



Regional Wekiva Multi-Modal Trail Extension – Segments 1 and 5 Project

FY 2021 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant | Lake County

APPLICATION INFORMATION

Type of Application: Capital Project

Amount Requested: \$25 Million

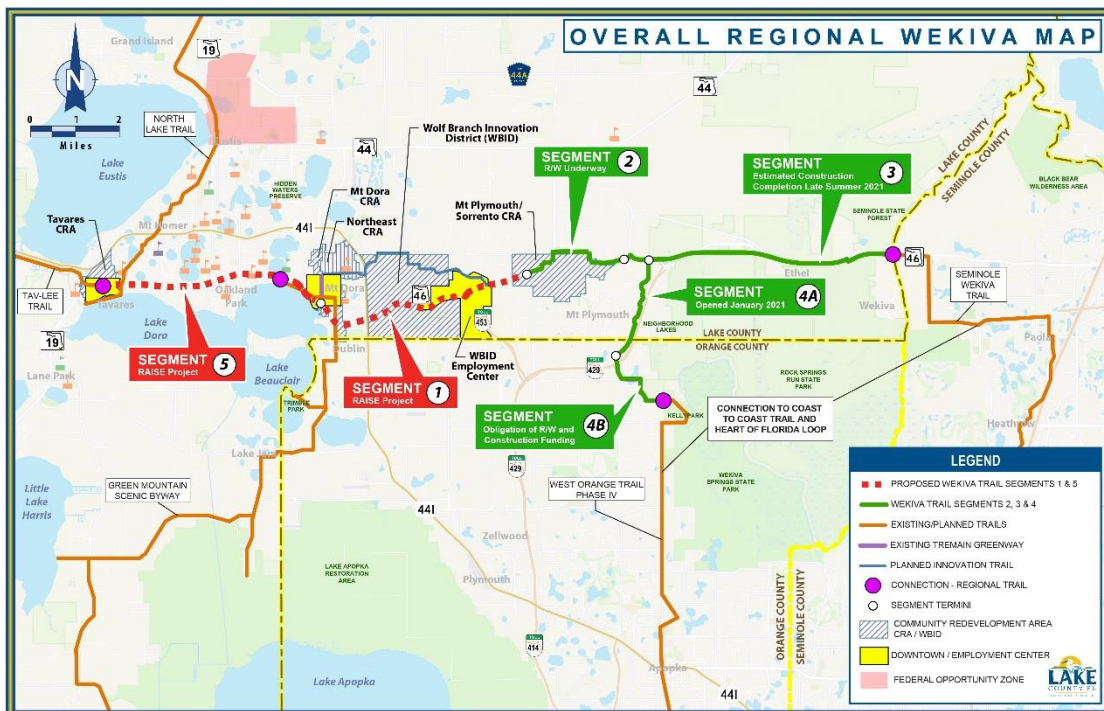


Executive Summary

The growing American communities need cleaner and safer infrastructure to achieve a net-zero emissions future, ensure environmental justice, support healthy communities, and create jobs. We particularly need affordable and reliable transportation alternatives to driving to replace the nation’s unsustainable roadway infrastructure and ensure economic equality in our fast-growing areas in need of revitalization. This need is especially evidenced in Lake County, Florida. In Northeast Lake County, there are high quality, yet sporadic bicycle and pedestrian facilities and no safe continuous route for non-motorists to travel between the rural City of Tavares, City of Mt. Dora, and an unincorporated area of Lake County, within a 10-mile distance.

Lake County, in partnership with the Cities of Tavares and Mt. Dora, is requesting \$25M RAISE funding to complete the approximately \$40M Regional Wekiva Multi-Modal Trail Extension – Segments 1 and 5, the last phases of the 26-mile paved multi-modal regional trail and mitigate this growing transportation challenge for some of its most disadvantaged communities.

The proposed 14-foot wide rails-to-trails project extends 11.5 miles and will provide a safe, high-quality multi-modal corridor, similar to a linear park. The project includes park trailhead improvements, a roundabout, and high-speed Wi-Fi within the corridor. As depicted in the map, the corridor will connect various disadvantaged communities, historic downtowns, and major employment centers.



The Regional Wekiva Trail includes five segments. As depicted in the map, Segments 1 and 5 (RAISE Project) in red are the critical missing segments to the greater county, regional, and state trail networks, shown in orange. Segments 2, 3, and 4A and 4B, in green, are either constructed or currently underway.

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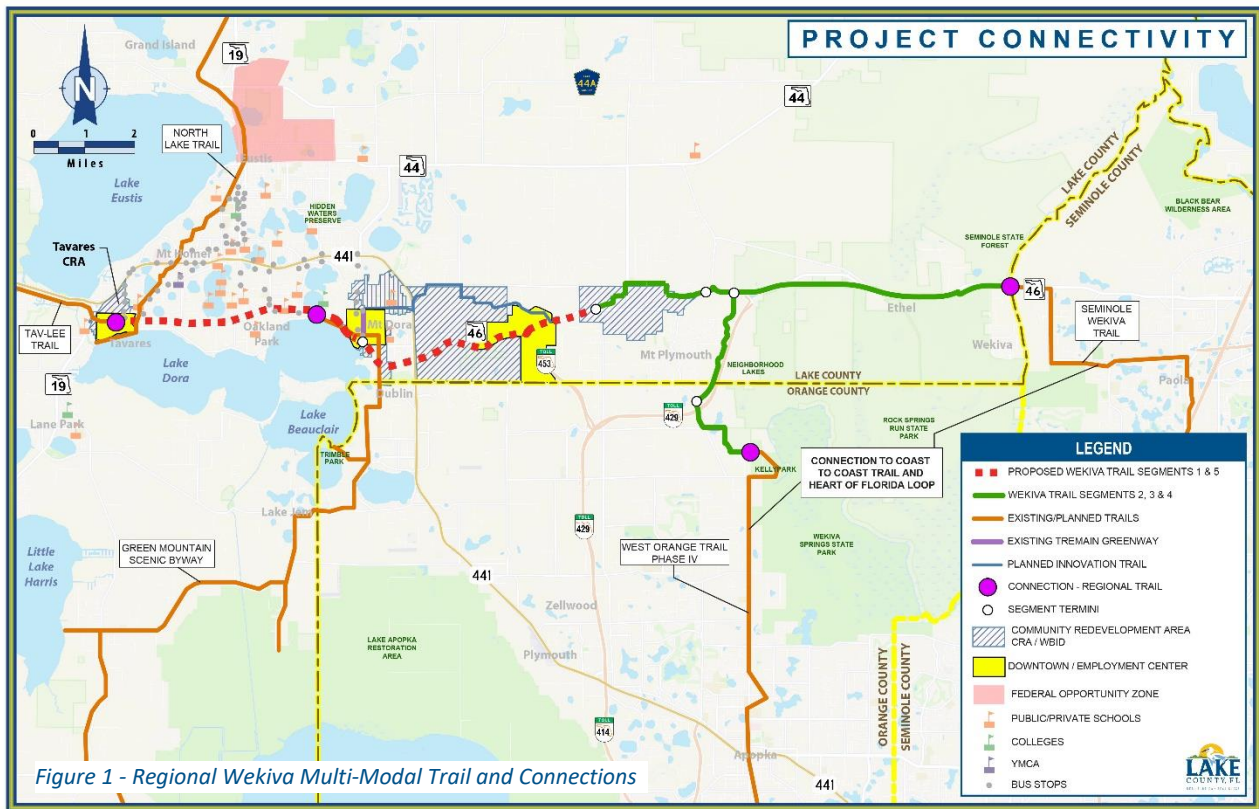
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I. Project Description

The Regional Wekiva Trail is a 26-mile multi-modal trail that will connect the City of Tavares, City of Mt. Dora and unincorporated area of Lake County to the robust Seminole and Orange County multi-modal trail network, and to the statewide multi-modal trail network. Although 14.5 miles of the trail are being constructed, the last 11.5 miles remain unfunded despite strong public support and consistent prioritization of the trail in the Florida Department of Transportation (FDOT), County Master Trails Plans, City Master Plans and work programs. The missing segments 1 and 5 are shown in red in **Figure 1** and the County’s [Master Trails Online Map](#) depicts the status and connections of the County’s robust multi-modal trail system.



Lake County residents are in dire need of safer, more affordable, and healthier alternatives to driving to provide greater mobility and opportunities for economic stability. Per benchmarking data, the latest Census Data, and surveys from the Florida and Lake County Health Assessments:

- Florida has the highest pedestrian fatality rate and one of the top bicyclist fatality rates.
- Average unemployment rate in Lake County is higher than the state and nation’s average;
- Median household income in Lake County is lower than the state and nation’s average;
- Percentage of children in poverty in Lake County is higher than the state and nation’s;
- Safe transportation and mobility, diabetes and obesity, access to health care and affordable housing are top community issues according to Lake County Residents.

The lack of multi-modal transportation is a serious challenge for current residents and will be for future residents as well if no significant changes are made. Florida is now the third most populous

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state and Lake County is ranked among the top three fastest growing counties in Florida with a projected 43% increase by 2045 as a result of the County’s proximity to the City of Orlando, a short 35-minute drive to Lake County. As the Metro-Orlando core continues to build-out, the County is positioned to absorb a significant portion of Central Florida’s future growth and continuously widening the roadway infrastructure is both expensive and unsustainable. According to the [U.S. Environmental Protection Agency Fast Facts](#), light-duty vehicles account for over half (58%) of the transportation GHG emissions, which makes up one-third of the nation’s overall GHG emissions.

In addition, Florida is a top destination for families, cyclists, and nature enthusiasts where tourism generated a record high total economic impact of \$88.6 billion in tourism spending in 2017 with 131 million visitors out-of-state and entertainment and recreation contributing to 15%. Florida isitors fly from all over the nation and world, with top state origins including California, Illinois, New York and top country origins including Canada, UK, and Brazil. With thousand-acre state parks, encompassed in pristine lakes and Blueways, and boasting distinct downtown districts and more, it is no wonder that more tourists are flocking to Lake County.

Not only do the local residents recognize the need for more connected bicycle and pedestrian infrastructure, they desire it as much as the region’s growing population of residents and visitors do. Segment 2 Trailhead counters, located at the terminus of the project’s Segment 1, saw about 67,500 vehicles or an estimated 168,000 people in just the first six months of opening. In 2014, neighboring Seminole County residents approved a 10-year penny sales tax for transportation projects, with about \$53 Million allocated towards future trails development projects. Neighboring Orange County referred to multi-modal trails as the “backbone” of the community’s bikeway vision in their Trail Master Plan. Moreover, the most frequent question at VISIT FLORIDA’s Welcome Centers is “Where can I bicycle in Florida?”.

The Regional Wekiva Trail consists of five segments (See **Figure 1**). The map on page i of the Executive Summary shows the status and anticipated completion/completed dates of fully-funded Segments 2, 3 and 4A and 4B in green. The project will transform the inactive railroad corridor into a 14-foot wide multi-modal trail extending 11.5 miles and connect various disadvantaged communities, historic downtowns, and major employment centers. *The full-size maps of Figures 1, 2, and 3 are included in Appendix A.*

As depicted in **Figure 1**, the project shown in red is the missing link to connect five major existing trail corridors in Lake County, Orange County, and Seminole County, for a total of 100 miles. As depicted in **Figure 2**, the project would also provide several connections between and to the thousands of miles in the greater trail network, including the Coast-to-Coast trail, which extends across Florida from the Gulf of Mexico to the Atlantic Ocean. The Coast-to-Coast trail is more than 80 percent complete, with its missing segments currently underway (See **Appendix A** for the status of the segments). **Figure 2** also depicts the existing and planned trails of the statewide Shared-Use Not Motorized (SUN) Trail network, in the upper right corner.

Segment 1 concept plans from the 2017 Project Development & Environmental (PD&E) Study and

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the Segment 5 Feasibility Study are included in **Appendix B**. The project is comprised of the following improvements on **Page 4** and in **Figure 3**. Components denoted with an asterisk are shovel ready or will be by the end of the year and non-federally funded (See **Appendix I** for project plans and renderings). A summary of the project costs and uses is provided in **Table 1**.

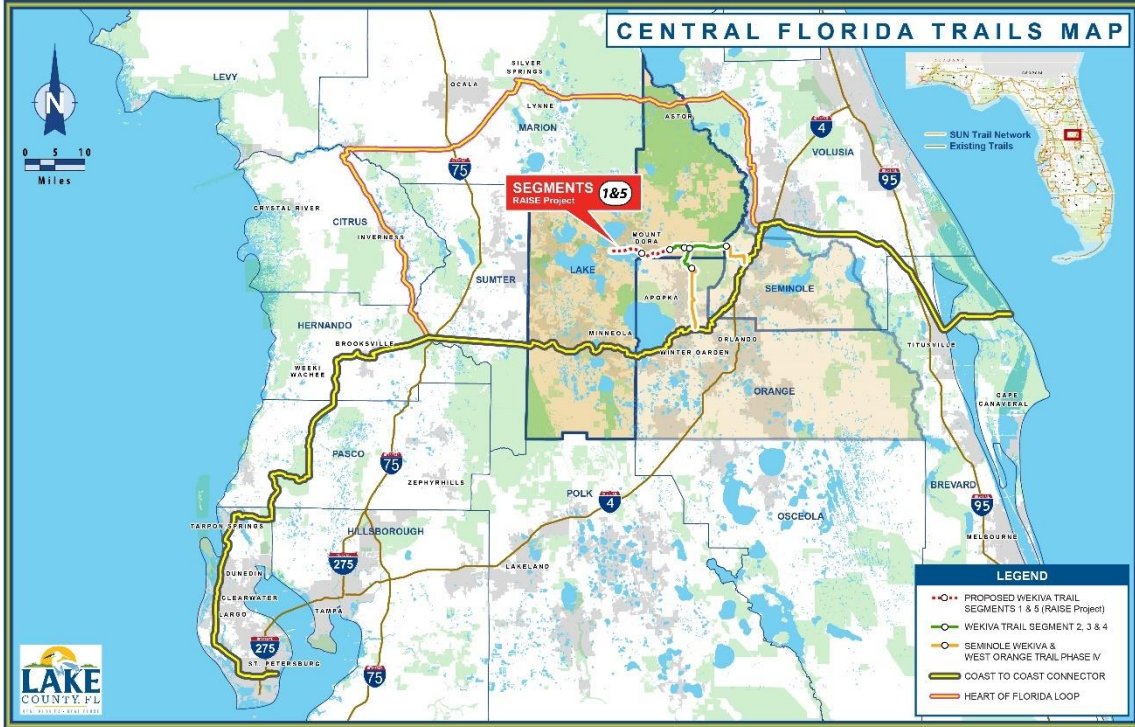


Figure 2 – Project Connections to State-Wide Trail Network

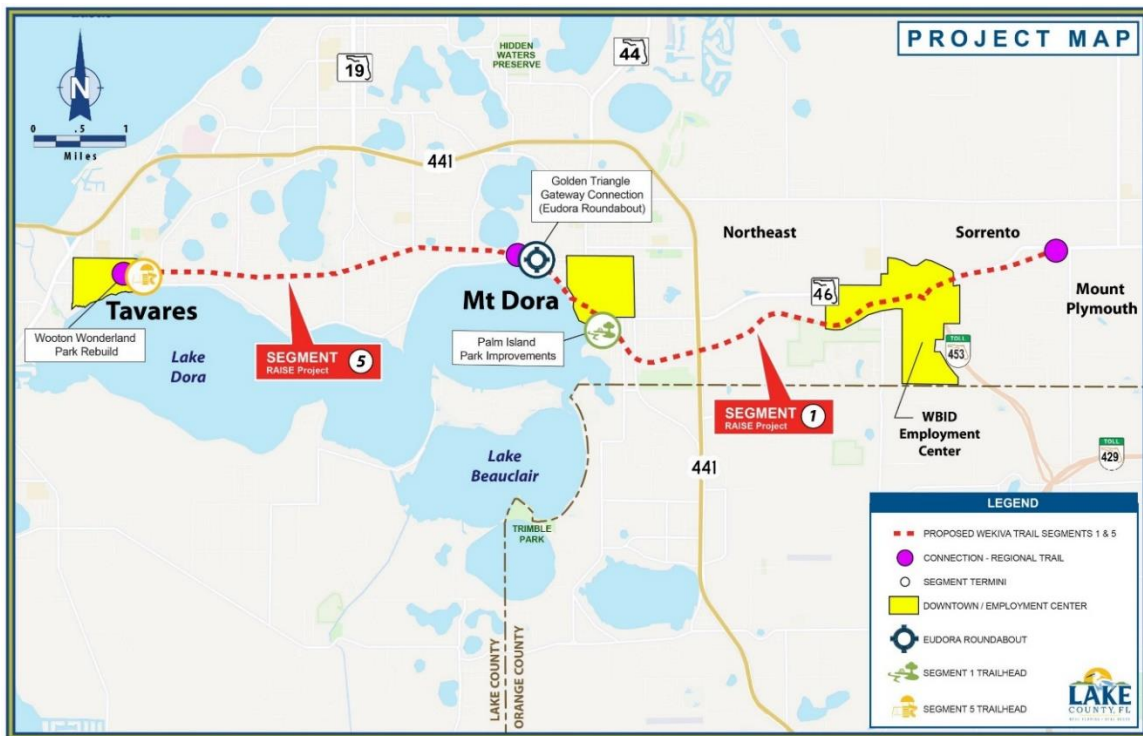


Figure 3 - Regional Wekiva Multi-Modal Trail Extension Project

Safe, Affordable, and Healthy Transportation Option



- 11.5 miles of 14-foot wide paved multi-modal trail located on the railroad bed
- Acquisition of the inactive railroad right-of-way away from the highway with plenty of available capacity to serve as a future utility corridor (includes sewer lines to replace community’s septic tanks)
- Upgrades to existing railroad bridges to ADA compliant multi-modal bridges;
- Public access points at key locations for easy access to high user destinations
- Crossing enhancements and trail amenities such as benches, trash receptacles, LED pedestrian scale lighting, and native landscaping.



Advanced Technology

- *High-Speed Wi-Fi within the trail corridor;
- Conduit infrastructure within the trail corridor for future broadband and the planned ITS system expansion for increased public communication and improved transportation operations which includes dynamic message signs and public information portal to communicate with the public, closed-circuit video monitoring and incident detection for real-time traffic management and emergency responder deployment, intelligent communication system and networking capability for traffic signal synchronization, data collection such as speed, travel time, travel delay, incident response time, etc. and regional center-to-center communications for increased coordination between user agencies.



**Segment 1 Trailhead Improvements (Palm Island Park Improvements)*

The project will enhance access to the Palm Island Park Trailhead in the City of Mt. Dora. The park improvements include concrete trails, wash station, Boy Scout Building renovations, kayak and canoe launch. It will also include ADA upgrades for the “Golden Triangle Run”, a route in the state-designated Lake County Blueway System, which provides a boat ramp at the Segment 5 Trailhead. The launch is a strategic regional placement and serves as the City’s main access point.



**Segment 5 Trailhead (Wooton Wonderland Playground Rebuild)*

The project will begin at the 6-acre Wooton Wonderland Park in the Tavares Seaplane Base/Marina in the City of Tavares. The rebuild will install a new fully ADA accessible seaplane and multi-modal themed playground.



**Mt. Dora Golden Triangle Gateway Connection/Eudora Roundabout*

The project will replace the signalized intersection at County Road 19A and Old 441/Eudora Road with a roundabout and provide safety features including rapid reflecting flashing beacons, bicycle lanes, a crosswalk to the nearby school, and safe mobility and access between the project’s trail and the existing sidewalk.

Without this project, a long-term gap will remain in the regional multi-modal trail network and the following existing conditions will remain or worsen including (See **Figure 4**):

- **Sporadic sidewalks and bicycle facilities** and people continue to unsafely navigate major roadways and intersections;



Figure 4 - Existing Conditions

- **No reliable driving alternative** from the unincorporated County communities to City of Tavares and Mt. Dora (within 10 miles) and between Tavares and Mt. Dora downtown (six miles apart). The public transit system is not offered in the unincorporated County communities and traveling by bus between the City of Tavares and Mt. Dora take about one hour, requires a transfer, and operates in one-hour headways;
- **Increased pedestrian and bicycle crashes** as the driving population increases;
- **Critical gap and no connectivity** in the greater trail network that connects Lake, Seminole, and Orange Counties as well as Central Florida and Florida
- **Increased congestion** as the population increases contributing to increased greenhouse gas emissions and pollutants, decreased air and water quality, increased roadway maintenance costs, and increased travel time;
- **Increased parking demand** becomes more problematic to access downtown;
- **Inconsistency with Master Plans** (Lake County Trails Master Plan and Community Redevelopment Master Plans);
- **The underutilized inactive railroad right-of-way** and exclusive bridges are not being capitalized for transportation and historical resources are not preserved;
- **No existing fiber conduit infrastructure** for developers to install widespread broadband for the rural area or Lake County to extend its existing ITS system;
- **Scarce available City and County right-of-way** for future utility construction and constraints to improve existing utilities;
- **Septic tanks remain** with potential for leakage into the County’s Blueway system and impaired Lake Dora;
- **Increased health problems, transportation costs, and lower quality of life** for everyone living, working and visiting Lake County.

More importantly, without this project the most disinvested communities of Lake County and cities of Mt. Dora and Tavares will be deprived of the much-needed social equity, economic, and health opportunities and benefits described throughout this application. As described in **Section VI**, the demographics of Lake County residents in the census tract block groups within one mile of the project and economic and health status of Lake County residents include:

- Florida is continuously ranked **#1** and **#6** in pedestrian and bicyclist fatalities, respectively, and it appears that **one-third** of the pedestrian and bicycle crash victims in the project area are of color and **over one-quarter** of the population in the project area are minorities;
- **40%** of the population within the project area are age 5 – 17 years or over 65 years and need more mobility options;
- **57%** of households within the project area earn less than the national median household income, with over **40%** considered disadvantaged and **almost one-third** considered severely disadvantaged, or of the 57%, 68% of households is disadvantaged;

- The percentage of households with no computer and internet access in some areas near the project exceeds the national average by more than double;
- A portion of the population in the project area with no vehicle available exceeds the national average by up to double;
- The Federal Opportunity Zone is just three miles north of the project in the City of Eustis;
- Residents living within four Community Redevelopment Areas. Under Florida law, local governments designate Community Redevelopment Areas where conditions such as shortage of affordable housing and inadequate infrastructure exist and provide implementation strategies needed to support redevelopment of the targeted area including affordable housing. Majority of the African American and low-income residents within the project area belong to these communities.
- More than half of surveyed residents from the 2019 Lake County Health Assessment reported feeling left out and lacking in companionship and overall pleasure.

This application describes how the totality of the project and its advantageous location will improve social equity and quality of life, enhance public health and safety, and spread economic growth for all residents and visitors in the region, regardless of age, ability, income, and background.

Lake County, the cities of Mt. Dora and Tavares, FDOT, the public, and other partners have been championing for the completed Regional Wekiva Trail and a more completed regional trail network since 2008 (see **Page 23**, **Page 26** and letters of support in **Appendix C**). With Segments 2, 3, and 4 underway and other joint initiatives, Lake County has the long history of experience and strong partnerships needed to efficiently execute the project (See **Page 23**). Because of this and by nature of the project, the project has a low-risk profile (See **Section V**) and high return on investment. According to the benefit-cost analysis of the application, for every dollar spent, the community will receive \$11 in return (See **Section VI**). Additionally, Lake County, the cities of Mt. Dora and Tavares, and FDOT are deeply invested in the project, as evidenced in the 26% matching project funds, funding commitment letter, and resolutions (See **Table 1** and **Appendix D**).

In addition to benefiting from a robust regional and state-wide trail network in the works, Lake County is the ideal location in Central Florida to lead the way in making the multi-modal trail network one of the most sustainable transportation alternatives as the entire community has established itself as a dedicated leader in promoting active transportation:

- Lake County earned national designation for the Black Bear Scenic Byway and state designation for the Green Mountain Scenic Byway, which the project connects to (See **Figure 3** and **Appendix C** for the Green Mountain Scenic Byway Committee’s support).;
- Lake County’s Friends of Lake County Trails Chairman Mike Stephens earned statewide recognition as 2020 Trails Promoter of the Year for efforts to shape the vision of bicycling to be safe and encouraged in Florida (See **Appendix C** for letter of support);
- Lake County’s City of Clermont earned the “Bicycle Friendly Community of the Year” designation in 2014, the only Florida community to earn the national recognition;

- Lake County’s City of Clermont also earned designation as a Florida Trails Town by the Florida Department of Environmental Protection, one of eleven cities to earn the recognition for being a vibrant destination for trail users;
- The neighboring Seminole County and City of Winter Park in Orange County achieved national Commission for Accreditation of Park and Recreation Agencies accreditation;
- Florida was named the 10th most Bicycle Friendly State in America by the League of American Bicyclists for 2019 based on the state’s efforts related to bicycling;
- FDOT and partners hold Mobility Week annually to promote safe multi-modal transportation choices statewide and roll out new initiatives and policies;
- FDOT established Florida’s Safe Mobility for Life Program to provide leadership in senior mobility through improving safety, access, and mobility;
- Governor De Santis named March as Florida Bicycle Month in 2021;
- Florida’s planned connected statewide system of trails and greenways, including the aforementioned Coast-to-Coast trail and SUN trail, is becoming more of a reality.

The project will directly serve rural communities as defined by the 2021 RAISE program. The City of Tavares is an urbanized area with a population of less than 20,000 and the City of Mt. Dora and Lake County are rural areas. Although the project is not in an Area of Persistent Poverty as defined by the 2021 RAISE program, the project will serve a meaningful percentage of low-income and underserved Americans in an impactful way. By filling a critical gap in the highly utilized regional multi-modal trail network, the project would not only serve Lake County and City of Tavares and Mt. Dora residents and visitors, but the neighboring cities and counties’ population and visitors as well.

II. Project Location

When reviewing this section, the reviewer is invited to refer to **Figure 1** and **Figure 3** for context.

The project is in Northeast Lake County in the Central Florida region. The proposed trail begins in the recreational transportation hub of vibrant Downtown Tavares where users can watch seaplanes land and take off, relax in the 6-acre Wooton Park with the Splash Park and proposed ADA playground serving as the Segment 5 Trailhead, ride the historic train, host or attend a wedding at the pavilion, paddle along the County’s [Blueway System](#),



Figure 5 - Tavares Seaplane Base and Marina

take a pleasure cruise on the Louisiana style paddleboat replica and stroll the scenic path along Lake Dora (See **Figure 5**). It continues east into the Golden Triangle, the Mt. Dora and Northeast Community Redevelopment Areas and charming Downtown Mt. Dora, just six miles away where users have more options for dining, cultural attractions and community events. Downtown Mt. Dora alone homes 25 acres of parks including Palm Island Park which serves as Segment 1 Trailhead and offers Blueways and wildlife. From there, the trail connects to the Wolf Branch Innovation District mixed-use employment center, the downtown Mt. Plymouth-Sorrento

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business district and Community Redevelopment Area, and then to the remainder of the Regional Wekiva Trail where it continues to the Orange and Seminole County trail networks and ultimately to Florida’s Coast-to-Coast trail and SUN trail networks. Along the proposed trail, users can veer off to other community amenities including, employment, health care, and a total of 25 private and public schools and colleges located within two miles of the corridor.

Imagine being a local resident, worker, parent or visitor and connected to the planned 850-acre mixed-use Wolf Branch Innovation District and four distinct communities planned for revitalization (Tavares, Mt. Dora, Northeast, and Mt. Plymouth-Sorrento Community Development Areas) via a 11.5-mile multi-modal corridor. Lake County, Mt. Dora, and Tavares have made strides over the years in implementing the Community Redevelopment Master Plans and revitalizing these communities.

The Tavares Seaplane Base and Marina, located in the Tavares Community Redevelopment Area, opened in April 2010 and kicked off a major revitalization of the Tavares Waterfront District and multi-modal transportation hub. The hub boasts rail, air, water, transit, vehicle, and recreational components and the proposed trail will complete the City’s multi-modal initiative commenced ten years ago. Residents and visitors currently enjoy the following historic and progressive transportation options (**Figure 5**):

Upgraded rail road tracks through Plymouth, Florida and into Orlando which doubled the train speed; New railroad bridge over the Dora Canal; New Downtown train station, New seaplane base with airport terminal building and aviation fueling capabilities; Multiple boat ramps and boat trailer parking facilities; Existing and proposed electrical vehicle charging stations; and New bus system with enhanced bus stops; Blue Ways canoe and kayaking runs.

The [Wolf Branch Innovation District](#), located in the Northeast Community Redevelopment Area, is a planned 850-acre mixed-use regional employment center for up to 9,000 jobs targeted in the medical, high technology, life sciences, corporate, research and development, and education industries. The Master Plan includes 4.5M square feet of development with multi-family developments of over 2,500 units with walking and biking paths throughout (See **Figure 6** from the Master Plan). Land uses to support the growth have been established and the City of Mt. Dora and Lake County are getting ready to market to prospective investors and economic development agencies.



Figure 6 – Example of Site Plan in Wolf Branch Innovation District

The proposed Eudora Roundabout has regional significance as it connects the Cities of Eustis, Tavares, and Mt. Dora. The area, known as Golden Triangle, is designated as an Activity Center that will serve as mixed-use focal points of community life and be pedestrian oriented. Current

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land uses at the proposed roundabout include existing retail centers, residential and retail developments and two colleges. The project’s roundabout will serve as the gateway to the area.

Other critical multi-modal transportation connections include the following as depicted in **Figure 1**. Regional connections are denoted in magenta.

- Connection to the City of Eustis and its Federal Opportunity Zone and the YMCA via the North Lake Trail currently underway, with portions completed
- Connection to City of Clermont’s waterfront downtown and its Olympic training grounds via the Green Mountain Scenic Byway
- Connection to Orange County’s multi-modal trail network via Wekiva Trail Segment 4
- Connection to Seminole County’s multi-modal trail network via Wekiva Trail Segment 3
- Connection to the completed Tremain Street Greenway and Lincoln Avenue Trail
- Connection to the planned Innovation Trail to the Wolf Branch Innovation District
- Connection to the County’s transit system which serves Eustis, Tavares, and Mt. Dora

III. Grant Funds, Sources, and Uses of all Project Funding

3.1 Project Costs

Lake County is requesting RAISE grant funding for the design (partial), right-of-way acquisition, and construction of the project. The Segment 1 PD&E Study is complete, and the Segment 5 PD&E Study is currently underway and anticipated to be completed by the end of the year. The total estimated project cost is \$33.98M, with a \$25M RAISE funding request and a 26% local match of \$8.98M. No project phasing is anticipated. The \$25M RAISE request includes \$2.3M (9%) for design of Segment 5, \$9M (36%) for right-of-way acquisition of the inactive railroad right-of-way, and \$13.7M (55%) for construction. The cost estimate in **Appendix E** provides a detailed breakdown of the request based on the preliminary studies. The estimated \$9M for right-of-way acquisition is based on the cost of previously abandoned railroad right-of-way acquired for Segments 2, 3, and 4. RAISE funds will exclusively be used for the trail corridor and its associated amenities including enhanced crossing treatments, benches, trash receptacles, bridge improvements, trail public entrances, and conduit infrastructure for future broadband.

3.2 Non-Federal Funding Commitments and Matches

Of the \$33.98M to complete the Regional Multi-Modal Wekiva Trail – Segments 1 and 5 Project, \$8.98M will be funded by Mt. Dora, Tavares, and FDOT (See **Table 1**).

Table 1 - Project Components and Funding Sources

FUNDING PARTNER	PROJECT COMPONENT	FUNDING AMOUNT	PROJECT PERCENTAGE	TYPE OF FUND
US DOT	Segment 5 Design	\$2,300,000	7%	RAISE
	Segment 1 and 5 Right-Of-Way	\$9,000,000	26%	RAISE
	Segment 1 and 5 Construction	\$13,700,000	40%	RAISE
	<i>RAISE Request Total</i>	\$25,000,000	74%	
FDOT	Segment 1 Design	\$2,000,000	6%	State
City of Mt. Dora FDOT	Segment 1 Trailhead	\$330,000	1%	Local \$60,000
	Improvements Construction			State \$240,000

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City of Tavares	Segment 5 Trailhead Construction	\$1,400,000	4%	Local
Lake County FDOT	Mt. Dora Golden Triangle Gateway Connection (Eudora Roundabout) Construction	\$3,500,000	10%	Local \$1,750,000 State \$1,750,000
City of Mt. Dora	High Speed Wi-Fi within Trail Corridor	\$1,750,000	5%	Local
<i>Non-Federal Matching Funds Total</i>		8,980,000	26%	
Project Total		\$33,980,000	100%	

Non-Federal funds will be used to transform the transportation corridor into a recreational linear park with construction/improvements of park trailheads, high-speed wi-fi within the trail corridor, and roundabout, a major connection to the Golden Triangle Area and pedestrian network, described in **Section II**. Funding is already programmed or will be programmed in the next fiscal year work programs. (See **Appendix F**). The Project Cash Flow included in **Appendix G** distributes the cost for each major project component quarterly and directly correlates to the project schedule described in **Section V**.

3.3 Previous Investments

As much as there is a strong regional desire for a completed Regional Wekiva Trail and ultimately bringing broadband communication and an expanded ITS system to the rural communities, the local agencies are unable to fund the remaining phases of the regional Wekiva Multi-Modal Trail and complete the last segments of the regional trail. Construction of trails are often successfully coordinated with local and state roadway projects, as is demonstrated with Segments 2, 3, and 4 of the Regional Wekiva Trail and although the project is consistently prioritized for funding, there is limited funding for stand-alone trails especially in rural areas.

To capitalize on the \$45.3M already invested in the regional trail by the state, cities, and County and prevent a long-term gap in the trail network, Lake County and its partners continue to seek federal assistance for the project.

IV. Merit Criteria

A. Safety for Everyone

The existing roadway network is unsafe for the efficient movement of the most vulnerable roadway users, pedestrians and bicyclists. People who walk or bike to their destinations between Lake County and the cities of Mt. Dora and Tavares out of necessity or preference use the sporadic pedestrian and bicycle facilities and walk or bike in the travel lanes next to high speed vehicles and truck traffic.



Figure 7 - Pedestrian Crash Location
| Source: Google

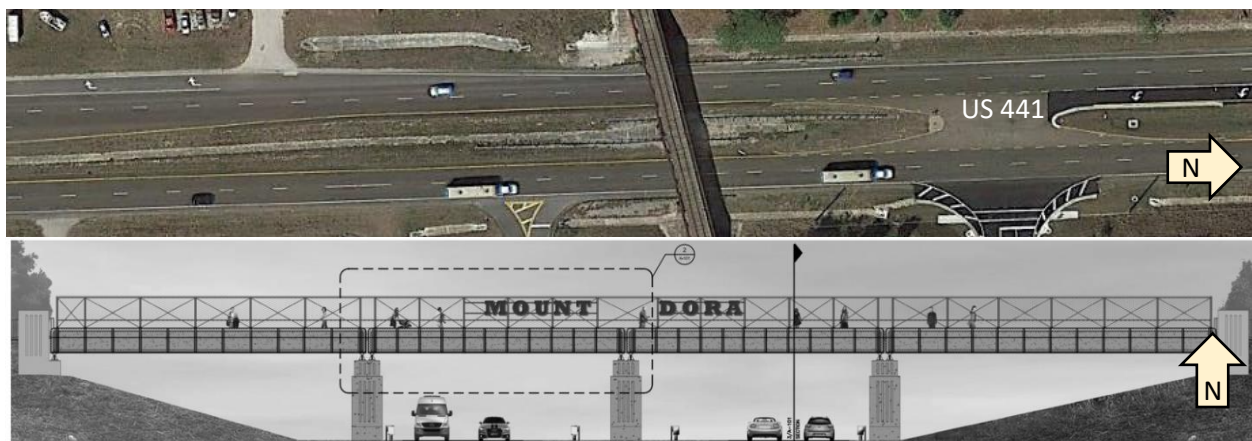
Crash records for the most recent five-year period (2016 through 2020) from the University of Florida’s Signal Four Analytics Database were obtained along the roadways that people would be

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using without the project (See **Appendix H**). Within a five-year period, there was a staggering total of 22 pedestrian and bicycle crashes, including two fatalities, and a steady increase in pedestrian and bicycle crashes (See **Figure 7**). These results are consistent with benchmarking data that found that Florida has the highest pedestrian fatality rate and sixth highest bicyclist fatality rate in the nation.

Over 75% of the crashes occurred along the roads as opposed to at intersections and 100% of the crashes occurred where there was no pedestrian or bicycle facility. About 50% of the crashes occurred due to driver negligence or careless driving, which would have been prevented with a dedicated facility. Recent [research from Ohio State](#) finds crashes involving a distracted driver are less severe in urban areas where street design and other visual cues encourage slow speeds and awareness of people walking and biking. This is supported by a [Florida Statewide Analysis](#) which finds that of all the crashes that occurred in rural areas, approximately 17% resulted in fatalities while only 2.5% of those that occurred on urban facilities resulted in fatalities. It is obvious that the safest design for the movement of non-motorists in this rural area is away from traffic altogether. The project provides a dedicated 14-foot wide multi-modal trail in the railroad corridor away from traffic and would significantly reduce future pedestrian and bicycle crashes.

The project would enhance or eliminate crossings. The project will provide limited at-grade ADA compliant crossings compared to the existing route that non-motorists currently take. The project preliminary concept plans in **Appendix B** identified that an alternative route would require people to cross at least 10 times more commercial and residential driveways, twice as many cross streets and up to 24 signalized intersections compared to just two signalized intersections on the railroad corridor. US Highway 441, where one of the fatalities occurred, exhibits high truck traffic (approximately 13%) and is a major barrier for mobility. The railroad right of way offers an exclusive bridge that already exists over the highway (See **Figure 8**).



*Figure 8 - Existing Railroad Crossing and Proposed Pedestrian Crossing over US Highway 441
| Source: Google Earth and Segment 1 Preliminary Concept Plans*

Potential crossing enhancements on cross streets include high-visibility crosswalks, a raised bicycle crossing or other speed reducing measures for vehicles, which are proven to decrease crashes with crash modification factors of 0.61 and 0.41, respectively.

An engineering study found hazardous walking conditions in the Golden Triangle, the major intersection at County Road 19A and Old 441/Eudora Road, where the cities of Tavares, Mt. Dora,

and Eustis meet, as is evident from an aerial view of the irregular intersection (See **Figure 9**). The project will replace the signalized intersection with a roundabout and install safety features: rapid reflecting flashing beacons, bicycle lanes, and a crosswalk to the nearby school (See **Appendix I** for project plans). The trail removes the need to navigate this intersection and the roundabout provides safe mobility and access between the project trail and the existing sidewalk network.

Per FDOT, roundabouts result in 10 to 40% fewer pedestrian and bicycle crashes and are safer for beginner and elderly drivers. Roundabouts and shared-use paths are also on US DOT FHWA’s list of 20 research-proven safety countermeasures. Per the Highway Safety Manual, signalized intersections replaced with roundabouts saw a 78% reduction in severe crashes. The FHWA shares the vision that zero fatalities on our nation’s roadways is the only acceptable goal. In 2012 Florida began implementing its own version of the national vision of “Toward Zero Deaths” called “Driving Down Fatalities.” The FDOT State Safety Office expects that funded projects will enhance a downward trend for non-motorists, the most vulnerable road users.

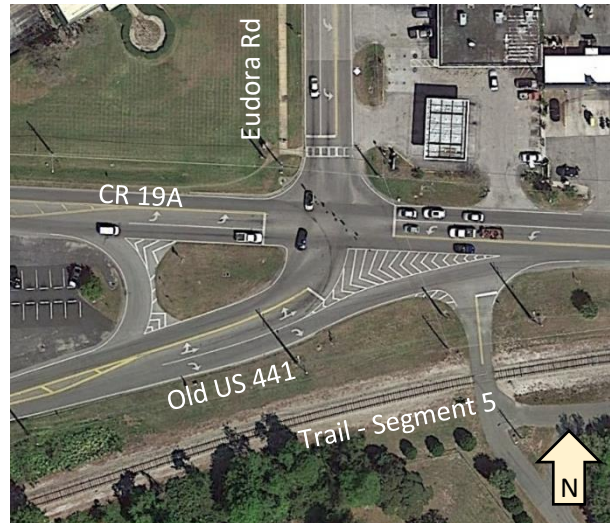


Figure 9 - Golden Triangle Gateway Connection (Eudora Roundabout) Location

Lastly, the project would result in the rapid reduction in harmful green-house gas (GHG) emissions by gas-powered vehicles in the region by promoting the mode shift to emission-free transportation alternatives and reducing vehicle miles.

B. Environmental Sustainability

By constructing the trail and trailheads and filling the missing segments in the trail network, the project will provide a safe and convenient transportation option that gets road users out of their vehicles and walking and biking for transport and recreation. With vehicles contributing to two-thirds of the transportation-related emissions, this major change in reduction of car dependency will rapidly reduce the negative environmental effects of personal gas-powered vehicles that emit harmful pollutants into the region’s air, soil, and natural water resources.

The BCA of this application estimates that the project would more than double the number of walking and biking commuters living in the Census tracts within one mile of the trail each year. This expected mode shift would generate a reduction in thousands of dollars’ worth of pollutant emissions , without including workers outside the one-mile zone, workers in the region, visitors, etc. and the reduced congestion from future ITS expansion.

The project’s conduit infrastructure and railroad corridor allow for the infrastructure and right of way for Lake County to implement its planned ITS expansion in the near future. The ITS expansion includes traffic signal synchronization, incident detection, and increased user agency and public coordination among other features. According to the Federal Highway Administration, traffic

signals that are retimed and maintained properly, would see a reduction in harmful emissions (carbon monoxide, nitrogen oxides, and volatile organic compounds) of up to 22%. Signal coordination reduces fuel consumption, noise, and air pollution by reducing the number of stops and delays. The project’s roundabout would further reduce the harmful emissions by decreasing travel delay and reducing fuel consumption.

Rather than resorting to the no-build option that will further congestion, the project will repurpose the abandoned railroad bed and right of way to construct the trail, which will further mitigate environmental impacts. Additionally, based on the project PD&E studies, impacts to natural habitat, wetlands, and endangered species are minimal as described in **Section V**. The railroad corridor will also serve as a future utility corridor. The City of Tavares plans on replacing its community’s septic tanks with sewer lines that will run in the corridor. Septic tank leakage is one of the top causes of damaging nutrients flowing into Florida’s waterways. The additional right of way will help prevent contaminants into Lake Dora’s already impaired waters, where residents and visitors enjoy recreational activities. Lake County has implemented several design elements on its trails, such as efficient LED pedestrian-scale lighting, native landscaping to reduce water consumption, and recycled concrete rip rap, that address climate change and will also implement similar features on the project (See **Figure 10**).



Figure 10 - Proposed Native Landscaping

Lake County is committed to further identify design elements and construction practices during



Figure 11 - Atlanta Beltline Linear Park
| Source: Adaption Clearinghouse, Atlanta Journal-Constitution

the design phase that address climate change and would be included in the construction documents. Lake County utilizes FDOT specifications and many reclaimed materials have already been identified by the FDOT for project use such as recycled asphalt in pavement, recycled plastic in guardrail blocks and flexible delineator posts, and ground tire rubber in asphalt pavement.

Lake County is committed to producing a design that addresses environmental justice during the design phase through studies such as a detailed analysis to minimize impacts and maximize benefits to disinvested communities, low-income communities and communities of minorities, or a project-specific Equitable Development Plan, similar to the Atlanta Beltline Equitable Plan (See **Figure 11**). Completing the 26-mile Wekiva Trail will provide a linear park similar to the Atlanta

Beltline, the 22-mile loop that ultimately connects 45 neighborhoods in Georgia and also follows abandoned railroad tracks.

A desktop analysis was performed to identify the community characteristics within the project area using GIS software and Census 2015-2019 American Community Survey (ACS) for 20 Lake County census tract block groups within a one-mile distance to the project corridor . The results of the analysis indicated the following (See **Appendix J** for maps and tables illustrating the data):

- Over 25% of the population within the project area are minorities. About half of the groups have such populations above national and state averages (22%) by 50% or more;
- 57% of households within the project area earn less than the national median household income, with over 40% of households considered disadvantaged and almost one-third considered severely disadvantaged, or of the 57%, 68% of households are disadvantaged.

Over one-third of the block groups have an African American population above national (13%) and state (17%) averages and are concentrated in the Tavares, Mt. Dora, and Northeast Community Redevelopment Areas. The disadvantaged households are also found in these areas. Census Tract 309.14 Group 4 in particular has African Americans making up 78% of the population and is located near the middle of Segments 1 and 5 in the Northeast Community Redevelopment Area. In four tract groups, over 50% of households are severely damaged (See **Appendix J** maps).

By design, the project provides a greenway corridor surrounded by the natural environment, celebrating the sustainability of natural resources and alternative modes of transportation – bicycles, electric-assist personal vehicles, strollers, wheelchairs, and by foot (See **Figure 11**).

These expected outcomes contribute to the environmental sustainability goals of the local, regional, and state plans to reduce greenhouse gases and meet reduction targets through transportation investments. Lake County’s 2030 Comprehensive Plan aims to reduce greenhouse gases produced in the County in the transportation, construction, agriculture, and industrial sectors. Lake-Sumpter Metropolitan Planning Organization’s 2045 Long Range Transportation Plan aims to reduce environmental impacts with transportation investments. The 2008 Florida Action Plan on Energy and Climate Change aims to meet the state’s Executive Order 07-127 emission reduction targets for 2025. (See **Appendix K** for pages from the plans).

C. Higher Quality of Life

he [2019 Lake County Community Health Assessment](#) and [2016 Central Florida Community Health Needs Assessment](#) offer profound insight into the key community issues specific to Lake County residents and are the source of information throughout this section. The project will address these issues by offering residents a healthy, zero-emission, zero- or low-cost, safe and ADA compliant alternative to driving for people regardless of age, ability, and background, increasing access to recreational opportunities, health providers, healthy food options, education, employment and each other and improving air and water quality thus providing social equity, community vibrancy and higher quality of life.

Key Issue #1: Lake County residents identified the lack of affordable and sufficient transportation for their youth and elderly as a prime issue (See **Figure 12**). Mobility and accessibility to

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recreational spaces are the barriers contributing to the percentage of homeless students (5.2% in 2016-2017, more than double the state rate) and human trafficking of youth and young adults.

Project Solution: The project increases transportation options by providing a walking and biking corridor to bus stops (See **Figure 2** for bus stops), the Lake County trail network and the greater trail network in Orange and Seminole Counties. Lake



Figure 12 - Lake County Top Community Issues
| Source: 2019 Lake County Community Health Assessment

Xpress, the County’s transit system, has plans to add more stops nearby more bicycle and pedestrian facilities. According to the 2008 Lake Xpress Transit Development Plan, 83% of bus users usually walk to bus stops and 5% bicycle. The project will serve as the west-east walking and biking “interstate” with “off-ramps” to community amenities and other alternatives modes of transportation. An analysis of the crash data discussed in **Section A** indicates that almost half of the crash victims (40%) are individuals of color.

The project’s high-speed internet and conduit infrastructure will drive the expansion of the ITS system and ultimately provide sustainable mobility, safety, air quality, and travel cost savings for all road users. High-speed internet, coupled with increased access to education will help address Lake County’s health, homelessness and human trafficking issues.

57% of households near the project earn less than the national median household income. About 40% of the population near the project are age 5 – 17 and ineligible to drive or are over 65 years and may be unable to drive. Additionally, a portion of the population in the project area with no vehicle available exceeds the national average by up to double (See **Appendix J** for map). With this project, everyday mobility and lifestyle for current residents would drastically transform.

Supporting Data: 97 percent of Lake County residents surveyed said that outdoor recreation is essential to their health and quality of life.

According to Rails to Trails Conservancy, areas with strong trail planning have demonstrated lower rates of traffic injuries and fatalities and lower air pollution and emission exposure.

Low income also limits options for recreational activities, health care, and fresh food whereas higher education and income provides financial access to these resources and leads to healthier choices, longer lives and social equity.

Key Issue #2: Lack of access and mobility to specialized health care, difficulty navigating the system, and lack of health care coordination was the top 6 community issue. Lake County has the fewest mental health providers relative to the population of the Central Florida counties with

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two-thirds of survey respondents indicating depression in their household in the past year. The Community Health Needs Assessment shows food deserts in the Tavares community and an aging population (over 50% the census tracts' population) who need more mobility are coincidentally concentrated in these areas (See **Appendix J** for maps).



Figure 13 - Proposed Complete Streets in Wolf Branch Innovation District
|Source: Wolf Branch Innovation District Master Plan

Project Solution: The trail provides increased mobility to health care and education by connecting to the trails within the planned mixed-use Wolf Branch Innovation District Employment Center in Mt. Dora (See **Figure 13**). The 850-acre livable, walkable and bike-friendly community includes multi-family developments of over 2,500 units for residents to move to and retail like the much-needed supermarkets.

The project's high-speed Wi-Fi and conduit infrastructure will provide residents with high-speed internet access.

Supporting Data:

Studies have shown that rural broadband is critical for health care. High-speed internet would equip health care professionals with the tools and resources to provide treatment to patients more quickly through access to specialists and medical records, remote diagnostics, and telehealth, etc.

Key Issue #3: Lake County residents reported not having a high quality of life. More than half of respondents reported feeling left out and lacking in companionship and overall pleasure. The lack of high-speed internet contributes to these statistics. Lake County has approximately 15% fiber coverage. This is at least 50% less fiber coverage than nearby counties and six times less fiber coverage than the state.

Project Solution: As described in **Section II**, the project will offer places for more social interactions in addition to those that take place on the proposed trail by providing easy access to community attractions, downtown districts, and the Tavares recreational hub, all typically full of residents and visitors gathering and socializing (See **Figure 14**). The project's Segment 5 trailhead in Tavares will provide a new ADA playground to add to the recreational hub (See **Appendix I** for renderings). The project's Segment 1 Trailhead in Mt. Dora will expand park amenities and improve connectivity to the trail.



Figure 14 - Community Event in Tavares Seaplane Base and Marina

The project's Wi-Fi infrastructure will provide residents with high-speed Wi-Fi within the trail and the conduit infrastructure will provide developers interested in revitalizing the four community redevelopment areas and the mixed-use Wolf Branch Innovation District with the primary infrastructure already in place to install widespread broad band for a rural community.

Section D also notes that broadband provides increased opportunities for education and employment, creates new jobs, and fosters civic engagement and economic growth. This is in addition to the jobs created by the trail construction and retail and recreational jobs created by the growth of the four community redevelopment areas that the trail provides access to.

Supporting Data: Rails to Trails Conservancy research finds that active transportation infrastructure has helped communities thrive and develop a sense of togetherness. Likewise, per the Florida Department of Environmental Protection’s [Economics of a Florida State Trail](#), trails help communities and regions develop an identity and sense of place.

Areas with walkable and bikeable facilities increases physical activity which in turn increases the opportunity for planned and unplanned social interactions and fosters trust and a physical sense of identity within a community. – Rails to Trails Conservancy research

This is demonstrated locally with the West-Orange Trail in Orange County, which the Regional Wekiva Trail connects. After the introduction of the trail, the Winter Garden downtown saw increased businesses for the trail users to enjoy together such as breweries, theatres and shopping, family recreational facilities such splash pads and parks, events, and farmers markets. See **Appendix C** for letter of support from the Lake County Supervisor of Elections highlighting the West-Orange Trail’s success in the City of Winter Garden.

Lastly, conquering the “digital divide” helps end feelings of isolation experienced by many in rural areas per research. The percentage of households with no computer and internet access in some areas near the project exceeds the national average by more than 50% (See **Appendix J** for map).

Key Issue #4: Among Lake County residents, heart disease, cancer and respiratory diseases are the leading causes of death with diabetes. Between the 2006 to 2014 study period, in Lake County there has been a steady increase in the percent of adults with diagnosed diabetes and the latest available statistic of diabetes hospitalization for children much higher than the state level. Lake County is the only county in the region with an increase in overweight middle school students, and Lake County’s percentage of overweight high school students is the highest and only percentage above state level in the region.

Project Solution: The project provides a zero-emission, low stress corridor with natural landscapes away from the highway and along Lake Dora that will attract Lake County residents of all ages and abilities to use and be active. With 22 public and private grade and high schools within a 2-mile radius from the proposed trail, flat landscape, and temperate climate, parents would feel comfortable with their children biking or walking to school (See **Figure 1** for school locations). The average median age of the 20 Lake County census tract block groups within the project area is 50 years. As the majority of the population ages, the project will provide a means to maintain a healthy lifestyle and is low cost, easily accessible, and enjoyable. Additionally, the opportunity to replace the community’s septic tanks with sewer lines in the future utility corridor would help prevent contaminants from entering the community’s water, air, and soil.

Supporting Data: Nationally, neighborhoods with pedestrian and bicycle infrastructure have been found to have higher levels of physical activity than those without such infrastructure per the American Heart Association. Research links active transportation to more than 40% decrease

in mortality rates and lower instances of heart disease, cancer, Type 2 diabetes, mental health disorders and obesity. Per the Florida Department of Environmental Protection’s [Economics of a Florida State Trail](#), every \$1 spent on trails could save \$3 in medical expenses.

Most Lake County residents (81%) believe that proximity to nature is an important motivation for participating in outdoor activities – Florida’s Comprehensive Outdoor Recreation Plan

D. Economic Competitiveness

The project will enhance economic competitiveness by creating more jobs and business revenue, attracting more tourists and residents, reducing road congestion and roadway maintenance costs, and allowing for the efficient, inexpensive, reliable movement of residents, workers, and visitors to health care, jobs, and services. By nature, the project improves the local and regional economic strength in the three jurisdictions that it is located in.

Creates Jobs and Increases Economic Productivity: A 2021 economic study for the project by the East Central Florida Regional Planning Council (See **Appendix L**) found that the project would generate \$9.5 million for the state and County from the creation of 101 immediate jobs in design and construction and 57 long-term jobs, new and increased business revenue (output), personal income, and gross domestic product (See **Table 2**). Lake County will utilize local hiring provisions for the design and construction contract.

Table 2 - Summary of Project's Economic Impact

Economic Indicators	Florida		Lake County	
	Design and Construction	Operation	Design and Construction	Operation
Employment	59	32	42	25
Output	\$6,833,333	\$4,000,000	\$4,166,667	\$2,666,667
Personal Income	\$3,666,667	\$2,666,667	\$1,666,667	\$2,000,000
Gross Domestic Product	\$4,000,000	\$2,000,000	\$2,166,667	\$1,333,333

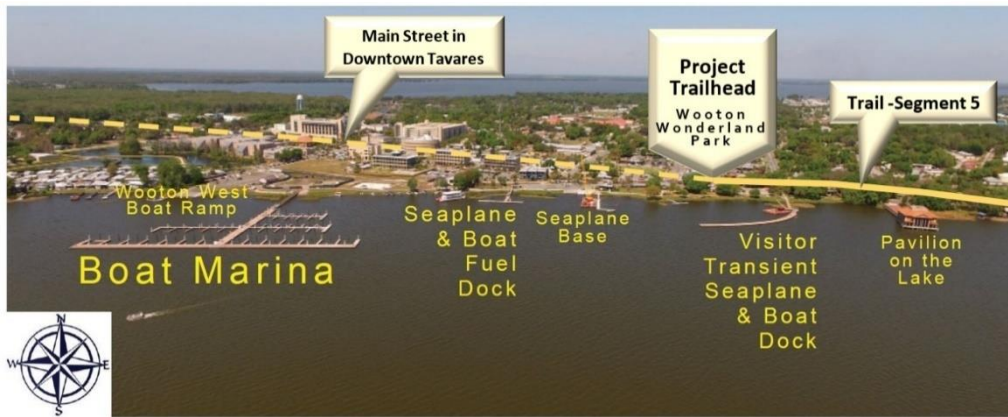
Source: REMI PI+ East Central Florida Region v 2.4.1

Supporting Data: The estimated economic output as a result of the project is reasonable in comparison to the economic study also conducted by the East Central Florida Regional Planning Council using the same model, for three trails totaling 36 miles in neighboring Orange County, one of which the project connects to. The total trail mileage is three times longer than the project. The study estimates the trails would generate 516 jobs and economic impact of \$42.6 million in 2010. The job creation estimate is conservative compared to the Florida Department of Environmental Protection’s [Economics of a Florida State Trail](#) that finds every \$1 million spent on trails yields 9.6 jobs.

Attracts Economic Development: The project begins at the Wooton Wonderland Park Trailhead in the Tavares Seaplane Base and Marina, the City of Tavares’ recreational multi-modal hub that includes the downtown business district, waterfront entertainment district, and recreational businesses. In 2019 the FDOT completed the Aviation Economic Impact Study and estimates that the Tavares Seaplane Base generated almost \$40 million (\$2017) including supporting jobs, generating income, and triggering spending at the local, regional, and state level (See **Figure 15**).

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Figure 15 - Tavares Sea Plane Base and Marina Overview (Segment 5 Trailhead Location)



The City of Tavares Economic Development Department acknowledges that the project would only increase these impacts. According to the economic director at the November 2019 Special Lake County Trails Commission Meeting, the addition of a trail will provide great synergy and opportunities for growth of existing business including Adventure Outdoor Paddle (paddle and kayak tour and rental), Dora Queen (New Orleans style paddle wheel boat cruises), and Jonas Brothers Air (air tours, on demand air charter service, and seaplane flight training) and great potential for new business opportunities such as bike shops/bike rental providers among others. (See **Figure 16** and **Appendix C** for support letter from one of the local bike shops). The waterfront operations were placed under the responsibility of the City of Tavares Economic Development Department to stimulate the local economy and provide enhanced recreational opportunities to the City's residents and visitors.

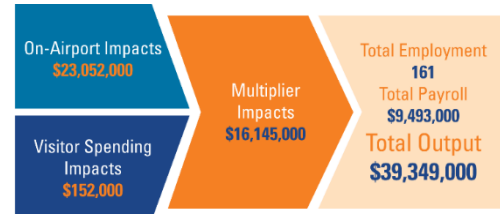


Figure 16 - Economic Impacts for Tavares Sea Plane Base (Segment 5 Trailhead Location)

The project will attract new residents and businesses, especially with the continual development of the four community redevelopment areas, the mixed-used employment center, two historic downtowns, and Federal Opportunity Zone all of which the project serves (See **Figure 1**).

Supporting Data: Per a USDA Economic Research Service study, rural counties able to attract “creative class” businesses enjoy job-growth rates higher than even metropolitan counties. Creative class workers and businesses are attracted to active streets and outdoor recreational opportunities. Per the Florida Department of Environmental Protection’s [Economics of a Florida State Trail](#), trails consistently remain the number one community amenity sought by prospective homeowners in Florida. In South Lake County’s City of Clermont, the City Manager commented that due investments in the trail system, 29 new businesses moved into their downtown in 2019 and the City was starting to see private investment to its historic downtown. The project’s high-speed Wi-Fi and conduit infrastructure offers Lake County residents, entrepreneurs and companies increased opportunities to communicate, learn, work and conduct business around the world, like Americans in urban areas, which will further accelerate economic growth.

In January 2020, the Federal Communications Commission adopted a \$20.4 Billion Rural Digital

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Opportunity Fund to close the “digital divide” asserting that rural broadband is “critical to economic opportunity, job creation, education and civic engagement.” In 2015 the rural telecommunication industry created 69,595 jobs and added \$17.2 billion to the economy, with Florida in the top 2 states to receive the most benefits with 5,955 jobs, \$1.78 million total impact, and \$1.24 million direct impact. Without broadband, economic growth may not only be impeded, it can reverse growth. A Wichita State University study finds a growing number of residents from 62 of the 105 counties in Missouri are leaving, citing lack of access to high-speed internet as their primary reason. According to Florida Senator Loranne Ausley, the COVID-19 pandemic clearly shown that high-speed internet is not a luxury but an absolute necessity.

“In urban areas, 97% of Americans have access to high-speed fixed service. In rural areas, that number falls to 65%.” – Federal Communications Commission

Attracts Tourist Spending:

The project will be a driver in the tourism economy. The estimated economic impact includes a total of \$2.6 million in tourism spending and includes lodging, food, retail, and transportation based on a conservative number of visitors (See **Table 3**). The 2021 Economic Study estimates a total of 73,394 users *per year* (51,400 overnight and 21,994 day users) which is conservative compared to the actual counts from the Regional Wekiva Trail. The Segment 2 trailhead vehicle counters, located at the terminus of the project’s Segment 1, saw a total of 67,452 vehicles (or 2.5 person per vehicle for an estimated 168,630 users) *in just the first six months* of opening (See **Appendix M** for trail counter data).

Table 3 - Estimated Project Visitor Spending

Spending Category	Day Visitors	Overnight	Total
Lodging		\$862,131	\$862,131
Food Restaurant	\$729,228	\$194,675	\$923,903
Food Retail	\$243,076	\$83,432	\$326,508
Other Retail	\$72,923	\$55,621	\$128,544
Transportation	\$24,308	\$27,811	\$52,118
Bike and Other Goods Rental	\$145,846	\$166,864	\$312,710
Total	\$1,215,380	\$1,390,534	\$2,605,914

Source: ECFRPC calculations

Supporting Data: Studies show that the longer a trail is, the farther people will travel to visit it, the longer they will stay, and the more money they will spend. A day-user will spend four times the amount of a local user. Overnight visitors will spend eight times the amount of a local user and is likely to return to the area. The most frequent question at VISIT FLORIDA’s Welcome Centers is “Where can I bicycle in Florida?” The Florida Statewide Comprehensive Outdoor Recreation Plan found that Lake County visitors and residents ranked fitness walking and bicycling on paved trails as the number one activity. In fact, visitors in Lake County rode bikes on paved trails twice as much as visitors in other counties of the state. This does not include participants of the annual Bike Florida Spring Tour. Since 1994, Lake County is one of the top counties that participants frequently overnight, according to the Bike Florida 2019 Spring Economic Impact Report. The 2019 tour generated an economic impact of about \$7.7 million from participant spending.

Improves Efficient Movement of People: The BCA in **Appendix N** estimates the project would produce over \$0.6M (\$2019) in transportation cost and time-reliability savings for commuters who shift from driving to walking and biking in the first five years. This does not include transportation costs savings for local agencies and other drivers. By providing a high capacity transportation alternative that is low-or zero-cost and reliability is not dependent on uncontrollable factors such as traffic, roadway construction, and inoperable equipment, the project would promote alternative transportation habits resulting in decreased congestion, decreased auto uses costs, and less roadway maintenance and construction in the future. The proposed roundabout will also save money by eliminating costly traffic signal maintenance costs and police personnel to direct traffic during power outages and increases traffic capacity at the intersection by 30-50% with decreased delays waiting at a signal, according to FDOT. See **Appendix C** for the letter of support from the Lake County Sheriff’s Office. **Page 24** on Innovative Technologies discusses how the project could improve the efficient and clean movement of goods with e-bike delivery.

The project will also install conduits to expand the Lake County ITS system. The system includes dynamic message signs and public information portal to communicate with the public, closed-circuit video monitoring and incident detection for real-time traffic management and emergency responder deployment, traffic signal synchronization, data collection such as travel delay and incident response time, and regional center-to-center communications for increased coordination between user agencies. The expansion will generate sustainable user and local agency cost savings by decreasing congestion, decreasing travel times, enhancing safety, and increasing emergency response times. Lake County, Tavares and Mt. Dora also plan to use the acquired railroad right of way as a utility corridor, rather than adding utilities to the busy roadways with scarce available public right of way (See **Figure 17**). This will generate sustained roadway construction and maintenance savings, and work zone road user costs. Additionally, the Cities of Tavares and Mt. Dora hold numerous races and marathon events on the roadway network each year that would be moved to the trail, saving tax dollar money on police department fees and road user delays and providing opportunities for more profitable community events. The conduit infrastructure and additional right of way will ultimately generate a greater economic impact.

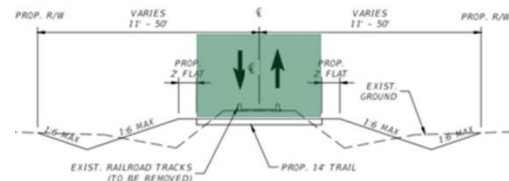


Figure 17 - Existing and Proposed Cross Sections showing proposed right of way

Increases Personal Equity

High and rising rates of chronic diseases costs the U.S. health care system, including the federal government, trillions of dollars each year. Based on the poor health conditions of Lake County residents discussed in **Section C**, the BCA in **Appendix N** estimates the project would result in a total of over \$0.5M (\$2019) in health cost savings for the expected users in just the five years of

opening. According to the World Health Organization, healthy populations live longer, are more productive, save more resources, and make important contributions to economic progress.

Trails are also found to increase property values of single-family homes by an average of 3-5% percent and in some cases as high as 15%. South Lake County's City of Clermont found that their trail increased property values by an average of six percent. Similar benefits are highly expected as the project area has similar land uses such as waterfronts and downtown districts. See **Appendix C** for the letter of support from Lake County Property Appraiser's Office.

E. State of Good Repair

Rather than widening the constrained arterials and impacting properties to accommodate bicycle and pedestrian facilities on an already busy roadway network, Lake County proposes to acquire an inactive railroad right-of-way and transform an underutilized asset into a vibrant people-moving, money-making corridor.

Lake County conducted a fiscal impact analysis to understand the future impact on public finances and is committed to financing the project through a short-term line of credit as detailed in the commitment letter in **Appendix D**. The City of Tavares and Mt. Dora committed to sharing the cost of interest incurred as well as the ongoing maintenance and operation of the project. The agencies have previously funded and constructed a significant amount of critical public infrastructure through similar joint ventures. The maintenance and operations of the project are already funded by the three agencies' annual operating budgets. Lake County's current maintenance plan includes review of safety features, signage and asphalt conditions. This holistic approach allows for issues to be fixed before they become major expenses and will serve as a model plan as it has proven to be effective with the existing trails.

"The trail is clean, paved, not crowded, with lovely scenery and homes along the way. While there are a few crossings, they are well marked." – Traillink.com (Total 5-Star rating on Lake County's South Lake Trail)

As existing and new trails and facilities continue to attract more users, the agencies increased their FY 2021 budgets from the previous FY. Lake County adopted an 8% increase in its Parks and Trails budget, Tavares adopted a 8% increase in its Parks and Recreation budget, and Mt. Dora adopted a 9% increase its repair and maintenance services budget in their Parks Department.

If the project is left unfunded, this gap in the Wekiva Trail and regional trail system will have negative effects on the previous investments in Segments 2, 3, and 4 and the existing 100 miles of trails that the project will connect to. Trail gaps that remain unconnected can decrease trail usage by as much as 75 percent in the immediate location and in other sections of the trail network by 4 to 12 percent. Conversely, funding the project and filling the gap will contribute to the resiliency of local roadways by attracting people to a less car dependent lifestyle. Rails to Trails Conservancy research finds that when a gap is filled, trail usage increases by 40- 80% percent depending on the significance of the trail gap. Construction, maintenance, and operations for trails are also significantly less than roadways.

Additionally, the project will install conduits for future broadband and the planned ITS expansion

within the railroad right-of-way so that the roads do not have to be “dug up” again and again for construction and future maintenance. This will avoid patchwork repaving that leaves roadways more vulnerable to settling and failure.

As listed in **Section V**, the Regional Wekiva Multi-Modal Trail is included in multiple planning and programming documents since 2008, demonstrating the support of multiple transportation agencies for over a decade. The broad support and previous investments of these various partnerships over the years, discussed in **Section V**, provides assurance that trail will be properly maintained and preserved to maximize the long-term utility of the asset.

a. Continuing Partnerships

Lake County, City of Tavares, City of Mt. Dora, and Florida Department of Transportation

- Lake County is the lead Grant applicant, administrator, and financier of Grant funding and will deliver the project with the support of the Cities of Tavares and Mt. Dora. The resolutions supporting this joint effort and financial commitment are in **Appendix D**.
- The City of Tavares completed the Segment 5 Feasibility Study in Summer 2020 with a \$265,000 grant from FDOT. Lake County and Mt. Dora are also funding components of the project jointly with FDOT (See **Table 1**).
- Under a Joint Planning Agreement, the City of Mt. Dora and Lake County have been working together for years to develop the multi-use Wolf Branch Innovation District employment center. They jointly established consistent land use classifications and are implementing the infrastructure to service the area. Strategic partners include public-private partnerships, developers, consultants, and government partners.
- The FDOT and Lake-Sumter Metropolitan Planning Organization (MPO) are strong advocates of complete streets and sustainable initiatives, investing over \$40 million in the Wekiva Trail preliminary studies and in completed Segments 3 and 4A and Segments 2 and 4B currently underway.

Stakeholders and the Community

- Stakeholders including City’s Chamber of Commerce, Lake 100, and Friends of Lake County Trails have held numerous well-attended meetings by the public to promote support for a completed Regional Wekiva Trail. Additionally, the public has been actively involved in the development of the project since 2014, as discussed in **Section V**.
- An overwhelming 71% of Lake County voters approved the 15-year extension of infrastructure sales tax that helps fund sidewalks and trails and neighboring Seminole County voters approved a penny sales tax for transportation with \$53M allocated for trail projects. The collections will sunset in 2030 and 2025, respectively.

Letters of Support from project partners and supporters, including State Senators, congressmen, and stakeholders throughout the application are included in **Appendix C**. Lake County, City of Tavares, and City of Mt. Dora have a long history of partnering in the design and construction of a variety of public works. Lake County will enter into an inter-agency agreement to execute the RAISE Grant scope to be performed collaboratively and efficiently.

b. Innovation

i. Innovative Technologies

The nature of the project lends its way to promoting innovative technologies. As discussed, the project will install high-speed Wi-Fi for use within the trail corridor and will also install conduit infrastructure, so local agencies and private developers have the infrastructure already in place to install widespread broadband and expand the ITS system earlier than expected. The Lake County Engineering Division-Traffic Operations, proactively operates and maintains their existing ITS fiber optic communication system that connects existing traffic signals throughout the County to their Traffic Management Center. The system includes intelligent communications system and networking capability, dynamic message signs (DMS), closed-circuit television (CCTV) video monitoring, incident detection, data collection and monitoring system, regional center-to-center communications, and a public information portal. The City of Mt. Dora is investing in Smart City initiatives to keep up with its growth, which includes City installed fiber infrastructure.

The project provides the infrastructure for innovative movement of goods and people. E-cargo bikes are proving to be economically and environmentally viable worldwide and future leaders for light delivery. In the U.S. Amazon, UPS and DHL deployed a cargo bike pilot program with New York City to meet faster delivery demands. Meanwhile, 87% of Millennials prefer to conduct business with environmentally conscientious companies. Advanced technologies such as hoverboards, electric roller skates and bikes/StreetStriders, and other electric assist personal vehicles are also becoming more popular and affordable for long distance travel.

ii. Innovative Project Delivery

Lake County plans on using the design-bid-build project delivery method. Lake County will leverage its partnerships and joint experience delivering projects like the Segments 2, 3, and 4, previous findings during preliminary engineering, and public involvement process to continue to engage the public to further streamline processes and approvals.

iii. Innovative Financing

Innovative funding beyond the bond financing committed by Lake County and its partners is not necessary for the RAISE grant funds. It is probable that as the various Community Redevelopment Areas, downtown districts, and the multi-use Wolf Branch Innovation District Employment Center develops, private investors would be inclined to supplement the trail with additional amenities such as additional trail connections, smart kiosks, and wayfinding signage.

V. Environmental Risk Review/Project Readiness

Technical Feasibility: The Wekiva Trail Segment 1 Project Development and Environment (PD&E) Study was completed in 2016. The Wekiva Trail Segment 5 Feasibility Study was completed in 2020 and the PD&E Study is currently in progress and will be completed at the end of the year. The intent of the studies is to conduct analysis of social, physical, and environmental impacts associated with the construction of the project. These studies have documented the formation of an engineering design concept that reflects and is consistent with federal, state, and local goals and objectives for the proposed trail. The studies have provided the information necessary to confirm the project need, documented the evaluation of proposed alternatives, and include

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preliminary concept plans and cost estimates for the preferred alternative. (See **Appendix B**). **Table 4** below summarizes the project readiness of the key project components.

Table 4 - Project Readiness and Status of Project Components

Project Component	PD&E	Pre-Design	Final Design	Construction
Multi-Modal Trail – Segment 1	COMPLETED			
Multi-Modal Trail – Segment 5	Expected Completion End of 2021			
<i>High Speed Wi-Fi within Trail Corridor</i>				
Mt Dora Golden Triangle Gateway (Eudora Roundabout)	COMPLETED	COMPLETED	COMPLETED	
Segment 1 Trailhead (Palm Island Park Improvements)	COMPLETED	COMPLETED	COMPLETED	
Segment 5 Trailhead (Wooton Wonderland Playground Rebuild)	COMPLETED	COMPLETED	Expected Completion Fall 2021	

The non-federally funded components of the project will be shovel ready by the end of the year and the trail will be designed to connect to each amenity. The PD&E studies for the trail are locally and state funded and is or will be completed by the end of the year.

a. Project Schedule

A summary of key milestones for the RAISE funded trail are in **Table 5**. Also included are the non-federally funded components of the project – Wooton Wonderland Playground Rebuild (Segment 5 Trailhead), the Palm Island Park Improvements (Segment 1 Trailhead), Eudora Roundabout, and Wi-Fi within the trail corridor.

Table 5 - Project Schedule

Milestone	Anticipated Date	RAISE Statutory Deadline
Trail Project – Segments 1 and 5 (RAISE funds)		
Grant Announcements	11/22/2021	
Trail PD&E Completion*	12/30/2021	
Sign/Execute Grant Agreement (Obligation)	1/30/2022	6/30/2024
Begin Grant Pre-Performance Reporting	3/30/2022	
Procurement Completion– Design Consultant	6/30/2022	
Begin Design, Permitting (NEPA), and Right-of-Way*	7/30/2022	
End Design, Permitting (NEPA), and Right-of-Way	6/30/2023	
Construction Procurement Completion	12/30/2023	
Begin Construction	1/30/2024	
End Construction	9/30/2025	
Grant Final Performance Reporting	12/30/2025	
Grant Closeout	1/30/2026	9/30/2029
Match Projects (Non-Federal Funds)		
Begin Construction	7/30/2022	
Begin Construction (wi-fi within trail corridor)	1/30/2024	
End Construction	7/30/2024	
End Construction (wi-fi within trail corridor)	9/30/2025	

*Trail PD&E and Design for Segment 1 are funded with non-federal funds.

The above schedule directly correlates to the narrative and BCA of the application in **Appendix N**.

b. Required Approvals

When reviewing this section, the reviewer is invited to refer to **Appendix B** for the completed Segment 1 PD&E studies, Segment 5 Feasibility Study, and Segment 5 PD&E Study Contract. Also included in **Appendix B** is the letter from the Florida State Clearinghouse certifying that the State

has no objections to allocation of federal funds for the project as the funding award is consistent with the Florida Coastal Management Program.

1. Environmental Permits & Reviews

NEPA Status: As a part of the PD&E Studies process, both segments of the Wekiva Trail were evaluated for impacts to wetlands and natural habitat in conformance with the FDOT PD&E Manual. Based on the studies, minimal natural habitat remains within and adjacent to the existing railroad corridor therefore, there will be de minimis impacts to protected species and habitats, wetlands, and other surface waters and/or essential fish habitats. Based on the Segments 2, 3, and 4 schedules and completed PD&E studies, Lake County estimates that all NEPA findings will be completed/issued within 18 months as listed in the schedule.

Reviews, approvals and permits by other agencies: The anticipated permits include a FDOT permit for the railroad corridor overpass at US Highway 441 and street crossings within the local jurisdictions. As mentioned above, there are de minimis environmental impacts. This is a trail project and does not require a noise analysis. The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the FDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 14, 2016 and executed by the Federal Highway Administration and FDOT. Approval of the Office of Environmental Management (OEM) is not required. Additionally, as part of the Segment 1 PD&E Study process, the Historical Identity of the Wekiva Trail railroad was approved by the FDOT, FHWA, and State Historic Preservation Office.

Public Engagement: The public has been engaged throughout the Segment 1 PD&E Study since 2014 and throughout the Segment 5 Feasibility Study process since 2019 with dedicated websites and social media pages, newsletters, public meetings, visioning workshops (see **Figure 18**), and 17 key stakeholder meetings. The consensus from the public is that the railroad corridor is the best option for bicyclists of all skill levels and pedestrians compared to the roadway alignments.

The latest public meeting, held as a virtual meeting in September 2020, was viewed by over 270 interested parties. A Project Overview Meeting, Public Alternative Concepts Workshop, Public Information Meeting on the Draft Recommended Improvement and additional public meetings will be scheduled, as part of the Segment 5 PD&E Study currently underway and anticipated to be completed by the end of the year.



Figure 18 - The public collaborating at the June 2019 Visioning Meeting

The public has been engaged with the Wekiva Trail since 2005 when its initial alignment was first identified in the 2005 Lake County Parks and Recreation Master Plan. The public was also involved in the development of the Lake-Sumter MPO Long Range Transportation Planning update and various County and Cities plans which have listed the Wekiva Trail as a top priority project, as described below. Public support for a completed Regional Wekiva Trail has been overwhelming.

2. State and Local Approvals

Since 2008 the Regional Wekiva Trail was included in the following planning and programming

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documents as a top priority project due to the regional significance and primary location within underserved rural areas (See **Table 6**). As a result of the Cities’ and County’s consistent prioritization of the project, the project is listed as Trail Priority #1 on Lake Sumpter Metropolitan Planning Organization’s annual List of Priority Projects (LOPP).

Table 6 - List of Planning and Programming Documents

Lake-Sumter Metropolitan Planning Organization (MPO)	
<ul style="list-style-type: none"> • 2020 List of Priority Projects (LOPP) <ul style="list-style-type: none"> ○ Trail Priorities (Modal) – Segment 1 and Segment 5 Priority #1 • FY20/21 – FY23/24 Transportation Improvement Program (TIP) • FY 20/21 – FY 21/22 Lake Sumter MPO Unified Planning Work Program • 2035 Long Range Transportation Plan (LRTP) Cost Feasible Plan <ul style="list-style-type: none"> ○ Bicycle and Pedestrian Needs Plan 	
Lake County, City of Tavares, and City of Mt. Dora	
<ul style="list-style-type: none"> • Lake County 2018 Trails Master Plan Update – Priority #2 Lake County 2008 Trails Master Plan – Top 10 trails • City of Tavares 2017 Downtown CRA Master Plan – Segment 5, Integral component of street system • City of Mt. Dora 2009 Trails Master Plan – Top 4 High Priority • City of Mt. Dora 2011 Citywide Envisioning Study – Segment 5, part of intermodal hub of one of six Activity Centers 	
Central Florida Metropolitan Planning Organization (MPO) Alliance	
<ul style="list-style-type: none"> • FY20/21 Priority Project List 	

3. Federal Transportation Requirements Affecting State and Local Planning

Local Level: As listed above, the Regional Wekiva Trail is already included as a high priority in the applicable planning documents for FDOT, Lake County, City of Mt. Dora, and City of Tavares.

State/Regional Level: As listed above, the project is already included in the FY20/21 – FY23/24 Transportation Improvement Program and FY 20/21 – FY 21/22 Lake-Sumter MPO Unified Planning Work Program. Upon award and/or signing of the Grant agreement, Lake County will submit to FDOT and Lake-Sumter MPO for the TIP and work programs to be amended to include awarded RAISE funding for the project.

c. Assessment of Project Risks and Mitigation Strategies

Overall, the project has a low risk profile. A risk analysis was performed, and results are included in **Table 7**. Due to the project scope, no major complications are expected with any of the risks and Lake County has the experience and partnerships to ensure that the grant requirements and project commitments are met.

Lake County has certified that it will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal wage rate requirements), as required by the FY 2021 Appropriations Act. A copy of the County’s certification statement is in **Appendix O**. Lake County has direct experience on current and past federally funded projects in complying with the wage rate requirements. Lake County is not seeking a waiver for relevant domestic preference laws.

Table 7 - Project Risk-Mitigation Analysis

RISK	RISK DESCRIPTION	PROBABILITY	IMPACT	MITIGATION STRATEGY
Project Funding	IF the local match is not secured and project scope modifications are required, THEN the schedule will be affected.	Low	Low	Non-Federal match funding is already programmed or will be programmed. See Appendix F for the latest work programs.
Project Financing	IF Lake County cannot finance the project for reimbursement, THEN the schedule will be affected.	Low	Low-Med	Lake County has provided a commitment letter to finance the project. See Appendix D .

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Design Approvals	IF designs are not approved by agencies and require modifications, THEN the schedule will be affected.	Low	Low	Seek preliminary approvals prior to official submissions. Maintain open line of communication with design consultants, agencies, stakeholders, including utility owners. Lake County is immensely experienced in delivering regional trails including Wekiva Trail Segments 2, 3, and 4.
Environmental Permits	IF environmental permits are delayed, THEN the schedule will be affected.	Low	Low	Actively work with consultants and agencies to ensure timely delivery of permits. Based on the approved Segments 2, 3, and 4 and PD&E studies, the probability of environmental uncertainties is low. Lake County is immensely experienced in delivering other regional trails.
Right-of-Way Acquisition	IF right of way cannot be acquired and an alternative trail alignment needs to be implemented, THEN the schedule will be affected.	Low-Med	High	The railroad owner, CSX, is highly interested in selling the inactive railroad right of way after RAISE grant funding is secured. Right of Way acquisition is a critical path item and Lake County has already started the right of way process, mitigating the risk of substantial increases in real estate acquisition costs.
Public Pushback	IF the public objects to project components and design modifications are required, THEN the schedule will be affected.	Low	Low	The public has been engaged in the project development and decision-making process and is in support of the project. Continue involving the public during the planning phase and through construction. See Section V .
Grant Administration (ie. Procurement Delays)	IF Lake County has difficulty administering and managing the Grant Funding and the Grant Agreement, THEN the schedule will be affected.	Low	Low	Lake County has a long successful track record managing Federal grants and is prepared to dedicate the staff and management information systems to comply with all Federal requirements contained in the Grant Agreement with the US DOT-designated modal administration.

VI. Benefit-Cost Analysis

A Benefit-Cost Analysis (BCA) was prepared for the project per the US DOT guidance published in February 2021 and included in **Appendix N**. The BCA provides a description of the input data, assumptions and methodologies as well as calculations and spreadsheets.

The time horizon of the BCA covers a design and construction period from 2022 to 2025 (3 years) and an operation period from 2025 to 2052 (27 years). Based on the BCA of this application, the transportation-related benefits of the projects total to approximately \$91.6M (\$2019) over the 30-year analysis-period providing a benefit/cost ratio of **3.5 to 1**. The majority of the transportation-related benefits result from the safety benefits from the project, as there is a high risk and risk reduction for pedestrian and bicycle fatalities and injuries. The project is not only a transportation asset, but a recreational asset. Including the recreational and health benefits would increase the total benefits to approximately \$326M and the benefit/cost ratio to **11 to 1**.

While the project is expected to generate considerable benefits, there are a number of beneficiaries not included and additional benefits that are not quantified in the analysis due to the difficulty in accurately assessing their impacts and to avoid the potential for double counting. These benefits were qualitatively described in the document and this application in order to illustrate the breadth of impact of the project investments, suggesting that the benefit to cost could be significantly higher.

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The proposed trail and park trailheads will provide a safe, highly desired walking and biking corridor with critical linkages to the public transit system, four disadvantaged communities, and the greater multi-modal trail network. In doing so, the project provides convenient non-motorized access to the community’s employment, schools, downtown districts and other high user destinations. Furthermore, the project offers pristine views of Lake Dora and the natural landscape away from the highways. As a direct result, the project will address the community’s significant pedestrian and bicyclist safety issues, lack of reliable alternative transportation, and mobility barriers to essential services and bustling community spaces.

Additional benefits stem from the project’s high-speed Wi-Fi within the trail, future utility corridor, and conduit infrastructure for future ITS expansion and widespread broadband for the rural communities. The resulting transportation and health cost savings, increased property values, and increased economic opportunities will increase personal equity for residents. This contributes to the project’s economic growth which includes new jobs and business and increased visitor spending. Additional outcomes include safe more resilient roadways and improved water, air, and soil quality. The overall project benefits and supporting evidence provided throughout the application are summarized in **Table 8** below.

Table 8 - Summary of Project Benefits

Project Benefit/Outcome	Proven Data, Studies, and Demographics
Provides Transportation Alternatives	<ul style="list-style-type: none"> Majority of residents are either too young or old to drive (40%), or do not have access to a vehicle. Traveling by bus is not reliable and is accessible to only some communities.
Provides Transportation Safety	<ul style="list-style-type: none"> Decades of crash data depicts that non-motorists, especially in this area, are the most vulnerable road users. Proven safety counter measures are provided to offer the highest quality multi-modal facility. Multiple survey results highlighting that the community recognizes the dire safety and mobility issue.
Helps Address Climate Crisis	<ul style="list-style-type: none"> Data shows personal vehicles substantially contribute to greenhouse gas emissions and pollutants. The growing mode shift away from vehicles will make a great impact and the project is a high capacity facility.
Closes Digital Divide	<ul style="list-style-type: none"> Federal government policies recognize the digital divide as a major economic barrier for rural communities. Evidence that Lake County residents have comparably low internet coverage, speeds, and access.
Addresses Social, Economic, and Environmental Justice	<ul style="list-style-type: none"> Project will serve communities with minority populations higher than the state and nation averages: <ul style="list-style-type: none"> High percentage of low-income, disadvantaged households and Black and Hispanic or Latino population. These groups live throughout the project corridor and especially in the Community Redevelopment Areas. These areas consist of the downtown districts, the seaplane base and marina, and planned 850-acre employment center and more plans for revitalization. Trails, unlike personal vehicles, is a transportation option that is accessible and affordable to all. Studies and local data prove that trails are money-making facilities: <ul style="list-style-type: none"> Trails create new jobs, attract economic growth and increase tourist spending, especially locally in Central Florida and the state. Project preliminary studies and data indicate that the trail and a utility corridor will have minimal environmental impacts, preserve natural resources, and helps avoid further damage to the community’s air and waterways.
Addresses Community Need and Desire	<ul style="list-style-type: none"> Years of consistent prioritization, community support and public, private, and non-profit partnerships. Champions for the completed Regional Wekiva Trail and more connected regional and state trail networks.
Provides a Higher Quality of Life	<ul style="list-style-type: none"> Multiple studies showing that trails and high-speed broadband enhance physical and mental health, safety, sense of community, economic opportunities and personal equity, a specific need in this community.

As mentioned, trails are typically funded with roadway projects, as is evidenced with Wekiva Trail Segments 2, 3, and 4. Without an adjacent major roadway project or grant funding for the project, a long-term gap is likely to remain in the multi-modal trail network. The application aims to describe the full picture of how building the project and completing the Regional Wekiva Trail will transform the quality of life for the region’s most disadvantaged communities and accomplish the key goals of the RAISE program. Especially with the COVID-19 pandemic, now more than ever, the region is in need of this transportation and recreational facility.

