of e-bikes and scooters and on-demand ride services such as Uber and Lyft gaining popularity, the TPO must be ready to adapt. New technologies are improving the efficiency of existing transportation methods, while new inventions are poised to entirely reshape the way we move. As part of this transition, adaptive signal control projects have been installed on International



Speedway Boulevard (US 92) and Woodland Boulevard (US 17/92) and the TPO has funded additional projects in the next year to be installed along Dunlawton Avenue (SR 421) in Port Orange and SR 44 in New Smyrna Beach. These projects employ traffic management strategies in which traffic signal timings adjust based on actual traffic demand and patterns. Adaptive signal control typically improves travel time and delay by 10 percent and as much as 50 percent at locations with outdated signal timing plans.

Funding

Various local, state and federal sources provide funding for transportation needs including safety improvements, roadway widenings, sidewalks and trails and public transportation. Transportation revenue is not keeping pace with the increasing demand and costs of transportation. The federal gas tax has not been increased since 1993, resulting in major funding shortfalls. Electric and more fuel-efficient vehicles are reducing the number of gallons of gas that are consumed, thereby decreasing tax collections. In addition, damage from hurricanes and flooding is causing a reallocation of our financial resources. These are just a few of the issues facing transportation funding today. It is imperative that we find more innovative ways to fund transportation in the future.

Resiliency

Resiliency is the ability to withstand and recover from extreme weather events such as hurricanes and disruptive events like major crashes, sinkholes or wildfires. Last year, the TPO, along with the Northeast Florida Regional Council and UF Geoplan, worked with Flagler County stakeholders to assess impacts from flooding and sea level rise through a study entitled *Resilient Flagler County*. This study identified implementation strategies and educational materials to enhance community resiliency and was the third phase of the Sea Level Rise Vulnerability Assessment, preceded by



Photo Courtesy of Flagler County: Aftermath of Hurricane Irma, September 11, 2017. View from SR 100 and Flagler Avenue, looking south in Flagler Beach.

Sea Level Rise Vulnerability Assessment (Phase I) and *Resilient Volusia County (Phase 2)*. In addition, in 2018, the East Central Florida Regional Resiliency Action Plan (ECF RRAP) was developed by the East Central Florida Regional Planning Council and stakeholders in Brevard and Volusia Counties, including the River to Sea TPO. The goal of the ECF RRAP is to increase the ability of local and regional stakeholders to implement resiliency and climate adaptation strategies across disciplines.

TPO Activities

Transportation Performance Management

Transportation performance management is a strategic approach that uses system information to make investment and policy decisions in order to achieve national performance goals. Transportation performance measures are required to be adopted annually by the Federal Highway Administration (FHWA) and are indicators of progress toward attaining a goal, objective or target (a desired level of future performance). Annually, the TPO adopts updated Safety Measures and Targets as shown below (PM-1).

PM-1: Safety Measures and Targets

Annually, the TPO adopts the following safety measures and targets:



The TPO has adopted a 2% annual reduction for each of the above measures. These targets are important because we want to lower the fatalities and injuries that are occurring in our planning area. Safety is of utmost importance to the TPO and having these measures allows us to ensure we are working to increase safety.

PM-2: Bridge Condition and Pavement Measures and Targets

The TPO planning area includes 59 National Highway System (NHS) bridges that are classified under the bridge performance measures. It is important to measure the condition of these bridges to ensure they are in good working order.

Pavement performance measures are set to evaluate the condition of the roadway pavement. Keeping the pavement in good condition is key to ensuring vehicles can travel safely and reliably on our roadways.

PM-3: System Performance Management Measures and Targets

This performance measure includes travel time reliability or the length of time one can reasonably predict a trip to take on the interstate system and non-interstate highways. It is important that we are able to accurately estimate the length of time it will take us to go from one point to another without unreasonable delay.

Transit Asset Management (TAM) Plan Targets

These TAM targets pertain to Votran, Flagler County Public Transportation and SunRail and include vehicles, equipment and facilities as well as infrastructure. They help provide reliable, safe public transit in our area.

For additional information on performance management and each of these targets, visit the TPO's website at <https://www.r2ctpo.org/planning-studies/transportation-performance-measures/>.

Safety

Safety is a top priority for the River to Sea TPO. As such, our goal is to increase the safety of all of our residents and visitors through a variety of means including engineering, education, enforcement, encouragement and evaluation. These five “Es” are achieved through the completion of feasibility studies, transportation projects, community and agency partnerships and community outreach and education.

Project feasibility studies completed by the TPO include safety components. Feasibility studies completed in FY 2018/19 include US 17/92 @ Dirksen Drive in DeBary, Madeline Avenue Trail in Port Orange, Willow Run Boulevard in Port Orange and the Golfview Boulevard Shared Use Path in South Daytona.



2018 White Cane & Pedestrian Safety Day



Walk to School Day - Indian River Elementary School

Community Safety Action Plan (CSAP)

Another project the TPO has begun is the Community Safety Action Plan (CSAP). This plan will explore four of the “Es” of safety; education, enforcement, encouragement and evaluation. The purpose is to address and improve transportation safety within our local community through a collaborative approach that is based on local data. This will be done by assessing existing safety strategies utilized in our planning area and identifying community outreach activities that will build upon those efforts to further promote safety. The CSAP focus areas will be used to develop a work plan for TPO staff. The plan is expected to be completed in FY 2019/20.

Roadway Safety Evaluation & Improvement Study

In 2017, the TPO developed a crash analysis report that analyzed the five-year crash history within our metropolitan planning area (MPA). The report was described as a document that “provides an important step towards the identification of high crash areas that will require more detailed review to identify projects and programs that will reduce crash rates and severity.” In FY 2018/19, the TPO further refined this crash analysis in order to develop a process to address and mitigate the high volume of crashes within our MPA. The result was the Roadway Safety Evaluation & Improvement Study. This study looked at high crash locations and identified crash reduction measures designed to reduce or eliminate overall vehicular crashes by location.

Community Engagement & Connections

Public Participation Plan (PPP)

The PPP is a document that outlines the strategies used to ensure that members of the public are able to participate in the TPO's decision-making process in ways that are both meaningful and inclusive. It is a way to initiate proactive efforts for providing complete information, timely public notice and full access to key decision-making. In FY 18/19, the TPO updated its PPP to more accurately reflect our outreach activities and include a section on environmental justice; ensuring the TPO's programs, policies and activities do not adversely affect minority and low-income populations.

TRAC Program

During this past year, the TPO introduced the Transportation and Civil Engineering (TRAC) Program into Mainland High School in



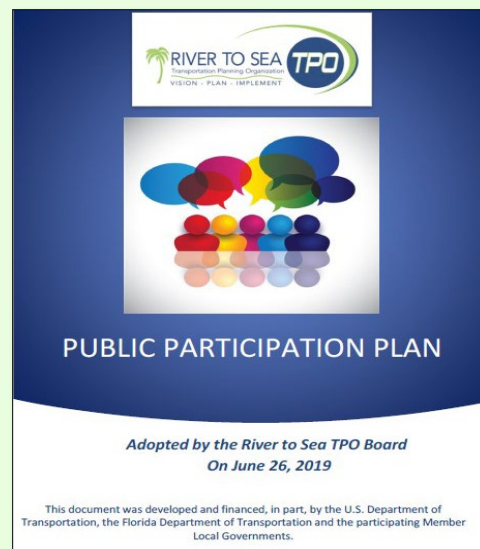
2019 Trac Training

Daytona Beach. The TRAC program is developed by the American Association of State Highway and Transportation Officials (AASHTO) and is an educational outreach program designed for use in Science, Technology, Engineering, and Math (STEM) classes. The hands-on activities introduce students in high school to the work world of transportation and civil engineering and inspire them to consider careers in those fields. TRAC training for teachers and volunteers was held by the TPO in September 2018 and involved three teachers from Mainland High School and 11 transportation professionals. Training was

provided on three classroom modules, including magnetic levitation, motion and environmental engineering. This program is expected to begin at Mainland High School in the 2019/20 school year.

Community Connections

Community outreach and input is pivotal to the decisions the TPO makes. The TPO is committed to being welcoming and encouraging public input. In addition, the TPO staff reaches out to the public through numerous events. During the last fiscal year, the TPO participated in 42 community events, providing more than 850 free, custom-fitted, bicycle helmets to adults and children as well as thousands of safety literature and promotional items. Some of these events included Port Orange Family Days, Light Up Midtown Health Fair and helmet fittings at the summer camps held at area public elementary schools. TPO staff also gave presentations to 18 community organizations including the Volusia County League of Women Voters, at the Southeast Tourism Society Connections Conference and the SR A1A Scenic Highway Historic Coastal Byway Annual Retreat.





Port Orange Family Days



Halifax Art Festival

Planning

Step It Up! Action Institute to Increase Walking and Walkability

Last year, the River to Sea TPO was awarded a grant to attend and participate in the Step It Up! Action Institute to Increase Walking and Walkability, also known as the Walkability Action Institute (WAI). This institute prepares interdisciplinary teams from metropolitan planning organization (MPO) regions to pursue policy, systems, and environmental (PSE) supports for walking and walkability. The Action Institute provides the most up-to-date academic and applied learning methods and reinforces and supports implementation of significant national public health policy statements promoting walking and walkability. In April 2018, the River to Sea TPO, along with representatives from the Volusia County Health Department, Northeast Health Planning Council and the City of Orange City attended this institute. As a result, the TPO is developing a Complete Streets Policy and Implementation Plan. The purpose of this policy is to encourage more complete streets projects that are designed to serve all modes of transportation and users of all ages and abilities. In addition, the TPO hopes to encourage all local governments to adopt complete streets policies for their jurisdictions.



Walkability Action Team

Bicycle Suitability Map – Connecting the Routes

In 2012, the TPO produced a bicycle map for the experienced cyclist in Volusia County. In 2019, this map was replaced by the River to Sea TPO Bicycle Suitability Map. This new map is a graphic representation of the bicycle routes suitable for cycling in the River to Sea TPO planning area. The Bicycle Suitability Map provides the comfort levels of bicycle routes for both the experienced rider and the general public. Maps are available from the local chambers of commerce, visitors' centers and by request.

TIP & Priority Process – Connecting the Process to Projects

The TPO's Transportation Improvement Program (TIP) lists all of the transportation projects to be implemented over the next five years in our planning area. These projects all have funds committed to them and make up the TPO's "short-range" transportation plan. This list of projects is developed annually with input from the community and updated throughout each year. Projects that are added to the TIP come from the TPO's List of Priority Projects (LOPP).

Annually, the TPO issues a call for projects where local governments are encouraged to submit projects to be scored and ranked by the TPO committees and TPO Board. Once the projects are scored and ranked, they are added to the LOPP and provided to FDOT for programming. Last year, the TPO received 14 Bicycle/Pedestrian and 13 Traffic Operations/Safety project and feasibility study applications.

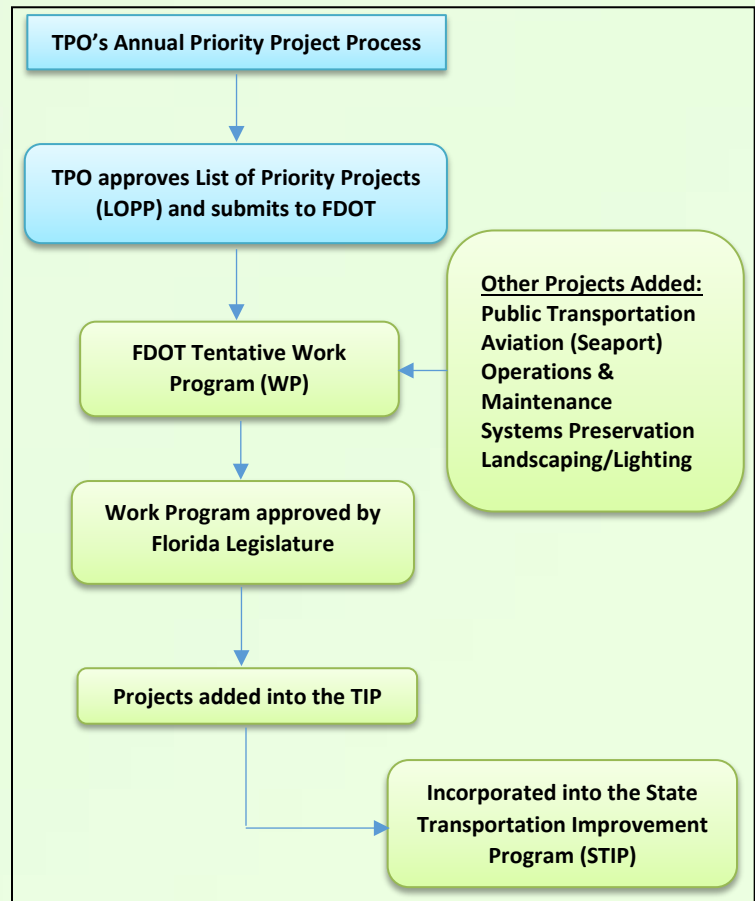
2040 LRTP Amendment

The Long Range Transportation Plan is the TPO's 25-year transportation plan. Last year, the 2040 LRTP was amended to include funding for two interchange projects; I-95 interchange at Pioneer Trail and I-95 interchange at LPGA Boulevard. These projects, previously unfunded, were moved into the Strategic Intermodal Systems (SIS) Cost-Feasible Plan of the 2040 LRTP. In addition, as a result of new requirements for transportation planning and transportation performance management (TPM), planning rule changes and performance measures were incorporated into the plan.

Projects & Studies Completed in FY 2018/19

Listed below are some of the projects and studies the TPO completed last fiscal year:

- ≈ 2019 Bicycle Suitability Map
- ≈ Golfview Boulevard Shared Use Path Feasibility Study
- ≈ 2018 Congestion Management Process (CMP) Update
- ≈ Madeline Avenue Trail Feasibility Study, Phases 1 and 2
- ≈ Resilient Flagler County Study
- ≈ Willow Run Boulevard Sidewalk Feasibility Study
- ≈ Update to TPO Transportation Safety Targets
- ≈ Roadway Safety Evaluation & Improvement Study



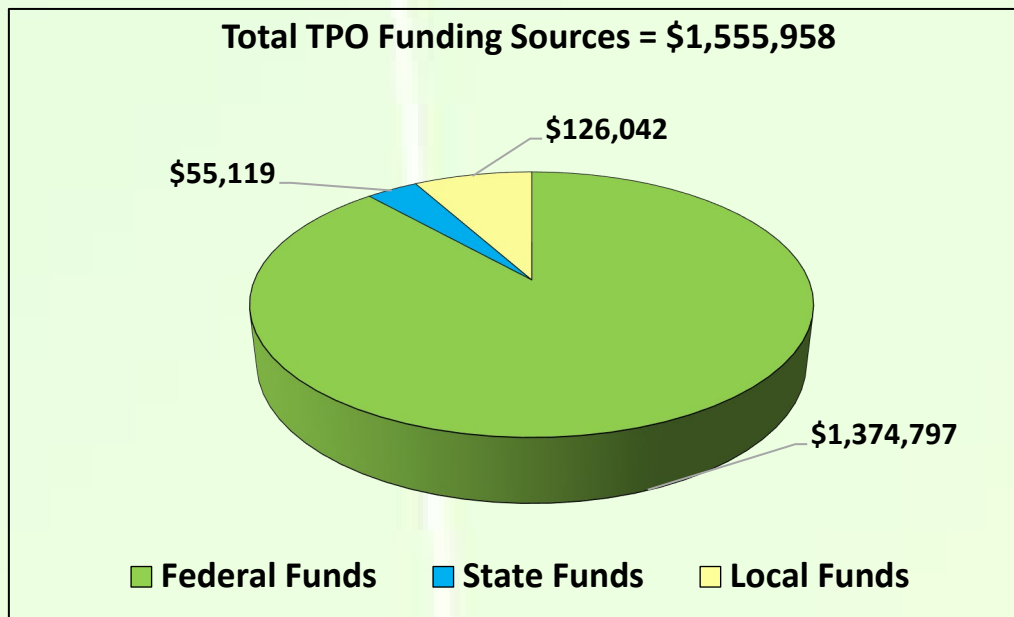
Flow of Projects into the TIP

TPO Funding & Oversight

The River to Sea TPO receives federal funding that is passed through FDOT, state funds and local funding from the TPO's member governments. The Unified Planning Work Program (UPWP) identifies various tasks to be undertaken by the River to Sea TPO over a two-year period and how funds will be spent between the tasks. The organization undergoes an annual audit each fiscal year (July 1 – June 30) completed by an independent auditor. For the past seven years, there have been no findings in our annual audit.

Federal Highway Administration (FHWA)	<ul style="list-style-type: none"> • Federal Funding – passed through FDOT • Allocated based on population • No local or state match • Funds TPO operations, studies and bike helmets
Federal Transit Administration (FTA)	<ul style="list-style-type: none"> • Federal Funding – passed through FDOT • Allocated based on population, transit ridership, and revenue miles • Requires match from FDOT and River to Sea TPO • Funds TPO operations and studies
Commission for the Transportation Disadvantaged (CTD)	<ul style="list-style-type: none"> • Funding from the State of Florida • Allocated based on population and number of counties • Funds TPO's costs for TD Local Coordinating Board
Local Funding	<ul style="list-style-type: none"> • Funding from TPO Local Member Governments • 10 cents per capita or contributed for special studies • Funds TPO's costs for public outreach and local match for certain studies

FY 2018/19 TPO Funding





River to Sea TPO FY 2018/19 Annual Report



2570 W. International Speedway Blvd., Suite 100
Daytona Beach, FL 32114
386.226.0422
www.r2ctpo.org