

Section 1.0

Executive Summary

Introduction and Overview

Trails contribute to a community by providing people of all ages with an attractive, safe, and accessible place for recreation and transportation. The ultimate goal of a trail is to connect people to destinations.

The Lake County Trails Master Plan was developed with the intent of providing not only a long-term vision, but bringing that vision into short-term focus with a realistic and practical approach to connectivity between schools, parks, neighborhoods, town centers, libraries, and the surrounding counties.

The Master Plan identified 322 miles of shared-use trails, developed design standards, and created an implementation plan for the next 20 years. This plan will serve as a guide to the location, design, prioritization, implementation, and maintenance of a comprehensive trail network within Lake County. It will also provide the information needed by Federal, State, County, municipality, and private stakeholders to preserve right-of-way and focus the funding necessary to implement the trail network.

Lake County is one of the fastest growing counties in the country with an estimated 2006 population of approximately 291,000 and a projected increase to nearly 345,600 by the year 2025. The growth in population is accompanied by a surge in the popularity of trails, which is a nationwide trend. With soaring gas prices and carbon-footprint consciousness becoming more prevalent, more and more Americans are turning to alternative modes of transportation and trail use. Some additional factors that can be attributed to this trend include:

- a renewed interest in spending quality time with family and friends pursuing high quality recreational experiences;
- staying healthy through active fitness and recreational pursuits;
- strong interest in tourism and recreational activities that respect the natural and cultural environments and offer educational opportunities;
- the economic benefits of a trail within a community;

- an interest in regional travel between counties and opportunities to experience the various amenities offered in unique locations; and
- an increased interest and better understanding of the environmental benefits of alternative modes of transportation.



A well designed and well managed trail network in Lake County has the potential to serve all of the interests of a linked open space system while supporting the County's Comprehensive Plan.

The Lake County Trails Master Plan Goal:

Develop a cohesive countywide trail system that will connect people and places through a regional network.

This Trails Master Plan is intended to serve as a supplement to the Lake County Parks & Recreation Master Plan updated in 2005.

1.1 Study Process

The study process included the following:

- Data collection
- Evaluation of existing conditions and project needs
- Conducting proactive stakeholder involvement

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Study Process Continued

- Developing design standards
- Developing and prioritizing a trail network
- Developing an implementation plan
- Developing a maintenance plan

1.2 Data Collection

Existing Trails Summary

An important outcome of this plan is a detailed assessment of the County's existing trails, including identification and evaluation of existing facilities. Data was collected and organized from a wide range of sources. The following is a summary of the total identified existing trail facilities in Lake County:

- 29.7 Miles of Regional Shared-Use Trails
- 11.5 Miles of Local Trails
- 145.9 Miles of Blueways
- 185 Miles of Nature or Park Trails (OGT-Data)

The information collected as part of this effort was input and organized in a GIS database for analysis and future use. Figure 1-1 shows the existing trails in Lake County.

Trail Evaluation

As part of the Lake County Trails Master Plan, an evaluation of the following existing shared-use trails was performed:

- Tav-Lee Trail
- South Lake Trail
- Hancock Trail
- Hancock Extension Trail
- Van-Fleet Trail
- Montverde Trail

These 29.7 miles of trails were evaluated for safety, adherence to the Lake County Trails Master Plan design standards, and suitability for equestrian use. The findings from these evaluations can be found in the Technical Memorandum, *Lake County Existing Trail Evaluations*, located in Appendix D.

Trail Network Needs

The ultimate goal of a trail network is to connect people to destinations. Our initial data analysis identified major transportation and recreation destinations throughout the County. Some of the

major destinations that should be linked by the trail system include:

- recreational and cultural resources;
- major commercial and employment areas;
- downtown retail areas; and
- residential areas, educational centers, and libraries.

Needs were developed based on the State Comprehensive Outdoor Resources Plan (SCORP) guidelines for level of service (LOS). The SCORP recommends a guideline of one linear mile of bicycle trail per 5,000 population as a generally accepted standard for LOS. The SCORP also provides guidelines of one linear mile of hiking trail and one linear mile of nature study trail per 6,750 population. According to the US Census Bureau, the 2006 estimated population for Lake County is approximately 291,000. Based on the SCORP guidelines, the County currently needs almost 59 miles of shared-use trails and 43 miles of nature/hiking trails.

According to the Lake County Department of Growth Management, the County's population is projected to reach 345,600 by the year 2025. Based on the SCORP guidelines, the County will need approximately 69 miles of shared-use trails and 51 miles of nature/hiking trails in the year 2025.

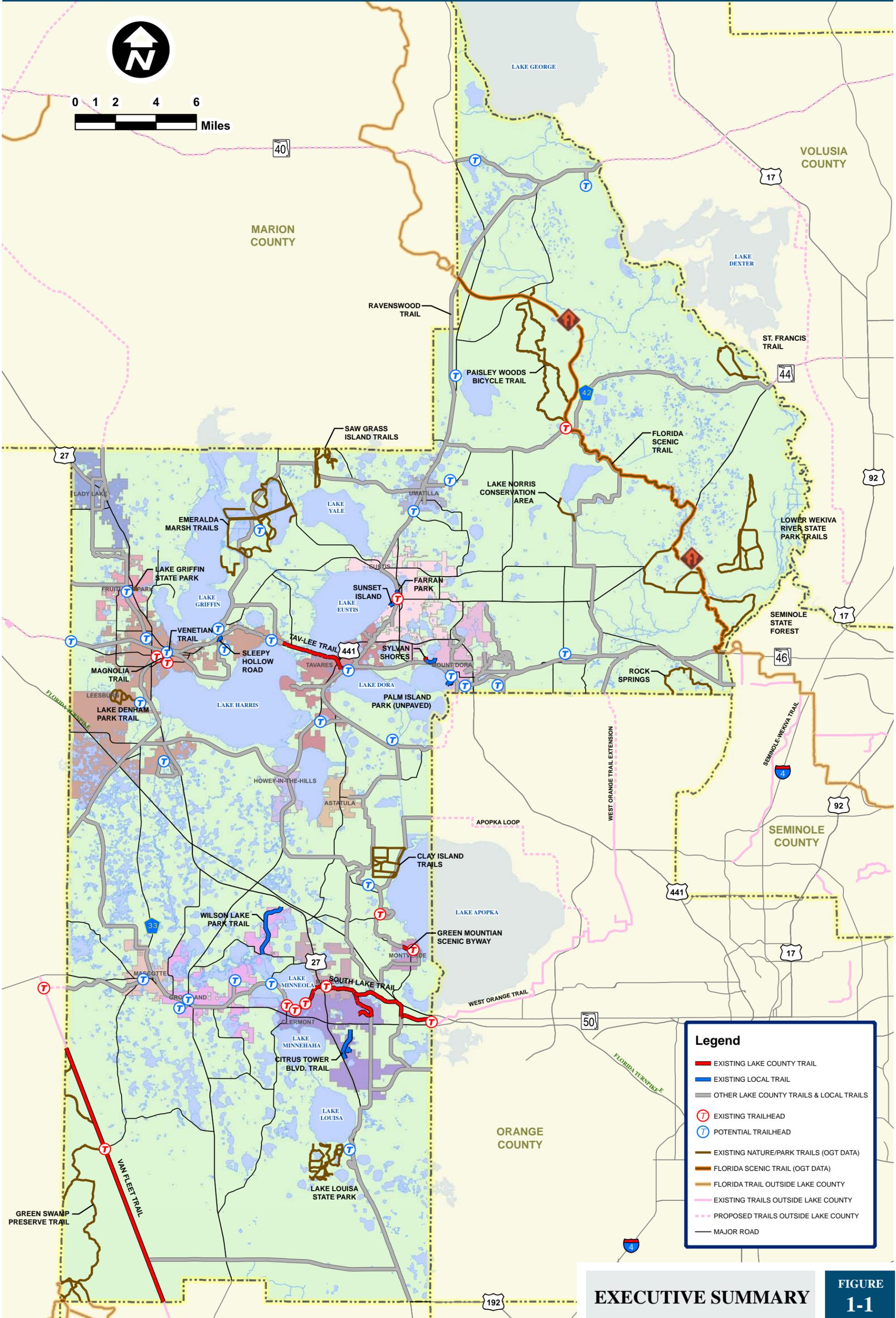
Section 6.0 of this report addresses implementation of the Lake County Trails Master Plan. As part of the implementation plan, 101 miles of shared-use trails were targeted for construction by the year 2028. This would exceed the recommended LOS standards for shared-use trails within Lake County.

1.3 Public Involvement

A complete summary of the public involvement activities may be found in the *Comments and Coordination Report*, prepared for this project, dated August 2008.

The study process included a thorough consultation process with the following:

- The Lake/Sumter MPO Bicycle and Pedestrian Advisory (BPAC) Subcommittee consisting of representatives from various agencies



Legend

- EXISTING LAKE COUNTY TRAIL
- EXISTING LOCAL TRAIL
- OTHER LAKE COUNTY TRAILS & LOCAL TRAILS
- T EXISTING TRAILHEAD
- T POTENTIAL TRAILHEAD
- EXISTING NATURE/PARK TRAILS (OGT DATA)
- FLORIDA SCENIC TRAIL (OGT DATA)
- FLORIDA TRAIL OUTSIDE LAKE COUNTY
- EXISTING TRAILS OUTSIDE LAKE COUNTY
- - - PROPOSED TRAILS OUTSIDE LAKE COUNTY
- MAJOR ROAD

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Public Involvement Continued

- Representatives from a wide range of interests and municipalities that were interviewed in individual meetings and also participated in the Agency/Stakeholder Kickoff Meeting
- A Design Charette with a team consisting of members from various agencies
- The interested public, through three public meetings held during the project
- Data collection meetings held with municipality and County staff, as well as those from the surrounding counties



1.4 Design Standards

A core element of the Lake County Trails Master Plan is to provide design criteria for shared-use trails in Lake County. “Shared-use Paths” are defined by AASHTO as “facilities on exclusive right-of-way and with minimal cross flow by motor vehicles.” Within this document the use of the term shared-use trail, multi-use trail and shared-use path are interchangeable and intended to reflect the type of facility addressed by AASHTO as a shared-use path. Lake County shared-use trails are restricted to non-motorized modes of transportation and intended for a variety of user types to share. Typical uses include recreational and commuter purposes such as bicycling, in-line skating, roller skating, pet walking, pedestrians, exercising, nature walks, etc. The most common trail would be an asphalt or concrete surface of 12-14 feet in width with travel in both directions. The trail would be expected to connect regionally significant destinations or trail systems and would provide trailheads, rest stops, wayfinding and an overall user experience of the surrounding environment.

There are two primary types of trails utilized in the Lake County Trail Network. They are Regional Shared-Use Trails and Minor Shared-Use Trails.

Regional Shared-Use Trail

Regional shared-use trails are characterized by their interconnection to regional destinations and other statewide trails. In addition to their ability to provide

long distances of travel for recreational users by connecting major trail systems, these trails connect destinations, such as schools, parks and downtown areas, to communities. They are considered the backbone of the larger state-wide trail system.

Minor Shared-Use Trail

Minor shared-use trails are considered the arterial backbone of the Lake County Trail Network. They are characterized by their interconnection to regional shared-use paths within Lake County but do not necessarily link statewide trails directly to each other.

The Regional and Minor Shared-Use Trails in the Lake County Trails Network are shown in Figure 1-2.

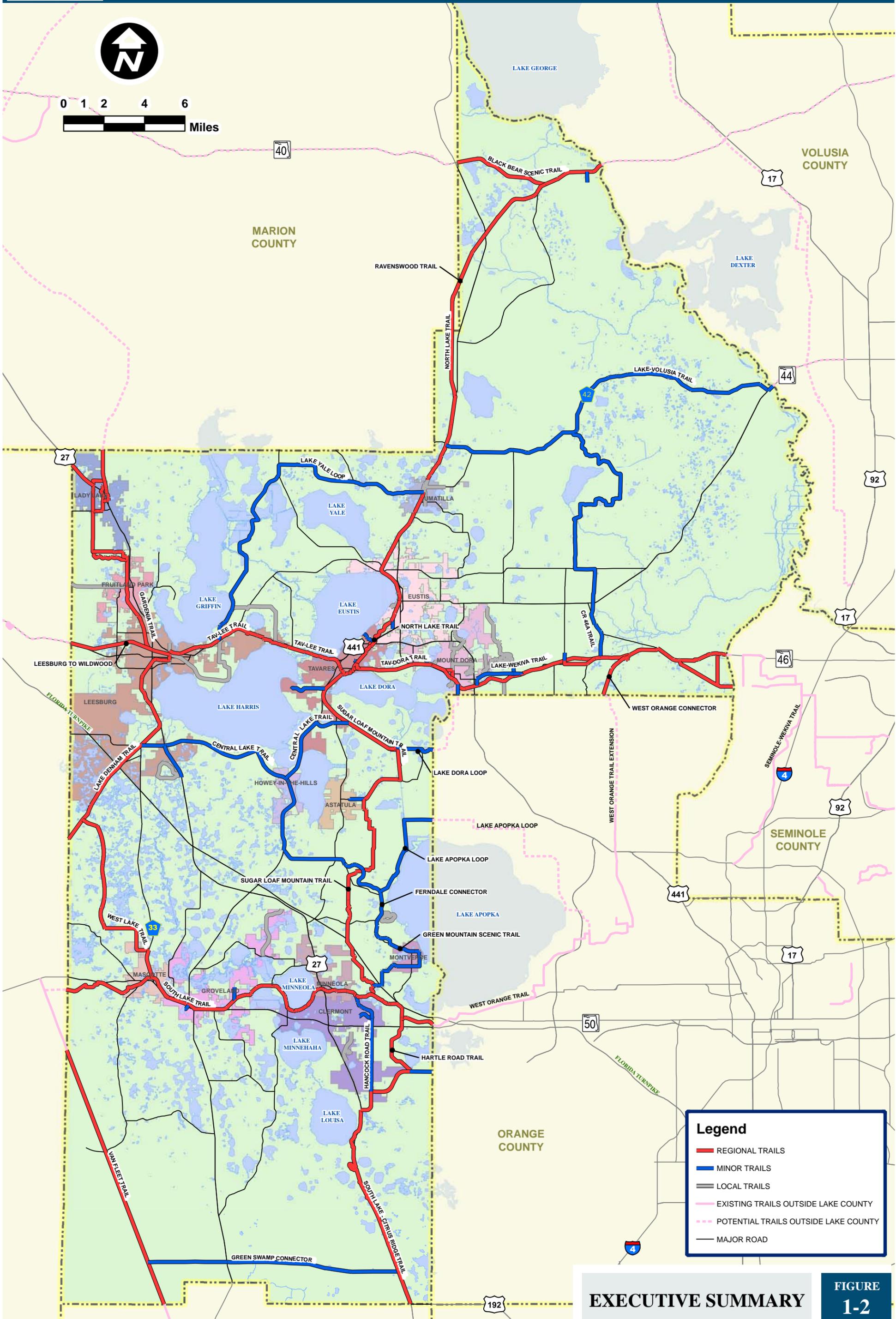
1.5 Trail Prioritization & Ranking

Future trails were identified through a review of the Lake County Parks and Recreation Master Plan, the Florida Department of Environmental Protection – Office of Greenways & Trails (FDEP-OGT) Trail Opportunity Corridors Map. Their was coordination with County staff; Town/City staff; neighboring counties; MPO/TPO staff; the Lake-Sumter MPO Bicycle & Pedestrian Advisory Committee (BPAC); the Lake County Parks, Recreation, and Trails Citizens Advisory Board; FDEP-OGT; FDOT; and local citizens. The status of each of the trails included in the Lake County Trails Master Plan is shown in Figure 1-3.

Using the identified future trails, a trail evaluation and prioritization process was conducted. The prioritization methodology was developed and reviewed with County staff and then presented for review by the Lake-Sumter MPO BPAC Trail Subcommittee and the Lake County Parks, Recreation, and Trails Citizens Advisory Board.

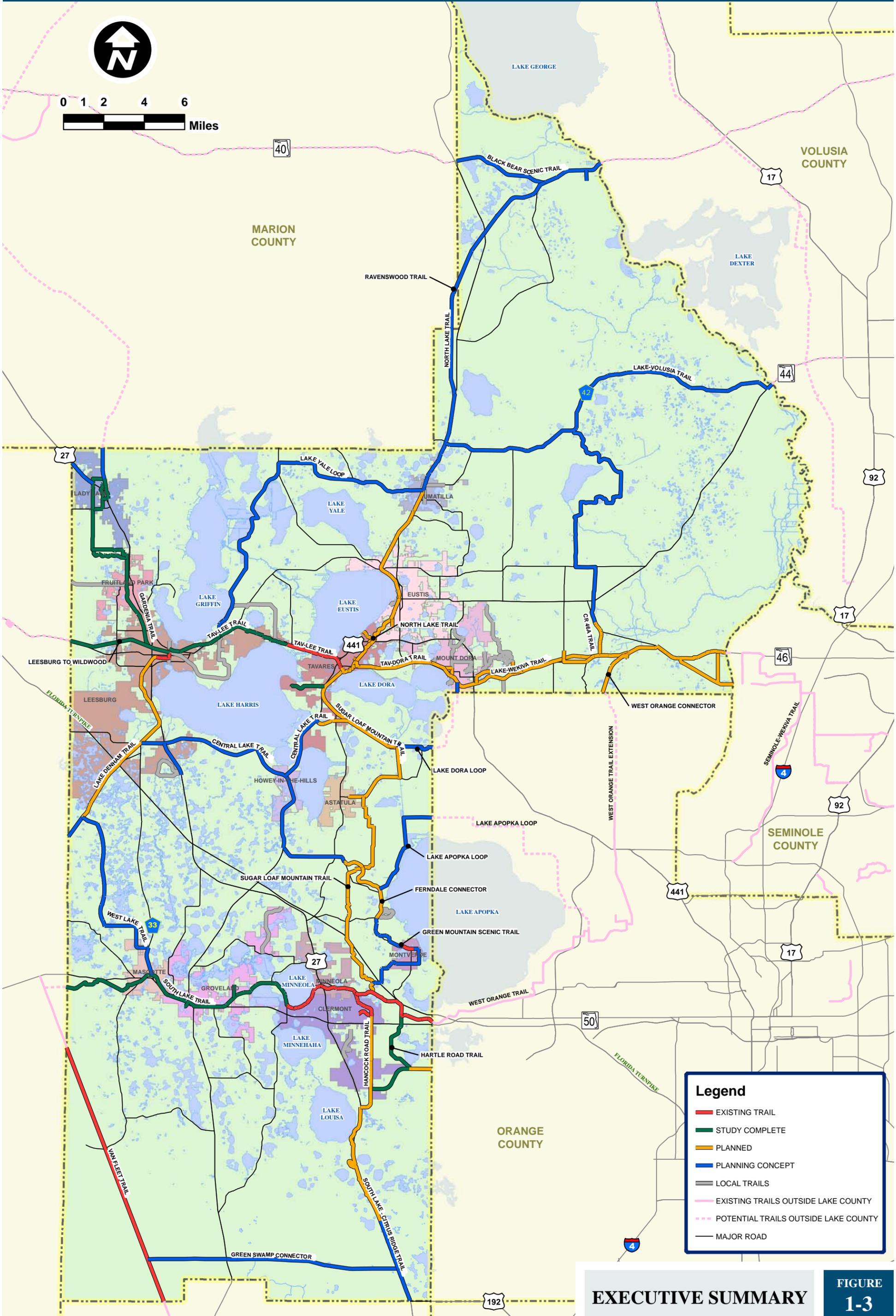
Trail priorities are based on a range of factors including transportation connectivity, recreation connectivity, scenic value, environmental impacts, stakeholder input, and the availability of right-of-way for the trail.

- **Trail Value** – Trail system connectivity, recreational connectivity, transportation alternatives and connectivity, scenic or experience value, and the impact to the natural environment.



Legend

- REGIONAL TRAILS
- MINOR TRAILS
- LOCAL TRAILS
- EXISTING TRAILS OUTSIDE LAKE COUNTY
- POTENTIAL TRAILS OUTSIDE LAKE COUNTY
- MAJOR ROAD



Legend

- EXISTING TRAIL
- STUDY COMPLETE
- PLANNED
- PLANNING CONCEPT
- LOCAL TRAILS
- EXISTING TRAILS OUTSIDE LAKE COUNTY
- - - POTENTIAL TRAILS OUTSIDE LAKE COUNTY
- MAJOR ROAD

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Trail Prioritization & Ranking Continued

- **Right-of-Way Availability** – Seek opportunities through easements, dedications, public or private reservations, joint-use agreements, and other possible methods.
- **Stakeholder Surveys** – Stakeholder input obtained from respondents to an informational survey.
- **Local Municipality Support** – This factor was scored based on adoption of a trails element within the local comprehensive plan, the active

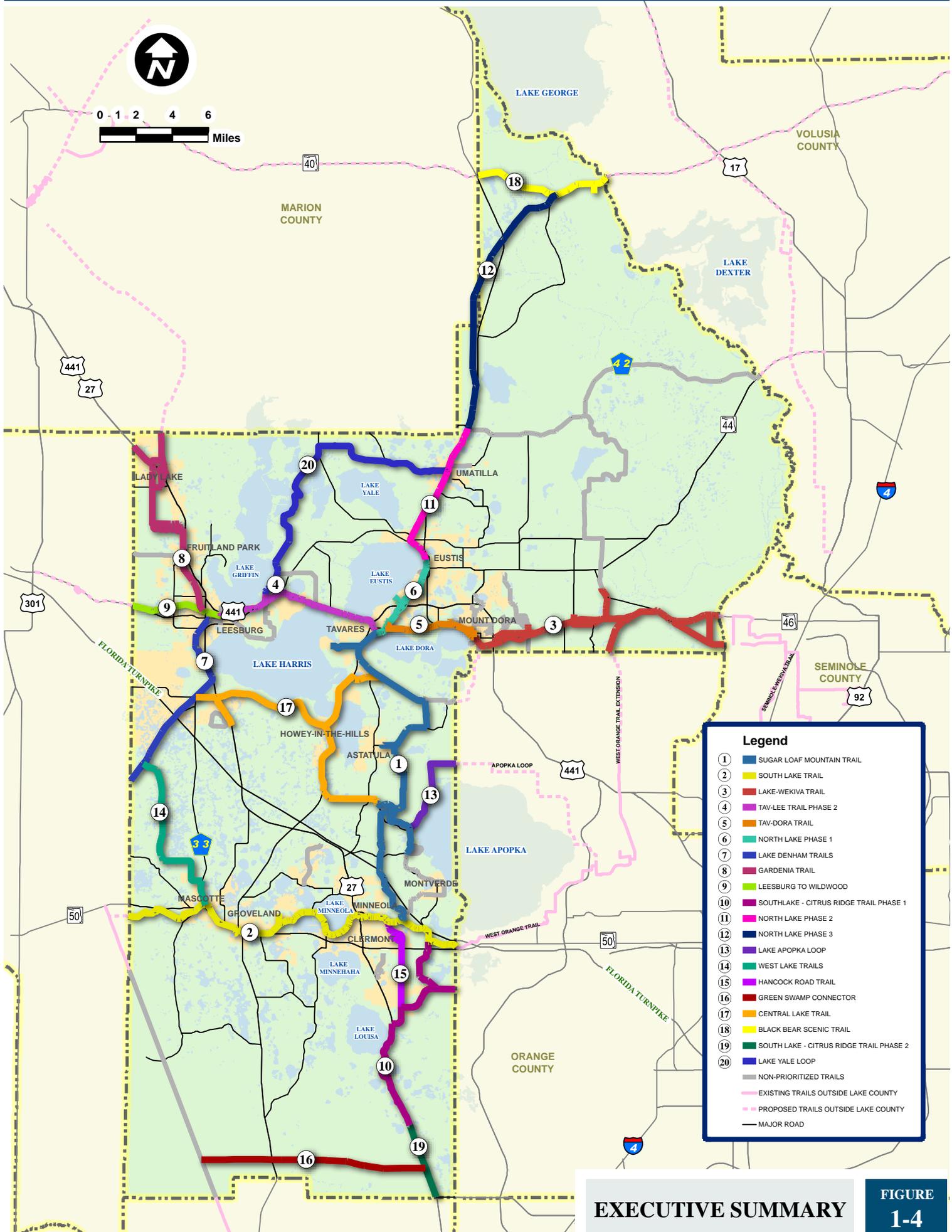
preservation of right-of-way in support of a trail, and the availability of local funding in support of trails. This information was gathered during interviews with the Cities and Towns in Lake County.

Table 1-1 shows the rank of each of the trails for the prioritization factors. Figure 1-4 shows the ranking for each of the trails on a location map.

Table 1-1

TRAIL RANKING SUMMARY

Final Rankings	Trail System Connectivity	Recreational Connectivity	Transportation Connectivity	Scenic / Experience Value	Environment	Total Trail Value	R/W Availability	Stakeholder Survey	Final Value and Implementation
Sugar Loaf Mountain Trail	1	5	4	5	10	1	4	3	1
South Lake Trail (PH III and IV)	2	17	3	16	6	4	2	2	2
Lake Wekiva Trail	4	1	12	10	6	2	3	8	3
Tav-Lee Trail Phase II	11	4	1	19	10	6	15	1	4
Tav-Dora Trail	8	1	8	16	10	7	13	5	5
North Lake Trail Phase I (Tavares to Eustis)	8	3	2	12	10	3	17	10	6
Lake Denham Trail	14	7	8	13	1	8	11	6	7
Gardenia Trail	17	6	5	14	10	12	11	11	8
Leesburg to Wildwood	14	10	10	20	19	16	1	12	9
South Lake Trail to Citrus Ridge Phase I	3	12	6	8	10	5	6	15	10
North Lake Trail Phase II	6	8	11	11	6	9	17	13	11
North Lake Trail Phase III	5	9	15	4	6	10	5	13	12
Apopka Loop (Lake County)	8	19	18	1	19	15	20	4	13
West Lake Trail	19	17	12	6	5	18	13	6	14
Hancock Road Trail	11	12	6	8	10	11	6	15	15
Green Swamp Connector	7	11	18	7	1	13	6	17	16
Central Lake Trail	13	15	17	3	1	14	6	20	17
Black Bear Scenic Trail	16	12	12	18	1	17	6	17	18
South Lake to Citrus Ridge Phase II	18	20	18	14	10	20	15	9	19
Lake Yale Loop	20	15	15	2	10	19	19	19	20



Legend

- ① Sugar Loaf Mountain Trail
- ② South Lake Trail
- ③ Lake Wekiva Trail
- ④ Tav-Lee Trail Phase 2
- ⑤ Tav-Dora Trail
- ⑥ North Lake Phase 1
- ⑦ Lake Denham Trails
- ⑧ Gardenia Trail
- ⑨ Leesburg to Wildwood
- ⑩ Southlake - Citrus Ridge Trail Phase 1
- ⑪ North Lake Phase 2
- ⑫ North Lake Phase 3
- ⑬ Lake Apopka Loop
- ⑭ West Lake Trails
- ⑮ Hancock Road Trail
- ⑯ Green Swamp Connector
- ⑰ Central Lake Trail
- ⑱ Black Bear Scenic Trail
- ⑲ South Lake - Citrus Ridge Trail Phase 2
- ⑳ Lake Yale Loop
- Non-prioritized Trails
- Existing Trails Outside Lake County
- Proposed Trails Outside Lake County
- Major Road

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1.6 Trail Implementation

Right-of-Way Acquisition

The single greatest determinant of the success of a planned trail is the ability to acquire right-of-way. In order to secure right-of-way for trail construction, it is important to identify the targeted right-of-way acquisition strategies so that the agencies or departments responsible for implementation are aware and can incorporate those needs into the development review processes, capital improvement plans, and grant applications for public works projects within the area of jurisdiction.

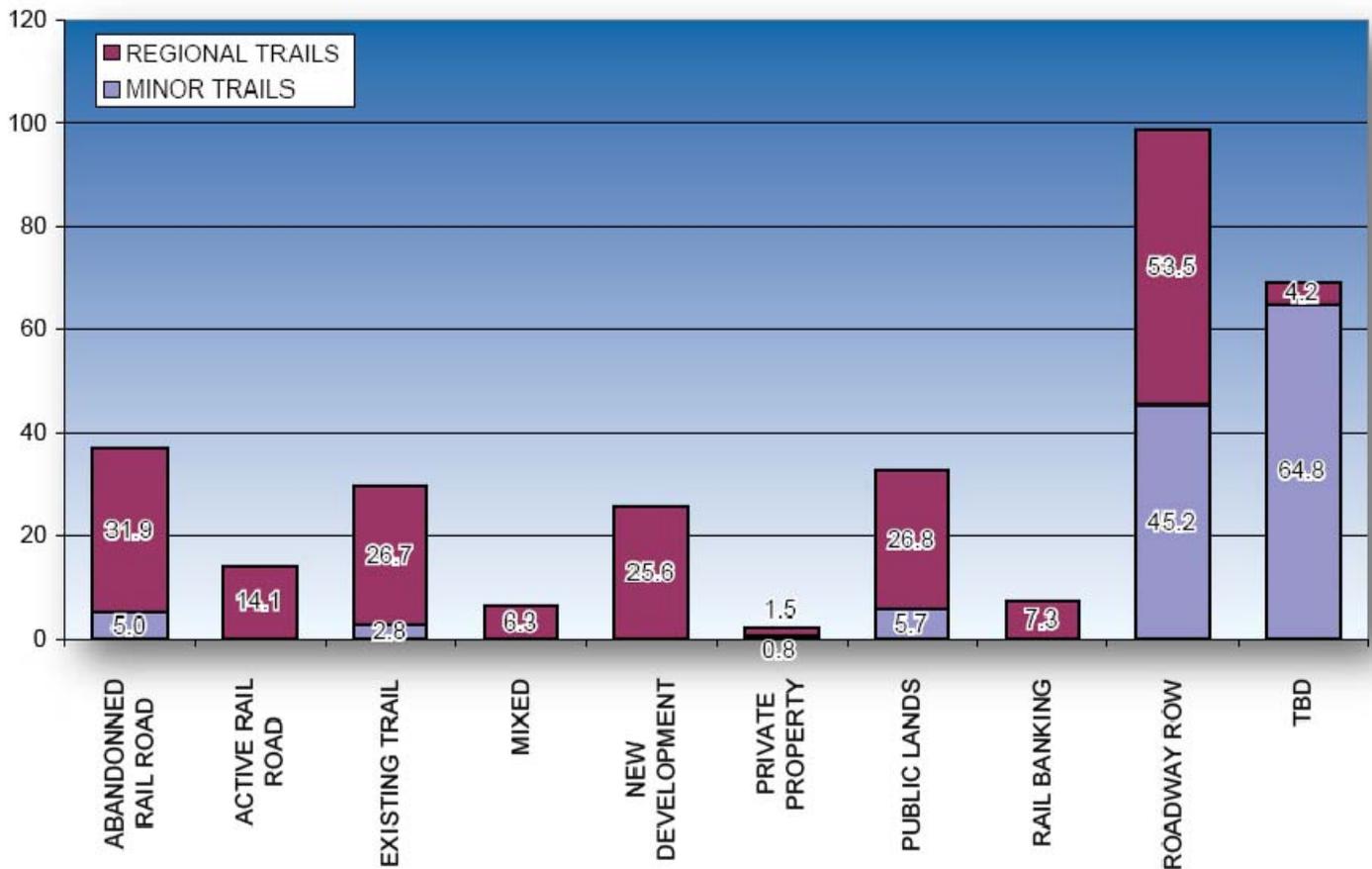
The following right-of-way acquisition strategies are generally available for implementing shared-use trails. These strategies are further discussed in Section 6.0 of this report.

- Abandoned Railroad (Rails-to-Trails)
- Active Railroad (Rails-with-Trails)
- Rail Banking
- Roadway Co-location
- New Development
- Public Land
- Private Property (Easements)

Chart 1-1 summarizes the number of miles of trails in the Lake County Trails Master Plan anticipated to be implemented with each right-of-way acquisition strategy.

Chart 1-1

Number of Miles - ROW Acquisition Strategy



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Trail Implementation Continued

Funding Sources

Funding for trails is available from a wide variety of private, local, county, state and federal sources.

These funding sources are often combined for the successful implementation of each individual trail. Table 1-2 identifies major sources of Federal, State, and County funding. Sixty-five additional minor funding sources are identified in Appendix H.

Table 1-2

Potential Major Funding Sources								
Agency Type	Agency Name	Program Name	Eligible Activities	Mechanism	2007 Funding Statewide	Maximum Grant	Applicability Category	Local Match
Federal	Federal Highway Administration	Transportation Enhancements (TE)	Acquisition and Development of Trails	Federal Apportionments and State Selection -FDOT/MPO	\$50,000,000		Recreation	0-10%
Federal	Federal Highway Administration	Recreational Trails Program (RTP)	Acquisition and Development of Trails	Federal Apportionments and State Selection - FDEP-OGT	\$3,000,000	\$200,000	Recreational Trails	20%
Federal	Federal Highway Administration	Safe Routes to School (SRTS)	Non R/W Infrastructure Costs within 2 miles of a school	Federal Apportionments and State Selection- FDOT	\$9,000,000		Recreation	0%
State	FDEP	Florida Greenways and Trails Acquisition Program	Land Acquisition	Competitive Selection	\$4,500,000		Greenways and Trails	0%
State	DCA-Division of Housing and Community Development	Florida Community Trust's Florida Forever Grant Program	Land Acquisition	Competitive Selection	\$66,000,000		Recreation	25%
State	FDEP-Division of Recreation and Parks	Florida Recreation Development Assistance	Acquisition and Development of Land for Outdoor Recreation	Competitive Selection	\$33,165,471	\$200,000	Outdoor Recreation	0-50%
Federal	National Park Service	Land and Water Conservation Fund (LWCF)	Acquisition and Development of Land for Outdoor Recreation	Federal Apportionment and State Competitive Selection -	\$1,209,163	Varies by Year	Outdoor Recreation	50%
County	Lake County	Public Lands Acquisition and Advisory Council (PLAAC)	Acquisition of Right-of-Way	Selection by Committee		Varies by Year	Recreation	

Funding Goals

Because Lake County does not utilize a dedicated funding source for trails the funding goals for the Lake County Trails Master Plan are primarily driven by anticipated external funding sources. Funding goals for trails within the Lake County Trails Master Plan occur within three time-frames: a 5-Year Funding Goal, a 10-Year Funding Goal, and a 20-Year Funding Goal. These funding goals include trails that are anticipated to be constructed either as stand-alone projects or as part of larger projects. Projects that could be used to indirectly fund trails include private developments, roadway construction, park construction, or other capital improvement projects. Tables 1-3, 1-4 and 1-5 summarize the 5, 10 and 20-year funding goals.

Chart 1-2 summarizes the number of miles of trails anticipated to be implemented utilizing each of the construction implementation strategies. More detail for each trail may be found in Section 7.0 of this report.

Trails that have been identified through the trail planning process as being valuable trails but where no funding source has been identified are summarized in Table 1-6. These trails reflect the ultimate build-out of the Lake County Trails Master Plan.

Chart 1-3 shows the overall, number of miles of trails included in the 5, 10 and 20-year funding goals for each phase (i.e., Study, Design, or Construction).

Table 1-3

5 - YEAR FUNDING GOAL						
	TOTAL NUMBER OF MILES	NUMBER OF MILES NEW DEVELOPMENT	NUMBER OF MILES WITH ROADWAY CONSTRUCTION	NUMBER OF MILES STAND ALONE	NUMBER OF MILES OTHER	COST PER MILE
STUDY	50.8	0	11	33.5	6.3	\$25,000
DESIGN	15.3	0	2.2	13.1	0	\$115,000
CONSTRUCTION	10.9	0	1.7	9.2	0	\$750,000

*CONSTRUCTION DOLLARS 2008

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Table 1-4

10 - YEAR FUNDING GOAL						
	TOTAL NUMBER OF MILES	NUMBER OF MILES NEW DEVELOPMENT	NUMBER OF MILES WITH ROADWAY CONSTRUCTION	NUMBER OF MILES STAND ALONE	NUMBER OF MILES OTHER	COST PER MILE
STUDY	22.5	15.4	0	7.1	0	\$25,000
DESIGN	27.3	16.8	0	10.6	0	\$115,000
CONSTRUCTION	21.5	16.8	0	4.7	0	\$750,000

*CONSTRUCTION DOLLARS 2008

Table 1-5

20 - YEAR FUNDING GOAL						
	TOTAL NUMBER OF MILES	NUMBER OF MILES NEW DEVELOPMENT	NUMBER OF MILES WITH ROADWAY CONSTRUCTION	NUMBER OF MILES STAND ALONE	NUMBER OF MILES OTHER	COST PER MILE
STUDY	10.8	4.7	4.6	1.6	0	\$25,000
DESIGN	28.7	4.7	17.5	6.5	0	\$115,000
CONSTRUCTION	38.9	4.7	18.1	16.1	0	\$750,000

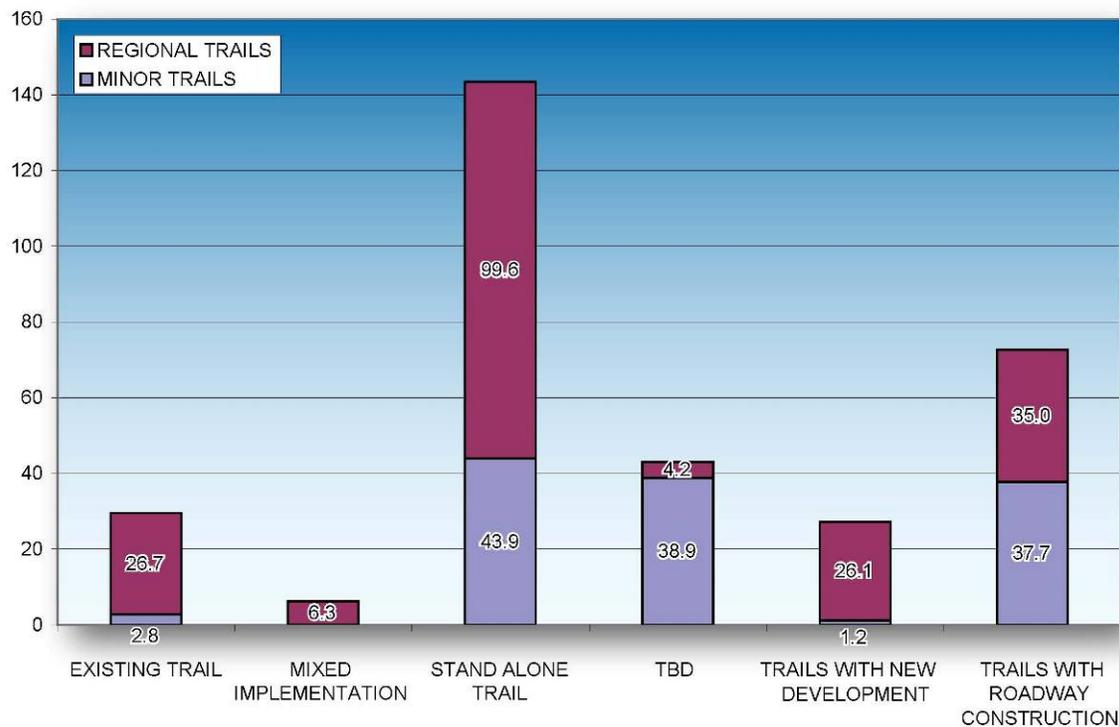
*CONSTRUCTION DOLLARS 2008

Table 1-6

20 - YEAR UNFUNDED TRAILS	
	TOTAL NUMBER OF MILES
STUDY	157.6
DESIGN	221
CONSTRUCTION	221

Chart 1-2

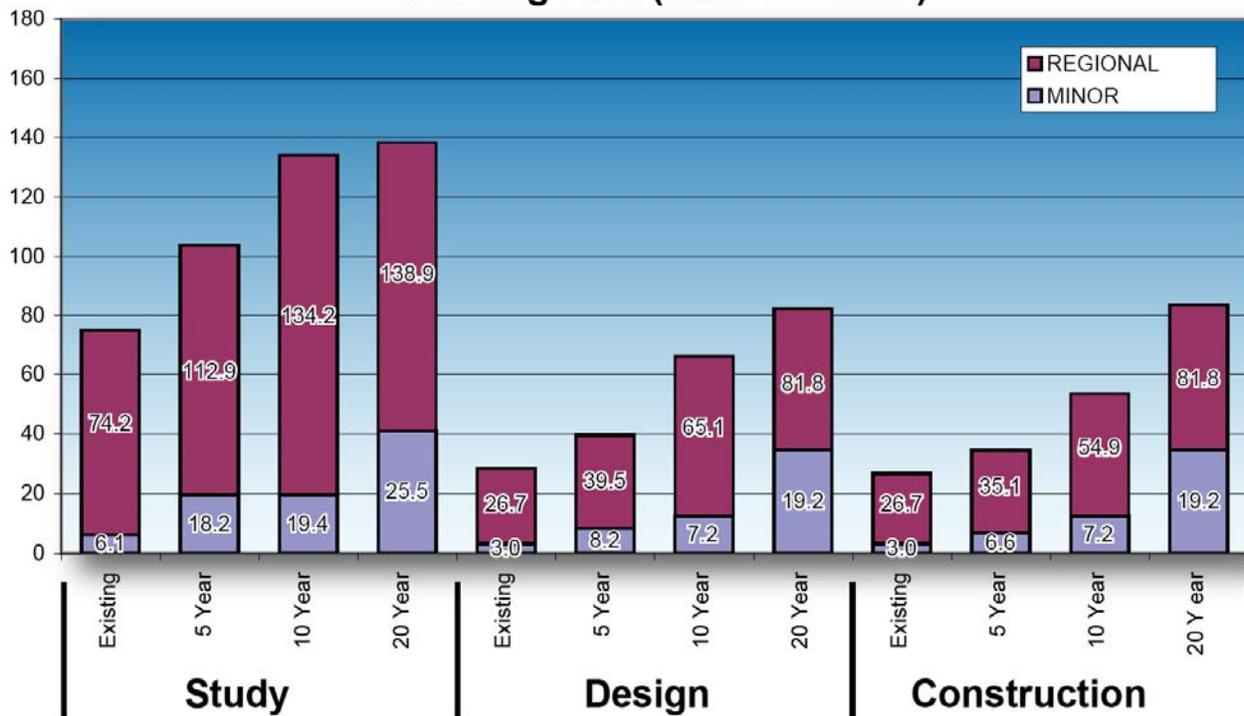
Number of Miles - Construction Implementation Strategy



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Chart 1-3

Funding Plan (Miles of Trails)



1.7 Supporting Trails

It is important that trails receive support. This support must be continued after the construction of each trail. The support of trails includes promotion to raise awareness, encourage use, and seek participation in trail building including coordination of annual programs and events. Ongoing educational programs are necessary to raise awareness of trail safety and stewardship through public service campaigns, trail signing, and trail promotional literature. Finally, trails must also be maintained properly. Section 8.0 of this report addresses trail maintenance.

Updating the Trails Master Plan

The Trails Master Plan is not intended to be a static document. It should serve as a guide for the County in its efforts to achieve the goal of a regional system of trails that is supported by the appropriate agencies and programs. It has been developed based on present day needs, issues, and priorities. While these expectations have been used to look to the future and project where Lake County will likely be in 20 years, it is inevitable that needs, issues, and priorities will change; therefore, the Trails Master Plan must evolve in order to continue to be an effective planning tool.

1.8 Summary of Recommendations

General Master Plan Administration

1. The Master Plan should be adopted by the Lake County Board of County Commissioners and the Lake/Sumter MPO as the basis for the systematic implementation of an integrated regional trail network.
2. The Master Plan should be distributed to all Cities and Towns, County, State and Federal Agencies with jurisdiction over the property along a proposed alignment.
3. The Master Plan should be reviewed, evaluated, and updated as necessary, but at least every five years. The purpose of this review is to take advantage of opportunities that may arise, to re-establish or re-allocate priorities, and to update the status of current projects.

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Summary of Recommendations Continued

Planning for Trails

1. The design standards for shared-use trails included in Section 4.0 should be incorporated into Lake County Transportation Planning, Design and Construction Standards.
2. A minimum level of service of one linear mile of shared-use trail per 5,000 residents and one linear mile of hiking/nature trail per 6,750 residents is recommended.
3. All new development/redevelopment and road reconstruction projects should implement those trails from the Lake County Trails Network that are within the vicinity of the project.
4. This Master Plan should be incorporated by reference into the Lake County Comprehensive Plan and other long-range County planning documents such as those that deal with land use and environmental and transportation planning.
5. Lake County and the Lake-Sumter MPO should work with and encourage adoption of the Master Plan into local Comprehensive Plans.
6. As part of assessing and developing new trail routes and making modifications to existing trail routes, follow the prioritization guidelines outlined in Section 6.0 of this report.
7. Prior to abandonment of any County property, the property should be evaluated to determine potential use by the Department of Public Works

Parks and Trails Division for a trail element.

8. The interdepartmental review of developments and other infrastructure projects should be strengthened to specifically require a review of the project for trail involvement.
9. Prior to construction of trails, a maintenance plan and agreement should be signed by the jurisdiction that will maintain the trail.

Building Trails

1. The trail network will be phased in over time in association with new development and County and municipal infrastructure improvement projects. Projects may also be implemented based on changing construction opportunities or specific trail related demand.
2. All streets with proposed on-road trail links (existing developed areas and new development areas) will also have sidewalks on the opposite side of the roadway.
3. Detailed route design for stand-alone trails will utilize public involvement with local neighborhoods and agencies where public involvement is deemed necessary by County staff.
4. Annual capital budgets should include opportunities for the implementation of the trail network.

