



# SUN Trail Web Application/ Esri ArcGIS Online Viewing

## USER GUIDE





*This page left intentionally blank.*

# Contents

---

<b>SUN Trail Web Application/Esri ArcGIS Online Viewing User Guide .....</b>	<b>4</b>
<i>GIS Data Disclaimer .....</i>	<i>4</i>
<b>Starting Information .....</b>	<b>5</b>
<i>Browser Neutral.....</i>	<i>5</i>
<i>SUN Trail Program Details.....</i>	<i>5</i>
<b>Map Navigation.....</b>	<b>6</b>
<i>Panning.....</i>	<i>6</i>
<i>Zoom .....</i>	<i>6</i>
<i>Location Search.....</i>	<i>7</i>
<b>Tools .....</b>	<b>8</b>
<i>Legend.....</i>	<i>8</i>
<i>Layers.....</i>	<i>9</i>
<i>Basemap .....</i>	<i>10</i>
<i>Measurements (Area, Distance, and Location) .....</i>	<i>11</i>
<i>Printing.....</i>	<i>13</i>
<b>Segment Information .....</b>	<b>17</b>
<i>Trailway ID.....</i>	<i>17</i>
<b>Reporting Updates or Problems .....</b>	<b>19</b>
<i>Updates .....</i>	<i>19</i>
<i>Staff Contact.....</i>	<i>19</i>

# SUN Trail Web Application/Esri ArcGIS Online Viewing User Guide

---

The Shared-Use Nonmotorized (SUN) Trail network is the statewide system of high-priority (strategic) paved trail corridors for bicyclists and pedestrians. Today, the SUN Trail network includes a combination of existing, planned, and conceptual multiple-use trails; it is a refined version of the Florida Greenways and Trails System (FGTS) Plans Land Trails Priority Network. The Florida Department of Environmental Protection's (FDEP) Office of Greenways and Trails (OGT) oversees development of the FGTS. Not all trails are within the SUN Trail network. To visit existing trails, contact your local government.

The SUN Trail mapping data and products are for general planning purposes. Data Layers/Attributes include: Trailway ID, Beginning and Ending Mile Posts, Segment Name, Corridor Name, County, Florida Department of Transportation District (FDOT), Status, and if the segments are part of a Regional Trail System prioritized by the Florida Greenways and Trails Council (FGTC). As projects progress from preconstruction to construction, corridors may be refined to reflect the final alignment. Likewise, statuses will change as funding becomes available to develop the "gaps" into "existing" trails. These administrative changes are ongoing. Non-administrative changes to the network, such as the addition of corridors, require approval of the FGTC.

A Geographic Information System (GIS) is a computer-based system for capturing, storing, integrating, manipulating, analyzing, and displaying data related to positions of items on the Earth's surface. GIS is a standard technology commonly used by the Florida Department of Transportation (FDOT) to support transportation decision making. A shapefile is an Environmental Systems Research Institute (Esri) vector data storage format for storing the location, shape, and attributes of geographic features.

From the [SUN Trail Web Application/Esri ArcGIS Online Viewing](#) you can see the SUN Trail network without more software, and you can search for locations (e.g. by address, cross streets, cities, etc.). This web application has a customizable printing tool, which is helpful as you create maps of project areas. This document is a step-by-step guide to help you use the SUN Trail Web Application/Esri ArcGIS Online Viewing features and functions.

## *GIS Data Disclaimer:*

***NO WARRANTIES:*** This site and its content is made available by the Florida Department of Transportation on an "as is", "as available" basis without warranties of any kind, express or implied.

***DISCLAIMER OF LIABILITY:*** The user of these applications and data assumes all responsibility and risk for the use of both. Under no circumstances, including negligence, shall the Florida Department of Transportation, or its employees be liable for any DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY or CONSEQUENTIAL DAMAGES, or LOST PROFITS that result from the use, misuse or inability to use the application and data. Nor shall the Florida Department of Transportation, or its employees be liable for any damages resulting from or related to reliance; mistakes, omissions, interruptions, deletion of files, computer viruses, errors, defects, or any failure of performance, communications failure, theft, destruction or unauthorized access to the application and data.

## Starting Information

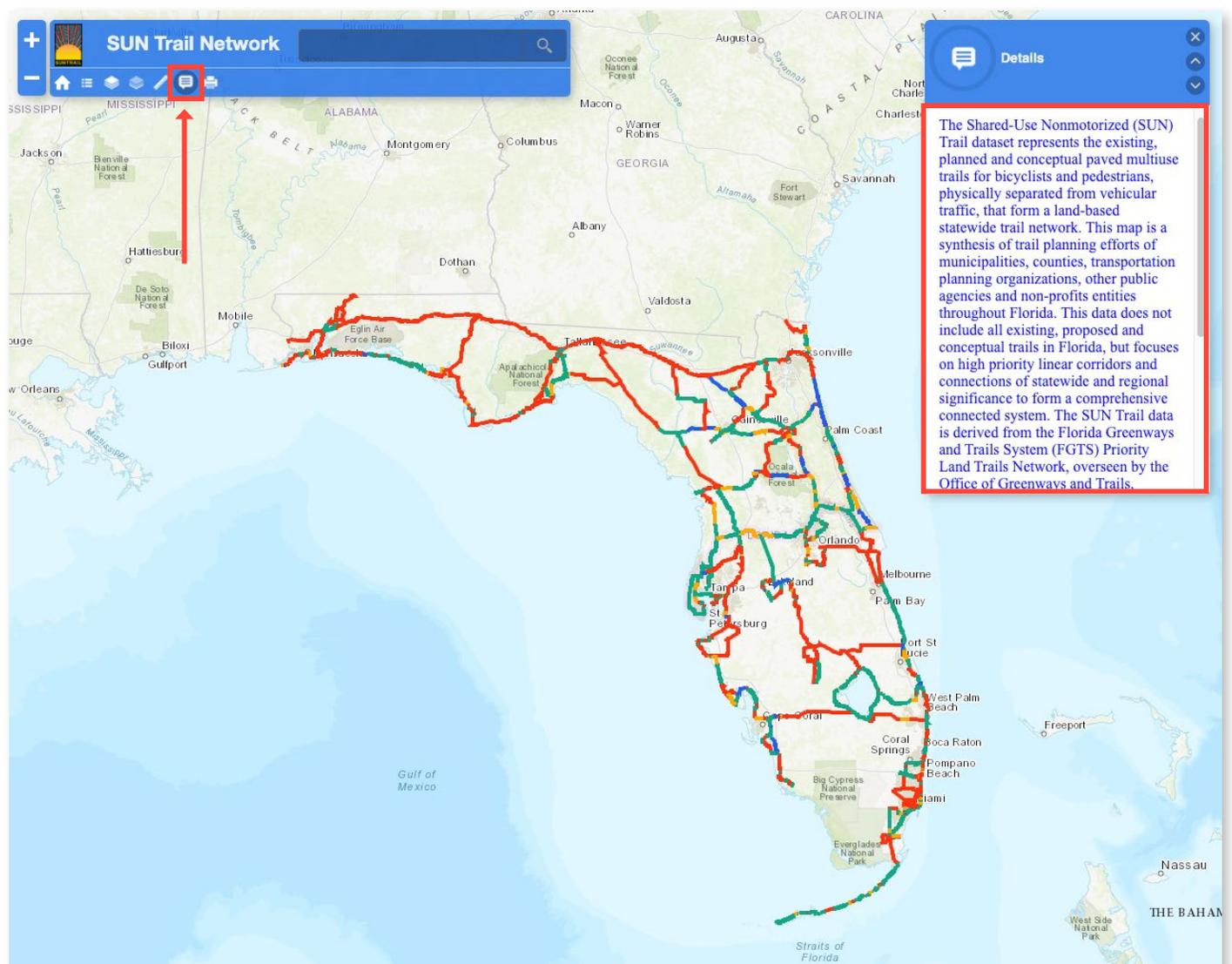
The SUN Trail Web Application/Esri ArcGIS Online Viewing program is designed to help you view the SUN Trail network and segment data geographically without needing additional software. This User Guide will help you understand how to use all the application functions, such as, searching for locations (e.g. by address, cross streets, cities, counties, zip codes, state parks, etc.) and customizing maps for printing and/or saving as PDFs to use in presentations.

### *Browser Neutral*

This Application is compatible with Google Chrome, Mozilla Firefox and Internet Explorer web browsers.

### *SUN Trail Program Details*

For more program details, visit: [www.FloridaSunTrail.com](http://www.FloridaSunTrail.com).



## Map Navigation

There are numerous ways to navigate on the SUN Trail Web Application/Esri ArcGIS Online Viewing.

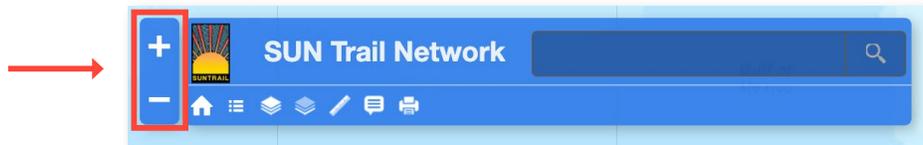
### Panning

- Click the map and hold your left or right mouse button to move the map to scroll direction.
- Click the map and use arrow keys on keyboard to move the map.



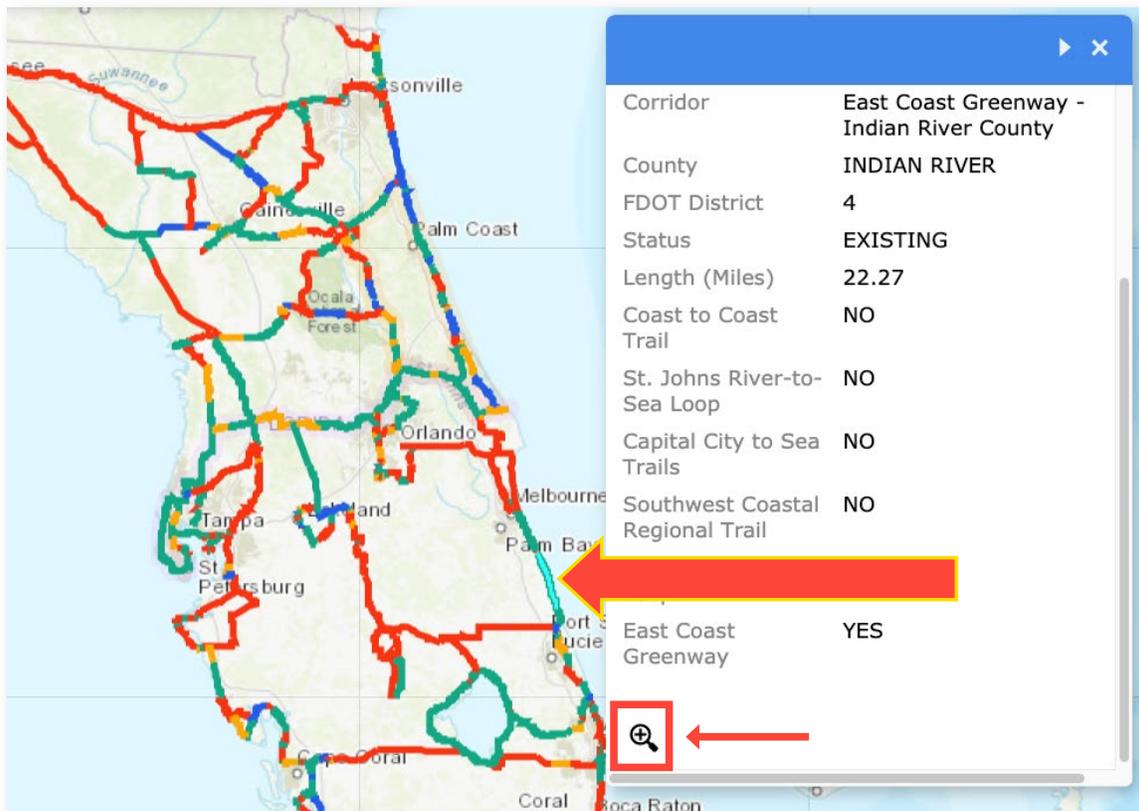
### Zoom

- Use the mouse scroll ball, if available.
- Use the keyboard +/- keys.
- Use the zoom feature, shown below, on the blue toolbar at the top left corner of the map.



- **Zoom to a specific trail segment:**

- ➔ Click the segment on the map.
- ➔ An information box will appear to the right.
- ➔ Scroll to the bottom of the box.
- ➔ Click the “Zoom to” tool.



- To zoom to the default Florida statewide view, click the first icon on the blue toolbar at the top left corner of the map.



### Location Search

- In the blue toolbar at the top left corner of the map, type the destination.
  - **View a location:**
    - Type a destination to see more closely (e.g. street address, cross streets, city, county, zip code, state park, etc.).

**NOTE:** When searching, the map is not exclusive to Florida boundaries (you may need to include “Florida” or “FL” in the search).

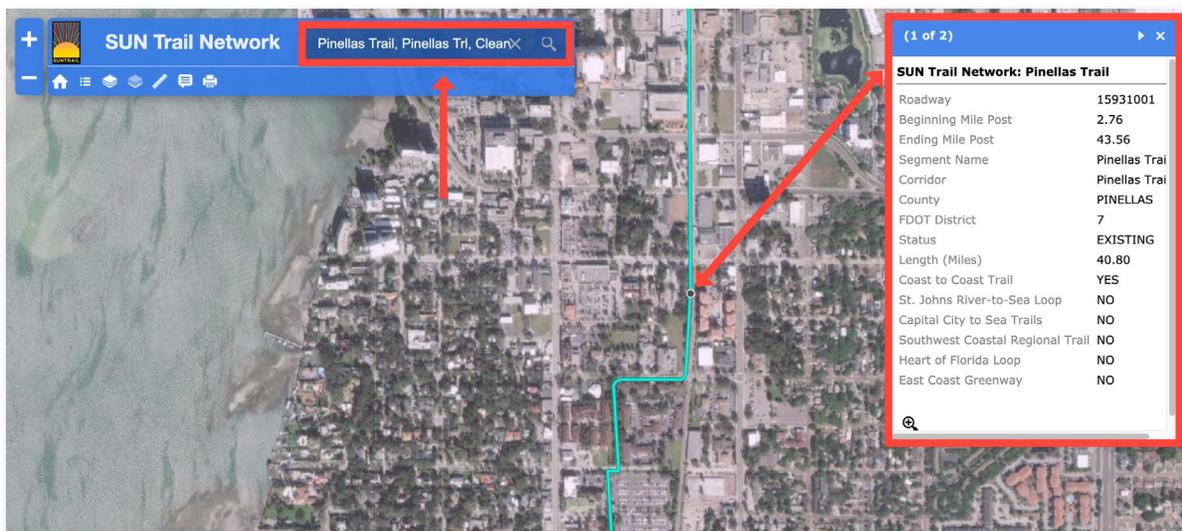
- Click the magnification glass to search.



- The map will zoom in to the location and display a pin-point dot.
- To navigate, use the panning and zoom functions.

- View additional details on a SUN Trail segment:**

- Click on the SUN Trail network line segment.
- The selected segment will turn teal.
- An information box will appear on the right side of the map.

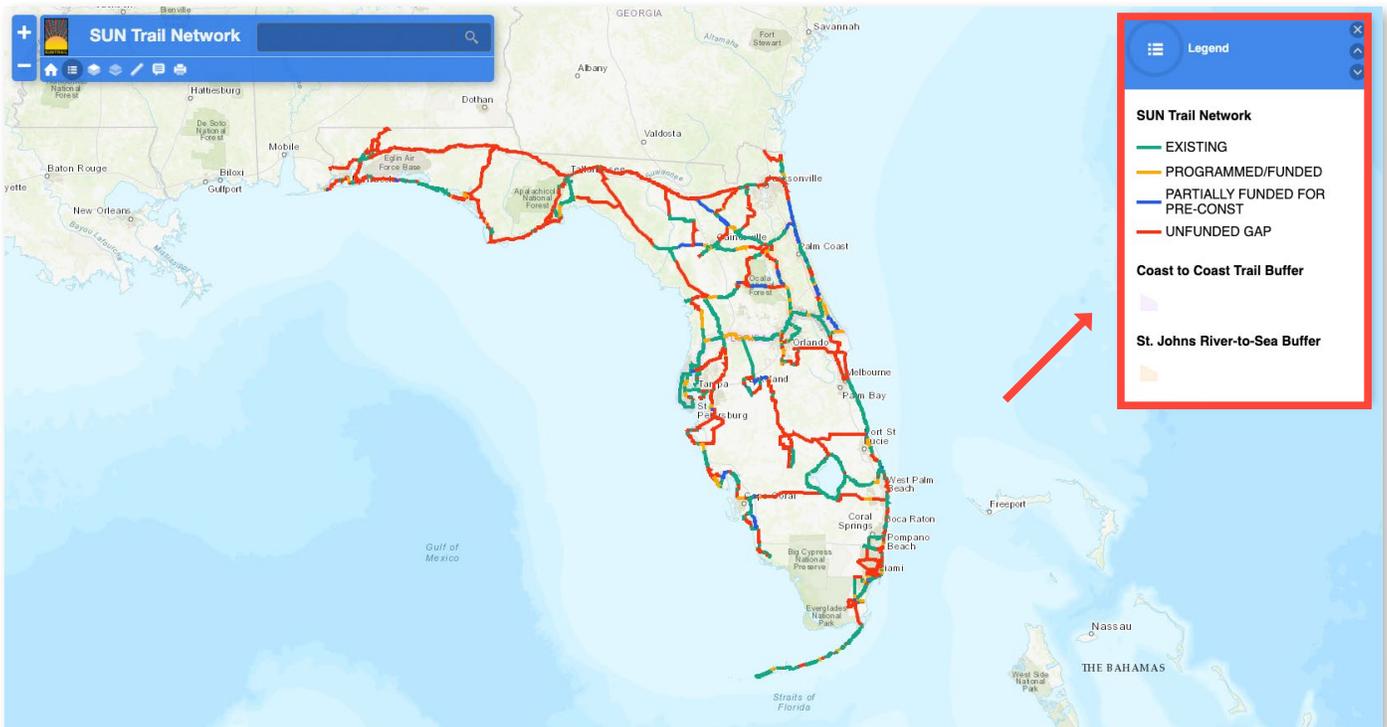


## Tools

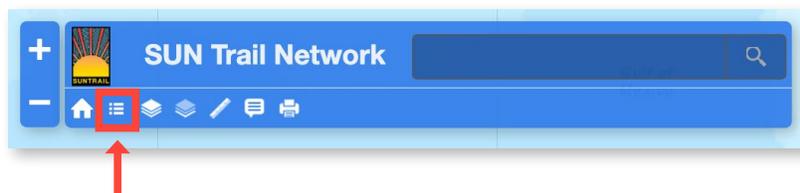
There are tools available to you on the SUN Trail Web Application/ArcGIS Online Viewing platform. Below will describe how to use each feature.

### Legend

- The Legend defines what each color on the map means. When you first open the map, the Legend information box will be shown in the upper right corner.



- If the Legend is not visible on the map, click the second icon on the blue toolbar and the Legend will pop up in the upper right corner.

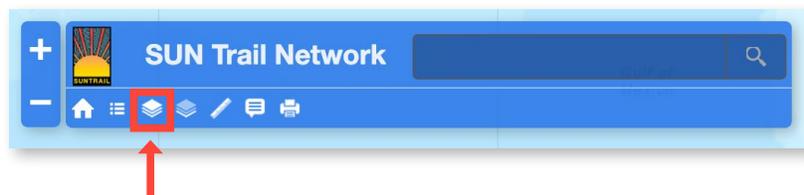


## Layers

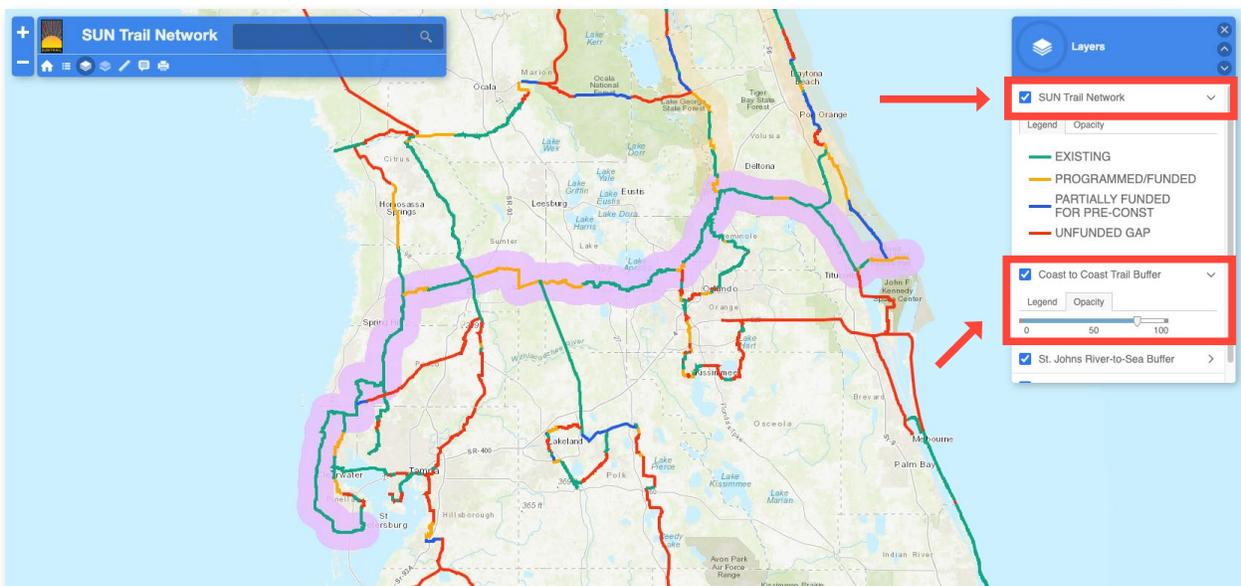
- The layer options with this program are the SUN Trail Network, Coast to Coast Buffer, St. Johns River-to-Sea Buffer, and World Topographic Map.

**NOTE:** The Buffer extends wider than the actual trail boundary so that it is visible at a statewide scale. Only the SUN Trail linework within the Buffer area is a part of the regional trail system. In some areas, the Buffer will overlap trail segments that are not a part of the regional trail system. Read the segment information box to check the specific trail status.

- When the map first opens, all layers will show.
- **Display the Layers information box:**
  - ➔ Click the third icon from the left on the blue toolbar.
  - ➔ The Layers box will pop up in the upper right corner of the map.

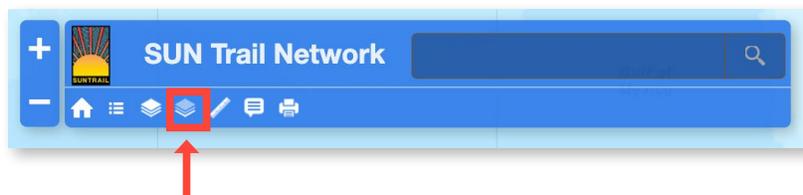


- **Adjust layers:**
  - ➔ Check or uncheck the box to the left of the text in the Layers information box.
    - If checked, the layer will display.
    - If unchecked, the layer will not display.
  - ➔ You can change the Opacity with a sliding scale from 0-100.
  - ➔ An example is shown in the image below.



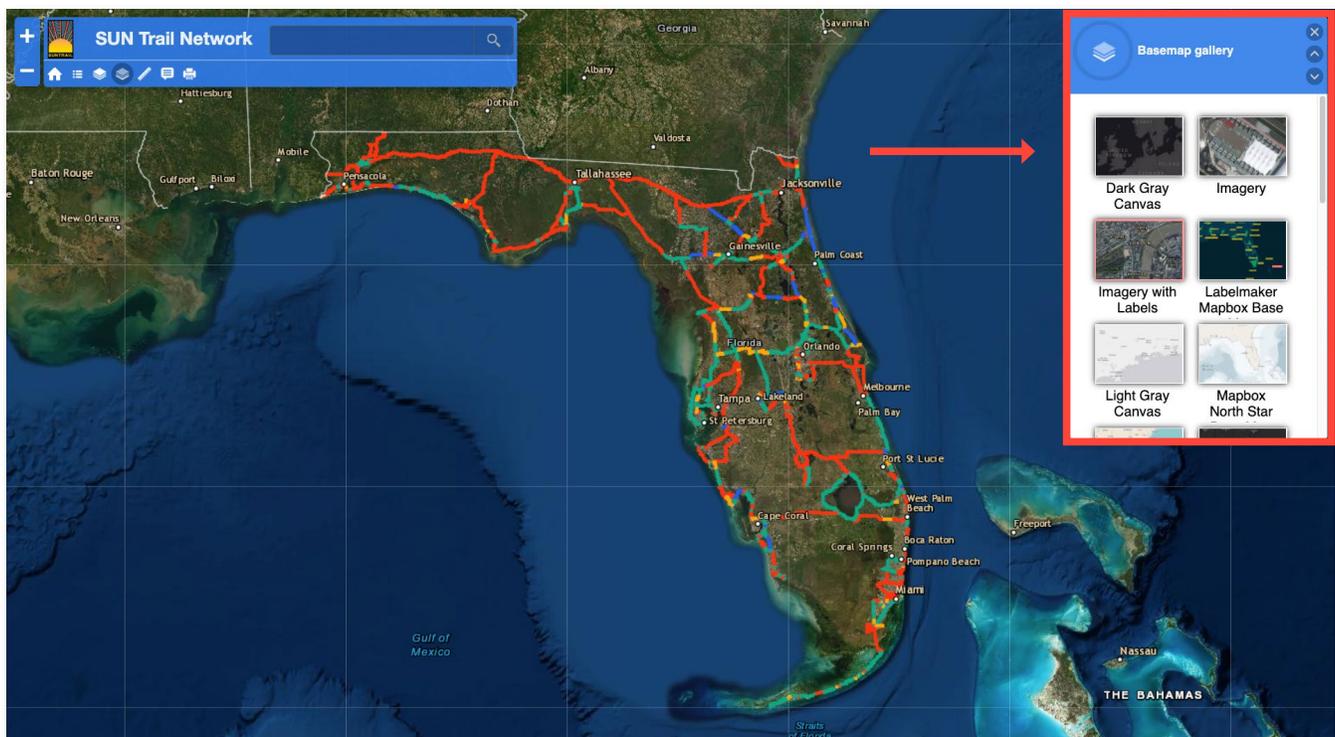
## Basemap

- There are 20 different options of basemaps in the gallery. Each basemap will present the SUN Trail network in a different geographic view on your map. The major map types are the World Topographic Map (like a flat atlas), Imagery (aerial satellite), Streets and Terrain.
- As you zoom from the statewide view to a search location, the default basemap layer will automatically change from the World Topographic Map to an Aerial Map.
- **Change the basemap:**
  - ➔ Click on the Layers icon in the blue toolbar at the top left corner.
  - ➔ The Layers information box will pop up.
  - ➔ Uncheck the World Topographic Map Layer.
  - ➔ Click the fourth icon on the blue search bar at the top left corner.



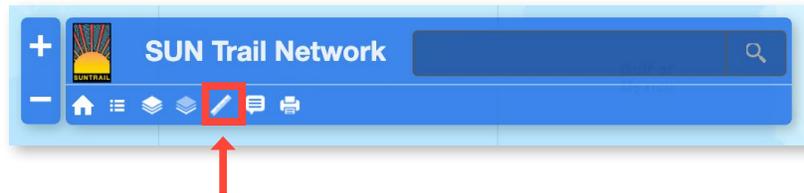
- ➔ The Basemap gallery information box will pop up.
- ➔ Click on any basemap and the layer view will update.

**NOTE:** The difference in the imagery for each basemap is more noticeable when you zoom in to an area on the map.

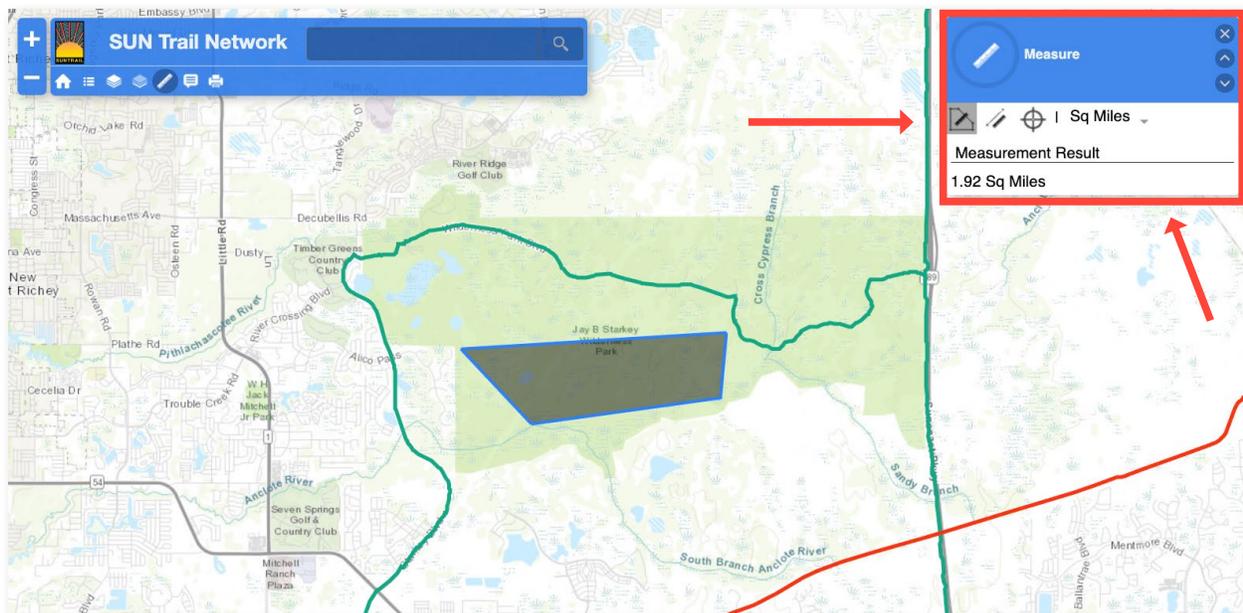


## Measurements (Area, Distance, and Location)

- To open the Measure information box, click on the fifth icon in the blue toolbar.

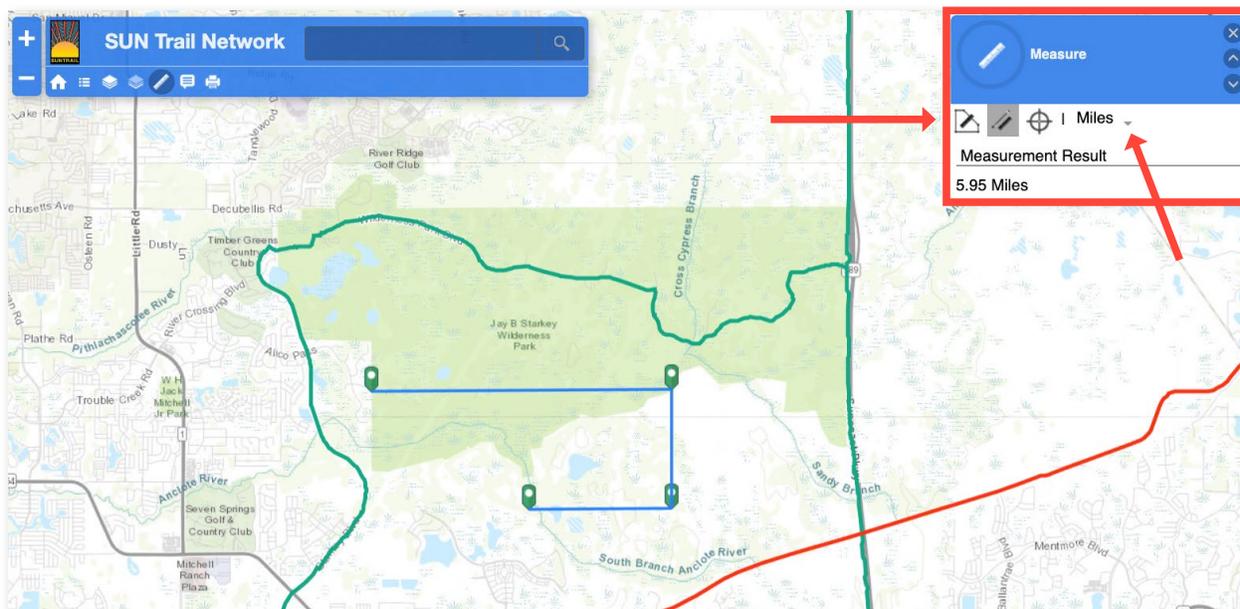


- The Measure information box will pop up.
- Adjust the unit of measurement:**
  - Click one of the three measure icons in the information box, images shown below.
  - Click a default measurement unit.
    - The default units: Area = Acres; Distance = Square Miles; Location = Degrees.
  - A pull-down bar will appear with different unit options.
  - Click the new unit and it will update.
- Measure area on the map:**
  - Position the map on a location.
  - Click the first measure icon.
  - Click your mouse on the map to start using the Area tool.
  - Click different locations to form the outline of the area to measure.
  - To end and calculate, double click the last location.



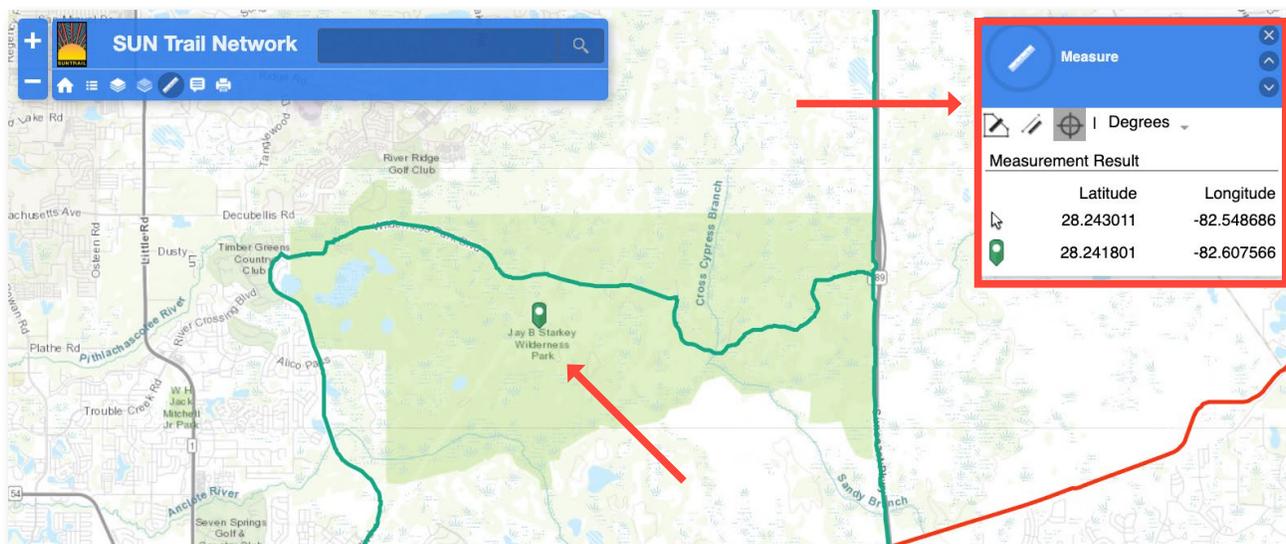
- **Measure distance on the map:**

- ➔ Position the map to a location.
- ➔ Click the second measure icon.
- ➔ Click your mouse on the map to start using the Distance tool.
- ➔ Click on the map to mark a location (it will drop a green pin).
- ➔ To end the measurement and calculate, double click the last location.



- **Measure location on the map:**

- ➔ Position the map to a location.
- ➔ Click the third measure icon.
- ➔ The free-floating mouse pointer will calculate the latitude and longitude in real-time.
- ➔ To determine an exact location and pin a spot, click the mouse to drop a green pin.
- ➔ In the blue measure information box, the calculation latitude and longitude of the green pins will display.

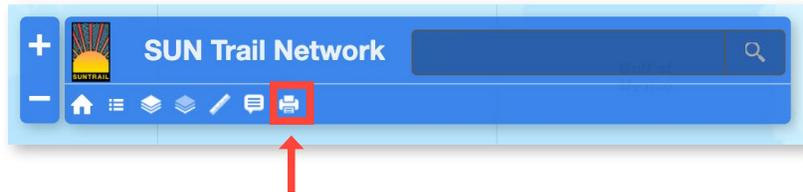


## Printing

You can print and download the map. The printing feature allows you to change the map, customized a title and add an optional legend. Two different example maps are at the end of this section.

- **To start the print process:**

- Click the seventh icon in the blue toolbar.



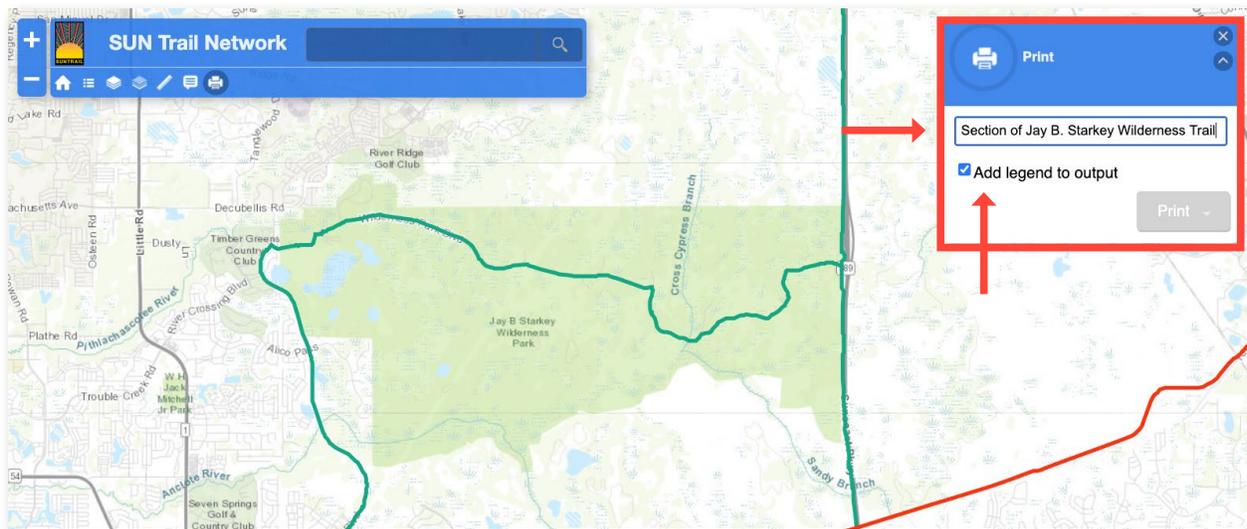
- The Print information box will pop up in the upper right corner of the map.

- **Add a title:**

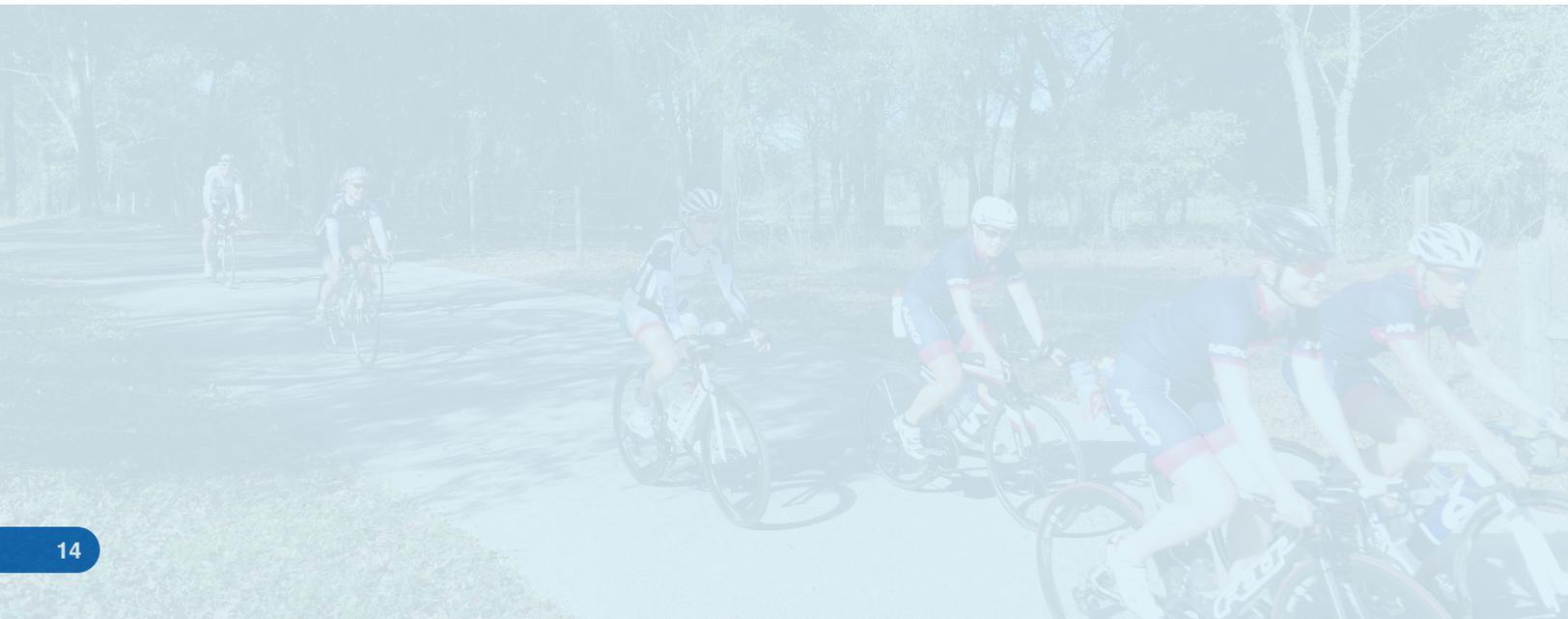
- Type your wording in the text box, "Add custom title".

- **Add a legend:**

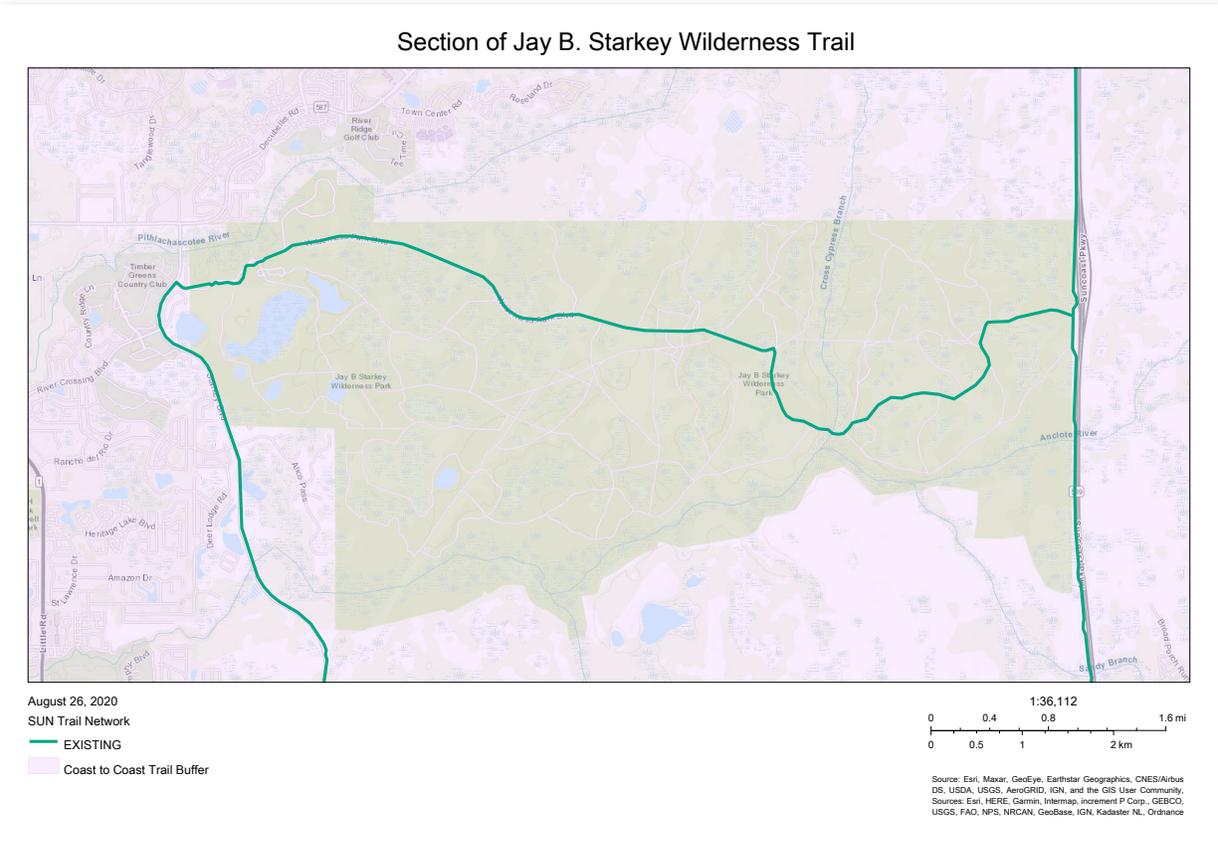
- Click the "Add legend to output" box.



- **Change print format:**
  - ➔ Click the right side of the “Print” button.
  - ➔ By default, the map page to print will format in Landscape (8.5 x 11 inches). A pull-down option tab will appear to change the print format/orientation. Once you change your layout’s page size, you may need to resize and reposition the map elements to fit the new page dimensions.
- **To print:**
  - ➔ The location displayed on screen in the SUN Trail Web Application/Esri ArcGIS Online Viewing is the image that will print.
  - ➔ Click the gray “Print” box.
  - ➔ The map will automatically print to your computer’s default printer device.
  - ➔ To print a new location map, refresh the SUN Trail Web Application and restart the printing process.
- **Download printable PDF:**
  - ➔ Click the “Print” button.
  - ➔ The “Printout” blue wording will appear.
  - ➔ Click “Printout”.
  - ➔ The customize map will download and open.
  - ➔ Save the document on your device for further use (e.g. to insert into a PowerPoint or to include with a SUN Trail funding proposal).



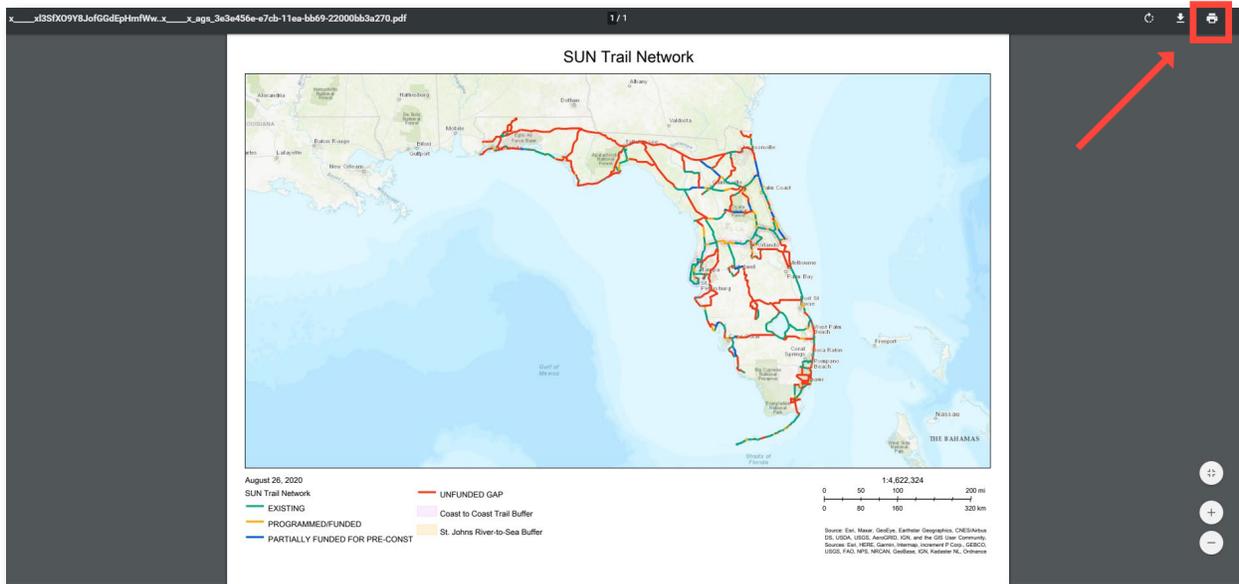
Below are two examples of a final PDF printout for two different sections on the Jay B. Starkey Wilderness Trail.



- **Additional printing guidance:**

The printing steps may vary depending on your device. For specific information on the printing set-up and settings, view your computer’s User Manual.

➔ If the map does not print after the gray “Print” box is clicked, download the printable PDF and open.

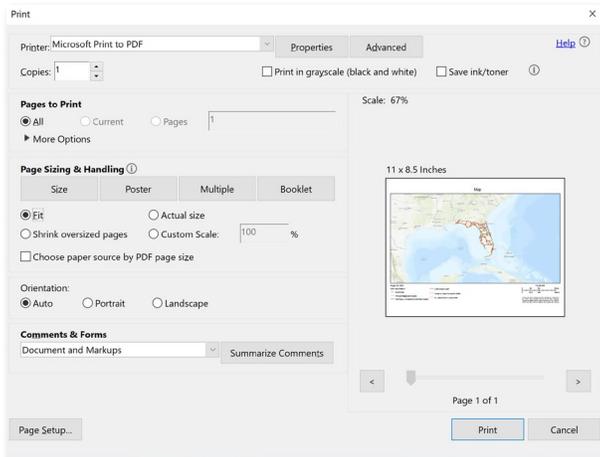


- ➔ **Microsoft Windows-Based PC:**

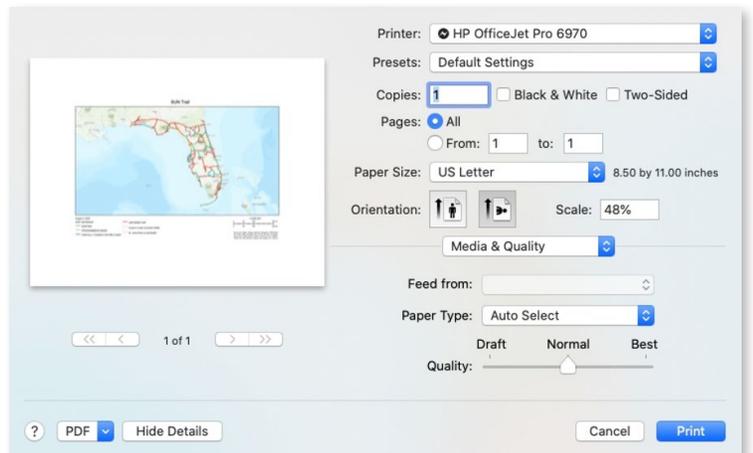
- Click the printer icon in the top right corner on the printable PDF page.
- The “Print” box will open on your screen. An example of the “Print” box on a Microsoft Window-Based PC is shown below.
- Adjust the settings as desired.
- Click “Print” once all changes have been made.

- ➔ **Macintosh computer:**

- Click the “File” tab on your computer.
- Scroll down and click on “Print”.
- The “Print” box will open on your screen. An example of the “Print” box on a Macintosh computer is shown below.
- Adjust the settings as desired.
- Click “Print” once all changes have been made.



Microsoft

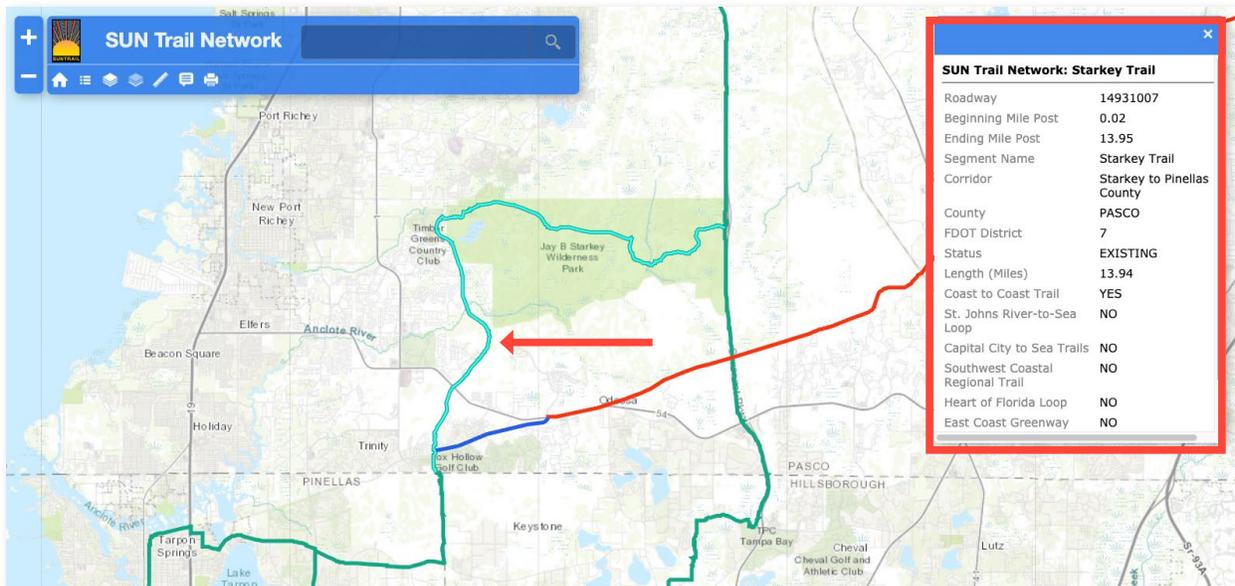


Macintosh

## Segment Information

Each segment in the SUN Trail network has viewable characteristics and classifications (from the data layers/attributes in the shapefiles). When you click the line, an information box will pop up in the right corner of the map.

The information includes: Trailway ID, Beginning and Ending Mile Posts, Segment Name, Corridor Name, County, Florida Department of Transportation District (FDOT), Status, and if the segments are part of a Regional Trail Systems identified by the Florida Greenways and Trails Council (FGTC).



### Trailway ID

The Trailway ID is very similar to a Roadway ID. The FDOT Systems Implementation Office (SIO) maintains the official FDOT linear referencing system of all roads in the Roadway Characteristics Inventory (RCI) database. It is also responsible for the production and maintenance of the Federal Aid Highway maps; numerous GIS data layers; and custom GIS tools and applications. The shapefiles contain measures which can be used for event mapping of tabular data that contains mile point information corresponding to the SIO RCI Features and Characteristics. The SUN Trail network is Feature 801.

Like Roadway ID numbers, the Trailway ID number is a fundamental concept in RCI. FDOT uses Trailway ID numbers when collecting and reporting trail corridor information. Features and characteristics may run for the entire length of the Trailway ID or for specific portions of the trail Trailway ID. The Trailway IDs are eight-digit numbers assigned to SUN Trail network corridors. A Trailway ID has three different groups of numbers: county, section, and sub-section.

The county numbers occupy digits 1-2. These are the standard county numbers used by the FDOT. The section numbers occupy digits 3-5 and the sub-section numbers occupy digits 6-8. An example Trailway ID is 14 931 007 where 14 is the county number, 931 is the section number, and 007 is the sub-section number (example shown below).

Below is a zoomed-in example of the Starkey Trail's information box and a description of the Trailway ID breakdown.

**The SUN Trail Trailway ID:**

SUN Trail Network: Starkey Trail	
Roadway	14931007
Beginning Mile Post	0.02
Ending Mile Post	13.95
Segment Name	Starkey Trail
Corridor	Starkey to Pinellas County
County	PASCO
FDOT District	7
Status	EXISTING
Length (Miles)	13.94
Coast to Coast Trail	YES
St. Johns River-to-Sea Loop	NO
Capital City to Sea Trails	NO
Southwest Coastal Regional Trail	NO
Heart of Florida Loop	NO
East Coast Greenway	NO

14    931    007

↓            ↓            ↓

County Code (*Pasco = 14*)    SUN Trail (*Section Number*)    Last Three Randomly Selected (*Subsection Number*)

Milepoints are associated with Trailway IDs and represent specific locations or physical points on the trail corridor. A milepoint represents distance from the starting point expressed in miles, to 1/1000 of a mile (3 decimal places). Thus, a milepoint of 0.075 would represent  $5,280 \times 0.075 = 396$  feet, while a milepoint of 1.075 would represent 5,676 feet ( $5,280 + 396$ ) from the starting point.

For RCI purposes, a feature is a general grouping of physical attributes of a trail corridor, identified by a unique three-digit number and name. A characteristic is a more specific element of the trail corridor and is identified by a unique name up to eight alpha characters. Features and characteristics are explained in greater detail in the [RCI Features & Characteristics Handbook](#). To help understand the relationship between features and characteristics, features can be thought of in the same way as overall type of motor vehicle (sedan, truck, etc.), while characteristics can be thought of as the components of the vehicle (color, number of doors, etc.).

## Reporting Updates or Problems

---

### *Updates*

The Florida Department of Environmental Protection's Office of Greenways and Trails works with stakeholders to update the FGTS, including the mapping component, and to seek adoption from the FGTC on a regular cycle. For more information visit their website: <https://floridadep.gov/parks/ogt/content/florida-greenways-and-trails-system-plan-and-maps>

As projects progress from preconstruction to construction, corridors may be refined to reflect the final alignment. Likewise, statuses will change as funding becomes available to develop the "gaps" into "active/existing trails" available for public use. These administrative changes are ongoing. Non-administrative changes, such as the addition or removal of corridors, require FGTC approval. FDOT accepts all administrative changes and completes the updates on an ongoing basis.

### *Staff Contact*

To report administrative changes or for assistance using the SUN Trail mapping information please contact the FDOT Systems Implementation Office, by calling 850-414-4928 or your [FDOT District SUN Trail Coordinator](#).



**Florida Department of Transportation**  
SUN Trail Program • Systems Implementation Office  
605 Suwannee Street, MS 19 • Tallahassee, Florida 32399-0450