



WELLNESS WAY SECTOR PLAN

DRAFT

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LAKE COUNTY
FLORIDA

**WELLNESS WAY SECTOR PLAN
DATA, INVENTORY & ANALYSIS
2040 PLANNING HORIZON**

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Section I: INTRODUCTION

I. INTRODUCTION

A. Purpose

Starting in 2008, the West Orange South Lake Transportation & Economic Development Task Force has been discussing the need to coordinate transportation decisions and job creation efforts in the western area of Orange County and the southeastern portion of Lake County. The Task Force recognized the need to plan for the large expanse of mostly undeveloped land in the two counties due to the development pressure beginning to occur in the area and the continued development of Horizon West. From this realization Lake County and many of its stakeholders determined that the creation of a sector plan for approximately 16,200 acres in Lake County along the southeastern boundary of Lake County and western boundary of Orange County, directly west and adjacent to the Horizon West Sector Plan area, was the best path forward for realizing the goal of economic development and balanced growth. Access to SR 429, from Lake County and improved overall connectivity (network) in both east-west and north-south corridors within the sector plan would need to be a priority and focus on the introduction of true multi-modal considerations. The land uses would be defined by their character and the potential economic benefits, and complementary to the Horizon West uses. The design form would be synergistic within the urban communities but harmonious with the historic agricultural industries and natural lands still remaining in south Lake County. Financial feasibility of the plan as well as clarity, flexibility and ease of use are paramount to the County.

B. Regional Setting/Location

The Wellness Way Sector Plan area is strategically located between several regionally significant major roadway facilities in the southeastern portion of Lake County, see **Map 1 (Location Map)**. These facilities include US Highway 27, SR 429, US Highway 192 and SR 50. US Highway 27 serves as the western boundary of the study area, the Lake/Orange County line serves as the eastern boundary, Johns Lake provides the northern edge (immediately south of SR 50) and Crooked Lake (just north of US 192) book ends the southern limits, see Map 1. The southern extent of the western edge of the Sector Plan borders the Green Swamp Area of Critical State Concern. From the center of the study area, by automobile, it is 34 miles to Orlando International Airport (MCO), 74 miles to Kennedy Space Center/Space Port/Port Canaveral and 75 miles to the Tampa Port Authority.

The City of Clermont has portions of its incorporated area within the limits of the sector plan study area and is the recognized provider for both potable and wastewater service in the vast majority of the area. There are no other incorporated communities located within the sector plan area.

C. Area Profile

The area encompassing and surrounding the Wellness Way Sector Plan area is largely undeveloped with large tracts of agricultural lands, some of which are still economically viable for agricultural production. This area was a large producer of citrus prior to the permeating freezes due to the south migrating frost line and citrus greening, a disease that has hindered growers in the recent past. During the past two decades, the City of Clermont to the north has grown rapidly as a bedroom community to Orlando, with expansive areas

of new residential subdivisions and supporting commercial services. There are very few residents living in the Sector Plan area as of 2013.

D. Sector Planning

Sector Plans are authorized in Section 163.3245, Florida Statutes, to encourage and recognize the benefits of long-range planning for specific areas within a region or a local government jurisdiction. The minimum size of land area for a sector plan is 15,000 acres. The primary goals of a sector plan include:

- Promoting long-term planning for conservation, development and agriculture on a landscape scale;
- Supporting innovative and flexible planning and development strategies and development strategies
- Facilitate protection of regionally significant resources;
- Ensuring adequate mitigation of impacts to regional resources and facilities, including extra-jurisdictional impacts; and
- Emphasizing urban form.

Approval of a sector plan is accomplished in two stages: first, a long-term master plan and second, implementation of the master plan is accomplished through detailed specific area plans (DSAPs). Adoption of a long-term master plan requires an amendment to the comprehensive plan in accordance with the state coordinated review process. DSAPs are implemented through a local government development order, which must be rendered to the Department of Economic Opportunity in the same manner as a Development of Regional Impact development order. However, the Development of Regional Impact process does not apply to development within the boundaries of the detailed specific area plan. Neither the long-term master plan nor the detailed specific area plans are required to be based on a demonstration of need for the amount of development they would allow, and they may both have planning timeframes exceeding the general timeframe of the comprehensive plan.

The long term master plan consists of:

- A framework map
- Policies guiding development form, intergovernmental coordination, and protection of natural resources, and,
- A general identification of the water supplies, transportation facilities, and regionally significant public facilities that will be needed to support development in the sector plan.
- Regionally significant natural resources must also be identified. Once approved, any long-range transportation plan of the metropolitan planning organization must be consistent, to the maximum extent feasible, with the projected population and the approved uses of the master plan. Also, the water needs, sources, and water supply development projects identified in the master plan and detailed area specific plans must be incorporated into the applicable district or regional water supply plan.

The Detailed Specific Area Plans

Detailed specific area plans must contain at least 1,000 acres, although a local government can approve less in certain circumstances, and they must address the same issues as the master plan, although in greater



Section II:

DATA, INVENTORY AND ANALYSIS

detail. Areas identified for permanent preservation must have a conservation easement recorded and in effect before or concurrent with the effective date of the detailed specific area plan. The detailed specific area plan development order is required to establish a buildout date until which the approved development is not subject to downzoning, or density or intensity reductions.

The Wellness Way Sector Plan contained in this document is the long-range master plan (Framework Map) and asocial goal, objectives and policies for adoption by the Lake County Board of County Commissioners as an amendment to the Future Land Use Element and adoption of a new Future Land Use map for the geographic area encompassed in Wellness Way.

II. DATA, INVENTORY AND ANALYSIS

The Data, Inventory and Analysis for the Wellness Way Sector Plan is based on a vast resource of existing information, data and maps that have been provided to the consultant by Lake County and other government entities as part of the planning process. Primary sources of data include the Lake County GIS system, Lake County Data Analysis and Inventory dated 2009 prepared for the 2011 Lake County Comprehensive Plan, Lake County Parks Master Plan, Lake County Trails Plan, readily available data from the Florida Natural Areas Inventory (FNAI), discussions with service providers including public and private utilities, public services providers, and information provided by the City of Clermont. Data has also been provided from Conserv II, a wide range of transportation agencies (state, local and regional) and Orange County.

This document provides an inventory of relevant data for the Wellness Way Sector Plan area, an analysis of each topic addressed and recommendations for each topic to be addressed in the Sector Plan Goal, Objectives and Policies. Topics addressed include population and employment, land use, natural resources, multi-modal transportation, water supply and other public utilities, public infrastructure and services, economic development, conservation, urban form, education, and open space, parks and recreation.

A. POPULATION AND EMPLOYMENT

1. Historic Trends

The Wellness Way Sector Plan area, which comprises 25.28 square miles, had an estimated population of 451¹ in 2010. The sector plan area encompasses a large geographical area (2.2% of the County area), but houses only a small fraction of the County population (0.15%). The area consists primarily of large tracts of land used for agriculture and public utilities. There are two residential subdivisions in the area, Regency Hills with 103 lots and about 39 units already built, and Prominent Pointe located north of Hartwood Marsh Road and along the shoreline of Little Johns Lake with 10 lots and about 7 homes built. Additionally, there are 23 sites in the area classified as single-family residential and two as multi-family (less than 10 units each). Other homes in the area are classified as agriculture.

¹ ESRI Business Analyst Online

According to the US Census, Lake County had a population of 297,052 in 2010. Based on the University of Florida's Bureau of Economic and Business Research (BEER), the current estimated population for the County is 299,677, which represents a 0.9% increase over the 2010 count.

The study area is located adjacent to the City of Clermont. Clermont has experienced tremendous growth over the past ten years. The city population increased from 9,333 in 2000 to 29,827 in 2012²; a growth rate of 219% for the 12-year period, or an average of over 18% per year. The growth pressure stemming from the City is reaching the sector plan area. Subdivisions currently border the area to the north and south, and as noted above, have also started to encroach into the area. **Figure 1 (Population Density in Lake County -- 1990 to 2010)** depicts the evolution of population density in Lake County. It can be observed that the Sector Plan area has seen significant intensification immediately to the north and south.

There are not many employment opportunities within the study area and are limited to the agriculture, mining and service industries. The residents of the sector plan area work either in Clermont, Orange County or Osceola County.

2. Projections

The Lake County Future Land Use Element of the Comprehensive Plan predicts that the County as a whole will grow to 370,900 by 2020 and 451,600 by 2030³. The projections prepared by the Bureau of Economics and Business Research (BEER) in February of 2012 show that the County is estimated to grow to approximately 437,800 residents by 2030.

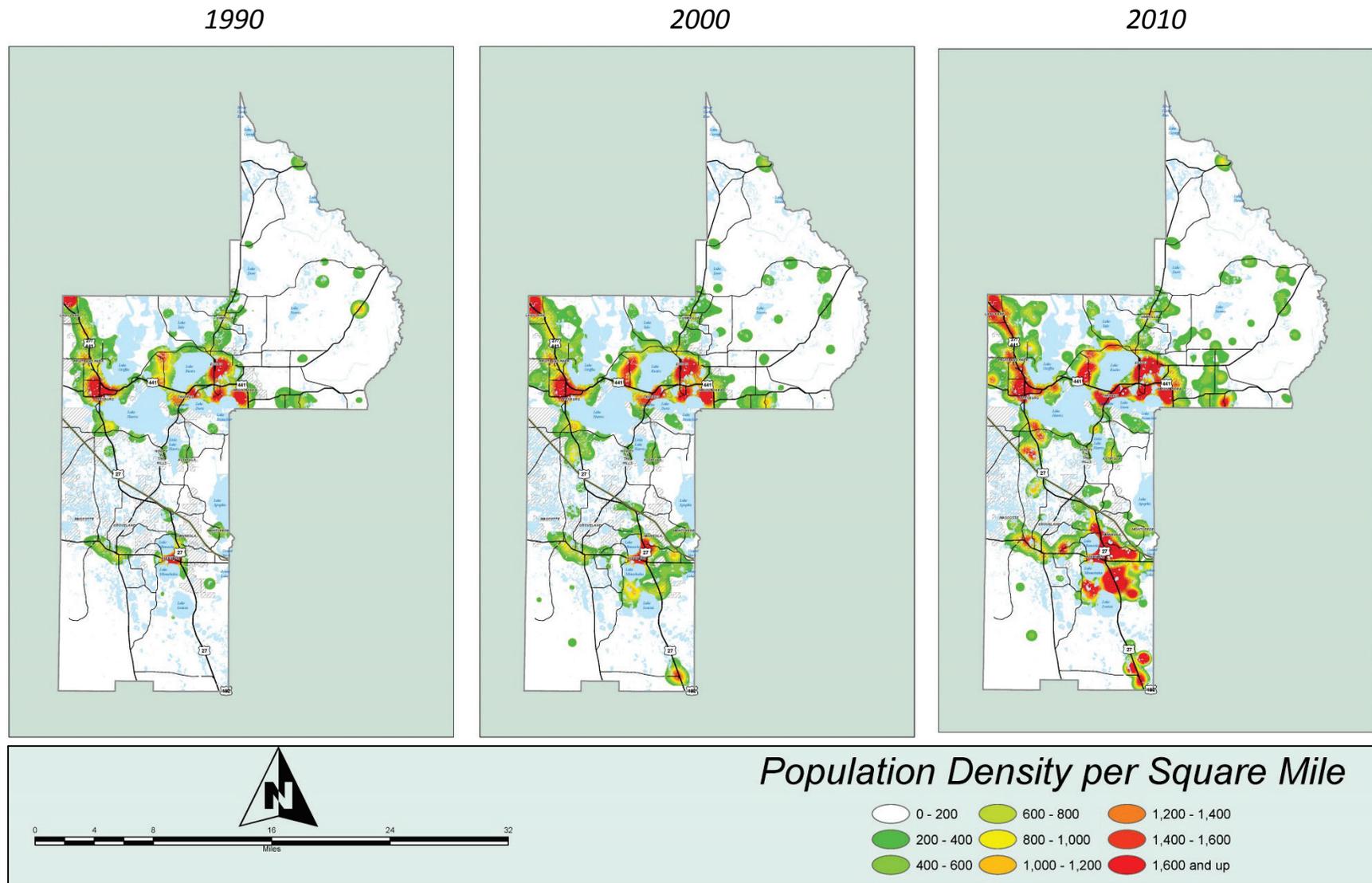
Based on the adopted Future Land Use Map (FLUM), the County had not yet planned for significant growth within the sector plan area. The FLUM shows the area mostly designated as Rural and Public Service Facility and Infrastructure. The map shows smaller areas of Rural Transition, Urban Low Density, and Heavy Industrial. These land use classifications will allow some growth to occur in the future, but would most likely result in primarily low density residential development as opposed to a mix of complementary uses. Considering the proximity of this area to the City of Clermont and Horizon West in Orange County, it is safe to assume that the area is ready to support increased managed growth.

The Housing Element of the County Comprehensive Plan states that the County expects a shift in focus for the population centers within the County. Whereas the population center of the County was historically in the Northwest portions of the County (Leesburg, Lady Lake, and Fruitland Park) and the Golden Triangle area (Eustis, Tavares, and Mount Dora), it is anticipated that increased population growth will make South Lake (Clermont, Minneola, Groveland, and Four Corners/Citrus Ridge) the population center of the County in the future.

² BEER Estimate

³ Future land Use Element, 11-4-2010

Figure 1: Population Density in Lake County -- 1990 to 2010



Source: Lake County GIS, June 2012

B. LAND USE

This section describes existing characteristics of the sector plan area related to land use, ownership and tract sizes. The following information provides a base line of the current conditions of the Wellness Way Sector Plan area.

1. Existing Conditions

a. Generalized Land Use

As previously mentioned, the Wellness Way Sector Plan area is dominated by large tracts of Agricultural lands, which account for nearly 79% (or 12,592 acres) of the total area, see **Table 1 (Existing Land Use)**. Public right-of-way and similar uses are not reflected in the acreages shown. **Map 2 (Existing Land Uses)** illustrates the generalized land uses within the study area. The next largest use within the area is Public/Institutional comprising 18% (or 2,928 acres) of the total area. Approximately 2,800 acres of the Public/Institutional uses comprise the Conserv II area. Conserv II is a multi-public agency water reuse and infiltration program (the largest of its kind in the world) that provides non-potable water to the area's agriculture industry and utilizes rapid infiltration basins (RIBS)/percolation ponds for disposal of treated wastewater effluent. The RIBS are also a source of recharge for the Florida Aquifer in this area.

Table 1. Existing Land Use

Existing Land Use	Acres	Percent
Agriculture	12,591.97	78.62%
Industrial	12.73	0.08%
Multi-family Residential	0.70	0.00%
Public/Institutional	2,927.64	18.28%
Single Family Residential	150.52	0.94%
Vacant	332.29	2.07%
Total	16,015.86	100.00%

Source: Lake County Property Appraiser, 2013.

Vacant lands comprise 332 acres or roughly 2% of the total land area. Single Family Residential uses account for 150 acres (less than 1% of the area), and Multifamily Residential uses encompass 0.70 acres of the sector plan area. Accounting for 13 acres of land, industrial uses rank as the second least land use in the Wellness Way Sector Plan area. There are two generalized and common land uses that are not present in the study area. The study area is devoid of any commercial and office uses.

b. Ownership

The Wellness Way Sector Plan area contains only 362 parcels. Due to the number of relatively large tracts of land, the average sized parcel is 44 acres, which is much larger compared to the 4-acre parcel average countywide. The median parcel size in the study area is approximately 15 acres.

For a large area, the total number of property owners in the study area is quite small compared to many regions of the same size. There are approximately 120 land owners according to the Lake County Property Appraiser’s records. That number may actually be lower. For example, many companies listed may be subsidiaries of larger companies also listed or there may be a slight difference in the company name, which prompts the GIS to list it as two separate owners. **Map 3 (Ownership)** identifies land ownership for sites that are 90 acres or more in the sector plan area.

Of the total acreage in the study area, the City of Orlando and Orange County jointly own the most land, which comprises of approximately 2,800 acres or nearly 18%. This is the property associated with Conserv II. Arnold Groves & Ranch Ltd. is the second largest land owner with 1,889 acres. Third is South Lake Crossings I, II & III with 1,392 acres. **Table 2 (Top Ten Owners by Acreage)** includes the top ten largest landowners within the sector plan area according to the Lake County Property Appraiser.

Table 2. Top Ten Owners by Acreage

Rank	Owner Name	Acres
1	CITY OF ORLANDO & ORANGE COUNTY (Conserv II)	2,796.40
2	ARNOLD GROVES & RANCH LTD	1,801.16
3	SOUTH LAKE CROSSINGS	1,392.74
4	LAKE LOUISA LLC	1,202.78
5	TOUSA-HEARTHSTONE LAKE WEBSTER LLC	986.98
6	CLONTS GROVES INC	721.27
7	CENTER LAKE PROPERTIES LTD	688.24
8	ROPER JAMES E ET AL TRUSTEES	546.64
9	DAVIDSON HARVEST LLC ET AL	536.68
10	HICKORY GROVES LLC	406.92

Source: Lake County Property Appraiser, 2013.

In addition to the list of top ten largest property owners, 17 land holders own more than 200 acres within the Wellness Way Sector Plan area. Of the top ten land owners, 4 owners control over 1,200 acres.

c. Historic Resources

There are no historically significant sites within the sector plan area. Several structures were surveyed and recorded in the Florida Master Site File in the past, but only two structures (LA02134 and LA02814) remain. Neither was deemed historically significant. Many pre-historic archeological sites within the study area have been identified during previous surveys.

d. Housing

Some of the tools used to inventory and analyze housing data in the sector plan area include the Esri Business Analyst Online, property appraiser records, and the 2010 Census. The sector plan area

encompasses portions of three Census Block Groups within three Census Tracts, see **Map 4 (Census Block Groups)**.

Table 3 (Population by Block Group) displays the total number of people and housing units within the various geographies. As seen on **Map 4 (Census Block Groups)**, most of the development within the block groups identified has occurred outside the sector plan area boundaries. Therefore, the figures for just the sector plan area would be much lower. It is, however, important to analyze what is happening on the periphery of the sector plan area to identify development trends.

The three block groups together comprise approximately 17,211 persons, with a majority of them being female. The median age varies, with Block Group 1 in Tract 313.08 having the oldest (58.2) and Block Group 1 in 313.11 having the youngest (31.0). The area contains approximately 8,319 housing units, with about 25% of them vacant at the time the 2010 Census took place. About 77% of the occupied units were owned.

The Esri Business Analyst Online software interpolates the population data based on the given boundaries of an area that does not coincide with tract or block group boundaries. The data obtained from Esri is also shown in **Table 3 (Population by Block Group)**.

Table 3: Population by Block Group

Tract	313.06	313.08	313.11	Total		Esri BAO	
Block Group	1	1	4	Count	%	Count	%
Total Population	4,814	6,012	6,385	17,211	100	451	100
Male	2,363	2,803	3,060	8,226	47.8	212	47.8
Female	2451	3209	3325	8,985	52.2	239	52.2
Median Age	37.7	58.2	31.0	--	--	50	--
In Households	4,807	6,012	6,385	17,204	99.96	451	100.00
In Group Quarters	7	0	0	7	0.04	0	0.00
Households	1,584	2,595	2,081	6,260		146	
Housing Units	1,763	2,903	3,653	8,319	100	166	100
Occupied	1,584	2,595	2,081	6,260	75.2	146	75.2
Owned	1,369	2,427	1,021	4,817	76.9	132	76.9
Rented	215	168	1,060	1,443	23.1	14	23.1
Vacant	179	308	1,572	2,059	24.8	20	24.8
Average Household Size	3.03	2.32	3.07	8	--	3.1	--

Source: US Census, American FactFinder; Esri Business Analyst Online.

The housing data obtained from Esri, however, does not appear completely accurate. Based on property appraiser records, there are approximately 362 residential sites within the sector plan area. Two of the sites are multi-family buildings with less than 10 units each. Esri shows a total of 166 dwelling units.

Whether the Esri count is realistic or not, the sector plan area contains substantially less development than the surrounding area, which is comprised of predominantly residential development in the form of subdivisions. Several apartment complexes have also been built along US 27, near the US 192 intersection south of the sector plan area. There are currently three apartment complexes with more than 300 units each. Commercial development has also come to the area, to the intersection of US 27 and US 192.

The County Comprehensive Plan contains a series of Goals, Objectives and Policies related to housing. The policies are adequate to ensure the provision of a diversity of housing options and prices within the sector plan area, and to require proximity to services and transportation. The County, however, lacks sufficient specific directives to ensure that the design of new neighborhoods achieve appropriate connectivity and walkability, and are focused on creating balanced communities and a multi-modal transportation system.

e. Growth Policy and Regulations

i Comprehensive Plan

Similar to the existing land use map, the County’s adopted Future Land Use Map shows the vast majority of the sector plan area as rural and rural transition (approximately 9,932 acres). Public Service accounts for 2,521 acres and Urban Low Density comprises 2,210 acres, as shown in **Table 4 (Future Land Use)**.

Table 4: Future Land Use

Future Land Use	Acres	Percent
Clermont Low Density Residential (3 dua)	125.35	0.79%
Conservation (N/A)	93.01	0.59%
Heavy Industrial (1.0 FAR)	696.98	4.40%
Public Service (1.0 FAR)	2,521.21	15.90%
Regional Office (3.0 FAR)	206.88	1.30%
Rural (1 du per 5 Acres)	8,592.55	54.19%
Rural Transition (1 dua)	1,339.97	8.45%
Urban Low Density (4 dua - .35 FAR)	2,210.46	13.94%
Water	68.57	0.43%
Total	15,854.98	100.00%

Source: Lake County Planning & Community Design Division, 2013

Based on the current adopted future land use map, the study area has a maximum potential yield of 12,276 residential units and over 200 million square feet of non-residential uses, including public facilities, industrial, regional office and retail. These estimates of residential units and non-residential square footage are based on the maximum gross density/intensity figures and do not account for the presence of wetlands or other environmentally sensitive lands.

ii Zoning

Most of the land, approximately 12,888 acres, within the study area is currently zoned Agriculture (A), see **Table 5 (Current Zoning Designations)**. According to the Lake County Land Development Regulations, Agriculture is intended to accommodate uses associated with agriculture production including establishments for the keeping, grazing or feeding of livestock and animals; feedlots; croplands; aquaculture; silviculture; apiaries; honey extracting; and buildings that are an accessory use to these agricultural uses.

Planned Unit Development is the second largest zoning district within the study area at 1,666 acres. The approved PUDs include Avalon Groves (1,659 units and 350,000 square feet of commercial/office/retail), a 70-unit multifamily development, a 55-unit single family development, a 653-unit residential subdivision, and another located along US 27 north of Frank Jarrell Road with a development program of 799 single family residential units and 5,000 square feet of commercial.

Table 5: Current Zoning Designations

Zoning	Acres	Percent
A - Agriculture	12,888.87	81.78%
C-1 - Neighborhood Commercial	5.42	0.03%
CFD - Community Facility District	4.08	0.03%
PUD - Planned Unit Development	1,665.78	10.57%
R-1 - Rural Residential	9.19	0.06%
R-1 - Low Density Residential (Clermont)	127.39	0.81%
R-2 - Estate Residential	254.18	1.61%
R-4 - Medium Suburban Residential	120.98	0.77%
R-6 - Urban Residential	685.48	4.35%
Total	15,761.36	100.00%

Source: Lake County Planning & Community Design Division, 2013

The third largest zoning district within the sector plan area is R-6, which is known as Urban Residential. This district accounts for 685 acres and is located off US 27 between Hartwood Marsh Road and Shell Pond Road.

iii How Shall We Grow?

Conducted over the course of several years beginning in 2001, the “How Shall We Grow?” initiative was designed to develop a collaborative regional planning forum that brought 86 cities, seven counties, leaders and citizens, and over 400 elected and appointed officials together to build a better future for central Florida residents and businesses.

During Phase II of the *How Shall We Grow?* movement, through the participation of 20,000 Central Floridians, a vision was developed for the year 2050. As shown in **Figure 2 (How Shall We Grow? - 2050 Vision)**, the vision represented an approach for connected regional city

centers rather than the sprawling development pattern experienced within the last three decades in this region.

The *How Shall We Grow?* vision map shows a Regional City (100,000 or more) and a Medium City (50,000-99,999) in the vicinity of the sector plan area. Although the exact location of the city centers shown on the vision map may not be centered within the sector plan area, this document does show forethought that substantial growth would occur in this area and that the Wellness Way Sector Plan area was being considered in extremely nascent terms.

Figure 2: How Shall We Grow? - 2050 Vision



Source: *How Shall We Grow? A Shared Vision for Central Florida, 2009.*

iv Horizon West Sector Plan

As noted above, the Horizon West Sector Plan abuts the study area on its eastern boundary (Lake/Orange County Line). Conceived in 1995 and considered the first operational sector plan in the state, Horizon West spans 23,000 acres in west Orange County adjacent to the cities of Winter Garden and Bay Lake. According to the adopted 2010 Specific Area Plan (SAP) Map developed by Orange County, the land uses allocated adjacent to the Wellness Way Sector Plan boundary consist of Corporate Campus to the north, Garden Home District, Townhome District and wetlands to the south. For more detailed land use information for Horizon West, see **Map 5 (Horizon West Land Use Map)**.

v Interlocal Service Boundary Agreement

Part II of Chapter 171 of the Florida Statutes was originally adopted by the State Legislature in 2006 and subsequently amended in 2011. Chapter 171 includes annexation provisions, and Part II of this chapter, titled *Interlocal Service Boundary Agreements (ISBA)*, provides an optional alternative to conventional annexation procedures and is considered a more collaborative process for counties that chose this option. The principal goal of this statute is to encourage local governments to jointly determine adequate provision of services to development in the most efficient and effective manner while balancing the needs and desires of the community.

At present, Lake County, the Town of Howey-in-the-Hills, and the cities of Groveland, Clermont, Leesburg, Mascotte, and Minneola comprise the South Lake Interlocal Service Boundary Agreement. The agreement addresses the following items:

1. Annexations
2. Development Applications, Land Development Regulations & Comprehensive Plan Provisions
3. Solid Water
4. Fire Hydrants
5. Sharing of Equipment and Resources
6. E-911 System: County Addressing System
7. Utilities
8. Economic Development Plan

Included in the agreement is an exhibit that illustrates the negotiated future annexation boundaries, known as growth areas. By executing this agreement the subject municipalities consent to the County's authority to approve each annexation of unincorporated lands within the ISBA growth areas. An ISBA boundary has not been designated for the sector plan area.

2. Analysis

a. Land Use/Development Trends

In total, the Wellness Way Sector Plan area is almost devoid of development. With the exception of sporadic single family residences, pump stations and small scale mining operations, the study area is a largely comprised of undeveloped and improved agricultural lands. Although the amount of vacant property within the study area, according to the existing land use information from the property appraiser, is small compared to the size of the sector plan, the lands categorized as agriculture are vastly undeveloped and mostly cleared of significant vegetation. Additionally, after a recent site visit and review of site aerials much of the agriculture lands appear vacant or are not currently being utilized for agricultural production.

Recent development within close proximity to the sector plan area has been predominantly single family residential subdivisions with some highway commercial. This has occurred predominantly along the east side of US 27 south of Frank Jarrell Road in the southern portion of the study area.

Part of the impetus for this planning exercise was to plan this 16,000-plus acre area in an orderly and cohesive manner. The current development pattern that has occurred within recent years adjacent to the study area has been predominantly incremental disconnected single family residential subdivisions off US 27 and sporadic mining operations. The current design of this development trend is extremely auto-oriented. Although most of the subdivisions have sidewalks, the fragmented nature of each development does not promote walkability or alternative modes of travel.

On average, the cost to provide services to sprawling single family residential is much higher than the cost to provide services to non-residential uses. Current development trends in the sector plan area are not economically efficient. More compact and low-impact development should be pursued to reduce the cost of services and impacts on natural resources, and thus the burden on local government to address the needs of its citizens. Compact and multi-use development will also promote walkability and the use of alternative modes of travel. These are the primary means of reducing the utilization of automobiles and limiting the average trip length.

b. *Land suitability for development.*

With much of the land in a relatively undeveloped state and mostly cleared, there will be fewer obstacles to maneuver during initial development phases than a redevelopment project or heavily wooded site. However, there are two drawbacks related to developing on rural lands where agriculture uses once dominated. First, developing land in a rural area will require considerable upfront capital costs to construct infrastructure sized adequately to accommodate long term growth and development. Secondly, there is a perceived presence of contamination in the soils used for citrus production. Ethylene dibromide (EDB), arsenic and lead contamination is common in former citrus groves due to the chemicals utilized between the early 1900's and 1960's to protect against destructive insects.

The large tracts under single ownership can be advantageous in master planning large pieces of a community due to the flexibility in design, less complexity related to cohesive design between parcels, single point of contact, easier to identify impacts and a large single development could be a catalyst for the sector plan.

c. *Redevelopment*

There will be little redevelopment activity associated with the sector plan due the undeveloped nature of the study area. Areas that are likely to redevelop include the mining operations that will require considerable land restoration actions in order to make the land viable for future development. The State and the County have strict guidelines for restoration of mining sites after the mining is completed. The guidelines address how the restoration is accomplished as well as what the land needs to look like after completion of the restoration. Currently, mining or resource

extraction activities are permitted and occur along Hartwood Marsh Road in the northern portion of the study area. These facilities are clearly visible from aerial photography. During the processing and extraction of the sand or limestone, the land is scraped and bored into leaving behind large mounds of earth (fines) and craters.

Additional reclamation actions may be necessary in areas of significant agricultural production, due to insecticides and chemicals that contained large amounts of arsenic. These concerns are typically evaluated during the environmental assessment phases of development. Each developer of land will assume the responsibility of ensuring that contaminated lands are adequately rehabilitated prior to development.

d. *Utility service areas*

The closest public water and sewer service provider to the sector plan area is the City of Clermont, which a portion of the city boundary is within the sector plan boundary. More specific information regarding infrastructure, capacity and facilities is contained in the Utilities Section.

The current boundaries of Clermont’s Utility Service Area cover the northern third of the sector plan area. The remaining two-thirds of the sector plan area are not within an urban service area.

There are 30 private potable water/wastewater utility service providers in the County. Of the 30 providers, two private utility companies provide water and wastewater services to the two-thirds of the study area not covered by the City of Clermont’s service area. Lake Utilities Services, Inc. provides water and wastewater immediately south of the Clermont Urban Services Area. Southlake Utilities provides water and wastewater services to the southernmost tip of the sector plan area.

e. *Urban form*

With the exception of the limited highway commercial and retail uses along US Highway 27 and the isolated and disconnected residential subdivisions just outside the sector plan area, there is little that could be qualified as urban form inside the study area. For most practical purposes, the sector plan area is devoid of urban form and, therefore, presents a relatively clean slate for future planning purposes.

3. Recommendations

This section contains recommendations for the development of the Wellness Way Sector Plan policy framework. The following recommendations are based on the existing conditions and analysis presented in this chapter.

Agricultural production continues to be a viable part of the economy in the sector plan area. However, only a small amount of the citrus groves and other crops are in operation today. The land use plan for this area needs to achieve a balance between the preservation of economically viable agricultural lands and the development potential of the remaining land.

Due to the extensive environmentally sensitive lands within the sector plan area, compact design principles will be necessary to ensure lands are developed efficiently and to promote walkability, lessen the cost of infrastructure and lessen the impact on major thoroughfares.

Due to the long agrarian history of the sector plan area and the understanding that harmful pesticides were used in the cultivation of the crops in Lake County, adherence to environmental assessments and soil testing requirements in accordance with current standards is critical. The sector plan area development procedures should be consistent with the current local, state and federal requirements for potentially contaminated soils.

As documented above, the study area's rather homogenous land use composition is not a balanced mixture that can support economic growth. The land use master plan should include a diversity of land uses that complement each other and focus on employment/job creation, which is the primary goal for Wellness Way.

The transportation plan must encourage cohesive development with a highly interconnected multimodal transportation system.

The sector plan area contains two mining operations. In order for these lands to be developed, proper land restoration procedures are necessary to bring back land to its former state. The procedure requirements often exceed the basic reclamation standards required under the mining permits issued. Lake County is committed to continue to utilize standards for restoration of lands disturbed by mining activities and borrow pits that will allow the desired urban form.

As indicated on the County's Zoning Map, there are several approved PUDs within the southern portion of the sector plan area. These entitlements should be honored and incorporated into the land use plan, except where it is determined that a PUD has expired or the owner of the entitlements would like to develop in a manner more synergistic to the sector plan.

4. Future Land Use Map

A separate future land use map is required by state statute to be developed for a sector plan area. At a minimum, the land use map must incorporate four general land use categories (urban, agricultural, rural and conservation) that are specific to the sector plan area. Based on the desired outcome for the Wellness Way Sector Plan area, four land use categories were developed, which include Mixed-Use Urban, Mixed-Use Sub-Urban, Rural Reserve and Conservation. Land use categories were applied to specific geographic areas within the sector plan area based on the following elements:

- Stakeholder input,
- Desired outcome of the area,
- Coordinated with existing and future roadway network,
- Hierarchy of place,
- Compact development pattern, and

- Limit sprawl.

The proposed **Future Land Use Map (see Section IV)** illustrates the locations of future land use categories applied to the sector plan area. Also included on the map is the proposed road network represented by the dashed black lines. It should be noted that the proposed roadway facilities shown on the map are not programmed or planned as part of the Lake Sumter MPO Long Range Transportation Plan and were developed during the development of the Wellness Way Sector Plan. However, the alignments of the proposed roads were evaluated by and coordinated with the appropriate transportation agencies and property owners.

a. Land Use Categories

In order to determine the impacts associated with the proposed Future Land Use Map, a range of intensities and densities (minimum, typical and maximum) were created for each land use category as shown in **Table 6 (Proposed Future Land Use Intensities and Densities)**.

Table 6: Proposed Future Land Use Intensities and Densities

Land Use	FAR			Residential Density		
	Min	Typical	Max	Min	Typical	Max
Rural Reserve	N/A	0.01	0.05	N/A	0.10	0.20
Mixed-Use Sub-Urban	0.10	0.30	0.75	1.00	4.00	7.00 ²
Mixed-Use Urban	0.50	0.75	1.0 ¹	5.00	10.00	14.00 ³
Employment	0.3	0.50	1.7	4.00	8.00	12.00
Conservation	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. A maximum FAR of 3.0 will be allowed within a town center node within Mixed-Use Urban.
2. A maximum density of 10 dwelling units an acre will be allowed within a mixed town center node.
3. A maximum density of 20 dwelling units an acre will be allowed within a mixed town center node.

Table 7 (Future Land Use Acreage) includes the total acreage of each land use category applied to the future land use map. The largest land use category shown on the map is the Rural Reserve land use with 6,883 acres (43%). Mixed-Use Sub-Urban accounts for 4,609 acres (29%), Employment accounts for 2,774 acres (17%), Mixed-Use Urban accounts for 1,502 acres (9%), and Conservation accounts for 170 acres (1%). Although the entire sector plan boundary encompasses 16,178 acres, approximate 270 were not assigned land use categories due to the presence right-of-way and surface waters.

Table 7: Future Land Use Acreage

Land Use	Acres	Percent
Rural Reserve	6,883	43%
Mixed-Use Sub-Urban	4,609	29%
Mixed-Use Urban	1,502	9%

Employment	2,744	17%
Conservation	170	1%
Total	15,908	100%

b. Development Constraints

Constraints to development were removed from the future land use acreages to determine the output for each land use category. The constraints layer consists of wetlands, the 50-foot wetland upland buffer, and the 100-year floodplain. It should be noted that some of these areas may in fact be developable, but for planning purposes the environmental systems identified above will be removed from the lands that can be developed. As identified in **Table 8 (Environmentally Sensitive/Conservation Acres)**, there are a total of 5,846 acres of environmentally sensitive and conservation lands within the study area.

Table 8: Environmentally Sensitive/Conservation Acres

Land Use	Acres	Net Remaining Developable
Conservation	170	0
Employment	494	2,250
Mixed Use Sub-Urban	1,803	2,806
Mixed Use Urban	550	953
Rural Reserve	2,829	4,054
Total	5,846	10,232

It is assumed that the remaining lands are 100 percent developable following the removal of the environmentally sensitive lands.

c. Housing Units

In order to determine the amount of housing that will be generated in the Sector Plan area, a non-residential and residential mixture assumption was made for each land use category based on the desired outcome for the sector plan area. **Table 9 (Assumed Non-Residential/Residential Mix)** shows the assumed mix within each category.

Table 9: Assumed Non-Residential/Residential Mix

Land Use	Non-Residential	Residential
Rural Reserve	5%	5%
Mixed Use Sub-Urban	15%	85%
Mixed Use Urban	50%	50%
Employment	90%	10%
Conservation	N/A	N/A

The minimum, typical and maximum densities shown in **Table 6 (Proposed Future Land Use Intensities and Densities)** were applied to the developable acreage at the assumed mix shown in **Table 9 (Assumed Non-Residential/Residential Mix)**. **Table 10 (Housing Unit Range)** shows the total housing units by each land use category.

Table 10: Housing Unit Range Estimate

Land Use	Residential Density (Units)		
	Min	Typical	Max
Rural Reserve	N/A	20	41
Mixed Use Sub-Urban	2,385	9,541	16,697
Mixed Use Urban	2,382	4,763	6,669
Employment	900	1,800	2,700
Conservation	N/A	N/A	N/A
Total	5,667	16,124	26,106

Utilizing the *typical* densities shown in **Table 6 (Proposed Future Land Use Intensities and Densities)** for evaluation purposes, the total residential yield is 16,124 units. Additionally, it was assumed that this area would develop with a larger percentage of multifamily residential units than the current 10 percent split in the County. Of the 16,124 units, it was assumed 12,900 units would be single family (80%) and 3,225 units would be multifamily (20%).

d. Population and Employment Estimates

Total population was derived by applying the current average household size of 2.73 for the South Lake County region to total residential units. Under the typical scenario the total population for the sector plan area is 44,020. **Table 11 (Population Estimate Range by Scenario)** shows the range of population for each scenario.

Table 11: Population Estimate Range by Scenario

Scenario	Population
Minimum	15,470
Typical	44,020
Maximum	71,269

Non-residential square footage was developed in a similar manner as the housing unit estimates. Instead of applying densities, the FAR was applied to the developable acreage, at 85 percent to account for stormwater, parking and right-of-way. **Table 12 (Non-Residential Square Footage by Industry Type)** includes the range of square by industry type. The typical scenario yields approximately 55.5 million square feet of non-residential development. Industry types were assumed as percentages within each land use category.

Table 12: Non-Residential Square Footage by Industry Type

Industry Type	Minimum	Typical	Maximum
Office	9,107,614	15,019,737	43,812,167
Industrial	13,494,403	22,561,969	76,824,772
Retail	10,265,433	17,880,783	36,511,010
Total	32,867,450	55,462,489	157,147,949

Table 13 (Estimated Jobs by Industry Type) shows the estimated jobs by industry type according to the land use allocations. Under the typical development scenario it is estimated that approximately 91,966 jobs can be accommodated. More detail regarding the development of the jobs estimate is contained in **Section H (Transportation)**.

Table 13: Estimated Jobs by Industry Type

Industry Type	Minimum	Typical	Maximum
Office	26,022	42,914	125,178
Industrial	13,494	22,562	76,825
Retail	15,208	26,490	54,090
Total	54,724	91,966	256,093

C. NATURAL RESOURCES

This section of the Data, Inventory and Analysis contains detailed information regarding the natural resources found within the Sector Plan Area. Data sources utilized in the drafting of this section include local, state and federal environmental agencies.

1. Inventory.

The sector plan area is located on the Lake Wales Ridge and consists generally of well drained sandy ridges with lower uplands, flatwoods and wetlands interspersed. Much of the area has very little development and has been in active agriculture, silviculture, or mining.

a. Surface Water

Surface waters comprise approximately 5.6% (910.49 acres) of the Wellness Way Sector Plan area based on 2009 land use/land cover data obtained from the St. Johns River Water Management District (SJRWMD), see **Map 6 (Surface Waters)**. Named and unnamed lakes of varying size dominate the surface waters. The largest lakes within the area are Trout Lake (153.54 acres), Sawgrass Lake (135.17 acres), an unnamed lake south of Pike Lake (117.49 acres), and Pike Lake (54.28 acres) in the central portion of the area, and Hancock Lake (41.85 acres) in the southern portion of the area. Deep, sandy, well-drained soils of aeolian origin are dominant. As a consequence, rainfall leaches rapidly into the soil, and drainage features such as natural streams are few or absent as evidenced by the prevalence of artificial flowlines in the National Hydrographic Dataset database for this area shown on **Map 6 (Surface Waters)**. Although the sector plan area is

entirely within the SJRWMD, the east boundary is on the boundary line between the SJRWMD and the South Florida Water Management District shown on **Map 6 (Surface Waters)**. The northern portion of the area lies within the Oklawaha River watershed, which drains to the St. Johns River. The southern portion of the sector plan area is in the extreme northwestern corner of the Reedy Creek basin, which ultimately flows into the Kissimmee River, Lake Okeechobee, and the Florida Everglades. A small area of wetlands in the northern portion drains under US 27 into Lake Louisa, which is part of the Clermont Chain of Lakes. Lake Louisa is an Outstanding Florida Water, and it is bordered to the south and east by Lake Louisa State Park.

The Florida Department of Environmental Protection GIS database of Verified Impaired State Waters indicates that Lake Louisa is an impaired water body due to the presence of mercury in fish tissues. A small portion of the northern extent of the sector plan area overlaps Johns Lake, which is classified as impaired due to excessive nutrient concentrations. Neither of these water bodies currently has an approved Basin Management Action Plan (BMAP) in place. None of the other surface waters within the study area are classified as Impaired State Waters or as Outstanding Florida Waters.

The Critical Lands and Waters Identification Project (CLIP) (Oetting et al. 2011) was an effort to identify and rank Florida’s natural resources based on 20 core GIS data layers grouped into five resource categories: biodiversity, landscape, surface waters, groundwater, and marine. The shoreline, surrounding wetlands, and streams discharging to Lake Louisa were among the highest priorities identified by CLIP for protection of surface waters in Florida, see **Map 7 (Surface Water Priorities)**. The highest priority areas included a small area of wetlands that drain to Lake Louisa in the northeast corner of the sector plan area. The wetlands in the southern section are moderate priority for protection of surface water resources **Map 7 (Surface Water Priorities)**.

b. Floodplains

Approximately 5,385.13 acres (32.67%) of the sector plan area are within the 100-year floodplain based on the Federal Emergency Management Agency’s (FEMA) Digital Flood Insurance Rate Map data layer dated June 2013. Most of floodplain areas are associated with the lakes and wetlands systems in the southern half of the area **Map 8 (100-Year Floodplains)**.

c. Wetlands

The sector plan area includes approximately 3,343.98 acres of wetlands, which cover 20.67% of the area (**Table 14 (Land Cover - Wetland Types)**). Herbaceous wetlands dominate, accounting for approximately 60% of wetlands, and are found primarily in the southern two-thirds of the sector plan area as shown on **Map 9 (Wetlands)**. Forested wetlands, dominated by a mix of hardwoods, cypress, and bays, occur primarily in the southern third of the study area.

Table 14: Land Cover - Wetland Types

FLCFCS Code: Wetlands Type	Acres	Percent
6110: Bay Swamps	9.18	0.27
6170: Mixed Wetland Hardwoods	42.87	1.28

6210: Cypress	69.62	2.08
6250: Hydric Pine Flatwoods	77.41	2.31
6300: Wetland Forested Mixed	967.74	28.94
6410: Freshwater Marshes	1,160.96	34.72
6430: Wet Prairies	684.88	20.48
6440: Emergent Aquatic Vegetation	169.45	5.07
6460: Mixed Scrub-Shrub Wetland	161.87	4.84
Total	3,343.98	100.00

Source: SJRWMD Land Cover GIS, 2009.

d. Minerals

The primary mineral resources in Lake County are sand, peat and clay. There is one operational sand mine in the study area. Sand is abundant on the Lake Wales Ridge and some lower upland areas interspersed with wetlands in the southern one-third of the area.

e. Soils

Soil types that typically support xeric plant communities under natural conditions dominate the sector plan area as indicated in **Table 15 (Soil Types)**. Soil types that support longleaf pine (*Pinus palustris*) – turkey oak (*Quercus laevis*) sandhill or xeric hammock communities under natural conditions account for 9,926.64 acres (61%), and soils that typically support scrub or scrubby flatwoods vegetation types account for 473.24 acres (3%). Sandhill-type soils occur primarily in the northern two-thirds of the sector plan area, whereas scrub and scrubby flatwoods soil types occur as small ridges interspersed between wetlands habitats, primarily in the southern third of the area (**Map 10 (Ecosystem Based on Soils)**). The location and distribution of xeric soil types in the area is significant because most of the lands are on the Lake Wales Ridge, a physiographic feature of Florida well known for its diversity of xeric-adapted endemic species of plants and animals, many of which are listed as threatened or endangered. Soil types that typically support forested and herbaceous wetlands under natural conditions cover approximately 2,661.36 acres (16% of the area) and are found primarily in the southern third of the area. Soil types that support mesic pine flatwoods vegetation under natural conditions cover approximately 1,253.53 acres (8%) and are found primarily in the transition zone between wetlands and scrub ridges in the southern part of the sector plan. **Table 15 (Soil Types)** includes acreages of soil types within the sector plan area sorted by types of natural plant communities they are likely to support under natural conditions and mean depth to annual high water table, an indicator of the value of the soil type as gopher tortoise (*Gopherus polyphemus*) habitat.

Table 15: Soil Types

Ecosystem Type/Soil Type	Acres	Percent	DTW*
Sandhill	9,882.45	61.09	-
Candler fine sand, 0 to 5 percent slopes	3.10	0.02	72
Candler fine sand, 5 to 12 percent slopes	0.64	0.00	72

Ecosystem Type/Soil Type	Acres	Percent	DTW*
Candler sand, 0 to 5 percent slopes	5,567.60	34.41	72
Candler sand, 12 to 25 percent slopes	408.57	2.53	72
Candler sand, 5 to 12 percent slopes	2,841.14	17.56	72
Lake sand, 0 to 5 percent slopes	375.96	2.32	72
Lake sand, 12 to 22 percent slopes	2.94	0.02	72
Lake sand, 5 to 12 percent slopes	161.45	1.00	72
Orlando fine sand, 0 to 5 percent slopes	42.85	0.26	72
Tavares sand, 0 to 5 percent slopes	478.19	2.96	51
Sandhill/Xeric Hammock	44.19	0.27	-
Apopka sand, 0 to 5 percent slopes	35.13	0.22	72
Apopka sand, 5 to 12 percent slopes	9.06	0.06	72
Scrub	82.40	0.51	-
Orsino sand	19.43	0.12	51
Paola sand, 0 to 5 percent slopes	10.80	0.07	72
St. Lucie sand, 0 to 5 percent slopes	52.17	0.32	72
Scrubby Flatwoods	390.84	2.42	-
Cassia sand	57.74	0.36	27
Pomello fine sand, 0 to 5 percent slopes	0.06	0.00	33
Pomello sand, 0 to 5 percent slopes	333.04	2.06	33
Upland Hardwood Hammock	124.74	0.77	-
Seffner sand	124.74	0.77	12
Mesic Flatwoods	1,253.53	7.75	-
Immokalee fine sand	0.03	0.00	6
Immokalee sand	767.10	4.74	12
Myakka sand	481.62	2.98	12
Ona fine sand	4.77	0.03	12
Wet Flatwoods	52.28	0.32	-
Pompano sand	52.28	0.32	12
Cypress Swamp	1,168.30	7.22	-
Placid and Myakka sands, depressional	975.49	6.03	0
Placid sand, depressional	192.81	1.19	6
Cypress Swamp/Freshwater Marsh	0.04	0.00	-
Basinger fine sand, depressional	0.04	0.00	0
Mixed Hardwood Swamp	936.68	5.79	-
Swamp	936.68	5.79	3
Mixed Hardwood Swamp/Freshwater Marsh	504.00	3.12	-
Anclote and Myakka Soils	47.58	0.29	0
Oklawaha muck	456.41	2.82	0
Freshwater Marsh	0.06	0.00	-

Ecosystem Type/Soil Type	Acres	Percent	DTW*
Sanibel muck	0.06	0.00	0
Disturbed Land	80.84	0.50	-
Arents	80.84	0.50	72
Pits	249.89	1.54	-
Borrow pits	249.89	1.54	0
Water	1,407.91	8.70	-
Water	1,407.91	8.70	0
Grand Total	16,178.15	100.00	-
*DTW = mean annual depth to high water table, inches			

Source: National Resource Conservation Service, 2013.

f. Vegetative, Wildlife and Listed Species Community Inventory

Agricultural land uses comprise approximately 8,303.88 acres (51% of the area) of the Site based on 2009 land use/land cover data obtained from SJRWMD shown in **Table 16 (FLUCFCS Land Cover)**. Agricultural uses are approximately equally distributed among improved pastures, field crops, and citrus groves. Most of the agricultural areas are on xeric soils in the northern half of the study area (**Map 11 (FLUCFCS Land Cover)**). Wetlands cover approximately 3,343.98 acres (21% of the sector plan area). Freshwater marshes, wet prairies, and emergent aquatic vegetation account for approximately 60% of wetlands whereas forested and shrub-dominated wetlands account for the remaining 40%. Forested wetlands dominate the southern portion of the area with pasturelands or pine plantations occurring on the upland ridges interspersed within the wetlands. Herbaceous wetlands tend to be associated with lakes or areas of open water. Land cover data indicate that very few of the upland acres within the sector plan area are in relatively undisturbed or natural condition. These most natural cover types would include rangelands, which account for 779.16 acres (5%) and upland hardwood and mixed hardwood-pine forests which cover 793.18 acres (5%).

Table 16: FLUCFCS Land Cover

FLUCFCS Code: Land Cove Type	Acres	Percent
Urban and Built-Up	653.20	4.04
1100: Residential, low density - less than 2 dwelling units/acre	71.28	0.44
1180: Residential, rural - one unit on 2 or more acres	53.32	0.33
1200: Residential, medium density - 2-5 dwelling units/acre	16.83	0.10
1290: Medium density under construction	0.00	0.00
1300: Residential, high density - 6 or more dwelling units/acre	0.75	0.00
1390: High density under construction	8.18	0.05
1400: Commercial and services	0.66	0.00
1620: Sand & gravel pits (must be active)	411.32	2.54
1660: Holding ponds	72.99	0.45
1850: Parks and zoos	17.87	0.11
Agriculture	8,303.88	51.33

FLUCFCS Code: Land Cove Type	Acres	Percent
2110: Improved pastures (monocult, planted forage crops)	2,539.97	15.70
2130: Woodland pastures	112.47	0.70
2150: Field crops	2,671.89	16.52
2200: Tree crops	4.55	0.03
2210: Citrus groves	2,783.11	17.20
2410: Tree nurseries	156.37	0.97
2430: Ornamentals	19.20	0.12
2510: Horse farms	16.32	0.10
Rangeland	779.16	4.82
3100: Herbaceous upland nonforested	301.93	1.87
3200: Shrub and brushland (wax myrtle or saw palmetto, occasionally scrub oak)	110.93	0.69
3300: Mixed upland nonforested	366.30	2.26
Upland Forest	1,862.80	11.51
4110: Pine flatwoods	54.21	0.34
4200: Upland hardwood forests	158.83	0.98
4340: Upland mixed coniferous/hardwood	634.35	3.92
4410: Pine plantation	820.17	5.07
4430: Forest regeneration	195.24	1.21
Water	910.49	5.63
5200: Lakes	905.49	5.60
5250: Open water within a freshwater marsh / Marshy Lakes	3.73	0.02
5300: Reservoirs - pits, retention ponds, dams	1.27	0.01
Wetlands	3,343.98	20.67
6110: Bay swamp (if distinct)	9.18	0.06
6170: Mixed wetland hardwoods	42.87	0.26
6210: Cypress	69.62	0.43
6250: Hydric pine flatwoods	77.41	0.48
6300: Wetland forested mixed	967.74	5.98
6410: Freshwater marshes	1,160.96	7.18
6430: Wet prairies	684.88	4.23
6440: Emergent aquatic vegetation	169.45	1.05
6460: Mixed scrub-shrub wetland	161.87	1.00
Barren Land	127.82	0.79
7400: Disturbed land	4.24	0.03
7410: Rural land in transition without positive indicators of intended activity	123.58	0.76
Infrastructure	196.85	1.22
8140: Roads and highways (divided 4-lanes with medians)	126.67	0.78

FLUCFCS Code: Land Cove Type	Acres	Percent
8200: Communications	0.30	0.00
8320: Electrical power transmission lines	5.53	0.03
8360: Treatment ponds	63.34	0.39
8370: Surface water collection basins	1.01	0.01
Grand Total	16,178.18	100.00

Source: SJRWMD FLUCFCS Land Cover GIS, 2009.

The likelihood that listed species plants and animals known to occur in Lake County may be present on the study area was assessed by reviewing occurrence databases, habitat models, and species habitat requirements in relation to the soils and cover types in the sector plan (see **Table 17 (Protected Plants and Animals Potential for Occurrence On-Site)**). Most of the species of plants known to occur in Lake County and listed as endangered or threatened by the U.S. Fish and Wildlife have a moderate to high likelihood of occurring in the sector plan area. Most of the listed plant species in Lake County are associated with xeric habitats such as sandhill and scrub or are endemic to the Lake Wales Ridge. Similarly, most of the listed species of wildlife likely to occur in the area are associated with xeric habitats. These species include Florida pine snake, short-tailed snake, sand skink, gopher tortoise, burrowing owl, and Florida mouse. A number of listed wading birds also are likely to utilize the wetlands in the area, and there is one historical record of a wading bird nesting colony in the east central portion of the sector plan area. Two eagle nests also are present in the area, one along the shoreline of Johns Lake and the other in the south-central portion of the sector plan area.

The Florida Natural Areas Inventory and Florida Fish and Wildlife Conservation Commission databases of known locations of rare and imperiled species of plants and animals contains records of six species of wildlife, one wading bird rookery, one invertebrate, 10 species of plants, and four examples of natural plant communities in good condition on or immediately adjacent to the study area, see **Map 12 (Known Species on Site)**. Most of these species are adapted to xeric habitats and the records are associated with the xeric soil types that dominate the northern half of the sector plan area. It should be noted that these records as illustrated on **Map 12 (Known Species on Site)** are based only on public databases, have not been confirmed as part of this work, and are not intended as a complete illustration of all rare and imperiled species known to occur within the sector plan area. For example, it is quite likely that gopher tortoises occur throughout the area where there are xeric soils. The same may also be true for sand skinks.

Table 17: Protected Plants and Animals Potential for Occurrence On-Site

<i>Scientific Name</i>		Presence in	Likelihood of	Listing Status	
Common Name	Habitat of Occurrence	County	Occurrence	USFWS	FWC
PLANTS					
<i>Warea carteri</i> Carter's mustard	Sandhill, scrubby flatwoods, inland and coastal scrub	Confirmed	Moderate	E	
<i>Warea amplexifolia</i> Wide-leaf warea	Sandhill	Confirmed	Moderate	E	
<i>Prunus geniculata</i> Scrub plum	Sandhill, xeric oak scrub	Confirmed	High	E	
<i>Polygala lewtonii</i> Lewton's polygala	Xeric oak scrub, sandhill	Confirmed	High	E	
<i>Paronychia chartacea</i> Papery whitlow-wort	Scrub, sandhill	Confirmed	High	T	
<i>Nolina brittoniana</i> Britton's beargrass	Scrub, sandhill, scrubby flatwoods, xeric hammock	Confirmed	High	E	
<i>Justicia cooleyi</i> Cooley's water-willow	Mesic hardwood hammocks over limestone	Confirmed	Not Applicable	E	
<i>Eriogonum longifolium var. gnaphalif</i> Scrub buckwheat	Sandhill, scrub	Confirmed	High	T	

E=Endangered; T=Threatened; T(S/A)=Threatened due to similarity of appearance; SSC=Species of Special Concern; C=Federally-designated as Candidate for listing; USFWS=U.S. Fish and Wildlife Service; FWC=Florida Fish and Wildlife Conservation Commission.

<i>Scientific Name</i>	Habitat of Occurrence	Presence in County	Likelihood of Occurrence	Listing Status	
				USFWS	FWC
<i>Cucurbita okeechobeensis</i> ssp. <i>okeec</i> Okeechobee gourd	Pond apple swamps, mixed hardwood swamp	Confirmed	Not Applicable	E	
<i>Chionanthus pygmaeus</i> Pygmy fringe-tree	Scrub, sandhill, xeric hammock	Confirmed	High	E	
<i>Bonamia grandiflora</i> Florida bonamia	Scrub, dry pinelands	Confirmed	High	T	
FISH					
<i>Cyprinodon hubbsi</i> Lake Eustis pupfish	Lakes	Confirmed	Not Applicable		SSC
<i>Acipenser brevirostrum</i> Shortnose sturgeon	Rivers, estuaries	Confirmed	Not Applicable	E	
<i>Pteronotropsis welaka</i> Bluenose shiner	Blackwater rivers and streams, spring runs	Confirmed	Not Applicable		SSC
AMPHIBIANS					
<i>Notophthalmus perstriatus</i> Striped Newt	Principally longleaf pine-turkey oak sandhills, but also scrub; occasionally pine flatwoods.	Confirmed	Unlikely	C	

E=Endangered; T=Threatened; T(S/A)=Threatened due to similarity of appearance; SSC=Species of Special Concern; C=Federally-designated as Candidate for listing; USFWS=U.S. Fish and Wildlife Service; FWC=Florida Fish and Wildlife Conservation Commission.

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<i>Scientific Name</i>	Habitat of Occurrence	Presence in County	Likelihood of Occurrence	Listing Status	
				USFWS	FWC
<i>Lithobates capito</i> Gopher frog	Xeric oak scrub, sand pine scrub, sandhill, upland hardwoods, pine flatwoods, freshwater marsh	Confirmed	High		SSC
REPTILES					
<i>Drymarchon corais couperi</i> Eastern indigo snake	Xeric oak scrub, sand pine scrub, sandhill, pine flatwoods, pine rocklands, torpical hardwood hammock, hydric hammock, wet prairie, mangrove swamp	Confirmed	Moderate	T	
<i>Pituophis melanoleucus mugitus</i> Florida pine snake	Xeric oak scrub, sand pine scrub, sandhill, scrubby pine flatwoods, old fields on former sandhill and scrub sites	Confirmed	Moderate to High		SSC
<i>Stilosoma extenuatum</i> Short-tailed snake	Sandhill, xeric hammock, sand pine scrub, xeric oak scrub	Confirmed	Moderate		T
<i>Neoseps reynoldsi</i> Sand skink	Rosemay scrub, sand pine scrub, xeric oak scrub, scrubby flatwoods, xeric hammock	Confirmed	High	T	
<i>Gopherus polyphemus</i> Gopher tortoise	Sandhill, sand pine scrub, xeric oak scrub, coastal strand, xeric hammock, dry prairie, pine flatwoods, mixed hardwood-pine forests, ruderal	Confirmed	High	C	T
<i>Pseudemys suwanniensis</i> Suwannee cooter	Rivers, large streams, spring runs, and associated backwaters and impoundments	Confirmed	Not Applicable		SSC

E=Endangered; T=Threatened; T(S/A)=Threatened due to similarity of appearance; SSC=Species of Special Concern; C=Federally-designated as Candidate for listing; USFWS=U.S. Fish and Wildlife Service; FWC=Florida Fish and Wildlife Conservation Commission.

<i>Scientific Name</i> Common Name	Habitat of Occurrence	Presence in County	Likelihood of Occurrence	Listing Status	
				USFWS	FWC
<i>Alligator mississippiensis</i> American alligator	Freshwater marsh, cypress swamp, mixed hardwood swamp, shrub swamp, bottomland hardwoods, lakes, ponds, rivers, streams	Confirmed	High	T(S/A)	
BIRDS					
<i>Apelocoma coerulescens</i> Florida scrub-jay	Xeric oak scrub	Confirmed	Unlikely	T	
<i>Egretta caerulea</i> Little blue heron	Freshwater marsh, various types of forested wetlands, lakes, steams, salt marsh, mangrove swamp, tidal mud flats	Confirmed	High	SSC	
<i>Sterna antillarum</i> Least tern	Beaches, tidal mud flats, estuarine and marine waters, lakes	Potential	Unlikely	T	
<i>Aramus guaracuna</i> Limpkin	Freshwater marsh, mixed hardwood swamp, rivers, streams, spring runs, lake margins, ruderal	Confirmed	Moderate	SSC	
<i>Egretta thula</i> Snowy egret	Freshwater marsh, various types of forested wetlands, streams, lakes, salt marsh, mangrove swamp, tidal mud flats, impoundments, ditches	Confirmed	High	SSC	
<i>Egretta tricolor</i> Tricolored heron	Salt marsh, mangrove swamp, tidal mud flats, tidal creeks, tidal dtiches, freshwater marsh, various types of forested wetlands, lakes and ponds	Confirmed	Moderate	SSC	

E=Endangered; T=Threatened; T(S/A)=Threatened due to similarity of appearance; SSC=Species of Special Concern; C=Federally-designated as Candidate for listing;
USFWS=U.S. Fish and Wildlife Service; FWC=Florida Fish and Wildlife Conservation Commission.

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<i>Scientific Name</i>	Habitat of Occurrence	Presence in County	Likelihood of Occurrence	Listing Status	
				USFWS	FWC
Common Name					
<i>Eudocimus albus</i> White ibis	Freshwater marsh, various types of forested wetlands, salt marsh, mangrove swamp, tidal mud flats, ruderal	Confirmed	High		SSC
<i>Grus canadensis pratensis</i> Florida sandhill crane	Dry prairie, freshwater marsh, pasture	Confirmed	High		T
<i>Mycteria americana</i> Wood stork	Freshwater marsh, various types of forested wetlands, ponds, salt marsh, mangrove swamp, tidal mud flats, lagoons, flooded pastures	Confirmed	Low	E	
<i>Athene cunicularia</i> Burrowing owl	Sandhill, dry prairie, pastures, ruderal	Confirmed	Moderate to High		SSC
<i>Falco sparverius paulus</i> Southeastern American kestrel	Sandhill, pine flatwoods, dry prairie, pasture, old field	Confirmed	Moderate to High		T
<i>Rostrhamus sociabilis plumbeus</i> Everglade snail kite	Freshwater marsh, lakes	Potential	Unlikely	E	
<i>Picoides borealis</i> Red-cockaded woodpecker	Sandhill, pine flatwoods	Confirmed	Unlikely	E	
MAMMALS					
<i>Sciurus niger shermani</i> Sherman's fox squirrel	Sandhill, pine flatwoods, pastures	Confirmed	Low		SSC

E=Endangered; T=Threatened; T(S/A)=Threatened due to similarity of appearance; SSC=Species of Special Concern; C=Federally-designated as Candidate for listing; USFWS=U.S. Fish and Wildlife Service; FWC=Florida Fish and Wildlife Conservation Commission.

<i>Scientific Name</i>	Habitat of Occurrence	Presence in County	Likelihood of Occurrence	Listing Status	
				USFWS	FWC
<i>Podomys floridanus</i> Florida mouse	Xeric oak scrub, sand pine scrub, sandhill	Confirmed	High		SSC
<i>Trichechus manatus latirostris</i> Florida manatee	Estuarine bays and lagoons, seagrass beds, rivers, spring runs	Confirmed	Not Applicable	E	
<i>Ursus americanus floridanus</i> Florida black bear	Upland hardwood hammock, mixed hardwood-pine forest, pine flatwoods, cabbage palm-live oak hammock, cypress swamp, bay swamp, shrub swamp, hydric hammock, bottomland hardwoods	Confirmed	Unlikely		

E=Endangered; T=Threatened; T(S/A)=Threatened due to similarity of appearance; SSC=Species of Special Concern; C=Federally-designated as Candidate for listing; USFWS=U.S. Fish and Wildlife Service; FWC=Florida Fish and Wildlife Conservation Commission.

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The CLIP database⁴ includes a ranking of priorities for the protection of biodiversity in Florida based on four separate data layers: Strategic Habitat Conservation Areas, Potential Habitat Richness, Rare Species Habitat Conservation Priorities, and Priority Natural Communities. The study area contains two small areas with highest priority for protection of biodiversity on a statewide scale as shown on **Map 13 (Biodiversity Priorities)**, but these areas are already in public ownership or proposed for acquisition by the State's Florida Forever program. The higher ranking areas of the area for biodiversity conservation are in generally associated with the wetlands and scrub ridges in the southern portion of the sector plan.

The CLIP database also includes an identification and ranking of an ecological greenways network throughout Florida. The data layer is intended to represent a statewide network of ecological hubs and linkages designed to maintain large landscape-scale ecological functions including focal species habitats and ecosystem services throughout the state. As such, the data layer is useful for identifying candidate areas for protection to maintain ecological connectivity. The primary area of the area identified by CLIP as a candidate for greenways protection was a Priority 2 area of wetlands and associated surface waters in the southern third of the study area, see **Map 14 (Greenways Priorities)**. This landscape ultimately connects to Green Swamp to the west of US 27 and south to the Kissimmee River.

2. Analysis.

The natural resources inventory described above provides a basis for identifying potentially key natural resources assets within the sector plan area which could provide conservation value. The analysis employed a coarse-scale/fine-scale approach. At the coarse scale, large ecosystems and natural areas were identified as surrogates for the potential conservation of multiple species of rare and imperiled plants and animals. At the fine scale, smaller areas are identified to meet the needs of individual species which might not have been identified in the coarse-scale phase. The result of this analysis is to identify those areas within the sector plan area which have the highest potential to provide conservation value, however, at the scale the analysis was conducted and with the absence of any field survey work, these results should be considered guidance to be used later in the development of specific area plans.

The natural resources analysis for the sector plan area began with the identification of lands already in public ownership within or adjacent to the area, lands under conservation or regulatory easement, and lands designated as Conservation in the Lake County Future Land Use Map. These areas have already been reviewed and approved as appropriate conservation lands. Also included were parcels on the Florida Forever list because these lands have been evaluated and found to be suitable for purchase by the state as conservation lands, see **Map 16 (Soils, Wetlands, Public Lands & Upland Buffers)**. Next, all wetlands and surface waters were extracted from 2009 SJRWMD land use/land cover data, and a 50-foot upland buffer was created around these areas to generally meet the standards for wetlands protection in federal, state, and/or local regulation. Although the boundaries of these wetlands are not precise and their relative ecological function is not known, they are included as having potentially high

⁴ Oetting, J., T. Hctor, and B. Stys. 2011. Critical lands and waters identification project (CLIP): Version 2.0. Final report. Florida Natural Areas Inventory, Tallahassee, Florida.

conservation value because of the many benefits they provide to local and regional ecosystems. The Lake Wales Ridge, which was formed over one million years ago, is a significant natural feature within the area. The Lake Wales Ridge features scrub habitats which are generally considered highly significant natural resources due to the presence of many rare, imperiled, or endemic species that may occur there including sand skinks and gopher tortoises as well as several endemic plant species. However, there is very little published information on the distribution of listed species within the sector plan area. Therefore, as a surrogate, soil types that typically support scrub or scrubby flatwoods communities were selected from the USDA Natural Resources Conservation Service soils database for the area (**Map 16 (Soils, Wetlands, Public Lands & Upland Buffers)**). These areas may be in good condition or highly disturbed. More site specific information should be gathered at the specific area plan phase. Finally, after mapping these resources we examined the Priority 1 and 2 areas of the combined priorities from all 20 CLIP natural resource data layers shown on **Map 17 (Combined Natural Area Priorities)**. Combining these into one overlay identifies the core areas within the sector plan area that have the highest potential for conservation value. No specific recommendations for conservation are offered at this time. However this overlay provides guidance for consideration in the future development of specific area plans.

There are extensive restrictions to development in the Comprehensive Plan, especially Objective III-2.5 Wetlands, Objective III-2.4 Floodplains, and Goal III-3 Land Objective III-3.1, Policy III-3.1.6 Lake Wales Ridge. Overall provisions in these objectives and the associated adopted LDRs will make it very difficult to develop at medium or high density where there are significant areas of wetlands or floodplains.

3. Recommendations.

As described above the primary areas within the Sector that offer the highest potential for conservation lie generally in the southern one third of the study area with smaller areas east of Lake Louisa as shown on **Map 17 (Combined Natural Area Priorities)**. These areas consist primarily of wetlands, surface waters and their adjacent upland buffers and including areas of uplands with scrub and scrubby flatwoods soils which may provide habitat for rare, threatened or endangered species, many of which may be endemic to the Lake Wales Ridge on which the majority of the Sector lies. These areas provide the highest potential for conservation value and/or a conservation network and should be designated as Open Space or Rural Reserve land uses. Interspersed among these areas are uplands that are currently in agriculture, silviculture or rangeland. Preserving these land uses in the Rural Reserve land use category blends well with the Open Space land use. These areas also offer the potential for some higher density development. The existing GOPs in the 2030 Comprehensive Plan provide a robust set of principles to manage growth in a manner that strikes the appropriate balance between development, economic opportunity, and environmental stewardship. No specific changes to those GOPs are proposed at this time.

D. WATER SUPPLY/NATURAL GROUNDWATER AQUIFER RECHARGE

Much of the Wellness Way Sector Plan area is situated on some of the highest recharge areas to the Floridan aquifer within the boundaries of the Central Florida Water Initiative (CFWI) and in the State of Florida and,

as such, certain levels of preservation and aquifer recharge enhancement should be considered. The aquifer recharge map is included as **Map 18 (Aquifer Recharge Areas)**.

High recharge zones should be identified and pre-to-post recharge conditions should be preserved to maintain or enhance the water balance associated with the Floridan aquifer. Offsite discharge of stormwater and surface water should be minimized as much as possible.

Areas within the Wellness Way Sector Plan should also be considered as potential sites for enhanced artificial aquifer recharge through Rapid Infiltration Basins (RIBS). Providing increased recharge by accessing the aquifer's natural storage capabilities would mitigate impacts to resources associated with both local and regional groundwater withdrawals. Artificial aquifer recharge would afford an additional level of resource protection and may permit greater groundwater withdrawals within the Wellness Way Sector Plan.

Recognizing all of the benefits that increased recharge in the Wellness Way Sector Plan could contribute to supporting the CFWI's long term goals for the development of a sustainable water supply plan, partnerships with Alternative Water Supplies (AWS) suppliers should be investigated.

1. Inventory

Lake County does not own or operate any water supply facilities. All water use within the county is supplied by municipalities, private utilities or individual private wells permitted through the St. Johns River Water Management District.

2. Analysis

Groundwater from the Floridan aquifer has been the traditional and primary source of water supply for all uses in this area. However, with implementation of new rules and regulations anticipated through the CFWI Steering Committee, now in progress, access to the Floridan aquifer may become limited or reserved for potable water demands only. Alternative Water Supplies (AWS) such as reclaimed water and stormwater may be required to meet non-potable water demands wherever possible. A breakdown of the anticipated potable and non-potable demand within the Wellness Way Sector Plan is presented in the following table.

Table 18: Future Water Demand

Demand	Source
21.3 mgd	Potable – Groundwater or Treated to Groundwater Standards
15.5 mgd	Non-potable - AWS

3. Recommendations

Future potable water demands should be met by continued use of the Floridan aquifer via existing or new wells within the Wellness Way Sector Plan. However, to meet non-potable demands and to offset local and regional impacts caused by groundwater withdrawals, importing AWS for landscape irrigation and/or to recharge the aquifer may be required. The SJRWMD, through their representative, has

presented the South Lake Regional Water Initiative with three interconnect partnership options to consider for this area:

- Water Conserv II (non-potable)
- Water Cooperative of Central Florida (non-potable)
- Seminole County Yankee Lake WTF (possibly potable only)

Of the above, Water Conserv II, which is owned by Orange County and the City of Orlando, may be the most viable option to meet non-potable water demands in the near future. Water Conserv II already provides AWS reclaimed water for reuse via public access irrigation and aquifer recharge via rapid infiltration basins (RIBs) in west Orange (Horizon West area) and south Lake counties.

E. POTABLE WATER

1. Inventory

Lake County does not provide potable water through a public water system (PWS) or otherwise engage in the treatment and distribution of drinking water. However; within the sector plan boundary area there are three public water system operators.

a. Inventory of Wells and Treatment Facilities

Map 20 depicts the location of existing wells within and near the sector plan area. The wells depicted meet the standards requiring a consumptive use permit through the St. Johns River Water Management District (SJRWMD) under the provisions of F.A.C 40C-2. This rule indicates that a consumptive use permit is required if:

- Average annual daily withdrawal exceeds one hundred thousand (100,000) gallons average per day on an annual basis.
- Withdrawal equipment or other facilities have a capacity of more than one million (1,000,000) gallons per day.
- Withdrawals occur from a combination of wells or other facilities, having a combined capacity of more than one million (1,000,000) gallons per day.
- Withdrawals from a well occur in which the outside diameter of the largest permanent water bearing casing is six inches or greater. For purposes of this paragraph, the diameter of the well at ground surface will be presumed to be the diameter of the well for the entire length unless the well owner or well contractor can demonstrate that the well has a smaller diameter water bearing casing below ground surface.

Most of the production wells, unless identified with a callout, are irrigation wells. Only the production wells identified with a call out are associated with water service providers and depict water treatment systems.

b. Water Service Providers

Within the sector plan area, the City of Clermont, Lake Utilities Services, Inc. and Southlake Utilities, Inc. provide potable water service through their public water system treatment and distribution systems. **Map 19 (Water Wells)** shows the utility service areas for the three potable water suppliers serving the sector plan area. **Table 19 (Current Potable Water Plant Capacity and Flow)** shows current capacity available and surplus or shortage for each. **Table 20 (Reported Current Level of Service Standards)** shows the current level of service of each supplier.

Table 19: Current Potable Water Plant Capacity and Flow

Supplier	Current Permitted Capacity	Current 12 Month Average Daily Flow	Current Surplus or Shortage
City of Clermont	18.34 MGD	5.07 MGD	13.27 MGD
Lake Utility Services	6.00 MGD	2.65 MGD	3.35 MGD
South Lake Utilities	2.92 MGD	1.531 MGD	0.665 MGD

Source: Lake County Comprehensive Plan, City of Clermont Public Works, Lake Utility Services, Inc. and South Lake Utilities, Inc., 2013

Table 20: Reported Current Level of Service Standards

Supplier	LOS Standard (ERC)	LOS Standard (per capita)
City of Clermont	480 gpd	137 gpd
Lake Utility Services	350 gpd	100 gpd
South Lake Utilities	350 gpd	100 gpd

Source: City of Clermont Public Works, Lake Utility Services, Inc. and South Lake Utilities, Inc., 2013

i City of Clermont

The City of Clermont’s service area is located in the northern portion of the sector plan boundary. Their current service area extends south to Shell Pond/Schofield Road and encompasses all of the area east of US Hwy 27 to the Orange County line. The Joint Planning Area (JPA) line is indicated as well as the proposed Interlocal Service Boundary Agreement (ISBA) line.

The City of Clermont Director of Environmental Services reported that in a recent impact fee study the daily use of water within the City for each Equivalent Residential Connection (ERC) was determined to be 480 gpd. This would equate to a water use of approximately 137 gpd/capita based on there being 3.5 persons per unit.

It is likely that the higher value listed for Clermont reflects the higher portion of their water being utilized for landscape irrigation and industrial uses when compared to the other providers within the sector.

ii Lake Utility Services, Inc.

Lake Utility Services’ service area is generally located south of the City of Clermont’s service area and encompasses the full width of the sector plan area extending over to the Orange County Line.

Lake Utility Services regional manager reported that they have established their ERC rate at 350-gpd. This equates to a water use of 100 gpd/capita.

This rate is consistent with the ERC values typically used while permitting the construction and modification of water systems with the Florida Department of Environmental Protection.

iii Southlake Utilities, Inc.

The final PWS in the sector plan area is Southlake Utilities, Inc. Their service area is located in the very southern reach of the sector plan area.

Southlake Utilities utilizes an ERC rate similar to Lake Utility Services. Southlake Utilities uses an ERC value of 350 gpd. This again equates to a water use of 100 gpd/capita.

iv Lake County Water Supply Plan (LCWSP)

It should be pointed out for reference purposes that the Lake County Water Supply Plan (LCWSP) notes that the median gross residential per capita rate is 178 gallons per capita per day (gpcpd) among Alliance members. This exceeds the St. Johns River Water Management District goal of 150 gpcpd.

c. Priority Water Resource Caution Area

The entire sector plan area and the surrounding areas within the St. Johns River Water Management District (SJRWMD) lie in a Priority Water Resource Caution Area. The St. Johns River Water Management District per FAC 40C-23.001 has designated the entire area of the District as a “Water Resource Caution Area.” It is the water management district’s Governing Board’s policy to implement reuse, and provide for the greater availability of reclaimed water District-wide to conserve available water resources pursuant to the requirements of Section 373.250, F.S. This is identified on **Map 21 (Priority Water Resource Caution Area)**.

2. Analysis

The source of water for all three water providers is the Floridan Aquifer. The Floridan Aquifer is generally known to be the most economical source of raw water to be used for the production of drinking water within the sector plan area. Onsite wells located at the treatment facilities reduce pumping and related energy costs and the high quality of the water reduces the amount of treatment required prior to distribution as compared to surface water sources. The specifics regarding the current condition and availability of the Floridan Aquifer as a water source for the sector plan area is being covered in the water supply section.

Based on the land uses assigned within the sector plan boundary, the projected potable water use increase by provider is shown in **Tables 21 (Projected Residential Water Use) to 23 (Projected Increase in Alternative Water Supply Use)**.

Table 21: Projected Increase in Residential Potable Water Use (irrigation not included)

Projected Residential Population	LOS Standard (gpd per capita)	Projected Daily Water Use (million gallons per day)
44,020	100	4.40

Table 22: Projected Increase in Office, Industrial, and Retail Water Use

Industry Type	Projected Square Footage of Use (sq.ft.)	Average Assigned Water Use Rate (per sq.ft.)	Projected Daily Water Use (million gallons per day)*
Office	15,019,737	0.18	2.70
Industrial	22,561,969	0.30	6.77
Retail	17,880,783	0.25	4.47
Total	55,462,489		13.94

* Does not include irrigation uses

Table 23: Projected Increase in Alternative Water Supply Use (Irrigation)

Land Use	Gross Area (acres)	Environmental Lands (not irrigated)	Net Lands Assumed to Receive Irrigation	Application Area (% of Net Lands)	Application Rate * (inches/yr)	Projected Daily Irrigation Water Use (million gallons per day)
Conservation	170	170	0	50%	36	0.00
Rural Reserve	6883	2,829	4,054	50%	36	5.43
Mixed Use Sub-Urban	4609	1,803	2,806	50%	36	3.76
Mixed Use Urban	1502	550	952	50%	36	1.27
Employment Center	2,744	494	2,250	50%	36	3.01
Total	15,908	5,846	10,062			13.47

Source: SMW Geo Sciences, Inc., WWSP Water Supply DIA

3. Recommendations

Based on the anticipated growth within the sector plan, the providers will need to assess the impacts on their utilities and plan accordingly. The providers should begin looking at the sector plan's impact on their consumptive use permit allocations and future allocations. It is likely that an alternative to the Floridan Aquifer as a source for raw drinking water will be needed before the sector plan is fully developed. This issue is addressed further in the Water Supply section.

Expansion of infrastructure and facilities needs to be anticipated and sites selected in conjunction with the preparation of the Detailed Specific Area Plans (DSAP). Timely expansion of facilities in advance of incoming business and industry will make the sector plan an attractive place for these types of uses.

As with the other utilities needed to support the development of the sector plan, the County should consider reserving a utility corridor within planned road rights of way within the sector plan boundary. Providing a pre-planned space within rights of way reserved for the installation of specific utilities helps reduce cost and potential future conflicts with other utilities.

Funding mechanisms should be developed to support the installation and expansion of adequate water distribution and treatment facilities so that initially-installed infrastructure is sized to accommodate future demand and extension of mains within the sector plan area. Having adequately sized lines in place at the onset of the sector plan’s development will speed expansion and growth within the sector plan area, reduce future construction costs, and reduce the likelihood of disruption to traffic and water service.

F. SANITARY SEWER

1. Inventory

Lake County does not provide wastewater or reclaimed water service nor are they otherwise engaged in the treatment and disposal of wastewater. However, within the sector plan boundary area, there are three utility services providers that do provide wastewater collection, treatment and disposal through the operation of their permitted and regulated systems.

a. Wastewater Service Providers

The City of Clermont, Lake Utilities Services, Inc. and Southlake Utilities, Inc. provide wastewater collection, treatment, and disposal; see **Map 22 (Wastewater Collection Service Areas)**. **Table 24 (Current Wastewater Plant Capacity and Flow)** shows current capacity available and surplus or shortage for each. **Table 25 (Level of Service Standards)** shows the current level of service of each supplier.

Table 24: Current Wastewater Plant Capacity and Flow

Supplier	Current Permitted Capacity	Current 12 Month Average Daily Flow	Current Surplus or Shortage
City of Clermont	4.00 MGD	2.34 MGD	1.66 MGD
Lake Utility Services	1.00 MGD	0.41 MGD	0.59 MGD
South Lake Utilities	1.15 MGD	0.79 MGD	0.36 MGD

Source: City of Clermont Public Works, Lake Utility Services, Inc. and South Lake Utilities, Inc., 2013

Table 25: Level of Service Standards

Supplier	LOS Standard (ERC)	LOS Standard (per capita)
City of Clermont	220 gpd	63 gpd

Supplier	LOS Standard (ERC)	LOS Standard (per capita)
Lake Utility Services	280 gpd	80 gpd
South Lake Utilities	300 gpd	86 gpd
Lake County	N/A	70 gpd

Source: City of Clermont Public Works, Lake Utility Services, Inc. and South Lake Utilities, Inc., 2013

i City of Clermont

The City of Clermont’s service area is located in the northern portion of the sector plan boundary. Their current service area extends south to approximately one (1) mile north of Shell Pond Road and encompasses all of the area east of US Hwy 27 to the Orange County line.

The City of Clermont Director of Environmental Services reported that in a recent impact fee study the daily wastewater generation rate for within the City for each Equivalent Residential Connection (ERC or ERU) was determined to be 220 gpd. This equates to a wastewater generation rate of approximately 63 gpd/capita based on there being 3.5 persons per unit.

ii Lake Utility Services, Inc.

Lake Utility Services’ service area is generally located south of the City of Clermont’s service area and encompasses the full width of the sector plan area extending over to the Orange County Line.

Lake Utility Services regional manager reported that they have established their ERC rate at 280 gpd. This equates to a per capita water use of 80 gpd/capita.

This rate is consistent with the ERC values typically used while permitting the construction and modification of water systems with the Florida Department of Environmental Protection.

iii Southlake Utilities, Inc.

The final PWS in the sector plan area is Southlake Utilities, Inc. Their service area is located in the very southern reach of the sector plan area.

Southlake Utilities utilizes an ERC rate similar to Lake Utility Services. Southlake Utilities uses an ERC value of 300 gpd. This equates to a per capita water use of 86 gpd/capita.

b. Reclaimed Water Suppliers

i Local Utilities

The City of Clermont and Lake Utility Services both provide reclaimed water to customers in their service areas. However, Southlake Utilities does not provide reclaimed water to its customers.

ii Conserv II

Conserve II is a joint venture between the City of Orlando and Orange County. Conserv II pumps and discharges reclaimed water into Rapid Infiltration Basins (RIBS) and provides reclaimed

water for use by agricultural operations within the sector plan area. Agricultural users typically use the reclaimed water for irrigation and freeze protection purposes. Other large consumers of reclaimed water are supplied by Conserve II under specific contract. The reclaimed water generated by Conserve II is generally available for use by low consumption commercial or residential consumers.

Excess water not consumed by other uses such as irrigation is sent to the rapid infiltration basins. The RIBS are used to infiltrate excess reclaimed water back into the ground water to offset impacts caused by drinking water and other withdrawals from the Floridan Aquifer.

Map 22 shows the utility service areas for the three wastewater providers serving the sector plan area. It also depicts the location of property controlled by Conserv II where surplus reuse water is used to recharge aquifer levels to offset withdrawal impacts.

2. Analysis

Based on the land uses assigned within the sector plan boundary and the projected residential population the increased wastewater volume generated is shown in **Table 26 (Projected Residential Wastewater Demand)** and **Table 27 (Projected Non-Residential Wastewater Demand)**.

Table 26: Projected Increase in Residential Wastewater Volume Generated

Projected Residential Population	LOS Standard (gpd per capita)	Projected Daily Wastewater Volume Generated (million gallons per day)
44,020	70	3.08

Table 27: Projected Increase in Office, Industrial and Retail Wastewater Volume Generated

Industry Type	Projected Square Footage of Use (sq. ft.)	Average Assigned Wastewater Generation Rate (per sq. ft.)*	Projected Daily Wastewater Generated (million gallons per day)
Office	15,019,737	0.13	1.89
Industrial	22,561,969	0.21	4.74
Retail	17,880,783	0.18	3.13
Total	55,462,489		9.76

** Based on the Ratio of Water Use LOS to Wastewater LOS rates using 100-gpd and 70-gpd respectively*

3. Recommendations

Based on the anticipated growth within the sector plan, the provider of wastewater and reclaimed water will certainly need to assess the impacts on their utilities and plan for growth accordingly.

Expansion of infrastructure and facilities for wastewater treatment and reclaimed water storage need to be planned in advance and sites selected in conjunction with the preparation of the Detailed Specific Area Plans. Timely expansion of facilities in advance of incoming business and industry will make the sector plan an attractive place for such uses.

As mentioned in previous sections, the County should consider reserving a utility corridor within planned road rights of way within the sector plan boundary. Providing a pre-planned space within rights of way reserved for the installation of specific utilities helps reduce cost and potential future conflicts with other utilities.

Funding mechanisms to support the installation and expansion of wastewater collection and treatment facilities and to support the installation of reclaimed water distribution facilities have been identified in the Goals Objectives and Policies.

G. SOLID WASTE

Proper management of solid and hazardous waste is essential to the quality of life enjoyed by Lake County residents. The purpose of this section is to identify the facilities and management programs that the County will require in order to properly manage solid and hazardous wastes through the year 2040.

1. Inventory

a. Active Landfills

Most of Lake County's Class I waste goes to the Resource Recovery Facility in Okahumpka. Lake County operates a Class I landfill at the Central Facility in Astatula that receives the Class I solid waste that is not processed at the Resource Recovery Facility and residual incinerator ash from the Resource Recovery Facility. Note: The contract with Covanta's Resource Recovery Facility will be expiring in 2014. The county has recently decided to dispose of waste in a landfill facility in Bushnell, Florida. By disposing of waste in the Bushnell landfill, the waste streams going to the Resource Recovery Facility and Astatula Landfill will be reduced significantly. At the Astatula Landfill, there is a separate disposal area for construction and demolition debris on the northwest side of the property. The Phase III municipal solid waste (MSW) cell at the Astatula Landfill is designed to hold 1.5 million cubic yards of solid waste. Assuming an average density of 1,200 lbs/cubic yard, this will provide Lake County with 900,000 tons of MSW disposal capacity. The Phase III Ash Cell is designed to hold 247,000 cubic yards of ash residue. Assuming an average density of 2,500 lbs/cubic yard, this will provide Lake County with 308,750 tons of incinerator ash disposal capacity.

Together, these two initial Central Phase III Landfill Cells will provide a combined disposal capacity of 1,747,000 million cubic yards (or 1,208,750 tons). Additional land is available and permitted through an FDEP Environmental Resource Permit. The completed build out of Phase III will eventually provide Lake County with a total of 11,500,000 cubic yards of waste disposal capacity which should be sufficient to provide landfill disposal capacity beyond 2030.

b. Residential Drop-Off Facilities

Lake County maintains and operates five residential drop-off (RDO) facilities throughout the county and a Citizen Convenience Center at the Astatula Landfill where residents can self-haul their solid, hazardous, recycling materials and special wastes. Special wastes consist of used motor oil, furniture, waste tires, white goods, and electronic wastes. Each RDO handles different amounts and

types of waste depending on its size and location. The locations of the sites are listed in **Table 28 (Residential Drop-Off Locations Serving the Wellness Way Sector Plan)**.

Table 28: Residential Drop-Off Locations Serving the Wellness Way Sector Plan

Facility Name	Address	City
Citizen Convenience Center	13130 County Landfill Rd.	Astatula
RDO #2	10435 Loghouse Transfer Station Rd.	Clermont

Source: Lake County Department of Public Works

2. Collection

Lake County has instituted mandatory waste collection to discourage illegal dumping and burning of solid wastes in the unincorporated area of the County. Residents have solid waste collection available to them from a County franchised hauler. The City of Clermont also has a mandatory waste collection program. According to the City of Clermont’s Comprehensive Plan Solid Waste Element, they utilize Lake County’s Landfill for disposal. Consequently, the county’s resources are the primary solid waste facility for the Wellness Way Sector Plan Area. Residential collection includes household garbage, yard waste, appliances, and furniture.

3. Analysis

Based on the land uses assigned within the sector plan boundary and the projected residential population the increased wastewater volume generated is depicted in **Table 29 (Projected Residential Solid Waste Demand)** and **Table 30 (Projected Non-Residential Solid Waste Demand)**.

Table 29: Projected Increase in Residential Solid Waste Volume

Projected Residential Population	Estimated (tons per day per resident)*	Projected Annual Solid Waste Generated (million lbs/yr)	Solid Waste Ratio (lbs/cubic yard)**	Solid Waste Volume Generated (CY/year)
44,020	1.4	123.26	1,200	102,713

Source: *Lake County Department of Public Works.; **Lake County Comprehensive Plan

Table 30: Projected Increase in Non-Residential Solid Waste Volume

Maximum Projected Office, Industrial, and Retail Uses (acreage)*	Projected Annual Solid Waste Generated per Acre (tons/yr/acre)**	Solid Waste Ratio (lbs/cubic yard)***	Solid Waste Volume Generated by Commercial Property (CY/year)
6,300	10.5	1,200	110,250

Source: *Lake County Department of Public Works.; **FDEP Commercial Waste Tonnage Report and Lake County Comprehensive Plan; *** Lake County Comprehensive Plan

4. Recommendations

Based on the anticipated growth within the sector plan, the County will need to assess the impacts on the receiving capacity of the Astatula Landfill and other disposal sites.

H. TRANSPORTATION

This section presents the data collected for the transportation network, existing conditions and service, future plans and identified needs and the initial general recommendations that were considered when preparing the final transportation plan and policies for implementation.

1. Inventory

a. Roads

i Jurisdictional and Maintenance Responsibility

The existing roadway network within and adjacent to the boundaries of the Sector Plan is somewhat limited as any improvements and development have been primarily related to agricultural uses, some highway commercial and isolated residential subdivisions. Within the entire Sector Plan study area, there are less than two dozen named facilities and over half of those are graded farm/agricultural service roads.

In addition to the roadways within the limits of the Sector Plan, there are another nearly two dozen that will/may become important linkages as part of the expanded Sector Plan road network and the development of a multimodal and well-connected transportation grid.

Each of these roadway facilities, the segments within and associated with the Sector Plan Study Area, their characteristics, jurisdiction, and maintenance responsibility are shown on **Table 31 (Existing Roadway Inventory - Jurisdiction and Maintaining Authority)**.

Table 31: Existing Roadway Inventory - Jurisdiction and Maintaining Authority

Roadway	Segment	# of Lanes	Functional Classification	Area Type	Jurisdiction	Maintaining Authority
<i>Roadway Segments Within Sector Plan Boundary</i>						
5 Mile Road	N Bradshaw Rd to Shell Pond Rd	Graded	Local	Transitioning	Lake County	Lake County
N Bradshaw Road	US 27 to Shell Pond Rd	Graded	Local	Transitioning	Lake County	Lake County
S Bradshaw Road	US 27 to US 27	Graded	Local	Transitioning	Lake County	Lake County
Champagne Drive	Full Extents	2	Local	Transitioning	Lake County	Lake County
Cook Road	Shell Pond Rd to end	Graded	Local	Transitioning	Lake County	Lake County
Eddy Drive	Hartwood Marsh Rd to end	Graded	Local	Transitioning	Lake County	Lake County
Flynn Court	Hartwood Marsh Rd to end	2	Local	Transitioning	Lake County	Lake County
Fox Hole Road	Hartwood Marsh Rd to Phil C Peters Rd	Graded	Local	Transitioning	Lake County	Lake County
Frank Jarrell Road	US 27 to end	Graded	Local	Transitioning	Lake County	Lake County
Hartwood Marsh Road	Hancock Rd to 90° Bend	2	Collector	Urban	Lake County	Lake County
Hartwood Marsh Road	90° Bend to Orange County Line	2	Collector	Transitioning	Lake County	Lake County
McKinney Road	Western Extent to Orange County Line	Graded	Local	Transitioning	Lake County	Lake County
Old YMCA Road	Orange County Line to end	Graded	Local	Transitioning	Lake County	Lake County
Regency Hills Drive	Hartwood Marsh Rd to Kings Ridge Blvd	2	Local	Transitioning	Lake County	Lake County
Sadler Court	Hartwood Marsh Rd to end	Graded	Local	Transitioning	Lake County	Lake County
Shell Pond Road	US 27 to Orange County Line	Graded	Local	Transitioning	Lake County	Lake County
Terra Vista Court	Hartwood Marsh Rd to end	Graded	Local	Transitioning	Lake County	Lake County
US 27	Hartwood Marsh Rd to Lake Louisa Rd	6	Primary Arterial	Urban	Lake County	State
US 27	Lake Louisa Rd to Boggy Marsh Rd	4	Primary Arterial	Transitioning	Lake County	State
<i>Other Significant Roadways and Segments Near Sector Plan Area</i>						
Citrus Tower Boulevard	SR 50 to Hooks St	4	Major Collector	Urban	Clermont	Lake County
Citrus Tower Boulevard	Hooks St to Johns Lake Rd	4	Major Collector	Urban	Clermont	Lake County
Citrus Tower Boulevard	Johns Lake Rd to US 27	4	Major Collector	Urban	Clermont	Lake County
Excalibur Road	Hooks St to Citrus Tower Blvd	2	Collector	Urban	Lake County	Lake County
Grand Highway	SR 50 to Hooks St	4	Major Collector	Urban	Clermont	Lake County

Roadway	Segment	# of Lanes	Functional Classification	Area Type	Jurisdiction	Maintaining Authority
Hancock Road	SR 50 to Hooks St	4	Major Collector	Urban	Clermont	Lake County
Hancock Road	Hooks St to Johns Lake Rd	2	Major Collector	Urban	Lake County	Lake County
Hancock Road	Johns Lake Rd to Hartwood Marsh Rd	2	Major Collector	Urban	Clermont	Lake County
Hartwood Marsh Road	US 27 to Hancock Rd	2	Collector	Urban	Lake County	Lake County
Hooks Street	US 27 to Oakley Seaver Dr	4	Major Collector	Urban	Clermont	Lake County
Hooks Street	Oakley Seaver Dr to Citrus Tower Blvd	4	Major Collector	Urban	Clermont	Lake County
Hooks Street	Citrus Tower Blvd to Hancock Rd	4	Major Collector	Urban	Clermont	Lake County
Johns Lake Road	US 27 to Hancock Rd	2	Collector	Urban	Clermont	Lake County
SR 50	US 27 to Hancock Rd	6	Primary Arterial	Urban	Lake County	State
SR 50	Hancock Rd to CR 455	6	Primary Arterial	Urban	Lake County	State
SR 50	CR 455 to Orange County Line	6	Primary Arterial	Urban	Lake County	State
Sawgrass Bay Blvd	US 27 to Sector Plan Boundary	4	Collector	Transitioning	Lake County	Lake County
Steve's Road	US 27 to Citrus Tower Blvd	2	Collector	Urban	Clermont	Lake County
US 192	US 27 to Orange County Line	6	Primary Arterial	Transitioning	Lake County	State
US 27	SR 50 to Johns Lake Rd	6	Primary Arterial	Urban	Clermont	State
US 27	Johns Lake Rd to Hartwood Marsh Rd	6	Primary Arterial	Urban	Lake County	State
US 27	Boggy Marsh Rd to CR 474	6	Primary Arterial	Transitioning	Lake County	State
US 27	CR 474 to US 192	6	Primary Arterial	Transitioning	Lake County	State

Source: Lake Sumter MPO - Lake County Transportation Concurrency Segment Report - May 14, 2013

ii Functional Classification

One of the basic characterizations used in most parts of the industrialized world is to describe the roadway system by the function they serve in the network. Roads in the higher classifications tend to serve volume at higher speeds and those in the lower tiers serve access, are often geared to the human scale, and are less auto-centric. While the function of roadways in rural and urban environments differ, in almost every urban environment the four main functional classifications for roadways can be identified, and in many a fifth roadway type, the freeway or interstate, is also present but still classified as a “principal” arterial. Even though the Wellness Way Sector Plan area has a limited number of roadways, those facilities in combination with the other significant roadways adjoining the study area still provide each of the functional roadway types; principal arterials, arterials, collectors and local streets, see **Map 23 (Functional Classification)**. The basic characteristics of the four standard functional classifications are as follows:

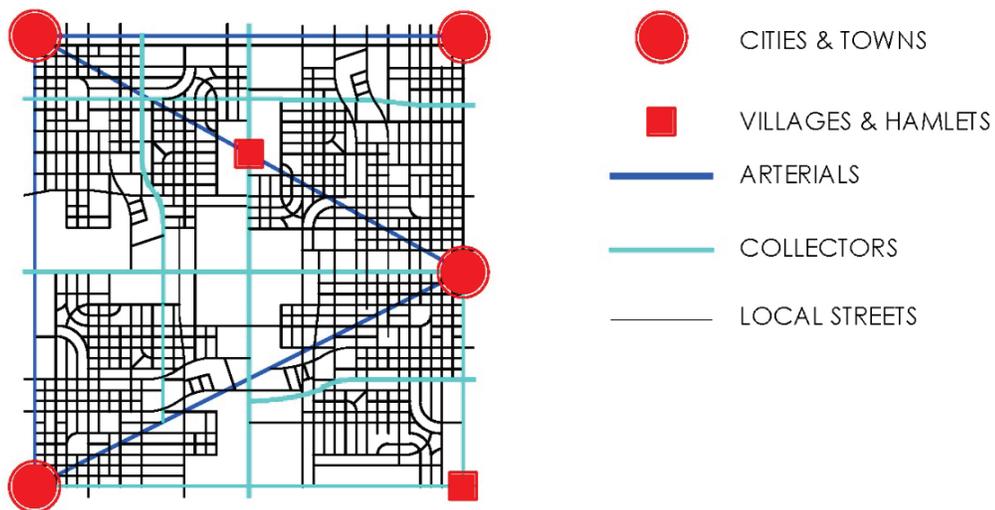
- **Principal Arterial:** Generally limited in number (especially in rural or low population areas), primary service to through traffic movement, connecting major centers of activity and commerce, generally extended trip lengths, frequently serving inter-city bus service, often controlled or limited access.
- **Minor Arterial:** Interconnects and augments the principal arterial system accommodating trips of moderate length and serving geographic and areas of lower density in terms of population and development. This arterial places more emphasis on access to land and service to the local public transportation system. Spacing between the arterial system is much closer than the Principal Arterial and is often as close as $\frac{1}{4}$ to $\frac{1}{2}$ mile in the urban/central business district areas and as far apart as 2-3 miles in suburban areas.
- **Collector Streets:** Collector streets provide access to neighborhoods and commercial development but also are the primary connectors for the arterial roadway network. Collectors “collect” traffic from local streets and distribute or channel that volume onto the arterial or collector roadway system elements. In the major urban core areas, collector streets can constitute the entire street grid and serve as the primary circulation system for public transportation.
- **Local Streets:** Any facility not found in the higher system hierarchy is considered to be a local street. Some local streets still carry substantial volumes of traffic, especially in areas where alternative routes are limited or single land uses predominate. The streets often offer the lowest level of automobile capacity but they can be an intricate part of the mobility in the community as they serve pedestrian, bicycle and in some cases other alternative modes such as carts and electric vehicles.

Figure 3 (Roadway Functionality) and **Figure 4 (Urban and Rural Network Connections)**, both developed from examples shown in the Policy on Geometric Design of Highways and Streets, 2011 6th Edition, reflect the concept of functional classification.

Figure 3: Roadway Functionality



Figure 4: Urban and Rural Network Connections



The functional classifications for the roadways in the Sector Plan Study Area and the immediate adjacent properties are also shown on **Table 31 (Existing Roadway Inventory - Jurisdiction and Maintaining Authority)**. Functional classification is one of the key factors that should be considered as the future Sector Plan roadway network is designed. With the proper complement of roadway types and the appropriate mixture of land uses, as much as 80% of the trip mileage produced by development can be expected to use the local and collector street system with only 20-25% of the trips generated requiring the use and capacity from the arterial level roadways. This is an indicator of a well-designed, properly developed community with many sustainable and resilience features incorporated.

As previously mentioned, there are less than two dozen platted roadways with public right-of-way that are maintained by a local or state jurisdiction. Of these, all but two are local streets,

see **Table 31 (Existing Roadway Inventory - Jurisdiction and Maintaining Authority)**. The two (2) facilities that are at the collector or arterial level of classification are listed and described in summary detail below.

- US 27 – This highway has functioned as a major commerce route through central and south Florida for decades. It remains a major truck route for freight and goods movement and is on the State of Florida Strategic Intermodal System (SIS) from SR 826 (the Palmetto Expressway) in south Florida to its interchange with Florida’s Turnpike north of the Sector Plan in Lake County. Facilities that are designated under the criteria for addition to the SIS are done so based on their statewide and regional significance for aviation, highway, intermodal rail, seaport, space and transit systems support and the accommodations that are provided or planned for bicycle and pedestrian utilization.
- Hartwood Marsh Road – This collector extends from US 27 to the Lake/Orange County Line and continues easterly to its intersection with Avalon Road. With the exception of a short segment immediately east of US 27, Hartwood Marsh Road (Marsh Road in Orange County) is a two lane rural facility and is maintained by the counties. At the Avalon Road intersection the name changes to Stoneybrook West Parkway and the typical section expands to a four-lane divided suburban section with a raised median and enclosed drainage systems. At the intersection with SR 429 in Orange County the facility converts to a frontage road system and parallels SR 429 to and beyond the interchange of SR 429 and Winter Garden Vineland Road.

iii Major Trip Generators/Attractors

The Wellness Way Sector Plan properties are relatively undeveloped with no significant trip generators or attractors located within the boundary of the study area. However, there are some existing and planned developments immediately outside the boundary that generate substantial amounts of traffic. Those are described below.

- 1) The City of Clermont – The city limits extend across the northern boundary for much of the width of the Sector Plan area. The properties within the City have been developed to a great extent by single family residential projects. Along US 27, immediately north of the Sector Plan limits there are a number of commercial retail developments that generate substantial trips onto that corridor including the shopping center and commercial uses located at Hartwood Marsh Road and the fairly significant retail/commercial center north of that location at Lost Lake (intersection of US 27 and Johns Lake Road and at Citrus Tower Boulevard).
- 2) West of US 27, south of the Lake Louisa State Park – Immediately south of the park, there are agricultural uses that have very minimal trip generation associated, but slightly further south, there begins to be urban development on both sides of US 27 in the area of Sawgrass Bay Boulevard. None of this development, although adjacent to the Sector Plan Boundary, is actually located within its limits. This is the case for the remainder of the US 27 corridor area to a point beyond the southern limits of the Sector Plan area.
- 3) South of the Sector Plan Area – Development in this area has concentrated along US 27 and US 192 but does not reach the Sector Plan area boundary.

- 4) Horizon West – The eastern boundary of the Sector Plan is the Lake/Orange County Line. Substantial planning and development approvals have been issued in association with the Horizon West villages but to date very limited development has occurred and none to date that is adjacent to the Wellness Way Sector Plan Boundary.

iv Signalized Intersections

Of some importance and as a means to describe the relatively low level of development and urban uses in the Sector Plan study area, there are currently two (2) signalized intersections in the area and both are on the fringe and near the urbanized area of Clermont. The locations are:

- US 27 @ Lake Louisa Road
- US 27 @ Sawgrass Bay (flashing light)
- Hancock Road at Hartwood Marsh Road

v Evacuation Routes

The evacuation planning analysis for Lake County is described in the transportation component of the Statewide Regional Evacuation Study Program (SRESP). The study evaluates a number of extremely complex variables including storm intensity, the transportation network, shelter locations and capacity, evacuating population, and human behavior and responsiveness to storm warnings. Due to the complexity of the analysis, computerized transportation simulation programs are applied to test and compare the multiple scenarios that are possible.

The studies completed under the SRESP were for the territory within the East Central Florida Regional Planning Council six county area. The determination of evacuating traffic, and therefore the primary facilities of choice or need, is based on a General Model Flow principle. The steps are as follows:

- Identify Evacuation Conditions
- Determine evacuating trip count
- Determine trip destination purposes
- Distribute trips onto highway network
- Factor trips into time matrices
- Modify background traffic levels
- Load adjusted total trips
- Evaluate results

The regional model network used for the studies includes not only the designated evacuation routes but also the supporting roadway network that will also facilitate the movement of volume to and from the evacuation routes and to and from localized designations such as shelters and emergency centers. The analysis also included the funded and/or financially feasible transportation improvements that would contribute to the evacuation efforts.

Based on the study results, there are four (4) facilities of note that should be considered when planning for the future development and the transportation needs that will be associated with the Wellness Way Sector Plan. However, only one (1) of these facilities is technically within the Sector Plan Study Area. The facilities are:

- US Highway 27 (SR 25) – within study area
- SR 429
- SR 50
- US 192 (SR530)

Of note is the location of one (1) designated shelter at Lost Lake Elementary School on Johns Lake Road between US Highway 27 and Hancock Road. Although not within the study area, this facility is less than 2 miles north of the Sector Plan boundary and would be a primary place of refuge for evacuees if additional facilities are not located within the Sector Plan area itself.

The design and development of the Sector Plan roadway network should include proper connectivity but also consider the need for parallel and supporting local roadway network to minimize the use of US Highway 27 during times of emergency except by official or evacuating traffic volumes. This key element of the network design suggests that the development of new north-south major collector or arterial roadways within the Sector Plan limits should have a strong emphasis in the final recommendations and supporting policies toward their implementation.

b. Rail

There are no active rail systems or spur lines serving the Sector Plan area. Review of the historic rail systems as early as 1900 showed a number of rail lines that operated throughout Lake County with convergence of many of the lines in the Leesburg and Tavares areas. However, there is no active service within the limits of the Wellness Way Sector Plan study area.

c. Transit

Fixed route public transit service has been provided by Lake County since May 2007. Passengers board the LakeXpress buses at designated bus-stop locations along the routes. Currently, there are no LakeXpress routes serving the Wellness Way Sector Plan Area. The four (4) routes that are in operation all serve the communities in Lake County north of Clermont and the Minneola Area. These routes are:

Route 1 – Lady Lake and Eustis via US Highway 441

Route 2 – City of Leesburg

Route 3 – City of Mount Dora

Route 4 – Altoona to Zellwood

Lake County also provides Public Transportation services for the Transportation Disadvantaged. This service is intended for use primarily by the mobility impaired or mentally impaired citizens of the county and also serves a significant segment of the elderly population who do not have access to any other means of transportation.

The Central Florida Regional Transportation Authority (aka LYNX) also provides service in Lake County and offers some level of benefit to the transportation needs generated within or near the Wellness Way Sector Plan area.

Lake County currently contracts with LYNX to provide an express bus service between the City of Clermont and downtown Orlando (Link 204) and a route (Link 55) that serves the Four Corners area from Cagan Crossings at US 27 along US 192 to the Celebration area. One additional route is provided from the Four Corners area from the Cagan Crossings Wal-Mart parking south along US 27 to the Heart of Florida Hospital in Haines City.

Paratransit service is provided complimentary through the Americans with Disabilities (ADA) program and is available to all persons who live or work within ¾ mile of a fixed route and meet the program requirements.

d. Toll Facility Consideration

The inclusion of tolled transportation facilities have long been a part of the infrastructure relied upon in central Florida to provide capacity for the movement of persons and goods into, through and around the major metropolitan areas. They are often one of the only alternatives to increasing highway capacity and relieving overburdened general land service roadways as the facilities are “self-funding” when the toll revenues are sufficient to support the cost of bonds issued to build the highway. However, there are numerous negative issues associated with toll facilities along with some additional positive reasons for their consideration. Some of each of these is described in relation to the Wellness Way Sector Plan below.

There is limited east-west roadway capacity existing in the Wellness Way Sector Plan area and new connections between the US 27 and SR 429 highway/expressway would provide much needed capacity, relief to other area roads (State Road 50, Hartwood Marsh Road and to some extent US 192), a if financially feasible, a toll facility may be the most expedient solution to addressing this regional need. Florida’s Turnpike Enterprise has indicated that they are willing to consider the construction and operation of the facility if the requirements for traffic & revenue production are sufficient to justify the State’s involvement.

Tollways/Expressways offer a high capacity per lane constructed and move traffic at higher speeds due to the limitation of access from cross-street “friction” and among the safest types of roadways due to the very high design standards and focus on minimizing congestion and vehicular conflicts at points of merge and divergence.

Negative issues associated with tolled facilities include the potential to be divisive to communities, establish boundaries to growth and limit the connectivity and options for travel route selection.

They also require relatively extensive rights-of-way, are generally the most expensive roadway built, and offer a minimum number of access points which can have very negative impacts on land development options and activity.

The Wellness Way study area has some history of evaluation for the consideration of tollway construction. In the spring of 2006, the Orlando-Orange County Expressway Authority (OOCEA) adopted the 2030 Master Plan. That plan called for the initiation of multiple Concept and Feasibility Studies, one of which was the SR 429 to US 27 Connector. This study was begun in November 2006 and considered numerous potential corridors throughout the Wellness Way Sector Plan area. Level 1 studies were used to refine and define the viable corridors and Level 2 studies conducted to develop and compare the benefits and deficits associated with the three (3) viable corridors selected (Corridors A, C & D).

Corridor A (the southernmost corridor) was determined to have significant environmental impacts (natural wetlands and floodplains) and to certain portions of approved development properties in the Horizon West Village I Sector Plan. Corridor C was centrally located and would generally follow an alignment parallel to Shell Pond/Schofield Road with a connection to SR 429 at the proposed Schofield Road Interchange. Close consideration would be necessary to address the potential impacts to the planned Horizon West Town Center development located in this part of the corridor. Corridor D, connecting from US 27 to SR 429 at the Independence Parkway Interchange traversed through lands owned primarily by local government (Orange County and the City of Orlando) known as the Conserv II property. This corridor was anticipated to serve the lowest projected vehicular traffic (42,000 ADT as compared to 48,800 – Corridor C and 66,700 – Corridor A).

The findings of the study were issued in a report dated January 2007. Overall the sensitivity analyses performed for Corridors A and D resulted in a recommendation that Corridor D be further considered primarily based on the benefits in trip reduction it provided to surrounding facilities and the best overall traffic performance indicators. Corridor D was found to meet the transportation needs that were generated based on the land use datasets in the regional plans at that time and was also determined to be the best alternate from a standpoint regarding environmental impacts. The final recommendations were for the local government to foster relationships that would form public-private partnerships with area stakeholders and to promote the reservation of right-of-way for an arterial network of controlled access roadways, as the transportation demand could also be served by one or more arterial roadways.

In the time between the presentation of findings for the SR 429 to US 27 Connector Study, the Lake County MPO has requested and received confirmation from Florida's Turnpike Enterprise to conduct a new toll road feasibility/PD & E Study for a facility to be located generally in the same locations described as the area between SR 429 and US 27 (east to west) and between Schofield Road and Independence Parkway (south to north). The expectation is that the traffic volume levels will be substantially higher based on the revised land use densities and intensities associated with the Wellness Way Sector Plan and that the implementation and justification for a toll road may be feasible on that basis.

The toll facility would still be faced with many of the same issues and concerns as the original study by OOCEA indicated and additionally could have even greater impacts on the economic development potential for certain properties within the Wellness Way Sector Plan. The study will not be completed prior to the recommendations for the roadway system and land use plan for the Sector Plan and therefore a toll facility will not be part of the infrastructure considered in the multimodal transportation plan for the Sector Plan.

2. Analysis

As development occurs within the Wellness Way Sector Plan area, the movement of people and goods will become an ever-increasing priority. This will not only be related to the trips and services needed for and generated by the residents in the area but for the regional trips that do not actually have an origin or destination within the limits of the sector plan but will make use of the transportation facilities. This will include truck and freight movement, recreational trips, certain levels of commuter traffic that will take advantage of the alternative route and services choices that will be incorporated into the development design and form.

Serving these transportation needs is an exceptionally important goal of a community plan and has been identified as a one of the highest priorities for the Wellness Way Sector Plan. Although it is understood that the current singularly most importation mode of transportation in all of Lake County remains the individual automobile, the design of the Sector Plan transportation network will offer a significant transition to the use of a multimodal system that incorporates:

- a substantial increase in ridership for public transportation,
- the personal bicycle,
- potential cart and electric vehicles and to a great extent,
- a high volume of pedestrian traffic within the higher density development areas and for recreational purposes.

To fully understand the steps that will be necessary to accomplish these objectives, a detailed review of some of the basic existing conditions is needed. Those associated with the current transportation service levels and anticipated future performance for the system as designed today are described in the following.

a. Current Roadway Performance

Due to the limited number of transportation facilities that exist within the Sector Plan Study Area, the data and analysis collected for the evaluations included an expanded review of the transportation network that serve the local and regional travel that occurs within Lake County immediately north and south of the Sector Plan.

As shown in **Table 32 (Existing Roadway Performance)**, there were a total of eleven roadways evaluated based on the existing plus committed network improvements, existing peak hour traffic

counts, the established service volume threshold for the adopted level of service (LOS) standard and including the committed trips from approved development.

Map 24 (Existing Roadway Performance) shows most of the facilities in the area of study operate at extremely good conditions (LOS C or better). Of the roadways evaluated, there are five (5) segments that are operating at a failing condition today. Two (2) of these segments are within the Wellness Way Sector Plan Study Area. Both of these segments are on Hartwood Marsh Road and together extend from Hancock Road east to the Lake/Orange County Line. The segments range from 15% to nearly 40% over the adopted service volume threshold. It is important to note that this facility extends into Orange County and through the jurisdiction of the City of Winter Garden. The City has made a policy decision that the roadway will not be widened beyond two (2) lanes and, therefore, widening the roadway within Lake County is not necessarily a viable solution to the existing congestion. Alternatives considerations such as public transportation, parallel facilities or modified trip making characteristics are part of the techniques and tools that are included in the Sector Plan studies and policy design.

There are only two (2) other roadway segments, both on US 27, that fall within the specific limits of the Sector Plan. These are from Hartwood Marsh Road to Lake Louisa Road and from Lake Louisa Road to Boggy Marsh Road. The first segment is a 6 lane arterial with remaining capacity of over 1750 peak hour peak-direction trips available before the service volume capacity is reached. The second segment between Lake Louisa Road and Boggy Marsh Road is a 4 lane arterial but also has significant reserve capacity of over 1400 peak-direction trips.

Table 32: 2013 Existing Roadway Performance

Roadway	Segment	# of Lanes	Area Type	LOS Std.	Svc. Vol. @ Std.	AADT	PM Pk HR Total	Pk Hr/ Pk Dir	Peak Direction	PM Peak-Hour		LOS
										EB/ NB	WB/ SB	
Citrus Tower Blvd	SR 50 to Hooks St	4	Urban	D	1,764	13,353	1,077	624	SB	453	624	B
	Hooks St to Johns Lake Rd	4	Urban	D	1,764	11,986	974	522	SB	452	522	B
	Johns Lake Rd to US 27	4	Urban	D	1,764	10,040	798	477	SB	321	477	B
Excalibur Rd	Hooks St to Citrus Tower Blvd	2	Urban	D	572	3,673	412	310	NB	310	102	B
Grand Hwy	SR 50 to Hooks St	4	Urban	D	1,764	3,982	325	178	NB	178	147	B
Hancock Rd	SR 50 to Hooks St	4	Urban	D	1,764	15,407	1,324	737	SB	587	737	B
	Hooks St to Johns Lake Rd	2	Urban	D	792	15,407	1,324	737	SB	587	737	C
	Johns Lake Rd to Hartwood Marsh Rd	2	Urban	D	792	7,557	619	367	NB	367	252	B
Hartwood Marsh Rd	US 27 to Hancock Rd	2	Urban	D	572	11,467	975	598	WB	377	598	F
	Hancock Rd to 90° Bend	2	Urban	D	572	10,267	950	660	WB	290	660	F
	90° Bend to Orange County Line	2	Transitioning	D	520	9,066	924	721	WB	203	721	F
Hooks St	US 27 to Oakley Seaver Dr	4	Urban	D	1,764	3,813	361	188	WB	188	173	B
	Oakley Seaver Dr to Citrus Tower Blvd	4	Urban	D	1,764	4,022	318	170	WB	170	148	B
	Citrus Tower Blvd to Hancock Rd	4	Urban	D	1,764	6,624	552	344	EB	208	344	B
Johns Lake Rd	US 27 to Hancock Rd	2	Urban	D	572	5,816	521	289	WB	232	289	B
SR 50	US 27 to Hancock Rd	6	Urban	D	2,940	29,742	2,260	1,357	WB	903	1,357	B
	Hancock Rd to CR 455	6	Urban	D	2,940	29,742	2,260	1,357	WB	903	1,357	B
	CR 455 to Orange County Line	6	Urban	D	2,940	39,746	3,483	2,360	WB	1,123	2,360	B
Steve's Rd	US 27 to Citrus Tower Blvd	2	Urban	D	572	4,863	480	264	WB	216	264	B
US 192	US 27 to Orange County Line	6	Transitioning	C	2,590	38,069	3,000	1,975	WB	1,025	1,975	B
US 27	SR 50 to Johns Lake Rd	6	Urban	C	2,860	28,705	2,026	1,234	NB	1,234	792	B
	Johns Lake Rd to Hartwood Marsh Rd	6	Urban	C	2,860	28,856	2,229	1,277	NB	1,277	951	B
	Hartwood Marsh Rd to Lake Louisa Rd	6	Urban	C	2,860	23,401	1,954	1,059	SB	895	1,059	B

Roadway	Segment	# of Lanes	Area Type	LOS Std.	Svc. Vol. @ Std.	AADT	PM Pk HR Total	Pk Hr/ Pk Dir	Peak Direction	PM Peak-Hour		LOS
										EB/ NB	WB/ SB	
	Lake Louisa Rd to Boggy Marsh Rd	4	Transitioning	C	2,420	19,566	1,441	827	NB	827	614	B
	Boggy Marsh Rd to CR 474	6	Transitioning	C	3,630	19,566	1,441	827	NB	827	614	B
	CR 474 to US 192	6	Transitioning	C	2,590	36,605	2,756	1,606	NB	1,606	1,150	B

Source: Lake Sumter MPO - Lake County Transportation Concurrency Segment Report - May 14, 2013

b. Current Policy & Regulations

The Transportation Element Goals, Objectives and Policies for the current Lake County Comprehensive plan were reviewed in detail to identify any potential conflicting policies that might need to be modified as a result of the adoption of the Wellness Way Sector Plan. It was determined that there are a number of policies that may require some modification or replacement in order to eliminate certain specific criteria that may not be applicable to the context and form of the Wellness Way Sector Plan. Those GOP's are listed below along with a brief review of the concern.

i Objective VIII-1.1 Level of Service Standards

“Level of service standards, in accordance with the latest version of the Quality/Level of Service Handbook developed by the Florida Department of Transportation Systems Planning Office, shall be adopted in order to maximize the efficient use and safety of roadway facilities in order to coordinate capital improvement planning with land use decisions to meet the requirement that adequate roadway facilities be available concurrent with the impacts of development.”

Concern: Within the Sector Plan, an alternative set of level of service standards that are not consistent with the FDOT Q/LOS Handbook may be appropriate.

ii Policy VIII-1.1.2 Transitioning Urbanized Areas Minimum Operation Level of Service Standards

“Consistent with the Florida Department of Transportation Quality/Level of Service Handbook, Lake County adopts the Area Types for Highways and Roads in Lake County as depicted on the Urban, Transitioning and Rural Areas Map (TRANSPORTATION Map – 2, which can be found in Chapter XII, Map Series), as adopted by the LSMPO on September 23, 2009.”

Concern: Within the Sector Plan, the area types for highways and roads may be determined to differ from those found in the FDOT Q/LOS Handbook. Therefore, the application of an alternative level of service methodology or specified software designed to determine operations conditions may be appropriate.

iii Policy VIII-1.3.4 Access Management for State Roads

“Lake County shall maintain access management standards, consistent with Rule 14-97 F.A.C., to regulate and control vehicular ingress and egress to and from the State Highway System (SHS). The intent of these standards is to protect public safety and the general welfare, to provide for mobility of people and goods, to preserve the functional integrity of the SHS, and to minimize the number of access points to state roads thereby reducing turning movements, conflict points, and other hazards. New development and redevelopment along State Roads shall be required to conform with or exceed these standards. Access management requirements shall include, but are not limited to, dedicated turn lanes, limited driveways and curb cuts, shared access/driveways, cross access easements, frontage roads or rear access roads and driveways, inter-connected parking lots, and other means to reduce the need and ability to access properties from State roads and increase access from adjacent properties.”

Concern: Access and connectivity are primary components for introducing pedestrian, transit and human scale livability elements to a community. The standards in Rule 14-97 are not necessarily consistent with the design form that will be most appropriate for the Sector Plan.

Prior to the adoption of the first DSAP, Lake County will conduct a multi-modal transportation study to determine the appropriate methodology for measuring level of service within the sector plan area. The level of service measurement for the multi-modal transportation network will consider the benefits of alternative modes of travel, award value to the level of connectivity and most importantly, embrace lower operating speeds as a key factor in reducing severe injuries and influencing a shift to public transportation and non-motorized travel. Additionally, the application of criteria and measurements of effectiveness such as reductions in net external trips and lower vehicle miles travelled must be incorporated and rewarded. Conventional methods of measuring level of service, (higher speeds, reduced delays, low volume to capacity ratios) actually reward the opposite in many ways. Higher travel speeds can result in sprawl and additional vehicle miles traveled. Increased net external trips (reduced internal travel) contribute to congestion and have a negative impact on the environment and quality of life. Therefore, the method applied for determining the level of service standard should consider not on the travel characteristic but the design form, the safety and the desired influence that a mixed-use development form can have on all travel demand.

3. Recommendations

The development and design of transportation systems serving local and regional communities has transitioned from one focused on moving trucks (freight) and personal occupancy vehicles (POV's) to one that is much more multimodal in nature and centered around the movement of people and goods in the most effective and sustainable means available. While the transportation priority of the Wellness Way Sector Plan remains mobility for the residents and business employees and services supporting the development, the means to achieve those goals should be based on a different type of transportation system and network.

The data collected and the analysis performed were focused on the definition of a transportation plan that will support mobility through design, policy and the introduction of an interconnected, multi-modal transportation system that will target the following goals:

- Reduction of vehicle trips,
- Reduction of trip lengths,
- Reduction of vehicle miles traveled,
- Internalization of development trips,
- Interconnected streets, bicycle facilities and pedestrian systems,
- Introduction of transit-oriented design elements,
- Provisions for non-conventional modes of travel, and

- The allowance for a broad range of travel route and modal choices.

The development of the transportation plan that will serve the Wellness Way Sector Plan land uses must accomplish two primary objectives.

- First, the general identification of the transportation facilities necessary to support the future land uses proposed within the sector plan limits.
- Secondly, development of guidelines that will be used to establish those modal components intended to optimize mobility.

The transportation products that are required for a Sector Plan are not to the detail that has been specified under prior rules and regulations (Chapter 163, Intergovernmental Programs, 163.3245(3) (a) 1-7). The products include mapping and illustrations with descriptions that support the data and analysis conducted to prepare a general identification of the transportation facilities to serve the future land uses proposed for the Sector Plan. Additionally, guidelines for modal components are needed and can be described in text and exhibits and/or included in the Goals, Objectives and Policies for the Plan. The following presents the review of the roadway network design process, the procedures followed to prepare travel demand forecasts for the major framework roadways and the conceptual design for recommended typical roadway sections for the various area contexts.

4. Circulation and Roadway Design Plan

The initial roadway network plan and draft internal collector street system was a product of collaboration between multiple agencies and stakeholders that have an interest in the location, type of facility and access and connectivity that will be provided. The agencies included both Florida Department of Transportation and Turnpike Enterprise representatives, Lake County and Orange County Public Works and Planning Divisions, the City of Clermont, the Orlando Orange County Expressway Authority, the Lake-Sumter MPO and the management from Conserv II, a department within the Orange County Utilities Department that is co-owners with the City of Orlando of the large land area used for waste water disposal and aquifer recharge. The City of Orlando was also represented by a member of its own waster Division.

A wide range of data, documentation, stakeholder input and transportation program and planned improvements for various types of infrastructure was used to formulate the initial roadway network plan. Connectivity across jurisdictional boundaries was a key focal point and those ultimately recommended have been fully vetted with Orange County as they relate to the approved Horizon West design characteristics.

Additional primary focal points in the network design were the addition of arterial level roadways to provide parallel service and capacity for both north-south and east-west travel and to establish a framework for the extension and connections for the multi-purpose bicycle, pedestrian and South Lake Trail Master Plan facilities.

The initial east-west framework streets were located and “sized” based on the anticipated travel demand based on their connections to the SR 429 Expressway interchanges and US 27. The north-south

facilities were located using logical extension of existing major collector/arterial roadway facilities of those shown in the long range transportation plan. Each of the facilities were aligned to connect with other roadways to provide continuity in travel patterns, avoid wetlands and other sensitive lands as possible and to provide access to all major property tracts and agricultural businesses in the Sector Plan.

Following review of the initial network plan by both agency staff, stakeholder property owners, and the Lake County Public Works and the Lake-Sumter MPO staff, and representatives from the City of Clermont, modifications were made to the alignment and connection of one (1) primary network facility and its intersection location at US 27. This is the facility known today as Independence Parkway. The primary change was a relocation of the facility through a portion of the Conserv II lands to provide an improved connection to lands that will be a key portion of the developable area and offer excellent economic development opportunity. This revised roadway network and initial set of typical sections (land number and facility and area type) formed the basis for the travel demand forecasts produced using the adopted regional transportation model.

a. Transportation Model Design

Population and employment estimates were developed and formatted for input to the transportation model based on the future land use assigned to the property within the sector plan area. See **Section B (Land Use)** for more detail regarding the population, residential and non-residential estimate methodology. As mentioned in Section B, a minimum, typical, and maximum development scenario was prepared for all of the proposed future land use categories to determine gross and net residential and non-residential development potential. The typical development scenario was derived to replicate the typical development pattern and will serve as the analysis scenario to determine impacts on infrastructure and the transportation network. For the purposes of developing socio-economic data (zdata) for inclusion in the model, percentages were assigned to each future land use category for three industry types (retail, industrial and office) contained in the zdata. As shown in **Table 33 (Industry Type Percentage Assumptions)**, the following assumptions were made for each future land use category. The percentages are based on reasonable but hypothetical distributions of uses within the land use categories and do not represent a required mixture of uses.

Table 33: Industry Type Percentage Assumptions

Future Land Use	Retail	Industrial	Office
Rural Reserve	5%	95%	0%
Mixed Use Sub-Urban	90%	0%	10%
Mixed Use Urban	75%	0%	25%
Employment Center	10%	60%	30%

Employee density was assumed for each industry type according to industry standards. The following employee densities were applied:

- Retail: 1 employee per 675 square feet

- Industrial: 1 employee per 1,000 square feet
- Office: 1 employee per 350 square feet

Housing units were estimated in a similar method as the industry types. Each proposed future land use category was assigned a percentage of multifamily and single family residential units. The current residential split in Lake County (as a whole) is 90 percent single family residential to 10 percent multifamily. Assuming the sector plan area develops in a more urban fashion than the historic development pattern experienced in the County, an 80 percent single family residential to 20 percent multifamily residential distribution was applied to the total residential unit output.

The Wellness Way model is based on the adopted 2035 CFRPM v501 with the needs improvements included. These were the same improvements presented in the South Lake County Benefit District Impact Fee study recently completed by the Lake County Public Works. The transportation network for the Wellness Way Sector Plan was revised to include the major roadways, including but not limited to the new east-west arterials such as Independence Parkway, Lake-Orange Expressway, Shell Pond Road (Schofield Road), and Sawgrass Bay Boulevard/Western Way. Major north-south arterials to be added to his section of South Lake County were also added to the model network including extensions of Hartle Road and Hancock Road South. Additionally, collector level roadways that are unnamed at this time were included to complete the primary transportation network and create a basis for testing the service that would be provided to the selected land use program.

The area and facility types coded into the model were determined based on the proposed development program, intended context of the area and number of lanes. A total of 24 TAZs were used for this area with some being “recycled” and others added to the model files. The model was run to determine the demand of traffic on the network with the proposed development.

An iterative process was designed to test the base roadway network using the capacities identified by facility and area type and adopted as part of the regional model. The initial network was tested and modified for the number of collector level facilities, facility type, and/or number of lanes proposed using the series of typical roadway sections developed specifically for the Sector Plan.

The final roadway network recommendations are provided for the expected “build-out” of the land use and development program assuming that to have occurred by year 2035. The actual build-out of the Sector Plan may occur at a much later date and thus the estimates and resulting analyses can be considered a conservatively high scenario. This produces a conservatively high estimate of traffic volume for that time period as the introduction of higher level transit technologies have been introduced into the analyses. Those transit service recommendations are however included in the recommendations and GOP’s for the study. The refinements made to the roadway network to assure the recommended capacity standards are maintained are reflected in the final transportation plan network and the multi-modal system elements that are incorporated into the Sector Plan design and system elements.

b. Level of Service

The role of level of service (LOS) in transportation planning analysis is central, but often misunderstood. The fundamental importance of the concept of level of service is that an acceptable stand be identified and maintained. However, it is possible to address the issue without specifying a LOS standard in terms of an explicit ratio, such as vehicle per hour or average operating speed. In reality, the LOS for transportation systems is a set of capital facilities, including land, roadways, bicycle and pedestrian facilities, public and private transportation services, trails and an overall series of provisions that provide mobility that meets the community needs and/or desires., Explicit LOS standards may over-simplify this complex relationship by emphasizing one element of the capital facilities, such as number of travel lanes or traffic signals per mile (or, in some cases a characteristic that is not directly related to capacity of capital facilities, such as aesthetics or landscape treatment).

These are considerations that should be evaluated and incorporated into the GOP's for the Sector Plan and implemented as part of the Specific Area Plan design.

However, for purposes of meeting the tests required by statute for sector plan preparation, a more conventional approach has been applied at this stage. That approach involves the development of population and employment forecasts, conversion of that data to input variables for use in the regional travel demand model, and the production of traffic forecasts for each framework roadway. These forecasts were then compared to the generalized capacities for the identified roadway sections by segment and in certain cases the network modified to meet the travel demands. Where there are constraints (policy or physical) to making modifications to improve the LOS by lane additions, those facilities are shown on the roadway capacity analysis table as over the adopted standard and must be addressed through the addition of new roadway network, improved public transportation, or adjustments to the measures applied to determine acceptable operating conditions, such as a Multi-modal Transportation District.

The resulting findings and recommendations are reflected in **Table 34 (Future Roadway Conditions)** and the primary roadway network performance in terms of LOS shown on **Map 26 (Future Roadway Performance)**. With the exception of the future improvements shown for US 27, a short segment of Hartwood Marsh Road between US 27 and Hancock Road and a part of Hartle Road north of Hartwood Marsh Road, each of the roadways shown will be considered Future Improvements (not in any work program to date).

c. 2035 Build-out Analysis – General Description

Build-out of the Wellness Way Sector Plan area, consistent with the anticipated land utilization and generalized development program using the basic land use assumptions will have significant impacts on the roadway network that exists today unless considerable investment in made in the addition of transportation infrastructure. To evaluate the transportation needs, and establish a future roadway network and planning framework for a multi-modal transportation system as is outlined as one of the primary objectives for the Sector Plan, the transportation performance analysis was completed.

The 2035 CFRPM v501 Travel Demand Forecasting Model was used and the socioeconomic data provided in **Section B (Land Use)** was input to produce the estimated travel demand. The initial network was prepared based on input received from local state and regional transportation agencies and other stakeholders, and was designed to serve the future prime development sites and to avoid impacts to the nature environment and other sensitive areas as much as practical. The future roadway system will include capacities beyond those reflected in the model including enhanced public transportation (fixed route) local circulators systems, cart and bicycle paths and trails and a defined pedestrian network all combining to provide “complete streets” throughout the Sector Plan. This added capacity, although not reflected in the model output, can contribute to a reduction in up to, and exceeding in some cases, thirty (30%) on the automobile volume that would utilize the internal roadway network and a significant portion of the net external trip generation.

The future transportation network includes improvements that are beyond those identified in the Lake County MPO Needs Plan and will require an update to the MPO’s Long Range Transportation Plan roadway network and transportation model. Potential financing for these added facilities is addressed in other parts and products for this sector plan study.

d. Roadway Network Needs

The analysis of needed roadway improvements, connections and new construction for the year 2035 was based on a single build-out scenario. The analysis is based on a v/c analysis that makes the comparison of standardized capacities for certain roadway typical sections that have assigned capacities based on the transportation model design.

Multiple model runs were performed to “size” and modify the connections and number of new or refined facilities needed to serve the projected development program for the Sector Plan. Deficient roadway facilities on segments from the initial model runs were either recoded to increase their capacity or new parallel or “relief” facilities added to the base network forming the final primary street, collector and arterial roadway system recommended for the Sector Plan. Map 26: Future Performance reflects the roadway network fully loaded with the build-out development scenario and the regional model reflecting the proposed Sector Plan facilities and the adopted Cost Feasible Model. The roadways within the Sector Plan are color coded to identify the anticipated service conditions.

Table 34 (Future Roadway Conditions) lists each Sector Plan roadway segment and identifies the service volume used, the typical section selected (reflecting the non-motorized, context sensitive elements of each) and the resulting level of service based on conventional methodologies and volume to capacity ratios. As shown, each of the Sector Plan roadways, with the exception of seven (7) roadway segments within the entire network meet a LOS “D” daily standard or better. Two (2) of those segments are on Hancock Road and four (4) are on Sawgrass Bay Boulevard/Western Way. It is important to note that a transit reduction of only 5% has been applied to the future traffic estimates so any shift in mode beyond that level could modify these results. Additionally, significant excess capacity exists on US 27 parallel to Hancock Road in these areas and that would suggest traffic would divert as congestion increased.

Finally, the segments of Sawgrass Bay Boulevard that are shown with unsatisfactory conditions are based on a four-lane roadway. Increasing the section to six (6) lanes would provide sufficient capacity but could produce substantially greater impact in this sensitive lands area. The majority of traffic using this facility is likely to be diverted trips from US 192 as that facility becomes congested with volumes from that primary tourist/commercial corridor.

In order to obtain these results, the County and its development partners will not only need to develop a substantial and well-connected roadway network, they will need to develop new services that provide modal options for the residents and employees that will become part of the daily population that will inhabit the Wellness Way developments and businesses.

The County must find the means to fund and implement the list of public transit projects and services as identified in the Lake County long term transit priorities, including continued coordination with LYNX to add services and route options in the South Lake County and Wellness Way Sector Plan area. Equal consideration for non-motorized modes of travel and in some cases preferential treatment should be given to effectuate a transition from the use on the private automobile for short and unnecessary trips within the communities. This can occur when context sensitive solutions are applied and safe, convenient and effective alternatives are made available. **Map 25 (Future Improvements & Roadway Network)** identifies the roadway network needed to serve the Sector Plan area and provide the connections to the regional transportation facilities that lay immediately outside the boundaries of the Sector Plan. This network also takes into consideration the importance of connections to regional parks and trail facilities as described in the following report sections.

Table 34: 2035 Future Roadway Conditions

Roadway	Segment	# of Lanes	Area Type	Cross Section	LOS Std.	Daily Capacity	Model Volume	AADT	v/c	LOS
US 27	Hartwood Marsh Road to Lake Louisa Road	6	Urban	Per FDOT design	D	98,300	69,094	61,700	0.63	C
US 27	Lake Louisa Road to Independence Parkway	6	Urban	Per FDOT design	D	98,300	66,081	59,010	0.60	C
US 27	Independence Parkway to Road B	6	Urban	Per FDOT design	D	98,300	59,477	53,113	0.54	B
US 27	Road B to Schofield Road	6	Urban	Per FDOT design	D	98,300	50,225	44,851	0.46	B
US 27	Schofield Road to Road C	6	Urban	Per FDOT design	D	98,300	63,181	56,421	0.57	C
US 27	Road C to Sawgrass Bay Blvd	6	Urban	Per FDOT design	D	98,300	76,144	67,997	0.69	C
US 27	Sawgrass Bay Blvd to US 192	6	Urban	Per FDOT design	D	98,300	75,468	67,393	0.69	C
Hancock Road	Hartwood Marsh Road to Lake Louisa Road	4	Urban	Section D	E	39,800	34,345	30,670	0.77	C
Hancock Road	Lake Louisa Road to Independence Parkway	4	Urban	Section D	E	33,800	38,349	34,246	1.01	F
Hancock Road	Independence Parkway to Road A	4	Urban	Section D	E	33,800	32,672	29,176	0.86	D
Hancock Road	Road A to Road B	4	Urban	Section B	E	33,800	29,557	26,394	0.78	D
Hancock Road	Road B to S. of Schofield Road	4	Urban	Section B	E	33,800	37,573	33,552	0.99	E
Hancock Road	S. of Schofield Road to Frank Larrell Road	4	Urban	Section D	E	39,800	41,044	36,652	0.92	C
Hancock Road	Frank Larrell Road to Superior Blvd	4	Urban	Section E	E	39,800	26,142	23,345	0.59	C
Hartle Road	SR 50 to Hartwood Marsh Road	4	Urban	Per Lake County design	E	39,800	29,874	26,677	0.67	C
Hartle Road	Hartwood Marsh Road to Rural	4	Urban	Section D	E	39,800	24,301	21,701	0.55	C

Roadway	Segment	# of Lanes	Area Type	Cross Section	LOS Std.	Daily Capacity	Model Volume	AADT	v/c	LOS
	Reserve									
Hartle Road	Rural Reserve to Lake Louisa Road	4	Urban	Section F	E	39,800	34,440	30,755	0.77	C
Hartle Road	Lake Louisa Road to N. of Independence Parkway	4	Urban	Section F	E	39,800	38,695	34,554	0.87	C
Hartle Road	N. of Independence Parkway to Road A	4	Urban	Section D	E	39,800	32,931	29,407	0.74	C
Hartle Road	Road A to Road B	4	Urban	Section D	E	39,800	31,904	28,490	0.72	C
Hartle Road	Road B to Schofield Road	4	Urban	Section D	E	39,800	36,441	32,542	0.82	C
Hartle Road	Schofield Road to W. of Road D	4	Transitioning	Section D	E	35,500	31,240	27,897	0.79	C
Hartle Road	W. of Road D to E. of Road D	4	Transitioning	Section B	E	35,500	42,861	38,275	1.08	F
Hartle Road	Road D to Road E	4	Transitioning	Section B	E	35,500	45,552	40,678	1.15	F
Seidel Road	W. of Road E to E. of Road E	4	Transitioning	Section B	E	35,500	27,371	24,442	0.69	C
Seidel Road	E. of Road E to Orange County Line	4	Transitioning	Section F	E	35,500	26,062	23,273	0.66	C
Road D	Independence Parkway to Employment Ctr.	4	Transitioning	Section F	E	35,500	20,274	18,105	0.51	C
Road D	Employment Ctr to Schofield Road	4	Transitioning	Section D	E	35,500	18,374	16,408	0.46	C
Road D	Schofield Road to Hartle Road	4	Transitioning	Section B	E	35,500	16,475	14,712	0.41	C
Road E	Orange County Line to Hartle/Seidel Road	2	Transitioning	Section G	E	16,200	13,124	11,720	0.72	C
Road E	Hartle/Seidel Road to Sawgrass Bay Blvd	2	Transitioning	Section G	E	16,200	8,390	7,492	0.46	C

Roadway	Segment	# of Lanes	Area Type	Cross Section	LOS Std.	Daily Capacity	Model Volume	AADT	v/c	LOS
Hartwood Marsh Road	US 27 to Hancock Road	4	Urban	Per Lake County design	E	39,800	30,255	27,017	0.68	C
Hartwood Marsh Road	Hancock Road to Hartle Road	4	Urban	Section D	E	39,800	27,951	24,961	0.63	C
Hartwood Marsh Road	Hartle Road to Orange County Line	4	Transitioning	Section F	E	35,500	29,020	25,914	0.73	C
Lake Louisa Road	US 27 to E. of Hancock Road	2	Urban	Section C	E	15,600	14,120	12,609	0.81	D
Lake Louisa Road	E. of Hancock Road to Hartle Road	2	Urban	Section G	E	15,600	12,144	10,844	0.70	D
Independence Parkway	US 27 to Hancock Road	4	Urban	Section B	E	33,800	24,289	21,690	0.64	D
Independence Parkway	Hancock Road to Hartle Road	4	Urban	Section B	E	33,800	28,315	25,285	0.75	D
Independence Parkway	Hartle Road to Road D	4	Transitioning	Section F	E	35,500	26,052	23,264	0.66	C
Independence Parkway	Road D to Orange County Line	4	Transitioning	Section F	E	35,500	36,759	32,826	0.92	C
Road A	US 27 to Hancock Road	2	Urban	Section C	E	15,600	4,547	4,060	0.26	C
Road A	Hancock Road to Hartle Road	2	Urban	Section C	E	15,600	7,853	7,013	0.45	C
Road B	US 27 to Hancock Road	4	Urban	Section B	E	33,800	9,530	8,510	0.25	C
Road B	Hancock Road to Hartle Road	4	Urban	Section A	E	39,800	11,719	10,465	0.26	C
Schofield Road	US 27 to E. of Hancock Road	4	Urban	Section B	E	39,800	7,904	7,058	0.18	C
Schofield Road	E. of Hancock Road to Hartle Road	4	Urban	Section D	E	39,800	29,660	26,486	0.67	C

Roadway	Segment	# of Lanes	Area Type	Cross Section	LOS Std.	Daily Capacity	Model Volume	AADT	v/c	LOS
Schofield Road	Hartle Road to Road D	4	Transitioning	Section D	E	35,500	28,927	25,831	0.73	C
Schofield Road	Road D to Orange County Line	4	Transitioning	Section D	E	35,500	36,198	32,325	0.91	C
Road C	US 27 to Hancock Road	4	Urban	Section D	E	39,800	17,880	15,967	0.40	C
Superior Blvd	US 27 to Hancock Road	2	Urban	Per development	E	15,600	3,406	3,042	0.20	C
Superior Blvd	Hancock Road to Sawgrass Bay Blvd	2	Urban	Per development	E	15,600	22,793	20,354	1.30	F
Sawgrass Bay Blvd	US 27 to Superior Blvd	4	Urban	Per development	E	33,800	24,392	21,782	0.64	D
Sawgrass Bay Blvd	Superior Blvd to E. end of development	4	Urban	Per development	E	33,800	39,602	35,365	1.05	F
Sawgrass Bay Blvd	E. end of development to W. of Road E	4	Urban	Section D	E	39,800	40,365	36,046	0.91	C
Sawgrass Bay Blvd	W. of Road E to E. of Road E	4	Urban	Section B	E	39,800	40,365	36,046	0.91	C
Sawgrass Bay Blvd	E of Road E to Orange County Line	4	Urban	Per Lake County design	E	65,600	53,159	47,471	0.72	C

Notes: Future AADT calculated from model volume by applying 5% transit reduction factor and the model conversion factor.

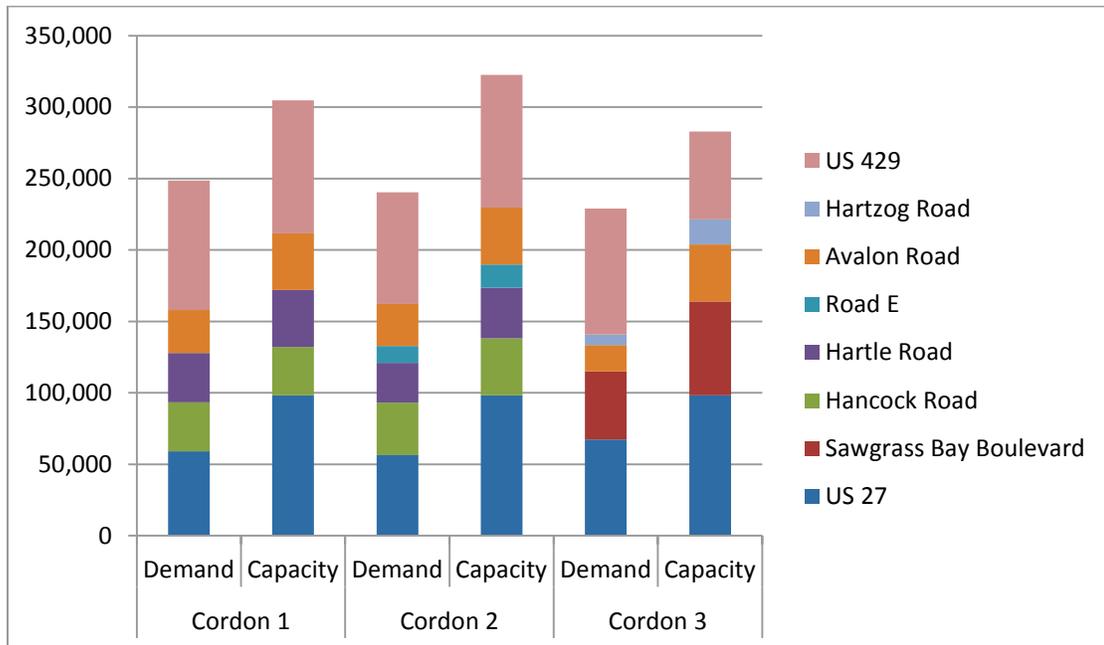
Source: Littlejohn Engineering Associates

The true capacity provided by a roadway network, especially one that is purposely designed to have a high level of interconnectivity, provides multimodal options, and offers context sensitive solutions, is best determined within subareas (cordons) of a given study area, rather than on a roadway by roadway basis. In order to better understand the demand/capacity of the proposed roadway network within the Wellness Way Sector Plan area, the use of a cordon line demand to capacity analysis was utilized. A cordon line analysis is a generally accepted approach to identifying the overall travel service provided within a specific area.

To accomplish this evaluation, three cordon line “zones;” Cordon 1 (North), Cordon 2 (Central) and Cordon 3 (South) were established for the sector plan area. In many cases, the primary roadway network in Orange County will provide alternative travel routing for development trips from the Wellness Way Sector Plan area and alternatively from Horizon West into the Sector Plan. The entire major roadway network between US 27 and SR 429 was considered in the analysis.

Figure 5 (Cordon Line Capacity Analysis) shows the roadways considered within each cordon line zone, their demand traffic volumes for 2035, the total capacity the roadways provide and the total demand. Although some segments of roadways within the Sector Plan Area have capacity constraints, the overall capacity provided is sufficient at the recommended LOS standard “E” to serve the projected demand based on the cordon line capacity analysis conducted. Additionally, when the entire roadway network is considered, there is significant overall capacity for additional growth in the region through the year 2035 as shown in the figure below.

Figure 5: Cordon Line Capacity Analysis



With an emphasis on public transportation and mixed-use development that can produce a substantial reduction in total external trip production, the recommended network is satisfactory for the purposes of the Sector Plan process. A more refined network, showing all internal roadways and

street connections that will also serve to provide relief to major roadway segments, will be a necessary product of the DSAP process to follow.

The introduction of these design and sustainable transportation concepts will prove to create a measurable reduction in “off-site” trip production and a significant reduction in the need for long, regional length trips with extensive vehicle miles travel (VMT) associated with the home based to work, home based to shopping and home based to recreation purposes. As the Sector plan communities develop and the core elements of a mixed-use and complete neighborhood evolve, the introduction of travel demand management (TDM) strategies should be introduced and will be supported by policies that are included for the Wellness Way Sector Plan.

The final stages of Sector Plan build-out may need to rely of the use of new and advanced technologies and alternative forms of transportation such as bus rapid transit (BRT), light rail (LRT), or introduce options to provide efficient connections to commuter rail serving the regional needs. Provisions for this ultimate complete and comprehensive transportation system should be supported and planned for in the design of transportation corridors, the dedication of rights-of-way, and the development of goals, objectives and policies that not only support but incentivize these elements of design.

Success of the future transportation system will not only be based on the design and the multimodal elements included. It will require the continued cooperation between the local, state and regional agencies including, but not necessarily limited to, Lake County Public Works, Orange County Public Works, the Lake-Sumter MPO, the Florida Department of Transportation, the Orlando-Orange County Expressway Authority, Florida’s Turnpike Enterprise and each municipality that has jurisdiction or provides services within or to the Sector Plan area.

I. PARKS & RECREATION

Lake County has thirty-eight (38) parks and recreation facilities, the majority of which are resource-based with limited development. The following information is provided as guidance for developing a future park and trails system for Wellness Way. Sources for this information include the *Data, Inventory and Analysis for the 2030 Comprehensive Plan (2009)*, the *Lake County Parks and Recreation Master Plan (2005)*, and the *Lake County Trails Master Plan, 2008*.

1. Inventory

There are currently no County parks located within the sector plan area. **Map 27 (Trails, Recreation and Schools)** shows parks and recreational facilities in the vicinity of the sector plan area. Lake Louisa State Park and the Palatlahaha River Park and Boat Ramp, a County passive park, are located immediately outside the sector plan area. Crooked River Preserve, owned by the Lake County Water Authority (LCWA), is a 63.6-acre property located in Clermont, along the north shore of Lake Louisa and the Palatlahaha River. Activities offered at this park include hiking, birding, fishing and paddling.

The Lake County Water Authority also owns and manages a passive park called Scrub Point Preserve, which is located in the boundaries of the sector plan area. This unique property is on the south shore of

Johns Lake. The site's 89 acres comprise a peninsula that protrudes into the lake, providing almost one mile of shoreline. The presence of relatively undisturbed and ecologically significant upland plant communities and natural shoreline provide an excellent habitat for a wide variety of wildlife and future opportunities for low-impact, passive recreation.

a. *Lake County Park Classifications*

Lake County currently classifies its parks as neighborhood, mini, community, special facilities, district and conservation (see Parks and Recreation Element for definitions). **Table 35 (Parks Level of Service)** summarizes the recommended standards for each type of park. These standards will need to be applied when developing Detailed Specific Area Plans (DSAPs).

Table 35: Parks Level of Service

Type	Size (Acres)	Service Population (per 1,000 population)	Service Area (mile radius)	Typical Location	Facilities
Mini-Park	<5	½ acre	¼ mile radius	High density areas, including downtown areas	Walks, benches, gardens or memorials
Neighborhood Park	5-19 (NRPA = 10)	2 acres	¼ to ½ mile radius	Within or adjacent to neighborhoods	Playgrounds, multipurpose courts/fields, tennis courts, landscape areas, benches, recreation buildings, picnic areas, and walkways
Community parks	20-50	5 acres	Up to 3 mile radius for urban areas; 6 for rural areas	Near major collector streets or arterial roads	Primarily activity-based recreation sites, but can be resource-based as well athletic fields, swimming pools, multi-purpose fields, and recreation centers biking, fitness, picnicking, and open space activities
District Parks	75+ (minimum of 50 acres)	5 acres	30-40 minute driving time	Contiguous to or encompassing natural resources	Usually resource-based Picnicking, boating, swimming, hiking, camping, and play areas
Regional Parks	250+	20 acres	Up to 60 minute driving time	Areas of diverse natural resources	Almost always resource-based
Special Facilities	Varies	NA	NA	NA	Characteristics and activities are determined based on the center of activity or where the population demands it.

Source: Lake County

b. *Lake County Park Service Areas*

The County uses geographic service areas for park planning purposes, and has identified the following: the SR 50 Corridor, the US 27 corridor, the Golden Triangle area, Citrus Ridge/Four Corners area, and unincorporated Lake County in general. The Wellness Way Sector Plan area is located within the SR 50 Corridor and Citrus Ridge/Four Corners areas.

The SR 50 Corridor includes Mascotte, Groveland, Clermont, Montverde, and Minneola. Clermont is the largest city in the area and is home to The National Training Center, a private sports complex affiliated with South Lake Hospital and the Orlando Regional Health Center. The aim of the Center is to become the standard setter among specialized training facilities for cyclists, runners, sprinters, swimmers, rowers, canoeists, and more.

The SR 50 corridor area is very popular among cyclists and folks seeking an active lifestyle and proximity to jobs in the Orlando Metro area. Because of the rapid growth, many cities are grappling with the demands of providing services at a level and scale they are unaccustomed to.

The Four Corners/Citrus Ridge area is uniquely situated midway between the expanding Orlando and Lakeland urban areas. It has the unique characteristic of being part of four counties, four school districts, seven ZIP codes, three area codes, three water management districts, two regional planning councils and multitudes of service providers. This 90 square mile area is rapidly developing with retirees, seasonal residents and permanent residents. Several major highways converge in the area and provide access to Disney, Osceola and Orange County as well as Lakeland, making it readily accessible to jobs and housing.

The County has created several Interlocal Service Boundary Areas (ISBA's) that could be used as a foundation for creating parks service areas or partnerships with the local governments involved since these planning areas already have established a partnership structure. The County recently adopted the South Lake ISBA with Clermont, Groveland, Leesburg, Minneola, and Mascotte, and is currently working on an ISBA with Clermont that will cover the north two thirds of the Sector Planning Area. Items that should be addressed are location of regional parks, trail opportunities and sharing of responsibilities as they relate to recreation in terms of funding, land acquisition, development, programming, and operations.

c. *Lake County Parks Master Plan*

A Parks Master Plan was prepared in 2005 for a planned future park system for the County. The plan recommended a regional park for a location within the sector plan area and a community park in the southern end of the area. The Master Plan also recommended that to better serve the diverse needs of Lake County residents; park planning should be tailored to meet the needs of rural areas, urban areas, and high growth areas, all of which are present in Lake County today.

2. Analysis

The adopted (2011) Level of Service (LOS) for parks and recreation is 4 acres per 1,000 residents (See Policy II-1.1.5). The projected acreage needed to serve the Wellness Way Sector Plan is 176 acres, based on the County-wide LOS.

3. Recommendations

When planning for parks in Wellness Way, emphasis should be placed on provision of a new regional park and at least one community park in the southern area of the planning area. The following portions of the Lake County Parks Master Plan should be considered and applied to development of a new system of parks, recreation areas and trails in the Wellness Way Sector Plan area.

Regional Park – The development of a 100 acre regional park in the area south of Clermont would complement the existing City of Clermont parks and the National Training Center as follows:

- Located near US 27 and Lake Louisa south of Clermont.
- Possible High School-Park site
- Tournament Sports Complex
- Trailhead for Wellness Mobility Corridor and connection to regional trail systems
- Multipurpose facilities
- Outdoor special event space

Wellness Way Community Park – In addition to the proposed regional park, a community park and trailhead of 30-50 acres is proposed in the central portion of the sector plan area to serve the densest growth centers proposed.

- Athletic facilities
- Picnicking
- Trailhead
- Possible School-Park site

Because of its current rural character, the sector plan area is devoid of park facilities to serve future residents of Wellness Way. Since there are currently no planned or programmed parks within the sector plan area, a master parks and recreation plan for the sector plan area addressing the size and location of a regional, community and multiple neighborhood parks should be prepared by the County to ensure that adequate facilities are provided in the sector plan area. The Framework Map should be used as a guide in preparation of DSAPs for the approximate size and location of regional and community parks. DSAPs should also include neighborhood parks in accordance with County park standards.

The conservation linkages shown in the Framework Map should serve as a guide to development of a comprehensive, linked system and hierarchy of parks to serve the future population of Wellness Way and to guide the DSAP process.

The existing Scrub Point Preserve should serve as the northern anchor of a connected trails and parks system throughout the Wellness Way Sector Plan in a partnership between Lake County and the LCWA.

J. TRAILS

There are no trails currently located within the Wellness Way Sector Plan area, see **Map 27 (Trails, Recreation and Schools)**. However, there is great opportunity to create a comprehensive and interconnected trail system in the sector plan area that connects to the regional trails that exist and are planned in the area. The following information is provided as guidance for developing a future trails system for the Wellness Way Sector Plan.

1. Inventory

Several major state greenways and trails intersect and pass through Lake County. From the Van Fleet Trail in the southwest to the West Orange Trail near Clermont and to the Florida Trail in the Ocala National Forest, Lake County is part of more than 300 miles of existing and planned interconnected greenways and trails. Lake County's comprehensive plan defines greenways, blueways and trails in the Parks and Recreation element.

a. Lake County Trails Master Plan, 2008

In July of 2008, the County adopted The Lake County Trails Master Plan. The 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. This Master Plan will serve as a guide to the location, design, prioritization, implementation, and maintenance of a comprehensive trail network within the Wellness Way Sector Plan area. 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.

The Trails Master Plan described 29.7 miles of regional shared-use trails, 11.5 miles of local trails, 145.9 miles of blueways, 185 miles of nature park trails (OGT data), and nearly 120 miles of proposed trails. A brief description of the different major trails planned around or within the Wellness Way area follows. Many of these trails have smaller connectors that typically connect the main trail to destinations that are not directly adjacent to the trail. These connectors range from sidewalks to shared-used trails but are important in that they fill the gap between the trail and the destinations.

b. Planned Regional Trails

South Lake Trail (north of Sector Plan): A 22.6 mile long planned and partially constructed shared-use trail, the South Lake Trail will primarily follow a historic railroad grade from the Van Fleet Trail in Sumter County to the West Orange Trail. This 12 to 15-foot wide trail will ultimately provide a connection between the communities of Mascotte, Groveland, Minneola, and Clermont.

Additionally, this trail will provide a connection to the neighboring counties of Orange County and Sumter County. Because of these inter-county connections, this trail is considered a top priority by

the Lake County Trails Master Plan. As users traverse Lake County on the South Lake Trail they will enjoy shopping, restaurants, the natural beauty of Lake Minneola, historic sites, conservation areas and over a dozen community parks. Almost nine miles of the South Lake Trail have been constructed. Ultimately, the South Lake Trail will provide a key connection between 29 miles of the existing Van Fleet Trail and 19 miles of the existing West Orange Trail.

South Lake to Citrus Ridge Trail: The purpose of the South Lake to Citrus Ridge Trail is to connect the neighborhoods, schools, parks, shopping, and natural areas between the South Lake Trail and the Citrus Ridge in South Lake County. This planned shared-use trail will eventually serve as a link to the communities of southeast Lake County. This trail is planned to include over 18 miles of trails and include connections to Lake-Sumter State College, the National Triathlon Training Center, Orange County via Hartwood Marsh Road Trail, and Lake Louisa State Park. Implementation of this trail is anticipated to include the incorporation of the trail into several roadway widening projects. At the heart of the South Lake to Citrus Ridge Trail is the Lake Louisa State Park which currently offers a network of trails within the park to users.

c. Planned Minor Shared-Use Trails

Minor shared-use trails are considered the arterials of the Lake County Trails 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. These trails are generally 12 feet in width and consist of an asphalt or concrete surface. While these trails will function as local trails to connect destinations, such as schools, parks, downtown areas and natural areas, to communities and neighborhoods, the primary purpose of these trails is to provide countywide interconnectivity between the local trails and destinations. These trails are generally of sufficient length and quality to attract users from other areas of the county or other areas of the state as a stand-alone destination and, therefore, require trailheads to provide parking and restroom facilities.

Minor Trails planned in and adjacent to the Wellness Way area include the following:

Green Swamp Connector Trail: The purpose of the Green Swamp Connector Trail is to connect Citrus Ridge Trail to Van Fleet Trail. This 8.5 mile planning concept is planned to be designed and constructed as part of any improvements to CR 474.

Hancock Road Trail: This trail will ultimately connect the South Lake to Citrus Ridge Trail to the South Lake Trail and the West Orange Trail form the heart of the Sector Plan area.

Hartle Road Trail: This is a connector trail to connect the South Lake/Citrus Trail to Orange County to the east, planned at the northeastern edge of the Sector Plan area.

Paved Shoulders: Paved shoulders are often used by AASHTO Class A bicyclists for transportation and long distance recreational travel. An important element of the willingness of Class A riders to use bicycles as transportation is the presence of continuous paved shoulders throughout the length of their planned trip. For these types of trips, gaps in the existing paved shoulders discourage use. The Master Plan includes information from the Lake County Public Works Department and the Lake-

Sumter MPO and shows roads with paved shoulders in Lake County. Gaps in the system have been identified.

Lake County is the home of the National Triathlon Training Center and is a destination for roadway cycling due to the rolling terrain and abundance of low volume roads. As traffic has increased in volume on these roads, the County has placed an increased emphasis on providing paved shoulders. Not only has Lake County added a requirement to provide three-foot-wide minimum, paved shoulders for all new arterial roadways, but it has pursued an active paved shoulder retrofit program which, together with state roads, has resulted in over 270 miles of paved shoulders along county and state roadways.

d. *Planned Blueways*

Four areas where potential blueways were identified are the St. Johns River, Golden Triangle area, the Ocklawaha, and Palatka river basins. The Palatka basin is in the vicinity of the Wellness Way Sector Plan. Each zone presents different opportunities for users. Each zone offers different experiences for trail users. A waterfront lake blueway will feature shorter trails in populated areas with waterfronts suitable for casual or novice users. A shoreline lake trail will offer transitional day trips in mixed density areas offering amenities such as refreshments and restrooms. A wilderness lake blueway will generally be located in remote, undeveloped areas and offer paddlers hiking and camping opportunities.

Lake County currently has 149.5 miles of blueways designated. Physical and geo-positioned markers guide trail users through the waterways. An ideal blueway trail also includes an abundance of scenery and wildlife, as well as easy canoe and kayak access. The Lake County Community Blueways Project identified scenic waterways that feature nearby amenities for paddlers. Each zone offers a different experience for trail users. For example, Golden Triangle Run skirts along the lakefronts of Tavares and Mount Dora and is a shorter trail suitable for casual or novice users. Several of the St. Johns River trails are categorized as wilderness blueways because these runs are located in remote, undeveloped areas and offer paddlers hiking and camping opportunities. Blueways involve significant partnerships with the Lake County Water Authority; the cities of Leesburg, Mount Dora, and Tavares; and the Lake County Sheriff's Office.

2. Analysis

Although the only existing trails in the vicinity of the Wellness Way Sector Plan area are in Lake Louisa Park today, a number of regional and minor trails are planned to serve the area. Right-of-way acquisition must be accomplished in accordance with the acquisition strategy proposed in the Trails Plan. Cooperation with public and private entities is essential to ultimate implementation.

The short term (5-year) construction funding priorities for trails in the County do not include any trails within Wellness Way. The 10-year construction funding schedule includes the Hartwood Marsh Trail and the Hartle Road connector trail.

Objective VII-1.5 of the County’s Parks and Recreation Element, Policy VII-1.5.5.5 – Incentives, states that the County shall consider incentives to private landowners to encourage their participation in the creation of the greenways and trails network. None of the objectives or policies in the County’s adopted comprehensive plan conflict with the goal of developing an interconnected and extensive network of regional and local trails within the Sector Plan area.

Opportunities exist to utilize the identified open space network shown in the Framework Map to create an extensive system of trails and blueways in the Wellness Way area. Funding and partnerships are the immediate need to ensure implementation.

3. Recommendations

In order to ensure the implementation of an interconnected network of open space, trails, blueways and parks, Lake County is adopting objectives and policies that address the following:

- Increased multi-modal options to reduce vehicle miles travelled and provide recreational opportunities for residents;
- Provide connectivity of the Wellness Way area to the neighboring county areas and cities;
- Encourage the interconnectivity of trails, recreation areas and open space;
- Identify funding sources to advance implementation in the Sector Plan area;
- Identify maintenance responsibilities for trails system;
- Provide incentives for private landowners to participate in trail implementation;

K. COMMUNITY FACILITIES & SERVICES

1. Schools

a. *Inventory*

The sector plan area is currently served by 2 elementary schools (Lost Lake and Sawgrass Bay), 1 middle school (Windy Hill) and 1 high school (East Ridge). **Map 27 (Trails, Recreation and Schools)** shows the location and service zone for each of these facilities. **All the schools are operating at or below or above capacity TBV.**

Elementary Schools

Lost Lake Elementary School is located approximately two (2) miles northwest of the sector plan area. Currently the school serves a zone that extends south into the sector plan area to roughly one (1) mile south of Shell Pond Road. This school has a permanent FISH capacity of 931 student stations and is currently overcapacity by 123 student stations for 2013-2014.

Sawgrass Bay Elementary School is located in the southern-most school zone encompassing the sector plan area. This school has a Permanent FISH capacity of 1136 student stations with 29 available student stations projected for 2013-2104.

Future South Lake Elementary School “L,” also depicted on the Map, is planned for opening beyond 2017 and will accommodate 940 new student stations. This school will be located near US Hwy 27 approximately ½ mile north of Shell Pond Road.

Middle Schools

Windy Hill Middle School is located approximately ½ mile north of the sector plan boundary. The attendance boundary for this school encompasses the entire sector plan area. Windy Hill Middle School has a permanent FISH capacity of 959 student stations. The projected 2013-2014 enrollment at this school will be 1226 with a shortage of 267 student stations. There are no proposed planning considerations or recommendations included in the Lake County Schools 5-Year Facilities Master Plan regarding middle school capacity in this area.

High Schools

East Ridge High School is located approximately 2 miles north of the sector plan boundary and south of State Road 50. Like Windy Hill Middle School, East Ridge High School’s attendance boundary encompasses the entire sector plan area. East Ridge High School has a permanent FISH capacity of 2166 student stations. The projected 2013-2014 enrollment for the school is 1956 leaving 210 student station available.

According to Lake County’s 2030 Planning Horizon Data, Inventory, and Analysis document, in September 2005, Lake County was selected as a pilot community for the state’s new school concurrency initiative. The school concurrency initiative was adopted to ensure that the school needs of communities are met.

Map 29 (School Concurrency Service Areas) shows that the majority of the Wellness Way area lies in the School Concurrency Service Area (CSA) #14. However, a portion of the northern end of the sector extends into CSA #12.

b. Analysis

Prior to the economic slowdown of 2007, Lake County experienced unprecedented growth. The exponential increase in population produced a burgeoning student enrollment population. It is likely that the area encompassed by the Wellness Way Sector Plan will experience growth that will demand new school facilities that Lake County and Lake County School District must address. **Table 36 (Elementary School Needs), Table 37 (Middle School Needs) & Table 38 (High School Needs)** show the anticipated school capacity needed based on population projections prepared for the Wellness Way area.

Table 36: Elementary School Needs

Residential Uses	Proposed Dwelling Units	Elementary School Student Stations Generated per DU	Total Public School Student Stations Generated	Elementary Schools Needed to Accommodate new Student Stations
Single Family	12,900	0.200	2,580	940 student stations per school

Multi Family	3,225	0.140	452	(Range 800-950)
Total	16,125	0.340	3,032	3.2

Source: Lake County Impact Fee Study, 2007

Table 37: Middle School Needs

Residential Uses	Proposed Dwelling Units	Middle School Student Stations Generated per DU	Total Public School Student Stations Generated	Middle Schools Needed to Accommodate New Student Stations
Single Family	12,900	0.108	1,393	1200 student stations per school (Range 1000-1274)
Multi Family	3,225	0.061	197	
Total	16,125	0.169	1,590	1.3

Source: Lake County Impact Fee Study, 2007

Table 38: High School Needs

Residential Uses	Proposed Dwelling Units	High School Student Stations Generated per DU	Total Public School Student Stations Generated	High Schools Needed to Accommodate Student New Stations
Single Family	12,900	0.115	1,484	2200 student stations per school (range 1800-2300)
Multi Family	3,225	0.061	197	
Total	16,125	0.176	1,680	0.8

Source: Lake County Impact Fee Study, 2007

The expected population growth within the Sector Plan area will require the construction or the equivalent of 3.2 elementary schools, 1.3 middle schools, and 0.8 high schools. Growth within the Wellness Way Sector Plan area will not directly cause or require adjustments in the currently approved Concurrency Service Areas.

According to the Lake County School District the required parcel size needed for new schools sites is:

- Elementary School – 20 acres
- Middle School – 40 acres
- High School – 60 acres

The Lake County School District’s 5-year Work Plan integrates the facilities planning program with the annual capital budgeting and the District’s educational programming strategies. This information, in conjunction with the sector plan’s master plan and its impending related growth in residential population, will be integrated by school district planners into their updated planning documents.

c. Recommendations

Based on potential residential growth within the sector plan area, the County and School District will need to update their work plan to adequately anticipate and fund the construction of new schools within the sector plan.

If practicable and in keeping with the plans of the School District, it is likely that additional Concurrency service areas will need to be established within the sector plan.

If deemed economically feasible, schools should be sited within the proposed neighborhood areas shown on the sector plan's framework map. Developers should be required to set aside appropriate land area for future schools in accordance with District standards for each school site.

2. Libraries

The Lake County Library System is a single-county cooperative providing public library services to Lake County's residents. The Lake County Board of County Commissioners serves as the administrative governing body. Six branches are operated by County government and nine by municipalities. The municipalities agreed to participate with Lake County in the Library System through an interlocal agreement.

An agreement also exists between Lake County and the Lake-Sumter State College for operation of Cooper Memorial Library, a joint-use facility that is both a System branch library and an academic library for the College and the University of Central Florida.

The Lake County Library System prepared a five year plan in 2011 to address library needs in Lake County through 2016.

a. Inventory

There are currently no existing libraries located within the Wellness Way Sector Plan area. The Cagans Crossing Library branch is located immediately adjacent to the Sector Plan in the Cagans Crossing development near the southern boundary of Wellness Way. The Cooper Memorial Library is located north of the Sector Plan Area in Clermont and would be available to residents living in the northern portion of Wellness Way. **Map 27 (Trails, Recreation and Schools)** shows the location of the existing libraries.

The five-year plan did not identify any future libraries within the sector plan area nor did it identify any specific location for a new library facility. The plan did state that a total square footage of all fifteen libraries in the County is adequate to serve the population's need, but some of the space is in the wrong place or in buildings too small to function as full service libraries, which implies providing public gathering space as well as books and computers.

A Library Services Division Manager position manages the Lake County Library Services Division of County government and reports to the County Public Resources Director. That position is responsible for coordination of the cooperative Library System and overall management of System headquarters and six County branch libraries. Planning of public services for all County and member libraries and System headquarters is conducted cooperatively. An advisory board of citizens representing participating municipalities and a representative from each County Commission District provides advice and guidance to the director, participating governing bodies, and the Lake County Board of County Commissioners.

Operational funding from all sources (County, municipalities, state, federal and other) for the System and all libraries is just over \$7.5 million for fiscal year 2011-12, or \$25.27 per resident of the County.

b. Analysis

Since Wellness Way will be, in essence, a new town, the need for access to educational resources and training is an essential ingredient to creating a complete community. The absence of any facilities in the area will require focus and cooperation among multiple entities including the County, the library system, private developers, vocational schools, state and community colleges, the University of Central Florida and Orange County.

An example of one of the strategies from the library plan would assist in building the economic development base for training and education in the sector plan as follows:

“Goal 3 Strategies”

S3.1 Offer information and education to assist people in improving their employment readiness.

Examples of Activities

- Partner with educational and community organizations and businesses such as Lake Technical Center, Lake Sumter State College, Goodwill Industries, Workforce Central to offer career development and occupational pathways workshops and resources.
- Partner with local businesses to offer workplace literacy skills training to employees.
- Offer a program providing low-skilled learners contextualized instruction that will assist their progress along a postsecondary pathway.
- Provide technology and technical infrastructure to provide a public creation lab wherein individuals, businesses and organizations can discover tools and skills to build new media products, 3D models and objects, and other abilities related to STEM and the arts.
- Provide a 'professional on loan' program tapping into local businesses, organizations, and educational institutions to provide individual and group instruction on employment readiness and basic skills.”
- Provide children’s programs to build critical early literacy skills, a proven factor in early academic success and quality of life.

c. Recommendations

Best practice for public library management includes use of three to five year plans for service development. LCLS is nearly mid-way through its fourth long range plan which provides organizational direction from 2011 through 2016. This plan includes goals, objectives and strategies to strengthen build and enhance the County’s library system. A large part of the plan relies on use of technology, virtual learning and access to the system to reduce the need for “bricks and mortar” buildings and to increase overall access to learning resources. Libraries not only serve as a key educational resource to a community, but they are increasingly serving as mutli-purpose facilities

that provide human resource services to a community. There should be at least one regional library located in the Wellness Way Sector Plan area. Participation and partnership with the Library System will be required during the planning process for the sector plan DSAPs. Funding tools from public and private resources should be identified in the DSAPs.

3. Law Enforcement

Law enforcement services in the sector plan area are provided by the Lake County Sherriff's Department and the City of Clermont.

a. Inventory

A Sherriff's South Lake County Sub Station is located at 15855 S.R. 50, Clermont, Florida and the City of Clermont's Police Department is located at 865 W. Montrose Street, Clermont, FL 34711.

b. Analysis

The sector plan amendment to the Lake County comprehensive plan and its impending growth of 44,020 new residents will require additional police services. The City of Clermont reports that their level of service target is to provide 2 sworn officers per 1000 residents. Using this targeted level of service, the sector plan area will require 88 sworn officers (44,020 residents * 2 sworn officers / 1000 resident). Sworn officers are generally assigned by their agencies to patrol sectors distributed throughout their service area. This allows officers to respond quickly to calls for service. It should be noted that response times are not closely associated to the placement or location of stations.

c. Recommendations

Based on projected residential, commercial, and industrial growth within the sector plan area, the Sherriff's Department and the City of Clermont will need to develop updated planning documents that project anticipated growth and fund the construction of new facilities and law enforcement positions to schedule and locate future stations. The locations of which can be established during the DSAP approval process.

As with other facilities, it is recommended that law enforcement stations be co-located with other public facilities to limit capital expenses. For example, stations can be located with County Parks as suggested in the Lake County Parks Master Plan. The co-location of sub-stations on park areas provides additional, although limited security, and a staff presence that would not normally be available.

4. Fire Services

a. Inventory

Fire protection services in the sector plan area are provided by the Lake County Fire Department and the City of Clermont. Two City of Clermont fire stations are located within or near the sector plan area and provide fire protection and emergency response into Clermont's service area within the sector plan boundary. The stations include:

Station #2 - 2155 Legends Way, Clermont, FL 34711 (Co-located with EMS)

Station #3 - 2200 Hartwood Marsh Rd, Clermont, FL 34711 (Co-located with EMS)

Lake County also has fires stations located near and within the sector plan area. These stations include:

Station #90: 16311 S.R. 50, Clermont, FL 34711 (ALS)

Station #109: 11630 Lake Shore Drive, Clermont, FL 34711 (ALS and SORT)

Station # 112: 16240 County Road 474, Clermont, FL 34711 (ALS) (Co-located with EMS)

(ALS = Advanced Life Saving, SORT = Special Operations Response Team).

b. Analysis

Both Clermont and Lake County do not have an adopted level of service for fire services. However, Lake County does report that approximately 1 station is required for each 4000 structures. The site of a station should be at least 2 acres and located at intersections with at least one being a major roadway.

The sector plan area with its estimated 16,124 residential units will require at a minimum the construction of minimum of 4 additional fire protection and emergency response stations (16,124 structures * 1 fire station / 4000 structures) This calculation does not consider commercial or other structures. It is anticipated that at least 1 additional station would be required to serve commercial builds bringing the total to 5 new stations.

c. Recommendations

Based on projected residential, commercial, and industrial growth within the sector plan area, the Lake County Fire Department and the City of Clermont will need to develop updated planning documents to schedule and locate the future fire stations. The locations of which can be established during the DSAP approval process. The City and County should consider co-locating stations with other public facilities.

5. Emergency Services

a. Inventory

Emergency Services in the sector plan area are provided by Lake Emergency Services and the City of Clermont. The EMS South Lake District Office is located at 15855 State Road 50 in Clermont. Three EMS stations currently serve the sector plan area, which are located at the following addresses, see **Map 29 (Community Facilities)**.

- South Lake District, Station 32 - 2180 Legends Way, Clermont, FL 34711
- South Lake District, Station 33 - 16240 CR 474, Clermont, FL 34711
- South Lake District, Station 36 - 2200 Hartwood Marsh Rd, Clermont, FL 34711

b. Analysis

The sector plan area will require additional fire protection and emergency response services. It is customary in Lake County that EMS staff and vehicles are co-located at fire stations. Given that there are projected to be at least 5 new fire stations proposed within the sector plan area, it is likely that an even number of EMS stations will be provided. There is no adopted level of service for EMS services in Lake County. .

c. Recommendations

Based on projected residential, commercial, and industrial growth within the sector plan area, the Lake Emergency Services and the City of Clermont will need to develop updated planning documents to schedule and locate the future fire stations. The locations of which can be established during the DSAP approval process. The City and County should also consider co-locating EMS stations with other public facilities.

6. Healthcare Facilities (Hospitals)

a. Inventory

Emergency room and hospital services are provided by the South Lake Hospital. South Lake Hospital occupies a 180-acre site at 1900 Don Wickham Drive. This location is approximately 4 miles north of the sector plan area. As of 2012, South Lake Hospital provided 122 beds, and had over 1,000 employees.

The Legislature of the State of Florida in Senate Bill No. 2308 recreated and reenacted the charter for the South Lake County Hospital District. In Senate Bill No 2308, the legislation redefined that the portion of Lake County lying south of the boundary line separating Townships 20 and 21 south of the Tallahassee Meridian would comprise the South Lake County Hospital District. The legislation also indicates that the district can contain one or more hospitals.

b. Analysis

A projected growth of 44,020 new residents is expected within the sector plan area. This combined with the existing population already being served within the South Lake County Hospital District will likely require additional hospital facilities to be constructed. Additional facilities can be provided in various and alternative forms. These include clinics, free standing emergency departments, new hospitals or expansion of existing hospital facilities.

c. Recommendations

Based on a projected residential growth of 44,020 new residents within the sector plan area and the given focus of the sector plan on “Wellness”, hospital and community leaders in conjunction with Lake County and the City of Clermont should accommodate and encourage the development of new medical and healthcare facilities within the sector plan area.

L. ECONOMIC DEVELOPMENT

1. Economic Overview and Existing Conditions

Lake County is part of the Orlando-Kissimmee Metropolitan Statistical Area (MSA) that also includes Orange, Osceola and Seminole counties. Lake County represents a small portion of the overall Orlando-Kissimmee MSA and its economic future will be largely influenced by the performance of the MSA overall. While this means community and business leaders in Lake County will not have complete control over the county's economic destiny, the positive aspect of this is that the MSA will be one of the fastest growing in the state of Florida. **Table 39 (Orlando MSA Economic Overview)** provides an economic overview of the Orlando Metropolitan Statistical Area.

Table 39: Orlando MSA Economic Overview

Population (2013)	2,240,100
Jobs (2013)	1,005,700
Average Earnings (2013)	\$49,000
Real Gross Regional Product (2012)	\$95.8 Billion (2005 \$)
Exports (2012)	\$78.7 Billion
Imports (2012)	\$80.7 Billion

Source: University of Central Florida's Institute for Economic Competitiveness, July 2013

Table 40 (Lake County Economic Overview) provides an economic overview of Lake County. Lake County's population comprises approximately 13% of the total MSA population and contains approximately 8% of the total jobs within the MSA. A large proportion of the County's workforce, over 20,000⁵, leaves Lake County to work elsewhere in the MSA. Concurrently, approximately 7,000⁶ Orange County residents travel to Lake County for work. The majority of the out-commuting workers work in the Amusement, Gambling, and Recreation Industries sector. The 2012 Real Gross Regional Product⁷ (RGRP) for Lake County was 9% of the Orlando MSA's overall RGRP. The Lake County economy, although a comparatively small proportion of the regional MSA economy, possesses a diverse, dynamic range of agriculture, manufacturing, professional services, health related services and retail services sectors. This broad base of industry sectors provides Lake County a range of economic development and job growth opportunities.

Table 40: Lake County Economic Overview

Population (2013)	310,900
Jobs (2013)	82,000
Average Earnings (2013)	\$40,100
Real Gross Regional Product (2012)	\$8.7 Billion (2005 \$)
Exports (2011)	\$6.6 Billion
Imports (2011)	\$11.7 Billion

⁵ U.S. Census, 2000

⁶ U.S. Census, 2000

⁷ RGRP is the total value of goods and services produced with a geographic region.

a. State and National Economic Environment-Location Quotients

An important way to understand the structure and potential for economic development and job growth within the Lake County economy is by examining industry state and national location quotients for the county and comparing these to the location quotients for the greater region and state as a whole.

Industry location quotients for Lake County are calculated by comparing an industry's share of employment in Lake County with its share of Florida employment, or in the case of national location quotients, with its share of national employment.

A Lake County industry with a state location quotient of 2.00 implies that industry is 2 times more concentrated in Lake County than the statewide average. Industries with high levels of employment and high location quotients will typically constitute the economic base of the region.

Location quotients tell a much different story than looking only at overall job numbers or job growth. Industries with high location quotients are usually export-oriented industries, which are important because they bring new money into the region. Other industries such as restaurants often just circulate money that is already in the region. While these industries play their role in a region's economy, the industries that have both high LQ and high total job numbers can be the foundation for future economic growth.

Economic developers and government officials need to pay particular attention to these industries, for the jobs they provide and their potential for future economic growth, but also for their multiplier effect—the jobs they create in other dependent industries like local retail trade.

Observing the behavior of location quotients over time can also provide insight into the region's economy. Structural change in the economy can and does take place over time. To utilize the LQ for forecasting, the main procedure is to compare the region with the nation and national trends. If a particular industry has a high location quotient but the location quotient has been declining over time, that industry could actually be a drag on the region's economy rather than a source of growth. Examples of such industries abound in the states of the so-called "rust belt" in the mid-western and northeastern United States.

As noted above, key industry sectors to note are those sectors that have both high, greater than 1.00 national and state location quotients and comparatively high levels of current employment. These industries represent the existing industry clusters. The growth of these clusters represents significant economic development opportunities for Lake County. The following section details how the industries shown in **Table 41 (Florida Jobs, National Location Quotients (LQ), Earnings by Sector)** subsectors of the broad industry categories (Transportation, Health, Construction and Mining, etc.) are projected to have significant payroll job growth to 2040 and may represent additional industry sector opportunities that will complement the Wellness Way 'Businesses to Target' that have been identified by Lake County.

Table 41 (Florida Jobs, National Location Quotients (LQ), Earnings by Sector) lists employment levels and 2013 national location quotients for select industries with location quotients greater than 1 in Florida, and are presented at the three-digit NAICS level. These industries provide an identification of those industries that are relatively more competitive in the state of Florida relative to the rest of the nation. Comparing and contrasting these results with those for Lake County identify existing industries that are important to both the county and state's economic bases and those for which the county has a competitive advantage.

Table 41 (Region Jobs; State and National Location Quotients (LQ); Earnings by Sector) lists employment levels, state and national location quotients for the six-county region (Orlando MSA + Sumter and Polk counties) and **Table 43 (Lake County Jobs, State and National Location Quotients (LQ), Earnings by Sector)** lists the same for only Lake County. The sectors with the high LQ ratings both at a State and National level indicate the comparatively increased or concentrated presence of the particular industry within Lake County. Industry sectors with some of the highest State and National LQ's and employment numbers include: Truck Transportation; Non-metallic Mineral Product Manufacturing; Crop Production; Building Material and Garden Supplies Dealers; Food Manufacturing; and Chemical Manufacturing. Comparing the data in each of these tables identifies the industries that are important jointly and individually in each of these geographies.

One of the most obvious ways Lake County differs from the larger six-county region is the importance of industries in the leisure and hospitality sector. Several of the largest employment sectors with high location quotients in the six-county region are related to tourism. Accommodation and the Amusement industries represent two of the top five industries with the largest state location quotients in the region. Combined, these two industries comprise over 125,000 jobs in the region. The same two industries are also very important at the state level and have two of the top five national location quotients and represent more than 332,000 jobs combined. In Lake County the Amusement sector has a state location quotient of 0.92 and the Accommodation sector has a state location quotient of just 0.32.

As noted above, key industry sectors to note are those sectors that have both high, greater than 1.00 national and state location quotients and comparatively high levels of current employment. These industries represent the existing industry clusters. The growth of these clusters represents significant economic development opportunities for Lake County. The following section details how the industries shown in **Table 43 (Lake County Jobs, State and National Location Quotients (LQ), Earnings by Sector)** subsectors of the broad industry categories (Transportation, Health, Construction and Mining, etc.) are projected to have significant payroll job growth to 2040 and may represent additional industry sector opportunities that will complement the Wellness Way 'Businesses to Target' that have been identified by Lake County.

Table 41: Florida Jobs, National Location Quotients (LQ), Earnings by Sector

Description	2013 Florida Jobs	2013 National LQ	2013 Total Average Earnings
Water Transportation	11,934	3.45	\$94,905
Amusement, Gambling, and Recreation Industries	159,538	2.04	\$30,108
Crop Production	49,350	1.69	\$28,561
Accommodation	163,439	1.66	\$30,797
Real Estate	123,485	1.61	\$46,583
Support Activities for Transportation	51,332	1.60	\$49,228
Clothing and Clothing Accessories Stores	113,008	1.44	\$22,420
Performing Arts, Spectator Sports	32,746	1.42	\$73,429
Electronics and Appliance Stores	36,160	1.37	\$43,759
Health and Personal Care Stores	72,757	1.31	\$40,368
Furniture and Home Furnishings Stores	31,687	1.31	\$35,986
Motor Vehicle and Parts Dealers	121,404	1.28	\$51,334
Rental and Leasing Services	35,214	1.26	\$50,398
Support Activities for Agriculture and Forestry	23,508	1.25	\$27,994
Food and Beverage Stores	194,371	1.24	\$26,510
General Merchandise Stores	200,645	1.21	\$26,466
Air Transportation	28,920	1.20	\$79,788
Food Services and Drinking Places	652,260	1.19	\$19,868
Ambulatory Health Care Services	413,742	1.18	\$69,205
Specialty Trade Contractors	227,272	1.18	\$44,391
Miscellaneous Store Retailers	51,299	1.16	\$29,425
Administrative and Support Services	480,025	1.14	\$36,749
Personal and Laundry Services	81,931	1.14	\$27,004
Telecommunications	52,139	1.14	\$79,142
Building Material & Garden Supplies Dealers	71,413	1.13	\$35,311
Insurance Carriers and Related Activities	122,395	1.09	\$73,883
Data Processing, Hosting and Related Services	15,008	1.09	\$98,344
Credit Intermediation and Related Activities	152,933	1.08	\$70,941
Repair and Maintenance	69,460	1.08	\$40,058
Sporting Goods, Hobby, Book, and Music Stores	35,061	1.06	\$24,986
Nursing and Residential Care Facilities	181,055	1.04	\$33,923
Hospitals (Private)	266,331	1.03	\$60,552
Couriers and Messengers	29,491	1.01	\$54,456
Construction of Buildings	67,054	1.00	\$61,785

Source: University of Central Florida's Institute for Economic Competitiveness, July 2013

Table 42: Region Jobs; State and National Location Quotients (LQ); Earnings by Sector

Description	2013 Region Jobs*	2013 State LQ	2013 National LQ	2013 Wages & Salaries
Amusement, Gambling, and Recreation Industries	73,347	2.83	5.60	\$29,894
Warehousing and Storage	9,448	2.12	1.51	\$40,681
Mining (except Oil and Gas)	1,134	2.08	0.57	\$59,073
Funds, Trusts, and Other Financial Vehicles	733	2.01	0.92	\$73,473
Accommodation	52,220	1.95	3.18	\$25,780
Food Manufacturing	8,994	1.86	0.68	\$39,724
Machinery Manufacturing	6,458	1.60	0.65	\$73,495
Postal Service (Private Sector)	44	1.59	1.00	\$15,820
Truck Transportation	11,435	1.53	0.92	\$39,614
Data Processing, Hosting and Related Services	3,906	1.48	1.70	\$58,342
Rental and Leasing Services	8,486	1.46	1.82	\$47,193
Management of Companies and Enterprises	19,384	1.41	1.06	\$78,360
Chemical Manufacturing	4,070	1.36	0.57	\$60,488
Pipeline Transportation	39	1.21	0.10	\$72,289
Transit and Ground Passenger Transportation	2,952	1.21	0.72	\$30,228
Plastics and Rubber Products Manufacturing	2,258	1.21	0.38	\$46,660
Real Estate	23,717	1.16	1.85	\$43,233
Telecommunications	9,883	1.14	1.29	\$57,139
Clothing and Clothing Accessories Stores	21,321	1.14	1.62	\$16,007
Printing and Related Support Activities	3,178	1.13	0.78	\$38,629
Nonmetallic Mineral Product Manufacturing	2,813	1.13	0.86	\$43,848
Administrative and Support Services	96,311	1.11	1.37	\$30,285
Couriers and Messengers	5,364	1.11	1.10	\$37,981
Wood Product Manufacturing	1,606	1.09	0.52	\$32,506
Air Transportation	5,706	1.09	1.42	\$69,313
Transportation Equipment Manufacturing	6,289	1.09	0.46	\$77,862
Hospitals (Private)	46,393	1.07	1.08	\$47,491
Publishing Industries (except Internet)	5,087	1.06	0.78	\$65,394
Motion Picture and Sound Recording Industries	2,133	1.05	0.61	\$28,996
General Merchandise Stores	33,788	1.03	1.22	\$20,779
Waste Management and Remediation Services	2,929	1.02	0.87	\$47,373
Repair and Maintenance	11,669	1.01	1.08	\$38,356
Food Services and Drinking Places	108,031	1.01	1.18	\$17,323
Specialty Trade Contractors	37,622	1.00	1.17	\$38,136

*Lake, Orange, Polk, Seminole, Sumter and Osceola Counties

Source: University of Central Florida's Institute for Economic Competitiveness, July 2013

Table 43: Lake County Jobs, State and National Location Quotients (LQ), Earnings by Sector

Description	2013 Lake Co. Jobs	2013 State LQ	2013 National LQ	2013 Total Average Earnings
Truck Transportation	1,406	2.80	1.68	\$47,038
Utilities	597	2.44	1.78	\$77,296
Nonmetallic Mineral Product Manufacturing	392	2.34	1.78	\$49,047
Crop Production	1,257	2.33	3.84	\$30,298
Building Material & Garden Equipment Supplies Dealers	1,786	2.27	2.51	\$31,942
Mining (except Oil and Gas)	79	2.16	0.59	\$60,339
Plastics and Rubber Products Manufacturing	270	2.15	0.68	\$54,949
Food Manufacturing	696	2.14	0.78	\$45,693
Chemical Manufacturing	375	1.87	0.78	\$53,848
Beverage and Tobacco Product Manufacturing	191	1.80	1.60	\$65,154
General Merchandise Stores	3,920	1.79	2.10	\$23,841
Nursing and Residential Care Facilities	3,418	1.72	1.76	\$33,391
Motor Vehicle and Parts Dealers	1,945	1.46	1.83	\$49,234
Specialty Trade Contractors	3,640	1.44	1.69	\$43,634
Personal and Laundry Services	1,304	1.42	1.61	\$24,377
Local Government	11,081	1.39	1.31	\$49,893
Ambulatory Health Care Services	6,248	1.36	1.59	\$65,052
Hospitals (Private)	3,855	1.32	1.33	\$54,319
Food and Beverage Stores	2,738	1.29	1.55	\$26,039
Gasoline Stations	581	1.29	1.13	\$21,779
Telecommunications	740	1.27	1.44	\$54,237
Machinery Manufacturing	345	1.27	0.51	\$69,660
Health and Personal Care Stores	945	1.16	1.52	\$36,252
Waste Management and Remediation Services	223	1.15	0.98	\$77,369
Miscellaneous Store Retailers	645	1.13	1.30	\$22,469
Food Services and Drinking Places	7,642	1.07	1.24	\$17,671
Construction of Buildings	788	1.03	1.05	\$48,219
Repair and Maintenance	789	1.02	1.09	\$34,267
Furniture and Related Product Manufacturing	115	1.02	0.54	\$36,300
Support Activities for Agriculture and Forestry	261	1.01	1.24	\$38,146
Fabricated Metal Product Manufacturing	336	1.00	0.39	\$39,647

Source: University of Central Florida's Institute for Economic Competitiveness, July 2013

b. Employment Forecast (2010-2040)

Table 44 (30-Year Forecast Orlando MSA), and **Table 45 (30-Year Forecast Lake County)**, present long-range forecasts, to the year 2040, for the Orlando MSA and Lake County. Projections show significant economic and job growth for both the Orlando MSA in general and Lake County in particular. The rate of growth for Lake County will be higher than the MSA as a whole, so the county's share of the overall MSA will increase, but will still remain a modest portion of the overall regional economy.

Over 735,000 new jobs are anticipated to be created during the 30-year period of 2010 through 2040 within the Orlando MSA that includes Lake County. **Table 44 (30-Year Forecast Orlando MSA)**, shows that the top-5 high-growth industry sectors in the Orlando MSA from 2010 through 2040 include: Professional and Business Services with over 290,000 new jobs; Educational and Health Services with over 94,000 jobs; Transportation, Trade and Utilities with over 82,000 new jobs; Leisure and Hospitality with over 81,000 new jobs; and Construction and Mining with over 74,000 new jobs. Although the State and Local Government sector is also anticipated to increase significantly (over 42,000 jobs), this growth is based primarily on population growth and does not represent the growth of a targeted industry sector.

Significant growth is anticipated in Personal Income growing from \$73B in 2010 to over \$341B in 2040 for the Orlando MSA.

Lake County jobs are expected to more than double and the size of the economy as measured by Real Gross County Product is expected to more than triple from 2010 reaching over \$27 billion by 2040.

Lake County is expected to add more than 84,000 payroll jobs by 2040.

Table 45 (30-Year Forecast Lake County), shows that the top-5 industry sectors anticipated for growth in Lake County for the 2010-2040 period include: Professional and Business Services with over 20,000 new jobs; Educational and Health Services with over 18,000 jobs; Transportation, Trade and Utilities with over 15,000 new jobs; and the Leisure and Hospitality and Construction and Mining sectors each with over 5,000 new jobs. As explained previously, the State and Local Government sector is also anticipated to increase significantly based primarily on population growth.

The top 2-digit NAICS sectors projected to have highest levels of job creation, Professional & Business Services (over 20,000 new jobs), Educational & Health Services (over 18,000 new jobs) and Transportation, Trade & Utilities (over 15,000 new jobs) are expected to create nearly 65% of all jobs by 2040.

In percentage terms, Lake County will see growth over the next 30 years that will exceed the overall growth rate of the MSA as a whole. Lake County is anticipated to increase its total amount of non-farm employment by 215% compared to the Orlando MSA's increase of 176% for the 2010-2040

period. Lake County will be able to benefit from this growth, but will have to steer the regional economy in such a manner as to maximize the benefits provided by this economic tailwind.

Table 44: 30-Year Forecast Orlando MSA

Orlando MSA	2010	2020	2030	2040	Change 2010-2020	Change 2010-2030	Change 2010-2040
Total Nonfarm (Thous.)	1001.3	1246.5	1471.3	1736.5	245.20	470.00	735.20
Construction and Mining (Thous.)	47.7	72	94.5	122.2	24.30	46.80	74.50
Manufacturing (Thous.)	38	38.9	37.3	35.7	0.90	-0.70	-2.30
Transp., Trade, & Utilities (Thous.)	186	229.8	250.1	268.5	43.80	64.10	82.50
Information (Thous.)	23.8	27.1	33.2	42.4	3.30	9.40	18.60
Financial Activities (Thous.)	65.1	72.3	81.3	92.1	7.20	16.20	27.00
Professional & Business Svcs (Thous.)	161.1	227.2	332.1	452.7	66.10	171.00	291.60
Educational & Health Svcs (Thous.)	120.8	162.4	187.1	214.9	41.60	66.30	94.10
Leisure & Hospitality (Thous.)	195.6	238.9	250.8	277.4	43.30	55.20	81.80
Other Services (Thous.)	47.5	49.5	57	63.4	2.00	9.50	15.90
Federal Government (Thous.)	12.8	13.3	16.7	21.7	0.50	3.90	8.90
State & Local Government (Thous.)	102.9	115.1	131.2	145.6	12.20	28.30	42.70
Real Gross County Product (Millions 2005\$)	93,024	128,409.1	180,562.2	257,481.9	35,385.10	87,538.20	164,457.90
Personal Income (Billions)	73.6	122.8	205.5	341.6	49.20	131.90	268.00
Real Personal Income (Billions 2005\$)	66.3	93.7	130.6	178.6	27.40	64.30	112.30
Population (Thous.)	2146	2640.9	3224	3856.9	494.90	1078.00	1710.90

Source: University of Central Florida's Institute for Economic Competitiveness, July 2013

Table 45: 30-Year Forecast Lake County

Lake County, FL	2010	2020	2030	2040	Change 2010-2020	Change 2010-2030	Change 2010-2040
Total Nonfarm (Thous.)	82.06	105.34	136.24	166.43	23.28	54.18	84.37
Construction and Mining (Thous.)	6.58	8.71	10.65	11.83	2.13	4.07	5.25
Manufacturing (Thous.)	3.04	3.65	3.87	3.87	0.61	0.83	0.83
Transp., Trade, & Utilities (Thous.)	17.89	23.51	29.04	33.66	5.62	11.15	15.77
Information (Thous.)	1.27	1.50	2.12	2.93	0.23	0.85	1.66
Financial Activities (Thous.)	3.33	3.81	4.86	5.88	0.48	1.53	2.55
Professional & Business Svcs (Thous.)	7.51	11.21	18.81	27.79	3.70	11.30	20.28
Educational & Health Svcs (Thous.)	15.30	21.32	27.58	33.92	6.02	12.28	18.62
Leisure & Hospitality (Thous.)	8.76	10.51	12.15	14.10	1.75	3.39	5.34
Other Services (Thous.)	4.33	5.06	6.65	8.00	0.73	2.32	3.67
Federal Government (Thous.)	0.66	0.66	0.95	1.35	-	0.29	0.69
State & Local Government (Thous.)	13.39	15.41	19.55	23.10	2.02	6.16	9.71
Real Gross County Product (Millions 2005\$)	8,588.35	12,232.33	18,574.37	27,075.59	3,643.98	9,986.02	18,487.24
Personal Income (Millions)	9761.71	17488.65	32473.45	54763.07	7,726.94	22,711.74	45,001.36
Real Personal Income (Millions 2005\$)	8793.49	13344.36	20637.63	28631.98	4,550.87	11,844.14	19,838.49
Population (Thous.)	298.66	384.92	520.57	657.34	86.26	221.91	358.68

Source: University of Central Florida's Institute for Economic Competitiveness, July 2013

c. Lake County Opportunities Based on High Growth Industry Sectors and National and State Location Quotients

As indicated in **Table 41 (Lake County Jobs, State and National Location Quotients (LQ), Earnings by Sector)**, the sectors that have high location quotients, high levels of current employment, and that are subsectors of the broad industry categories projected to have significant payroll job growth to 2040. These identify potential targets for economic development efforts in Lake County and the Wellness Way Sector Plan area.

Several healthcare related sectors fall into this grouping. Ambulatory health care services, hospitals, nursing and residential care facilities and health and personal care stores are sectors that are prime targets for economic development in the Wellness Way Sector.

Trade and Transportation is a sizeable and growing segment of the economy. Truck transportation has the highest state location quotient of all sectors in Lake County. Proximity of the county to several of the largest metropolitan areas in Florida gives the sector a geographic comparative advantage. Additionally, the proximity and access afforded by the local roadway network including US 27 and the Florida Turnpike, provides the sector a comparative infrastructure advantage. Retail trade is a large sector in the county, with auto dealers, supermarkets and warehouse clubs employing a large percentage of workers in the sector. These subsectors should be accommodated and encourage in the land use categories in some capacity as they represent a large portion of the current economic base.

Traditional agriculture is also a high location quotient industry and when coupled with food and beverage manufacturing, high location quotient industries themselves, represent a significant employment base in the county. These sectors should not be overlooked as potential sources of growth and with an estimated \$86 billion a year nutraceutical industry in the United States, future economic development efforts in Lake County should target healthcare, food manufacturing, and crop production sectors.

The county also has several manufacturing sectors with relatively high State location quotients and while employment in the larger sector is not expected to grow rapidly, there may be opportunities for growth in specific manufacturing subsectors and specialized manufacturing to support the Amusement and Recreation Industries sector.

As Lake County's economy grows over the next decades, the need for a variety of business and professional services will expand as well, creating many opportunities for business formation and expansion. The state and national economies continue to evolve to service based activities and this will also boost the size of this sector in Lake County.

Based on the review of the industries listed in **Table 41 (Lake County Jobs, State and National Location Quotients (LQ), Earnings by Sector)**, additional existing Lake County industry sectors have been identified that complement the County Wellness Way Businesses to Target and correspond to the high-growth industry sectors identified in **Table 45 (30-Year Forecast Lake County)**. **Table 46**

(**Lake County High Growth Industry Sectors and Complementary High LQ Industries**), shows the top 5 High Growth Industry Sectors for Lake County and the corresponding Wellness Way Businesses to Target and their complementary industry sectors that have a high State and National LQ score. The complementary existing Lake County industry sectors are shown in italics (i.e., ~Nursing and Residential Care Facilities) while the original Wellness Way Businesses to Target are not italicized. Lake County should continue its recruitment and retention efforts focused on these high-growth industry sectors and the complementary industry sectors that have a comparative locational concentration advantage as depicted by the high State and National LQ scores.

Table 46. Lake County High Growth Industry Sectors and Complementary High LQ Industries

Top 5 High Growth Industry Sectors	2010-2040 New Jobs	Wellness Way Target Groups and Additional LQ Complementary ~Industry Sectors
Professional & Business Svcs.	20.28 (Thous.)	Office and High-tech
		Regional Corporate Offices and Headquarters
Educational & Health Svcs	18.62 (Thous.)	Sports Medicine and Training
		Research Park (Bio-medical, Technical engineering, and Human performance)
		Teaching and Medical Colleges
		<i>~Nursing and Residential Care Facilities</i>
		<i>~Ambulatory Health Care Services</i>
		<i>~Hospitals (private)</i>
Transp., Trade, & Utilities	15.78 (Thous.)	<i>~Truck Transportation</i>
		<i>~Motor Vehicle and Parts Dealers</i>
		<i>~Telecommunications</i>
Leisure & Hospitality	5.34 (Thous.)	Eco-Tourism
		<i>~Personal and Laundry Services</i>
		<i>~Food and Beverage Stores</i>
		<i>~General Merchandise Stores</i>
Construction and Mining	5.25 (Thous.)	Housing
		<i>~Nonmetallic Mineral Product Manufacturing</i>
		<i>~Specialty Trade Contractors</i>

Source: University of Central Florida's Institute for Economic Competitiveness, Littlejohn Engineering Associates, Inc. July 2013

d. Lake County Opportunities Based on High Employment Levels and National and State Location Quotients

Economic Development opportunities for Lake County and the Wellness Way area also exist based on established industry clusters with comparatively high employment levels and above average National and State location quotients. While Agriculture, Manufacturing and Retail have not been identified in the analysis as some of the top high-growth industry sectors over the 2010-2040 planning horizon, these three industry sectors are responsible for a significant portion, over 18,000 jobs, of the employment base within Lake County. This large employment base is anticipated to grow during the 2010-2040 period and the complementary industry sectors represent opportunities

to further expand the overall sector and create additional jobs. These industry sectors also have high National and State location quotient scores. The presence of this large employment base and their associated industry sectors represent an additional economic development opportunity for Lake County.

Table 47 (Existing High-Employment Lake County Industry Sectors and Complementary High LQ Lake County) Industries, shows the existing high-employment Industry Sectors for Lake County and the corresponding Wellness Way Businesses to Target and their complementary industry sectors that have a high State and National LQ score. The complementary existing Lake County industry sectors are shown in italics (i.e., ~Nursing and Residential Care Facilities) while the original Wellness Way Businesses to Target are not italicized. Lake County should continue its recruitment and retention efforts focused on these industry sectors and the complementary industry sectors that have a comparative locational concentration advantage as depicted by the high State and National LQ scores.

Table 47. Existing High-Employment Lake County Industry Sectors and Complementary High LQ Lake County Industries

Industry Sectors	2011 Jobs	Wellness Way Target Groups and Additional LQ Complementary ~Industry Sectors
Agriculture, Forestry, Fishing and Hunting	1.654 (Thous.)	Agriculture-based businesses <i>~Crop Production</i> <i>~Food Manufacturing</i> <i>~Beverage and Tobacco Manufacturing</i>
Manufacturing	3.55 (Thous.)	Industrial Green Businesses (Bio-Fuel, Solar, etc.) <i>~Chemical Manufacturing</i>
Retail Trade	13.767 (Thous.)	<i>~General Merchandise Stores</i> <i>~Food and Beverage Stores</i> <i>~Health and Personal Care Stores</i>

Sources: University of Central Florida’s Institute for Economic Competitiveness, Littlejohn Engineering Associates, Inc., Lake County Government, July 2013

2. Employment Space Needs Analysis

Different industries require different amounts of space. The space needs of each of the Wellness Way target industry groups were identified to determine the amount of land that would be needed to accommodate the estimated employment growth within the Wellness Way Sector Plan area. The estimates for target industry sector growth for Lake County shown in **Table 46 (Lake County High Growth Industry Sectors and Complementary High LQ Industries)** are for the entire Lake County area. It is understood that not all of the potential growth that has been identified for Lake County will be developed within the Wellness Way planning area; however, providing appropriate land use allocations within the Wellness Way Sector Plan that may potentially accommodate all of the estimated growth of the targeted industries for Lake County will provide the maximum range of alternative site choices for

developers and maximize Lake County’s opportunity to capture anticipated job growth in the target industry sectors within Lake County and the Wellness Way Sector Plan Area.

Two analyses were performed to determine the estimated space needs to accommodate the anticipated Lake County employment growth within the Wellness Way Sector Plan area. The first analysis method utilized the non-residential intensities (FAR) associated with Lake County Future Land Use categories where these uses would typically be allowed. The second analysis method was based on Lake County’s existing (built) development intensities for similar development types (target industry accommodating). The two space needs analysis provided estimates for the range of area needed, high and low, to accommodate the anticipated employment growth in Lake County. Each of these analyses also included space needs for high-employee density and low employee density scenarios.

a. Space Need Based on Future Land Use Intensities

The following steps were undertaken to calculate employee space needs using current future land use categories’ intensity allowances:

Step 1 Typical Building Size: The potential building area (square feet) for a hypothetical one-acre site was determined based on the development intensity (FAR) permitted within Future Land Use categories where the target industries would typically be allowed (Regional Office for office uses, Industrial for manufacturing, Urban Medium Density for leisure/hospitality and retail). A 15% reduction factor was used to account for features that typically reduce the maximum development potential on a site (e.g. height restrictions, environmentally sensitive features, areas set aside for open space/common areas, parking, stormwater and other amenities).

$$\text{Typical Building Size (sq. ft.)} = 43,560 \text{ sq. ft.} \times 85\% \times \text{FAR.}$$

Step 2 Employee Density (Number of Employees per Acre): The employee density per industry type was determined by dividing the *Typical Building Size* derived in Step 1, by a *square foot per employee ratio*. Two different ratios were used to address two potential development trends: A Low Employee Density Ratio for heavy industrial and traditional manufacturing and a High Employee Density Ratio for high-technology manufacturing and light industrial development, see **Table 48 (Employment Space Needs per Acre Based on FLU categories)**.

Heavy industrial buildings typically have *low employee density* and tend to be larger facilities or complexes. As a result they tend to require larger sites. Examples of this type of industry are an outdoor plant/animal research facility or a solar panel/wind turbine manufacturer. This ratio was applied to the Educational and Health Services, Warehouse Distribution, and Manufacturing industry sectors.

The high employee density ratio assumes a trend of increased high-technology manufacturing and industrial development, which tend to be in smaller facilities and have a higher employee density. Examples of this type of industry are an electronics manufacturer

and assembler, remote controlled aircraft manufacturer or specialized bicycle/recreational product manufacturer.

Employee Density = Typical Building Size / Employee per square foot ratio.

Step 3 Sector Industry Acreage Needed to Accommodate Projected Employment: The acreage needed to accommodate potential development by Industry Sector was calculated using the Employee Density and the projected employment growth for each of the Targeted Industry Sectors, see **Table 49 (Land Area Needs Based on FLU Categories - Low Employee Density Scenario)** and **Table 50 (Land Area Needs Based on FLU Categories - High Employee Density Scenario)**.

Sector Industry Acreage Needed = Employee Density x Estimated Employment Growth by Industry Sector

Table 49 (Land Area Needs Based on FLU Categories - Low Employee Density Scenario) and **Table 50 (Land Area Needs Based on FLU Categories - High Employee Density Scenario)** show projections to 2020, 2030, and 2040 for both low and high employee density for various industry sectors based on the intensities adopted in the Lake County Comprehensive Plan for typical office, industrial and mixed-use categories. Based on the low employee density ratio, it is expected that approximately 969 acres will be needed to accommodate the projected employment in Lake County. The high employee scenario shows a need for 687 acres. These figures assume that sites will be developed at a high floor area ratio. The next section discusses land needs based on development intensities that are more in line with the type of development that has occurred in the past in the County.

Table 48: Employment Space Needs per Acre Based on FLU categories

Industry Sector	Building Type/Target Industry Cluster	Floor Area Ratio	Typical Bldg Size/ 1 Acre ¹	High-Employee Density		Low-Employee Density	
				Sq. Ft. of Bldg. per Employee	# of Employees per Acre	Sq. Ft. of Bldg. per Employee ³	# of Employees per Acre
Professional & Business Svcs.	Office	3	91,476	350	261	350	261
Educational & Health Svcs.	Office	3	91,476	500	183	700	131
Transp., Trade, & Utilities	Warehouse Distribution	1	30,492	700	44	1,000	30
Leisure and Hospitality	Retail	2	60,984	675	90	675	90
Construction and Mining	Manufacturing	1	30,492	500	61	1,000	30

¹ Includes a 30% reduction factor used to account for features that typically reduce the maximum development potential on a site

Table 49: Land Area Needs Based on FLU Categories - Low Employee Density Scenario

Target Industry Sectors	Building Type	Employees per Acre	Employees as of 2010	Forecasted Employment			Site Area (AC) Need		
				(2010-20)	(2010-30)	(2010-40)	(2010-20)	(2010-30)	(2010-40)
Professional & Business Svcs.	Office	317	7,510	3,700	11,300	20,280	12	36	64
Educational & Health Svcs	Office	159	15,300	6,020	12,280	18,620	38	77	117
Transp., Trade, & Utilities	Warehouse Distr.	37	17,890	5,620	11,150	15,770	152	301	426
Leisure and Hospitality	Retail	110	8,760	1,750	3,390	5,340	16	31	49
Construction and Mining	Manufacturing	37	6,580	2,130	4,070	5,250	58	110	142
TOTAL			56,040	19,220	42,190	65,260	275	555	798
Average Employee Density (Increase # of Employees/Additional Site Area) for 2010-2040									82

Table 50: Land Area Needs Based on FLU Categories - High Employee Density Scenario

Target Industry Sectors	Building Type	Employees per Acre	Employees as of 2010	Forecasted Employment			Site Area (AC) Need		
				(2010-20)	(2010-30)	(2010-40)	(2010-20)	(2010-30)	(2010-40)
Professional & Business Svcs.	Office	317	7,510	3,700	11,300	20,280	12	36	64
Educational & Health Svcs	Office	222	15,300	6,020	12,280	18,620	27	55	84
Transp., Trade, & Utilities	Warehouse Distr.	53	17,890	5,620	11,150	15,770	106	211	298
Leisure and Hospitality	Retail	110	8,760	1,750	3,390	5,340	16	31	49
Construction and Mining	Manufacturing	74	6,580	2,130	4,070	5,250	29	55	71
TOTAL			56,040	19,220	42,190	65,260	190	388	565
Average Employee Density (Increase # of Employees/Additional Site Area) for 2010-2040									115

Sources for all tables 46 to 48: University of Central Florida's Institute for Economic Competitiveness, Littlejohn Engineering Associates, Inc., Lake County Government, July 2013

b. Space Need Based on Actual/Built Intensities

The same employment space needs analysis explained above was performed using intensities observed in actually built environments in other unincorporated areas of the county. A sample of buildings were analyzed and it was determined that the average intensity of development for the various industries varies from 0.08 to 0.31 FAR, see **Table 51 (Development Sample)** below.

Table 51: Development Sample

Bldg. Type	# Bldgs. in Sample	Land Area (AC)	Building Size (SF)	Average FAR
Professional & Business Office	5	238,273.20	43,120.00	0.18
Educational & Health Services Office	5	162,043.20	12,375.00	0.08
Warehouse Distribution	8	4,160,851.2	1,293,619.0	0.31
Retail	10	1,287,198.00	124,042.00	0.10
Manufacturing	2	474,368.40	82,400.00	0.17
Total	30	6,322,734.00	1,555,556.00	0.17

Sources: Lake County Property Appraisers Office, Littlejohn Engineering Associates, Inc., July 2013

The existing development FAR analysis shows that Lake County’s current built environment and existing building inventory is typified by a relatively low FAR and less intense development pattern. This type of development pattern is consistent with rural and suburban communities that have a surfeit of available space, sites and a dispersed population. Future development of target industry facilities in Lake County will become more intense and utilize higher FARs in the longer-term future, as land available for development becomes scarce. However, the existing development pattern and anticipated development pattern for the near term is a continuation of the existing development intensities in the unincorporated areas. Increased development intensities may be stimulated to occur in the near and mid-term planning horizons through the use of land use policies and land development regulations that encourage, and potentially incentivize, higher-intensity development at appropriate locations within the Wellness Way Sector Plan.

Table 52 (Employment Space Needs per Acre Based on Actual/Built Intensities) , **Table 53 (Land Area Needs Based on Actual/Built Intensities- Low Employee Density Scenario)** and **Table 54 (Land Area Needs Based on Actual/Built Intensities- High Employee Density Scenario)** show the estimated employees density per site area (acres) associated with different industry sectors utilizing an FAR for existing built facilities located in unincorporated Lake County. In this analysis, it can be observed that the land needs are substantially higher than in the previous analysis. It is estimated that, if sites develop at a lower FAR, a total of 7,350 additional acres will be needed assuming low employee densities. If high employee densities are considered, the land demand goes down to 5,576 additional acres.

Table 52: Employment Space Needs per Acre Based on Actual/Built Intensities

Industry Sector	Building Type/Target Industry Cluster	Floor Area Ratio	Typical Bldg Size/ 1 Acre ¹	High-Employee Density		Low-Employee Density	
				Sq. Ft. of Bldg. per Employee	# of Employees per Acre	Sq. Ft. of Bldg. per Employee ³	# of Employees per Acre
Professional & Business Svcs.	Office	0.18	7,841	350	22	350	22
Educational & Health Svcs.	Office	0.08	3,485	500	7	700	5
Transp., Trade, & Utilities	Warehouse Distribution	0.31	13,504	700	19	1,000	14
Leisure and Hospitality	Retail	0.10	4,356	675	6	675	6
Construction and Mining	Manufacturing	0.17	7,405	500	15	1,000	7

¹ Does not include the 30% reduction factor

Table 53: Land Area Needs Based on Actual/Built Intensities- Low Employee Density Scenario

Target Industry Sectors	Building Type	Employees per Acre	Employees as of 2010	Forecasted Employment			Site Area (AC) Need		
				(2010-20)	(2010-30)	(2010-40)	(2010-20)	(2010-30)	(2010-40)
Professional & Business Svcs.	Office	22	7,510	3,700	11,300	20,280	165	504	905
Educational & Health Svcs	Office	5	15,300	6,020	12,280	18,620	1,209	2,467	3,740
Transp., Trade, & Utilities	Warehouse Distr.	14	17,890	5,620	11,150	15,770	416	826	1,168
Leisure and Hospitality	Retail	6	8,760	1,750	3,390	5,340	271	525	827
Construction and Mining	Manufacturing	7	6,580	2,130	4,070	5,250	288	550	709
TOTAL			56,040	19,220	42,190	65,260	2,349	4,872	7,350
Average Employee Density (Increase # of Employees/Additional Site Area) for 2010-2040									68

Table 54: Land Area Needs Based on Actual/Built Intensities- High Employee Density Scenario

Target Industry Sectors	Building Type	Employees per Acre	Employees as of 2010	Forecasted Employment			Site Area (AC) Need		
				(2010-20)	(2010-30)	(2010-40)	(2010-20)	(2010-30)	(2010-40)
Professional & Business Svcs.	Office	261	7,510	3,700	11,300	20,280	14	43	78
Educational & Health Svcs	Office	183	15,300	6,020	12,280	18,620	33	67	102
Transp., Trade, & Utilities	Warehouse Distr.	44	17,890	5,620	11,150	15,770	129	256	362
Leisure and Hospitality	Retail	90	8,760	1,750	3,390	5,340	19	38	59
Construction and Mining	Manufacturing	61	6,580	2,130	4,070	5,250	35	67	86
TOTAL			56,040	19,220	42,190	65,260	1,735	3,644	5,576
Average Employee Density (Increase # of Employees/Additional Site Area) for 2010-2040									84

Source for Tables 50 through 52: University of Central Florida's Institute for Economic Competitiveness, Littlejohn Engineering Associates, Inc., Lake County Government, July 2013

c. Recommended Allocation of Employment Land Use

The development intensities allowed in the future land use categories analyzed are very high compared to the actual developments being built in those areas. While retail and office uses may lend themselves to higher intensity development, manufacturing and warehouse uses typically develop at substantially lower intensities than those currently allowed. If future development were to build to the maximum intensity permitted, the County would need a minimum of 800 acres (throughout the entire County) to accommodate the projected employment for the target industries. With the more realistic assumption that the actual development intensities will be substantially lower than permitted in the future land use categories analyzed, Lake County would need to allocate anywhere from 5,000 to 7,300 acres.

Land use recommendations, presented later in this document, will address how Lake County may address the allocation of compatible lands to accommodate the range of targeted industries and uses.

3. Jobs-to-Housing Analysis

a. What is Jobs-to-Housing Balance?

Jobs-housing balance is a planning tool that local governments can use to achieve a roughly equal number of jobs and housing units (or households) in a jurisdiction. The notion of balancing jobs and housing goes well beyond trying to attain numerical equality. In the ideal world, the jobs available in a community would match the labor force skills, and ample housing would be available at prices, sizes, and locations suited to workers who wish to live in the area.

A ratio of jobs to housing is most commonly used to express the concept of jobs-housing balance. Generally stated, the jobs-housing ratio is a ratio between a measure of employment and a measure of housing in a given area of analysis. The most basic measure is the ratio of the number of jobs to the number of housing units in an area. To calculate this measure, divide the number of jobs by the number of housing units. For example, if 5,000 persons are employed in a city and 10,000 housing units exist, the city's jobs-housing unit ratio is $5,000/10,000 = 0.50:1$. The current jobs-to-housing ratio for the Wellness Way Sector Plan area is $4,386 \text{ (jobs)} / 8,319 \text{ (units)} = .53:1^8$. The jobs-to-housing figures are based on the total jobs and housing units within US Census block groups 313.061, 313.081 and 313.114. These Census block groups, while not exclusively representative of the Wellness Way Sector Plan area, provide a benchmark or baseline for measurement over time of the area's jobs-to-housing ratio. The Census block groups provide complete coverage of the Wellness Way Sector Plan area with a small amount of area coverage extending outside of the study area boundary.

⁸ Dun & Bradstreet, Inc., ESRI, Inc., 2013, US Census Data, 2010.

A frequently cited target standard for jobs-to-housing ratio is 1.5:1. A community with this ratio of jobs to housing units is said to be in implied “balance”⁹. Frequently cited target ranges for jobs-to-housing units ratio are 1.3:1 to 1.7:1¹⁰ or 1.4:1 to 1.6:1¹¹. Communities with a jobs-to-housing units ratio within these ranges are said to be “in balance”. Based on these accepted standards, the Wellness Way Sector Plan area is not currently “in-balance” with regards to the jobs to housing ratio based on current available data. Monitoring and tracking using the Census block groups benchmark data, of this ratio over time will indicate whether the future development that occurs within the Wellness Way Sector Plan Area moves the ratio closer to a jobs-to-housing ‘balance’ or farther away from a jobs-to-housing ‘balance’.

b. Why Do Jobs to Housing Ratios Matter?

The public challenges that are sought to be addressed by jobs-to-housing ratios and associated jobs-to-housing linkages, are the reduction of vehicle trip lengths and the associated negative environmental and sociological effects associated with longer and longer commutes. Over the past three decades, vehicle trip lengths in the United States have generally increased. The trips associated with work, coming and going to and from work and home, were the longest of the trips¹². The average commute time in Lake County is 27.8 minutes¹³. Longer commute times create additional economic costs for employees through additional fuel costs, vehicle and maintenance costs and additional social costs through more time spent away from families and stress associated with commuting. Longer commute times also place additional cost burdens on employers through decreased employee availability and productivity, and an implied increase in labor costs. The provision of appropriate housing in relatively close proximity to places of employment through jobs-to-housing linkages is seen as a means to address the negative social, environmental and economic aspects associated with ever lengthening commutes. By reducing the vehicle trip lengths associated with commuting to and from work, communities can mitigate the aforementioned negative environmental and social impacts and also reduce the potential for urban sprawl.

Jobs-to-housing ratios and associated jobs-to-housing linkage ordinances are typically used to address the following job-housing imbalances:

Type 1: **Job-rich and needs more housing for low-wage workers.** Type 1 imbalances are typified by too many low-wage jobs and too few low-end housing units. A city or county with a large amount of entry-level retail and service jobs but has a little or no low-income to moderate-income housing might find it needs to correct its jobs-to-housing imbalance with land development policies that

9 American Planning Association, Planning Advisory Service Reports, Report 516, Jobs-Housing Balance, 2003, and “Jobs-Housing Balance Revisited: Trends and Impacts in the San Francisco, Bay Area.” Journal of the American Planning Association 62, no. 4: 492–511, Cervero, Robert, 1996

10 American Planning Association, Planning Advisory Service Reports, Report 516, Jobs-Housing Balance, 2003, Best Development Practices: Doing the Right Thing and Making Money at the Same Time. Chicago: Planners Press, Ewing, Reid 1996.

11 American Planning Association, Planning Advisory Service Reports, Report 516, Jobs-Housing Balance, 2003, and “Jobs-Housing Balance Revisited: Trends and Impacts in the San Francisco, Cervero, Robert, 1991.

12 American Planning Association, Planning Advisory Service Reports, Report 516, Jobs-Housing Balance, 2003.

13 U.S. Census Bureau, American Community Survey, 2004-2009.

ensure housing stocks meets the price ranges of moderately skilled, low-wage workers. These imbalances are probably most likely to occur in suburban job centers. The provision of affordable housing within or close to the job center is needed to address this imbalance.

An example of this type of imbalance is typically found in a suburban employment center or edge cities.

Type 2: ***Job-rich and needs more housing for executives, managers and professionals (higher-wage workers).*** Type 2 imbalances are typified by too many high-wage jobs and too few high-end housing units. A community might find that it needs more high-end residences to house corporate executives and similar high-income professionals. Shortages of high-end housing are usually rare, however, because there is usually a high market demand and developers achieve high profits from new subdivisions targeted at these professionals. In other words, market response is generally adequate to prevent frequent Type 2 jobs-to-housing imbalances. These imbalances are more likely to occur in downtown areas of a central city (e.g., a banking, finance, and governmental center of a region), which for a variety of reasons (e.g., a lack of amenities, perceptions that public schools are inadequate, concerns about crime) has not established a residential market. Potential policy responses appropriate to addressing a Type 2 jobs-housing imbalance will depend on the particular characteristics of the area. When addressing Type 2 imbalances one of the first steps should be an analysis of the likely reasons that market-rate housing has not been built.

Examples of this type of imbalance are typically found in downtown employment areas in central cities.

Type 3: ***Job-poor and needs more employment opportunities for the resident, lower-wage, labor force.*** Type 3 imbalances are typified by too few low-wage jobs and too much low-end housing units. These areas are predominantly residential, housing low-wage workers who don't have employment opportunities close by that match their skills. Potential solutions for Type 3 jobs-housing imbalances include "economic development" programming that brings additional lower-skilled jobs into or near the neighborhoods of lower-income resident workers.

An example of this type of imbalance is typically found in older suburbs and central-city neighborhoods.

Type 4: ***Job-poor with highly-skilled resident labor force.*** Type 4 imbalances are typified by too few high-wage jobs and too many high-end housing units. This type of situation is common in many middle- and higher-income suburban communities. This type of mismatch between residences and jobs is likely to result primarily from public policy (i.e., local land-use policy) decisions to maintain an area's predominantly residential character. If not constrained by policies that "zone-out" employment in order to maintain a bedroom community, the market will probably correct this imbalance over time: employers study the strength of the local labor force in terms of their skills and education levels, and under many conditions will be eager to locate close to pools of skilled labor force. Potential solutions to this type of imbalance may include a change in local land-use policies (i.e., land uses and zoning that enable and encourage employment generating uses).

An example of this type of imbalance is typically found in a suburban employment center or edge cities.

The Wellness Way Sector Plan area exhibits some of the same conditions associated with Type 3 and Type 4 imbalances. That is, the area is job-poor with a labor pool of high-wage and low-wage workers and also has very limited housing stock. However, a large inventory of built and planned residential development surrounds the Wellness Way Sector Plan area to the north, south and east. Through the utilization of appropriate land use policies and regulations Lake County can simultaneously encourage employment generating development and also encourage residential development in appropriate areas within the Wellness Way Sector Plan area.

c. Pros and Cons

Numerous communities throughout the United States have created jobs-to-housing linkage ordinances, which link the approval of potential non-residential development to the provision of a prescribed amount residential development and vice versa. These linkage ordinances seek to address the provision of an adequate amount of housing in concurrence with the creation of employment generating development, within an acceptable distance of the employment generating development, in order to reduce vehicle miles travelled associated with work and thusly reduce air pollution, traffic congestion and commute times.

Pros

The desired benefits of jobs-to-housing linkages and associated development regulations are to reduce vehicle miles travelled for work and the associated traffic congestion, air-pollution and long commute times. Desired benefits would also include the development of a range additional housing stock that is suitable for a range of employees and incomes. The development of residential uses and additional housing stock near employment centers is also desired to discourage urban sprawl and encourage increased density development.

Benefits Typically Attributed to Jobs-Housing Balance

- Reduced Driving and Congestion
- Fewer greenhouse gas emissions
- Lower costs to businesses and commuters
- Lower public expenditures on facilities and services
- Greater family stability
- Higher quality of life

Cons

The negative aspects associated with jobs-to-housing linkages and associated development regulations include the additional development costs and regulation requirements, verifying a causal

link to where people live and work, unpredictable individual housing-job-location decisions and the matching of appropriate housing stock to the associated employment generating development.

Additional development regulations and associated costs for compliance with the regulations have been cited by the development community as a disincentive for development. The identification of comparative economic advantages within the specializations of the development community is frequently cited as what shapes a healthy development market, that is, the market tends to attain a jobs-to-housing balance over time. Regulatory intervention in the form of a jobs-to-housing linkage increases development costs and may inhibit development.

The causal link about where people choose to live and work is very hard to establish and the decision process is complex. First, it is not clear that living close to work is a high priority for most people. Studies of residential location choice indicate that many factors beyond housing price and characteristics are involved in where people choose to live. These include neighborhood quality, availability of parks and other amenities, quality of schools, racial and ethnic mix, etc.¹⁴ This information indicates that even if a balance between worker and housing attributes could be demonstrated, it does not follow that workers would in fact choose to live in the local area.

Second, housing and commuting costs are seen as a 'trade-off'. Because housing costs generally decline with distance from major employment centers, additional commuting costs can be traded off for cheaper housing. Thus, many households choose to live in outlying areas, where lower prices enable them to purchase more housing, and commute further to work. Notable here is the strong preference among U.S. households for single-family housing. These two points suggest that it is difficult to predict where workers might live. The willingness to incur a longer commute vastly increases the number and variety of housing choices and options available to them.

Third, there is an established trend of a growing number of multiple-worker households. Location decisions for households with multiple workers are even more complex than for households with a single worker. Living near one household member's job may mean living far from another household member's place of employment.

A simple equivalency, or ratio, between jobs and households or jobs and housing units does not take into account the relationship between jobs by various occupations and detailed housing characteristics including, importantly, price. To "match" housing to jobs and vice versa requires more complex ratios and a more detailed analysis of the suitability of the housing stock (particularly economically) for those who hold local jobs. On the jobs side, variables may include the industry group of an employer, skill requirements of positions to be filled, and prevailing wages. On the worker (employed residents) side, variables may include education levels, earnings potential (affecting ability to pay local housing costs), and preferences for occupation or industry, or both.

¹⁴ J. R. Follain and E. Jimenez. Estimating the Demand for Housing Characteristics: A Survey and Critique. *Regional Science and Urban Economics*, Vol. 15, 1985, pp. 77-107; P.D. Linneman, The Demand for Residence Site Characteristics. *Journal of Urban Economics*, Vol. 9, 1981, pp. 129-148; and, J. Quigley. Consumer Choice of Dwelling, Neighborhood and Public Services. *Regional Science and Urban Economics*, Vol. 15, 1985, pp. 41-63.

These are conditions that are frequently addressed by developers with a local insight into a particular unmet need or underserved market demand.

An article by Robert Cervero and Michael Duncan¹⁵ looked at an array of factors that contribute to a pattern in which a high proportion of employed persons work outside of their local communities of residence. These factors included the possibility of a limited range of employment choices in the resident community, for some workers, the most attractive jobs are other than where they prefer to live.

4. Recommendations

a. Target Industry Recommendations for Wellness Way Lake County 2010-2040

It is recommended that Lake County continue to pursue, encourage development of, and allocate adequate potential sites and provide appropriate land use classifications to accommodate development of the targeted industry group identified for the Wellness Way area while simultaneously expanding their focus areas to include the complementary high-growth, high-employment and high-LQ industry sectors identified in **Table 46**. It is also recommended that Lake County continue to pursue, encourage development of, and allocate adequate potential sites and provide appropriate land use classifications to accommodate development of the complementary industrial sectors and targeted industry groups associated with a large proportion of the current employment in Lake County including Agriculture, Forestry, Fishing and Hunting, Manufacturing and Retail Trade identified in **Table 47 (Existing High-Employment Lake County Industry Sectors and Complementary High LQ Lake County)**.

The growth of Lake County and the success of the Wellness Way Sector Plan area are not by any means going to happen spontaneously. It will take hard work on the part of county business and government leaders to ensure the necessary infrastructure is in place and that, via partnerships with educational institutions in the region, the workforce is in place to support the growth. Economic development efforts should be targeted at the appropriate industries to capitalize on opportunities best suited for Lake County and its unique comparative advantages and assets.

The structure of a region's economy is the cumulative result of the geography, available resources, infrastructure, workforce, planning, policies and economic development efforts. All of the region's history shapes this structure and that is reflected in the location quotients of the region's industries. That is not to say that existing location quotients define a region's destiny, the evolution of the six-county region away from agriculture and toward leisure and tourism would not have been reflected in location quotients from fifty years ago, but trying to grow the region's economy by deliberately focusing on sectors that are not current strengths of the region is fraught with peril.

Game changing, regional economy altering events can and do take place, but trying to endogenously and through a planning process engineer such changes is a high-risk proposition.

15 Robert Cervero and Michael Duncan, "Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing?", *The Journal of American Planning Association*, Autumn 2006, pp. 475-490.

b. Land Use Allocations

Based on the identified job growth estimates for specific targeted industries, application of space requirements associated with established employee space needs and utilization of proposed land-use guidelines that propose a median development density between Lake County's current development patterns and existing built environment (0.25 FAR/High Land Use Allocation Amount) and the existing Future Land Use Element's development intensities (ranging from 2.0 FAR to 3.0 FAR/Low Land Use Allocation Amount) it has been determined that Lake County would need to allocate between 600 and 7,400 acres of land that is compatible for the development of the targeted industries and industries that are complementary to the targeted industries. The low end of the range represents the theoretical highest intensity and highest employment density, and is not likely to occur within sector plan area. There may be some locations within high density development nodes that develop close to the high density range, but in small amounts. It is anticipated that this area will develop closer to the actual (historic) development intensity, which is represented at the high end of the acreage allocation range (7,400 acres). It is recommended that sufficient acreage of the appropriate job accommodating land uses are allocated to the future land use plan within the Sector Plan area to accommodate all of the projected jobs for the County to 2040.

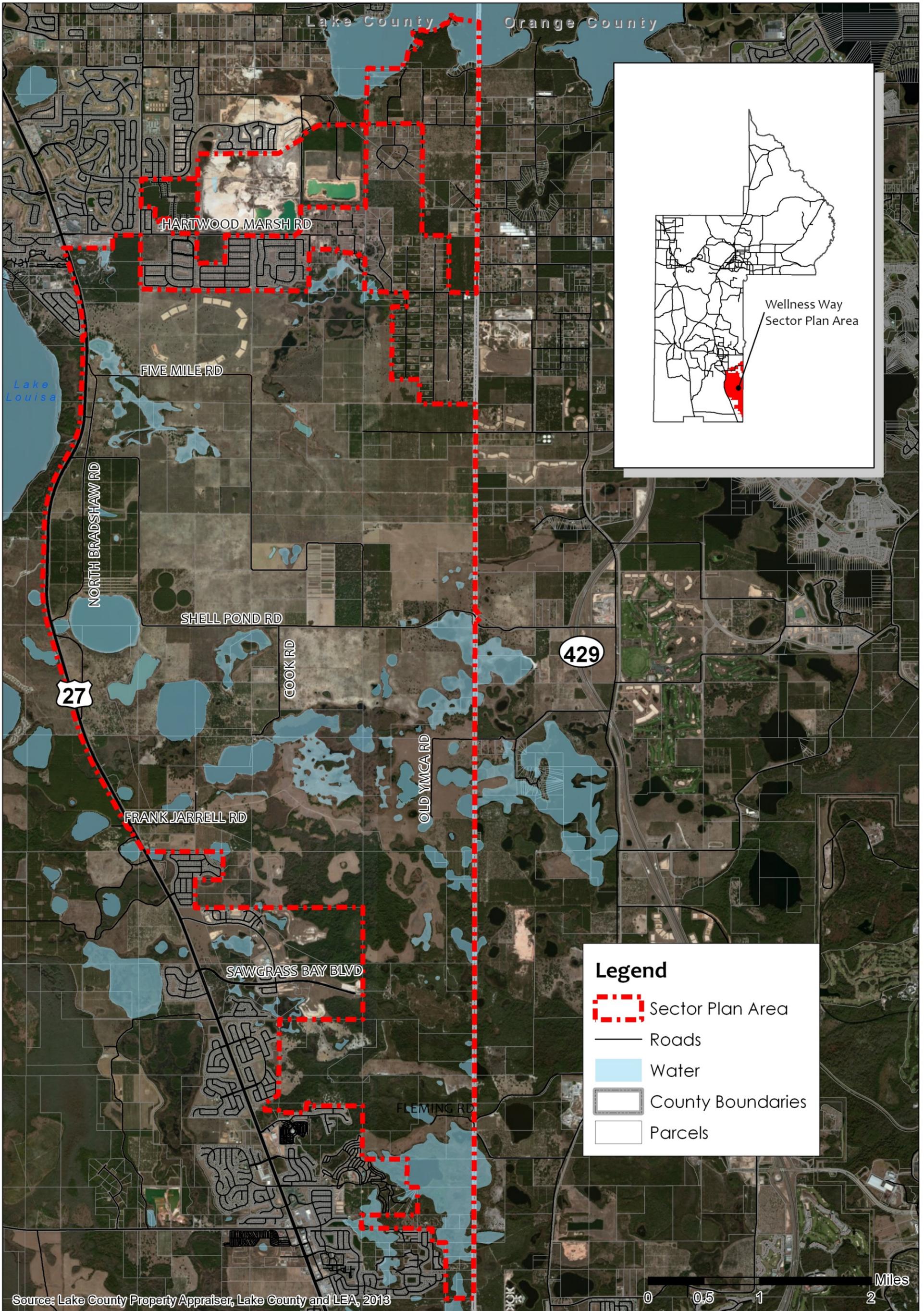
Please note that the estimates for target industry sector growth for Lake County are applicable to **the entire county area**. It is understood that not all of the potential growth that has been identified for Lake County will be developed within the Wellness Way Sector planning area. However, providing an allocation of compatible site areas and land uses that may accommodate the potential 30 year space needs within the Wellness Way area, will provide Lake County the maximum opportunity to capture anticipated job growth in the target industry sectors.

c. Jobs-to-Housing Balance

The jobs-housing balance policy is premised on the idea that job and housing location choices are closely linked, and that direct policy intervention is required to achieve a balance of available housing and nearby jobs and employment opportunities. Available academic research and findings showed that the relationship between where people choose to live and work is a complex relationship that may have little to do with the proximate availability of employment opportunities. Observations over time have shown that patterns of urban growth and travel indicate that a balancing of jobs to housing ratios fluctuate and balance occurs as part of the urban development process. It is concluded that jobs-housing linkage is not an effective solution for traffic congestion and air pollution concerns. Rather, these problems and associated symptoms are better addressed in a more direct way. However, developing a jobs-to-housing ratio as a target or goal can be beneficial to the approving board because it provides a means of measuring the number of jobs being generated by a proposed development. This method would measure each Detailed Specific Area Plan (DSAP) on an area wide basis rather than applying a required blanket jobs-to-housing ratio for each DSAP.

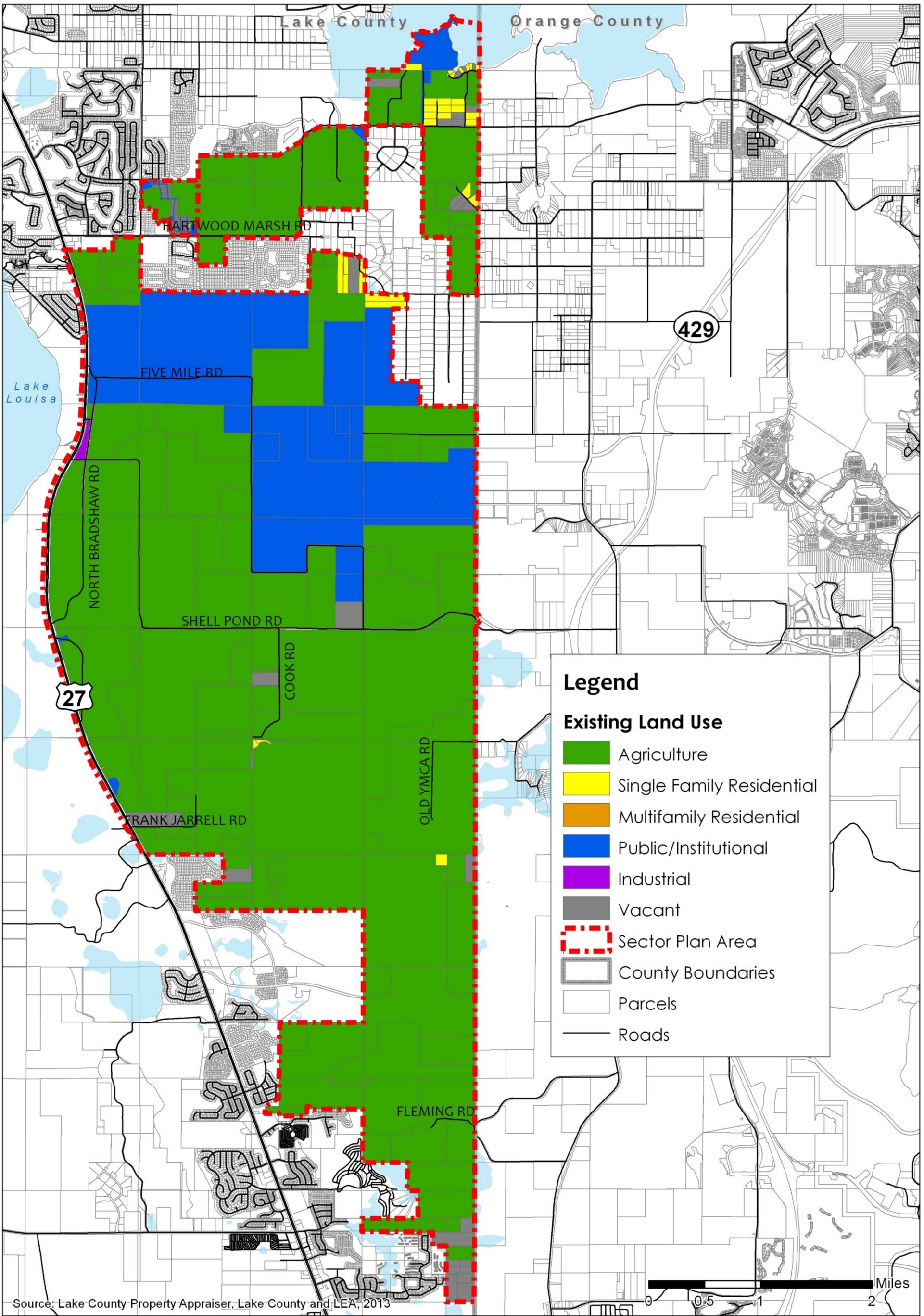
It is recommended that each DSAP is measured against the target 1.5:1 jobs-to-housing ratio. The baseline jobs-to-housing ratio, for purposes of future measurement, is .53:1. As explained previously, the jobs-to-housing ratio is calculated by dividing the total number of jobs by the total housing units within Census block groups 313.061, 313.081 and 313.114. It is also recommended that if it is determined that a proposed DSAP does not further the goal of achieving the targeted jobs-to-housing ratio, the County Commission will have the discretion to deny the project or require a mitigation plan.

If this system is utilized, it will require continued annual monitoring to evaluate the progress of the jobs-to-housing balance and recoding/tracking of the residential and non-residential development that occurs in the Wellness Way Sector Plan area. Following the first five years of implementation, the program should be reviewed to determine its effectiveness and whether the target ratio should be adjusted.

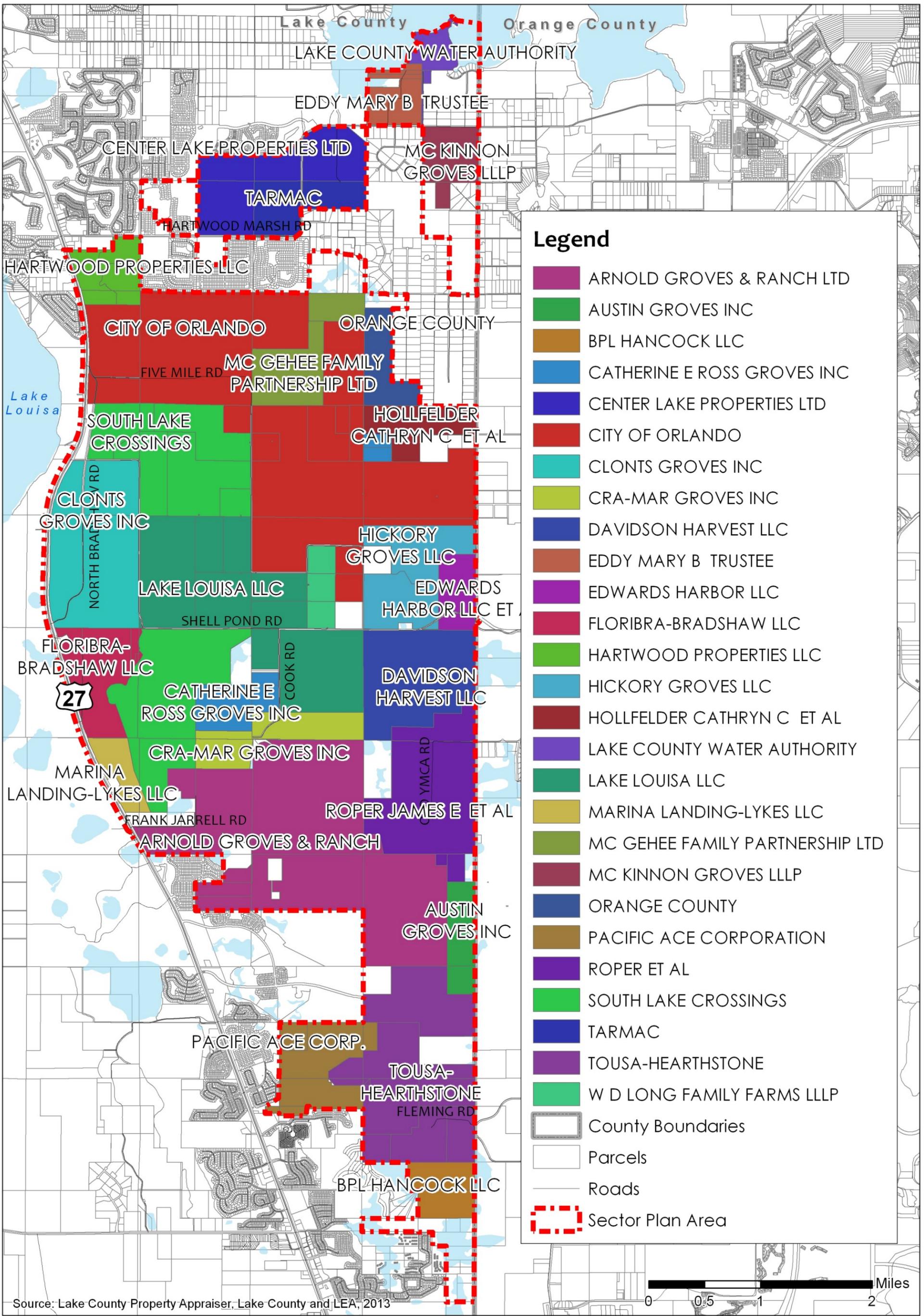


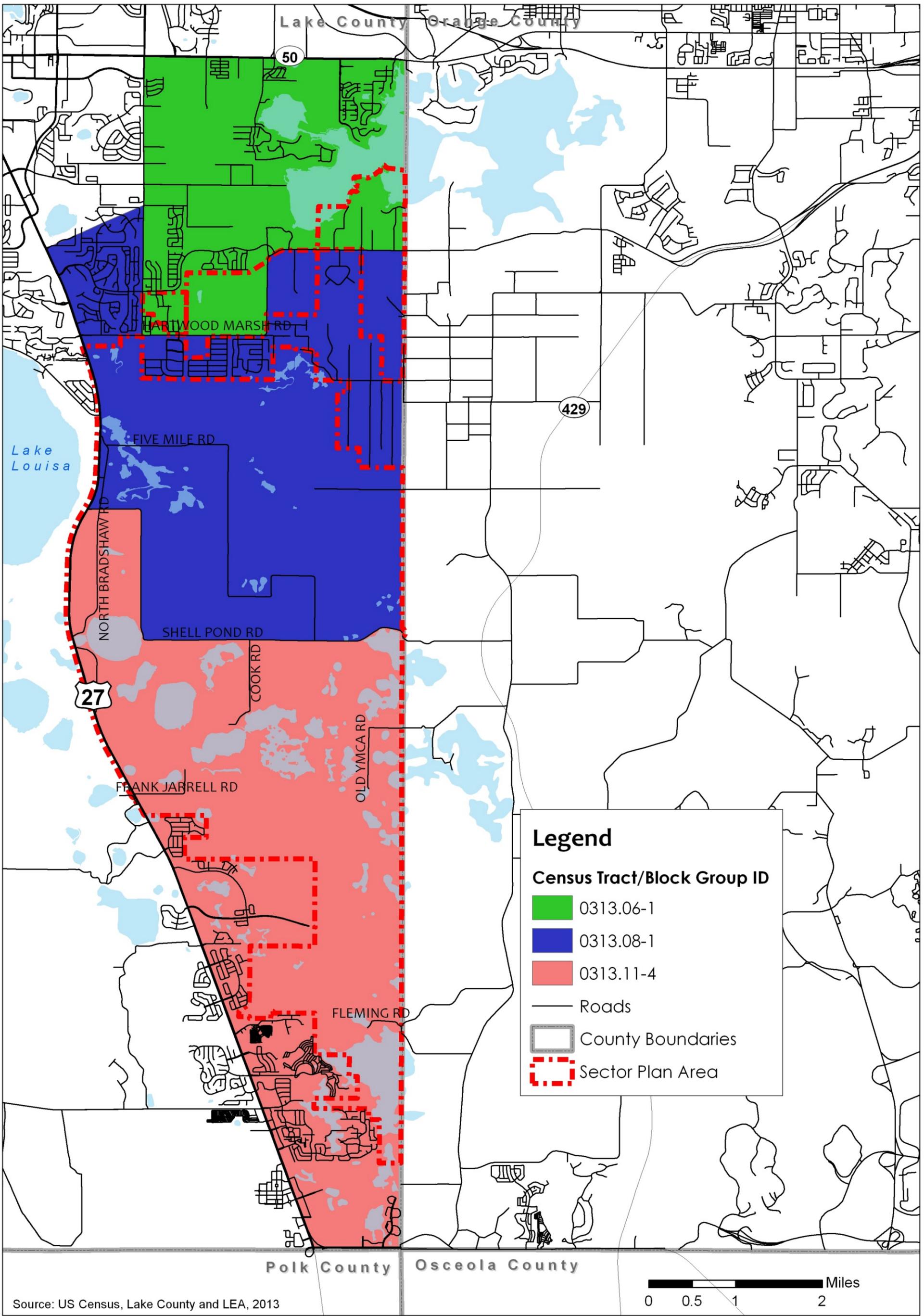
Source: Lake County Property Appraiser, Lake County and LEA, 2013

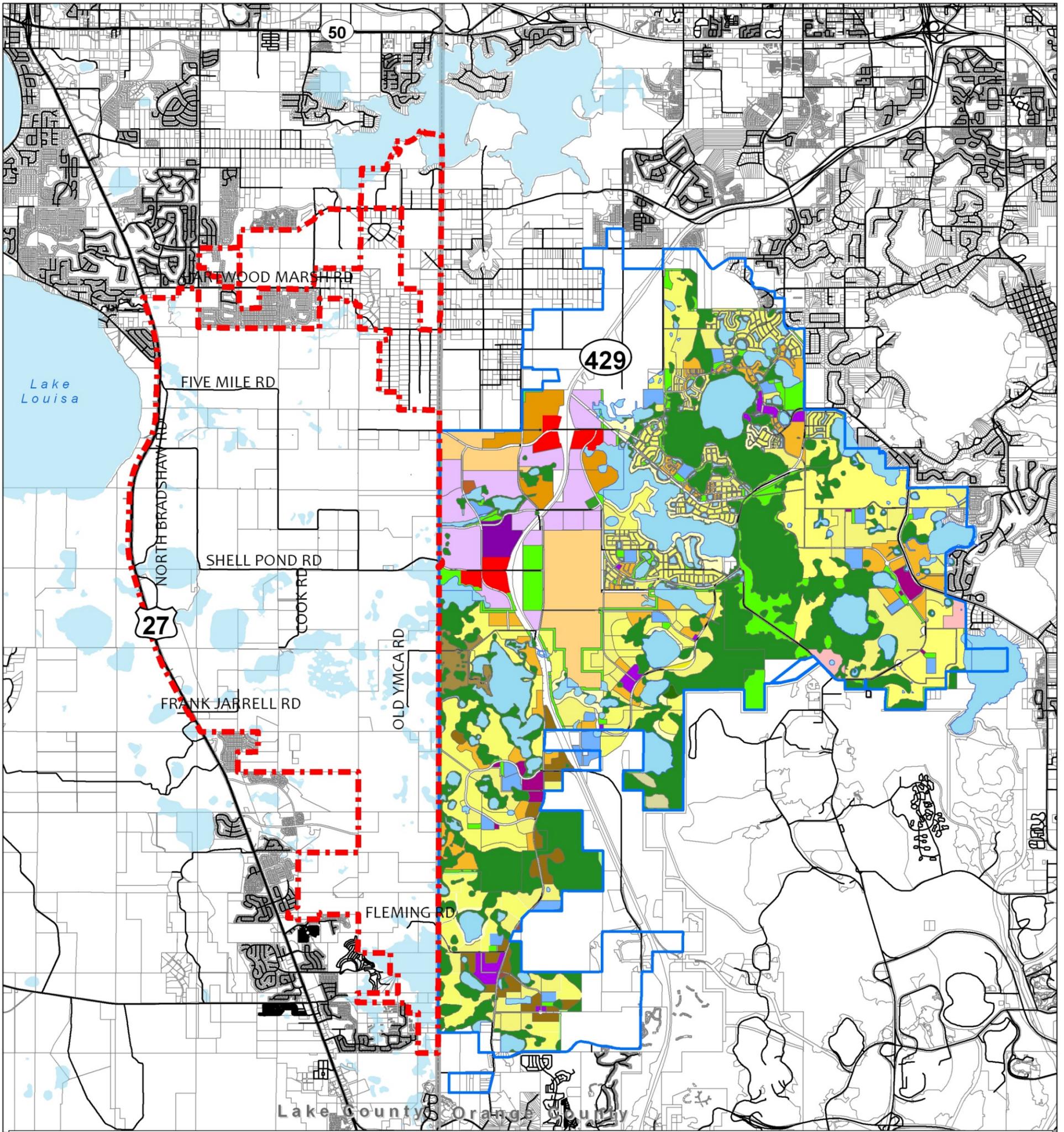




Source: Lake County Property Appraiser, Lake County and LEA, 2013



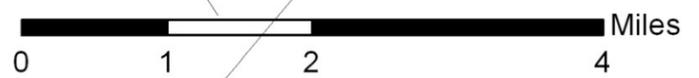


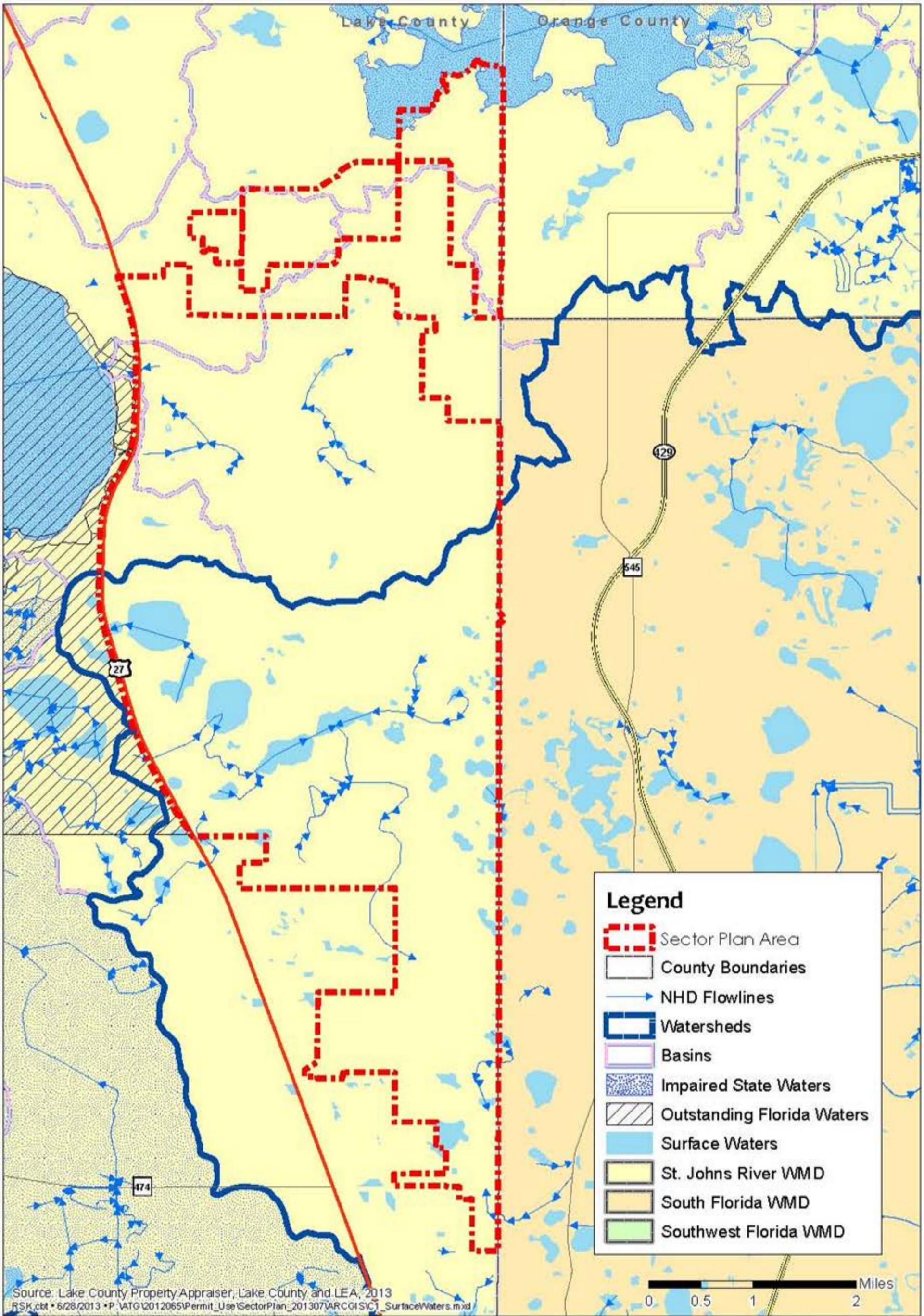


Legend

- | | | |
|-------------------------------|--|---|
| Wellness Way Sector Plan Area | ESTATE DISTRICT / ESTATE HOME DISTRICT | RETAIL |
| Horizon West Boundary | ESTATE HOME DISTRICT | TOWN CENTER |
| APARTMENT DISTRICT | ESTATE RURAL | TOWNHOME DISTRICT |
| CNC-1 | ESTATE RURAL / RURAL ENCLAVE | URBAN RESIDENTIAL |
| CNC-2 | PUBLIC | VESTED DEVELOPMENTS |
| CONSERV II | GARDEN HOME DISTRICT | VILLAGE CENTER |
| CORPORATE CAMPUS | GARDEN HOME MIXED USE | VILLAGE CENTER / NEIGHBORHOOD CENTER (NC) |
| EAGLE'S NEST | OFFICE | VILLAGE HOME DISTRICT |
| EASEMENT | RECREATION/OPEN SPACE | WATER |
| ESTATE DISTRICT | UPLAND GREENBELT | WETLAND |

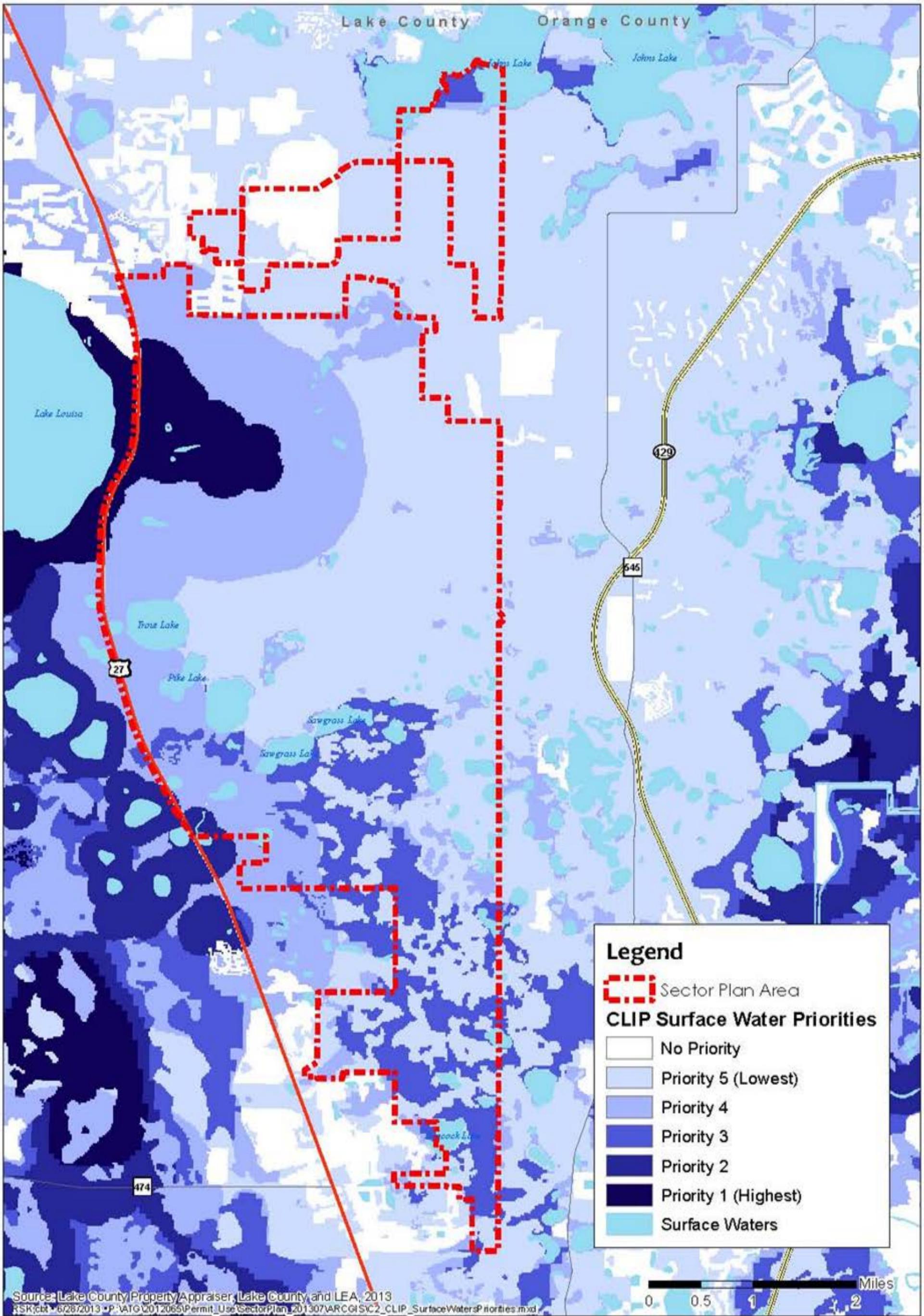
Source: Lake County Property Appraiser, Lake County, Orange County and LEA, 2013

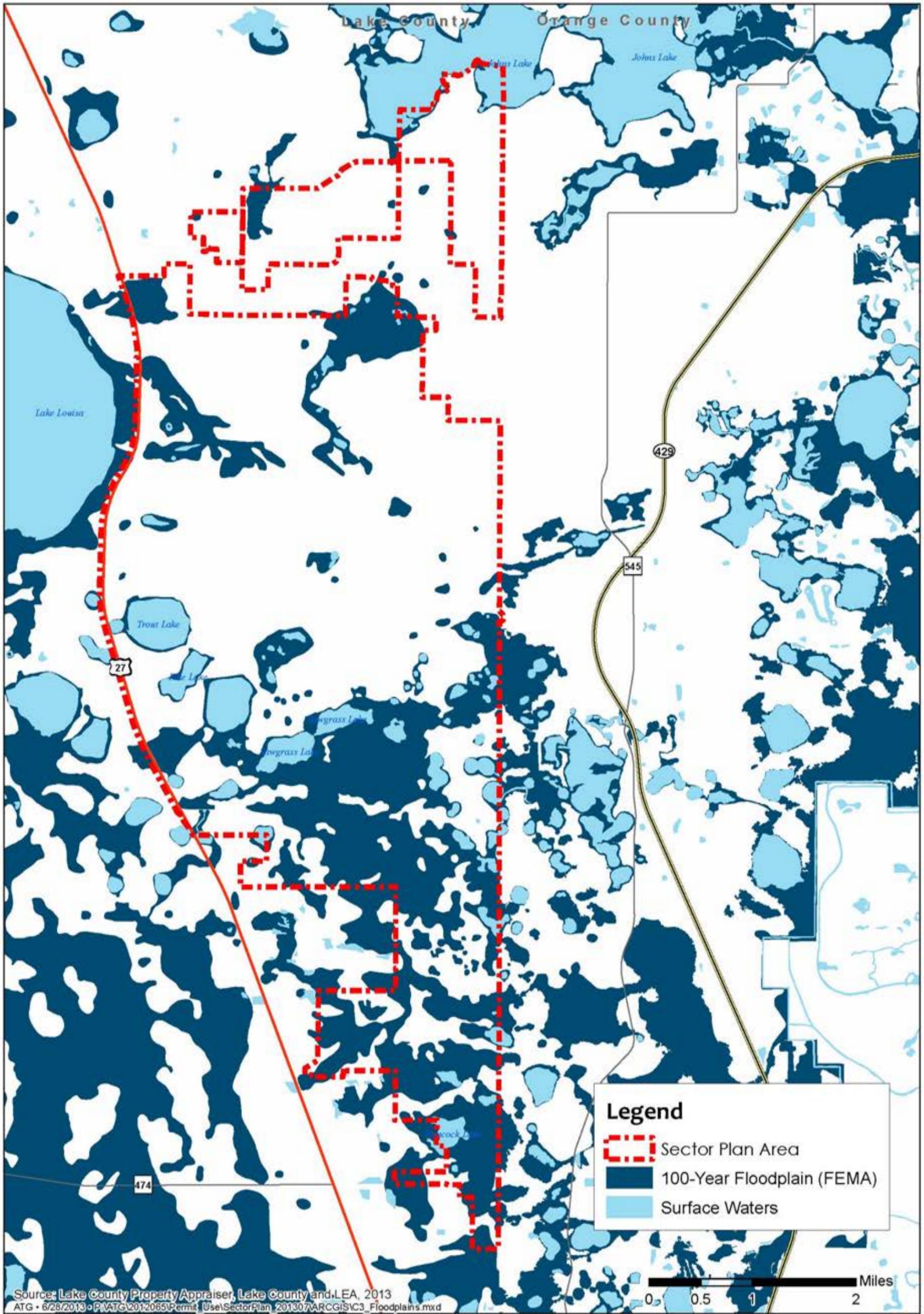


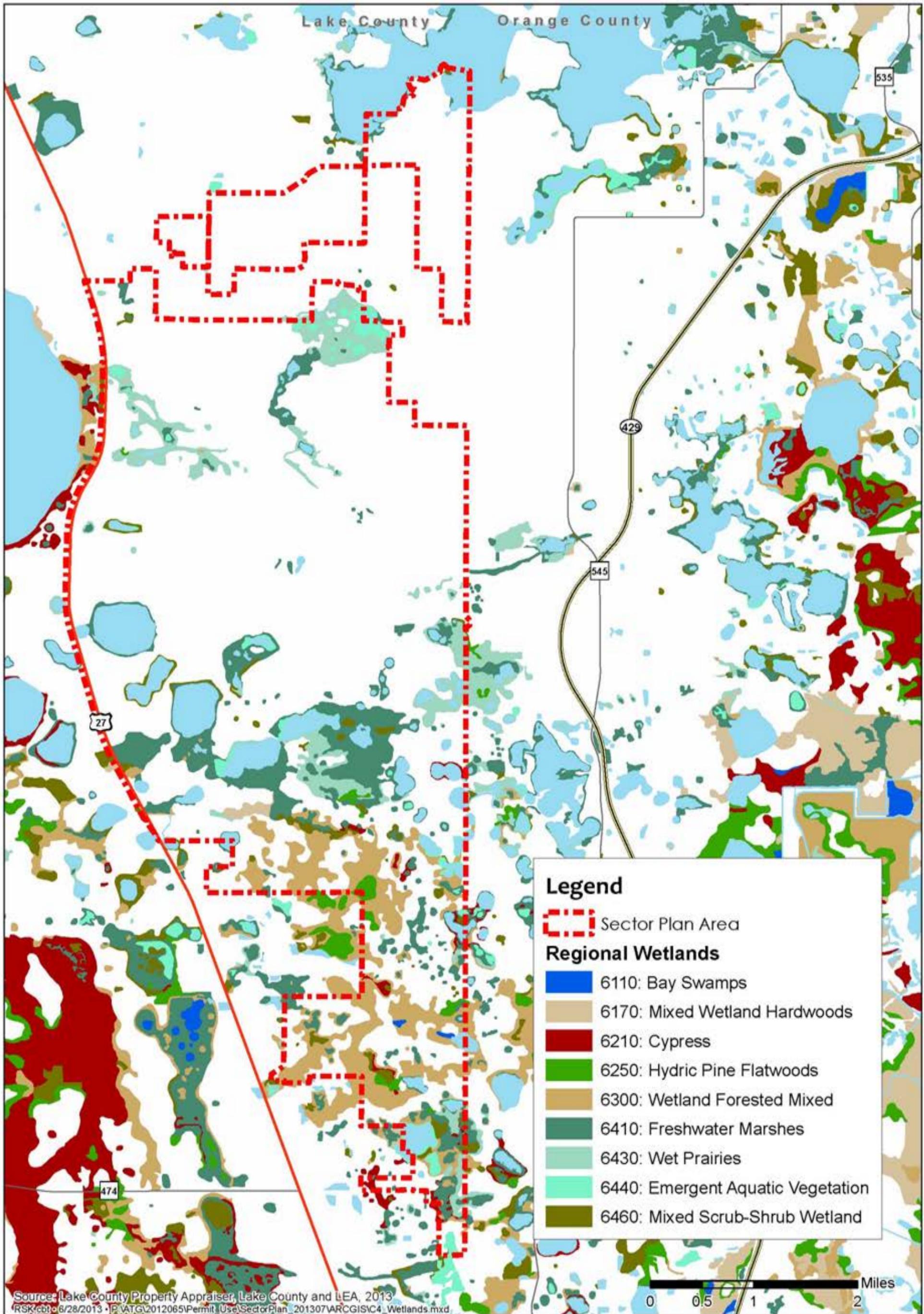


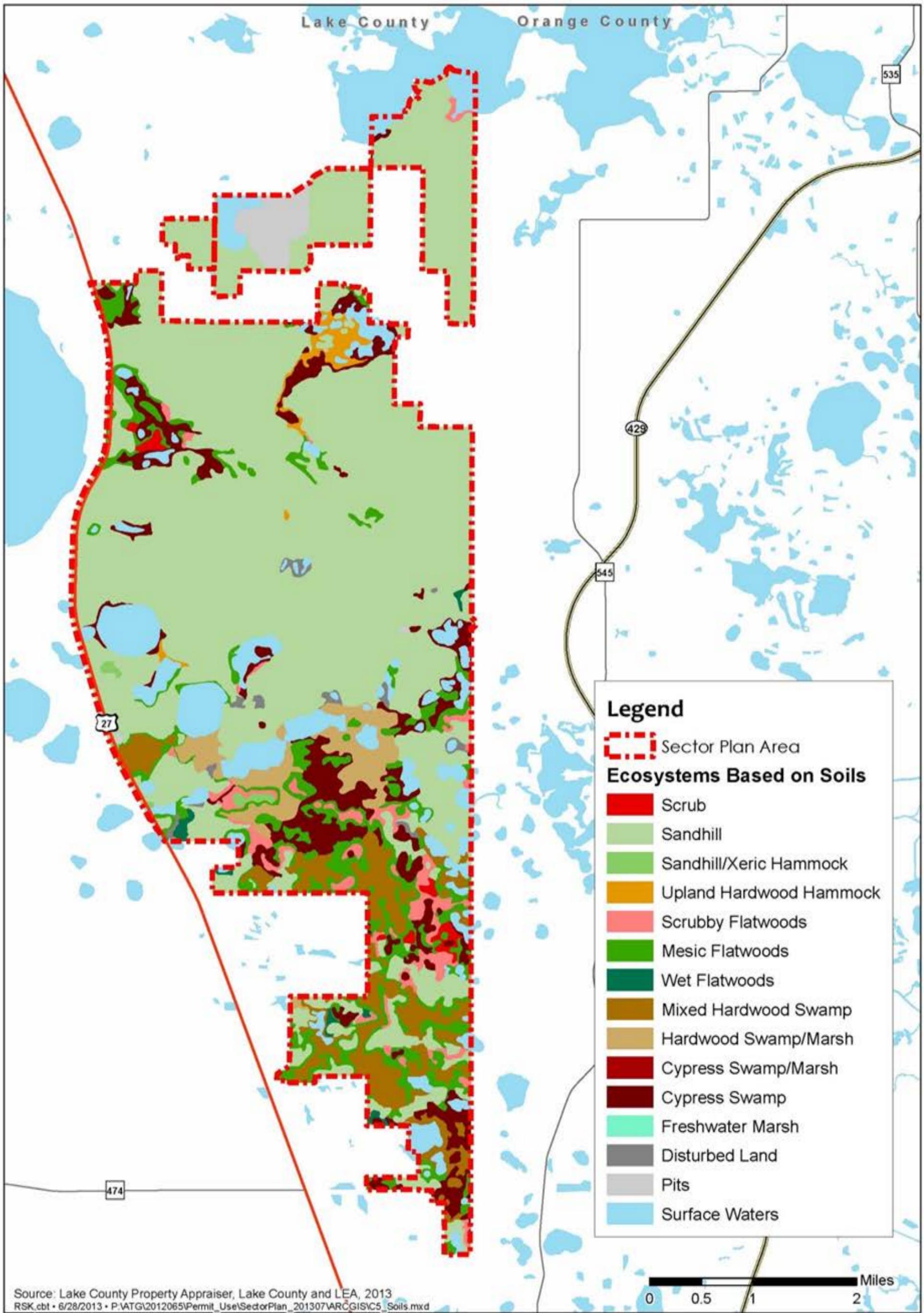
Source: Lake County Property Appraiser, Lake County, and LEA, 2013
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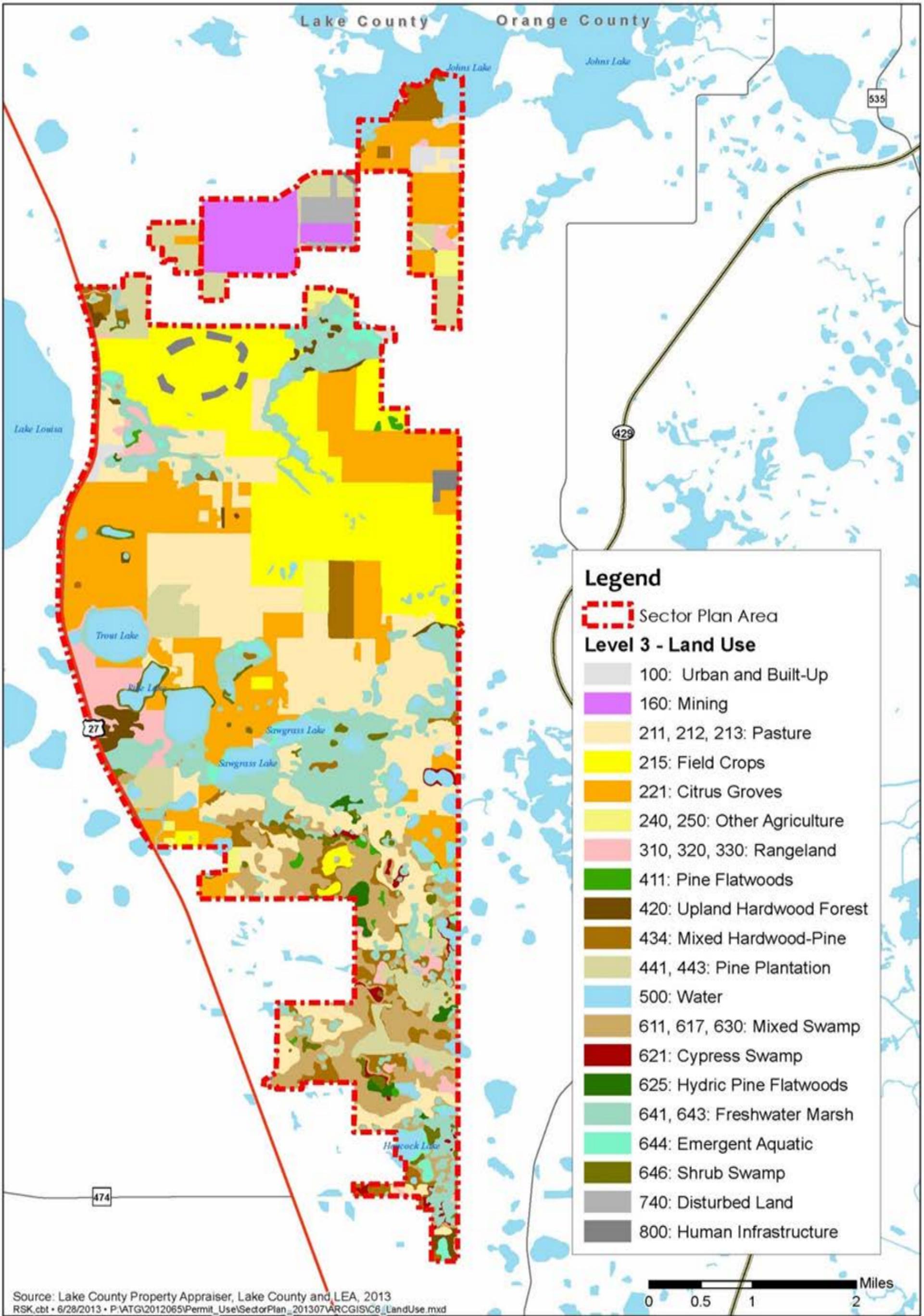
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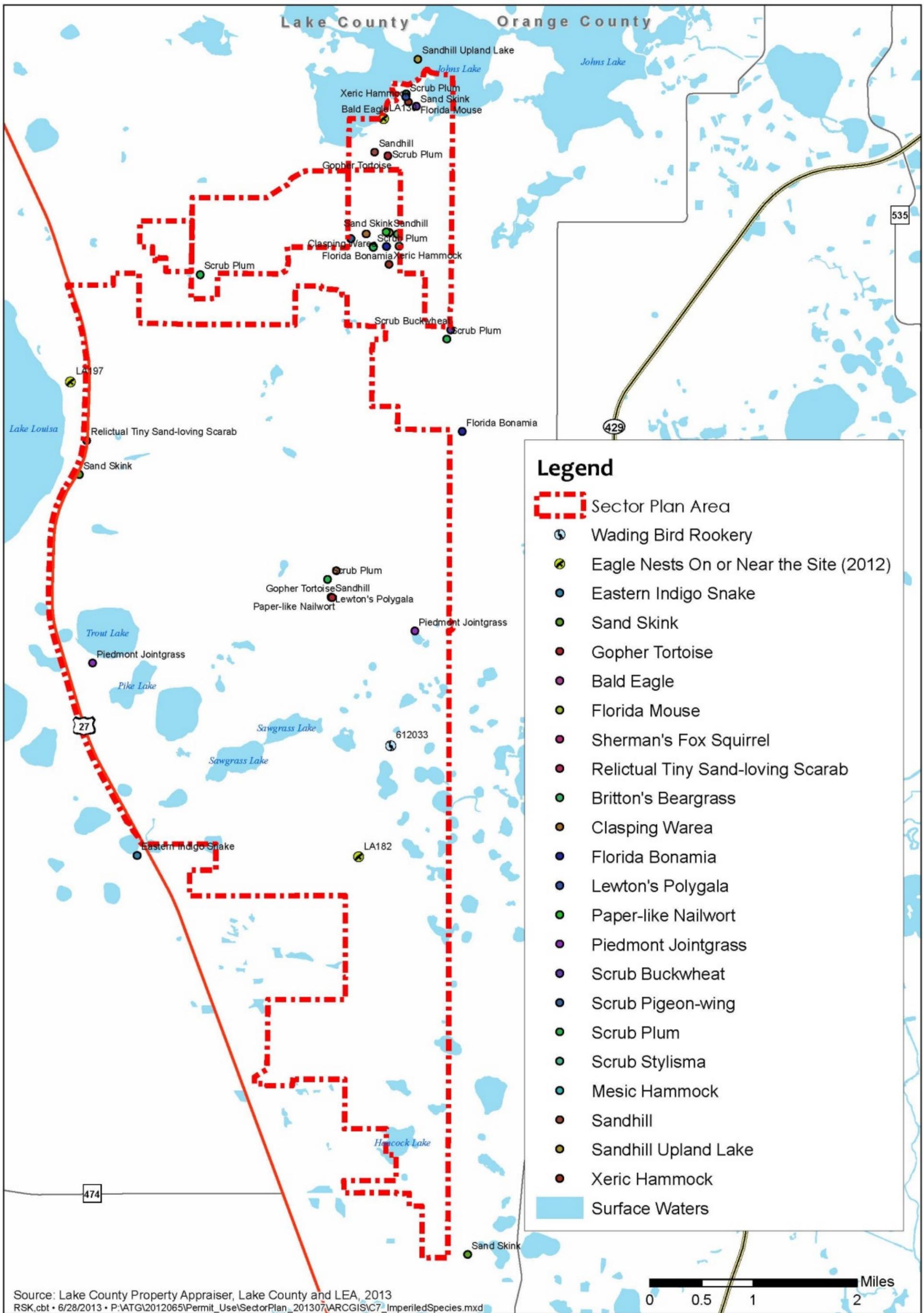


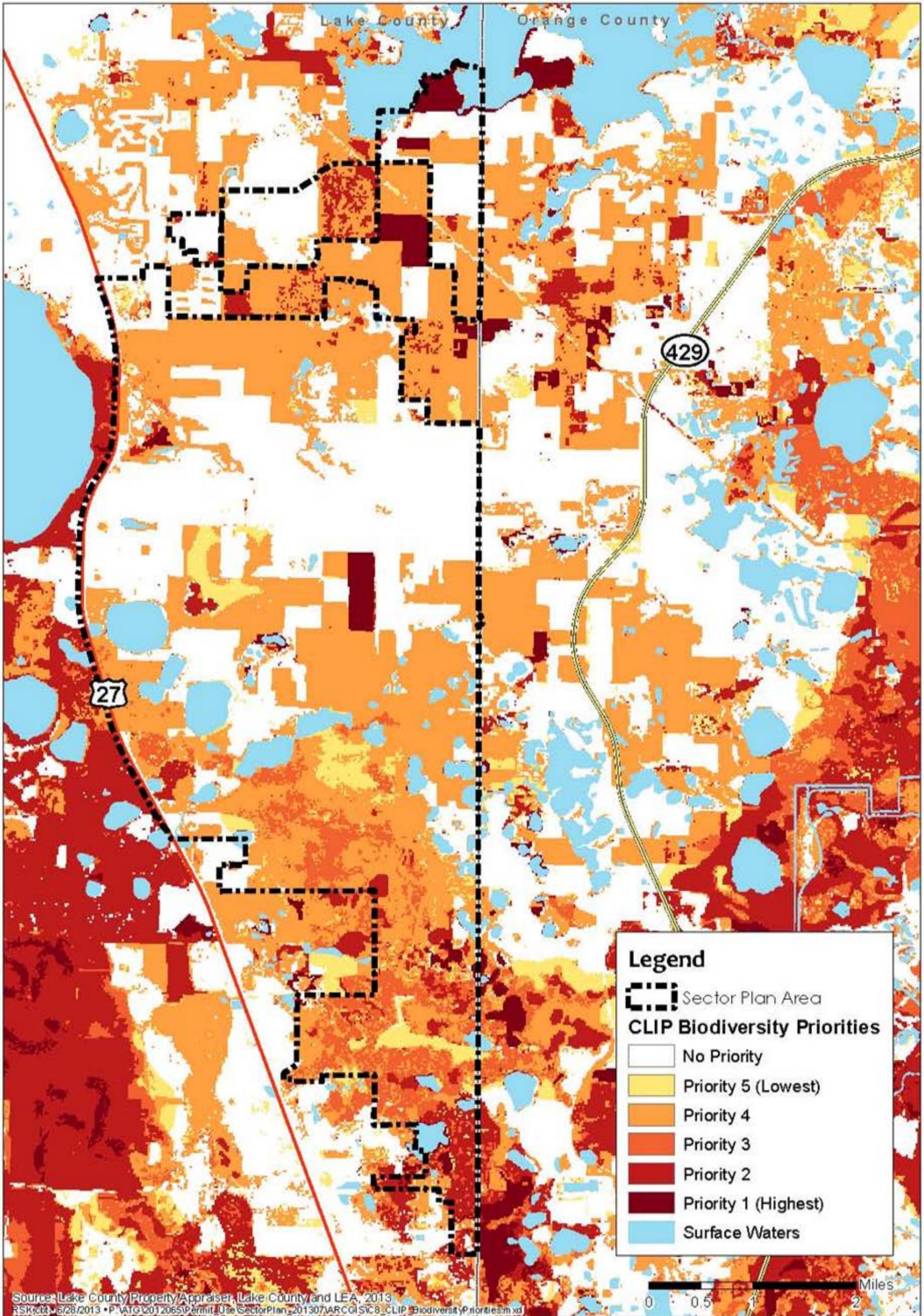


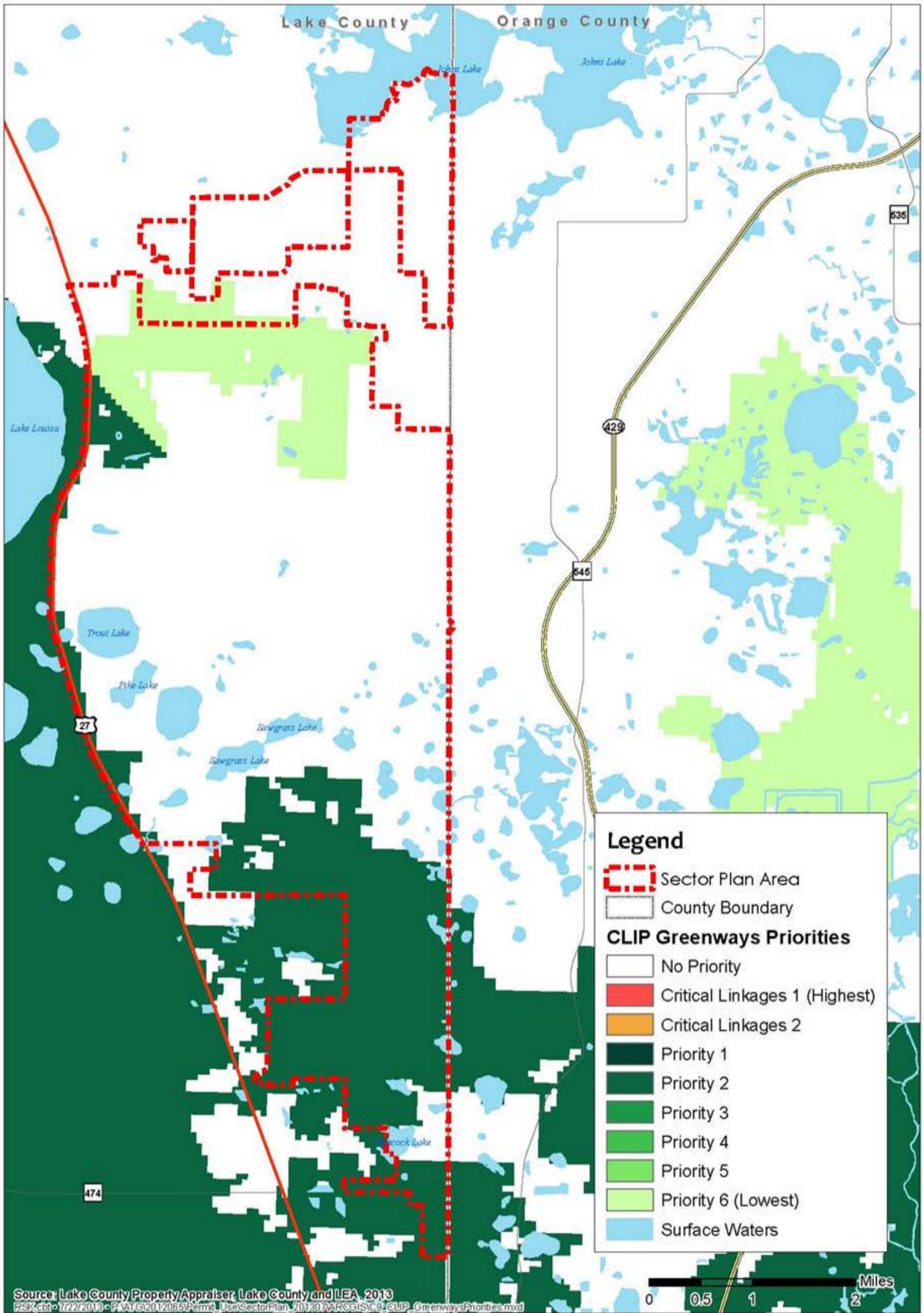


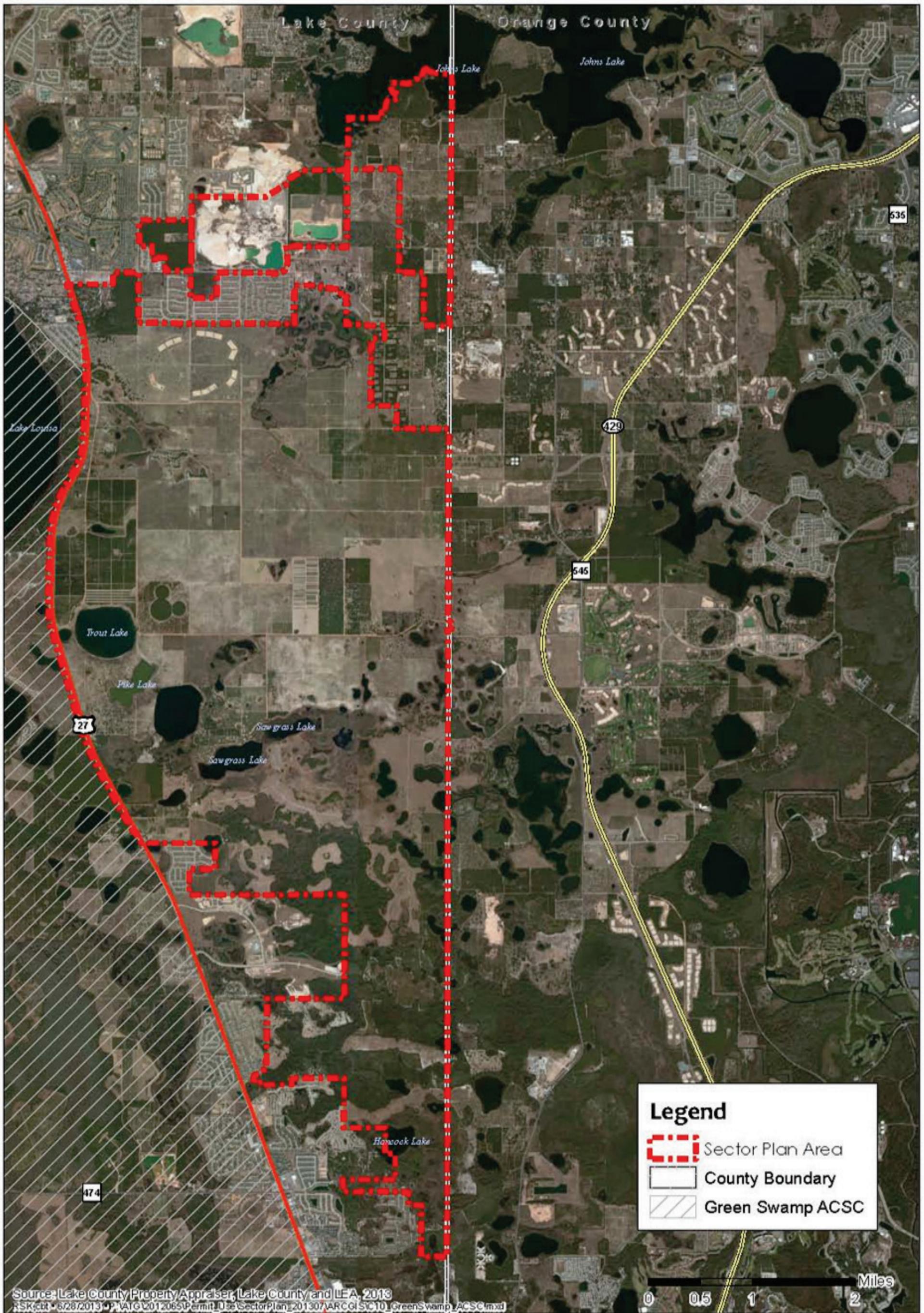


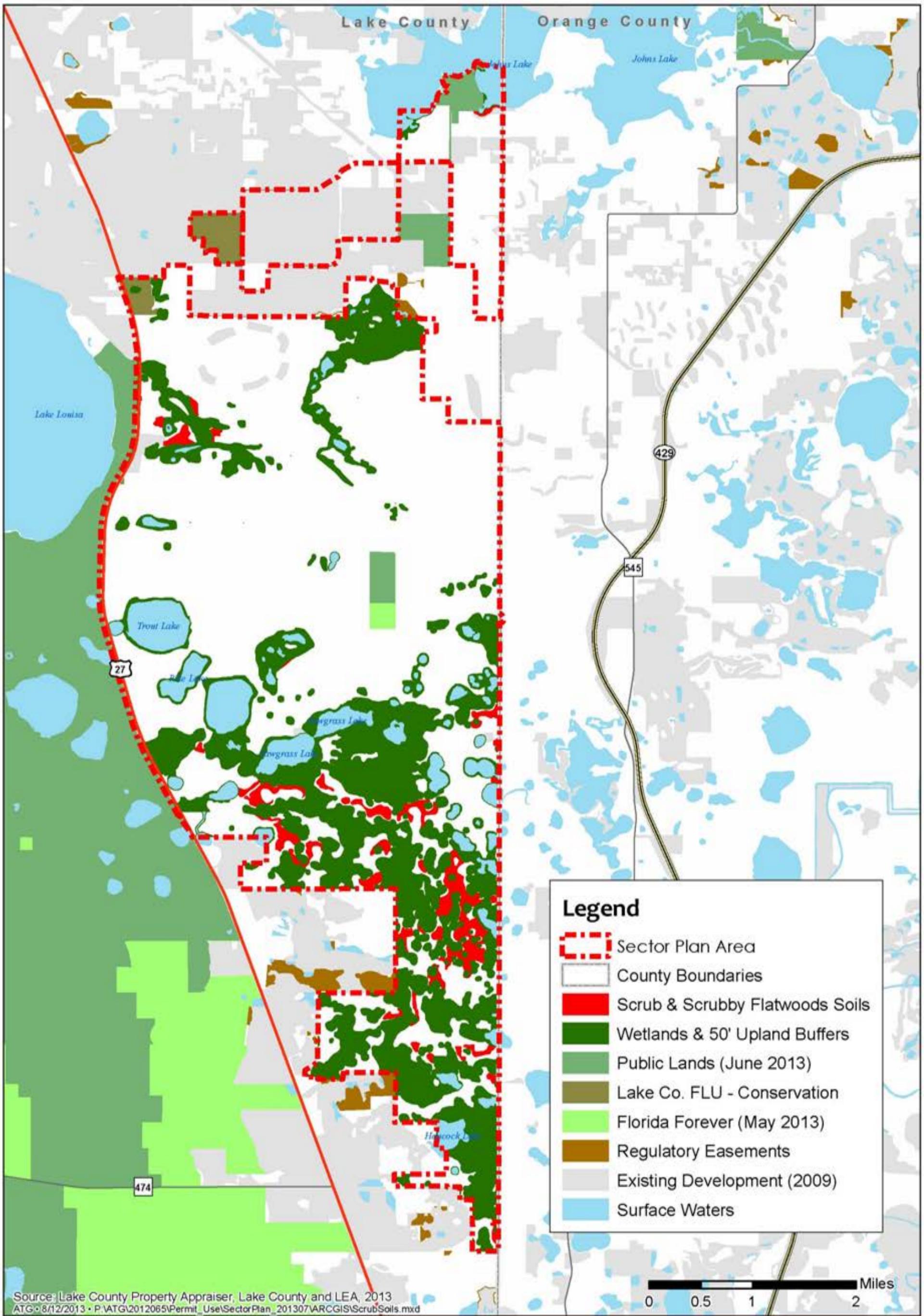


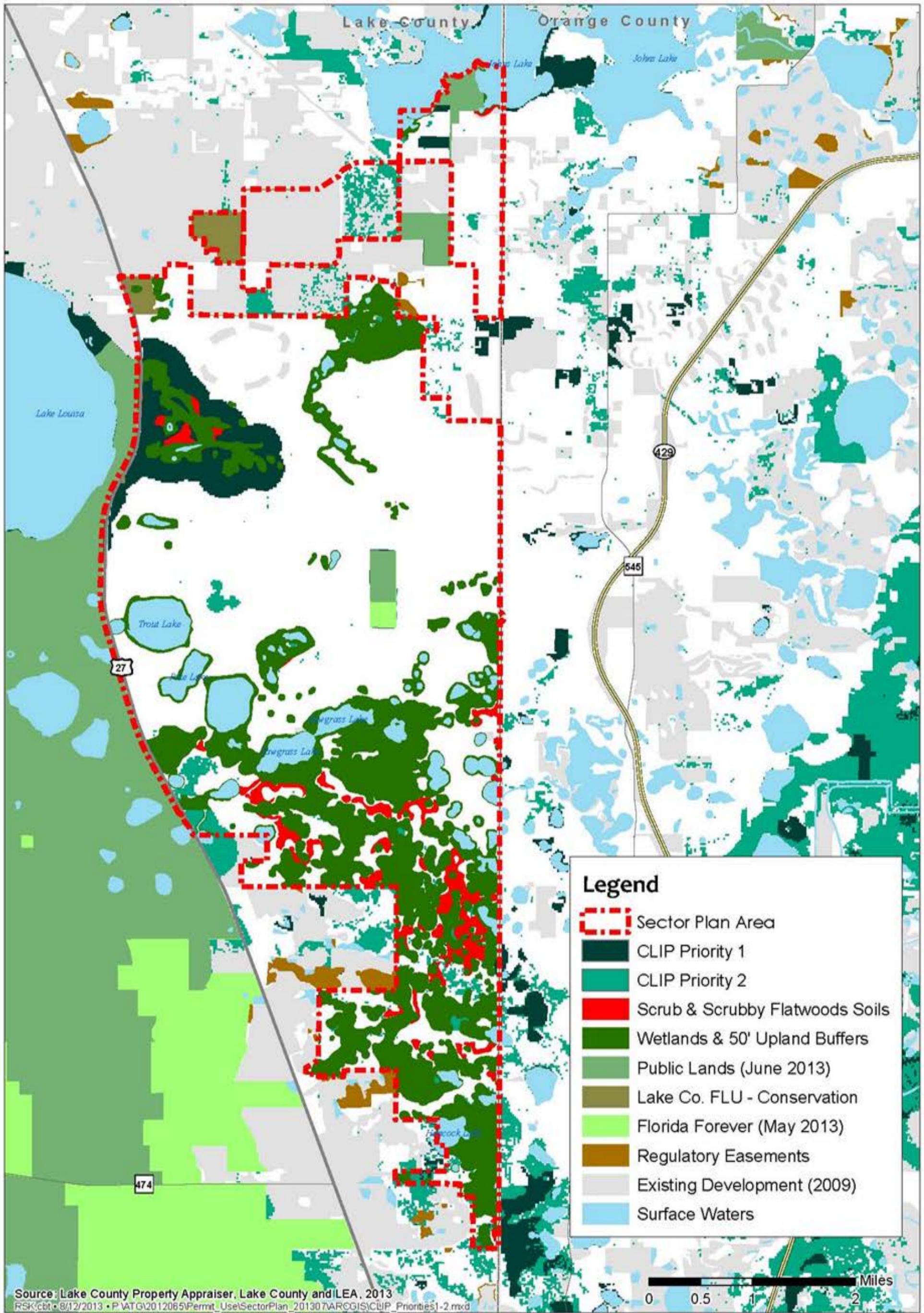












Source: Lake County Property Appraiser, Lake County and LEA, 2013
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Lake County

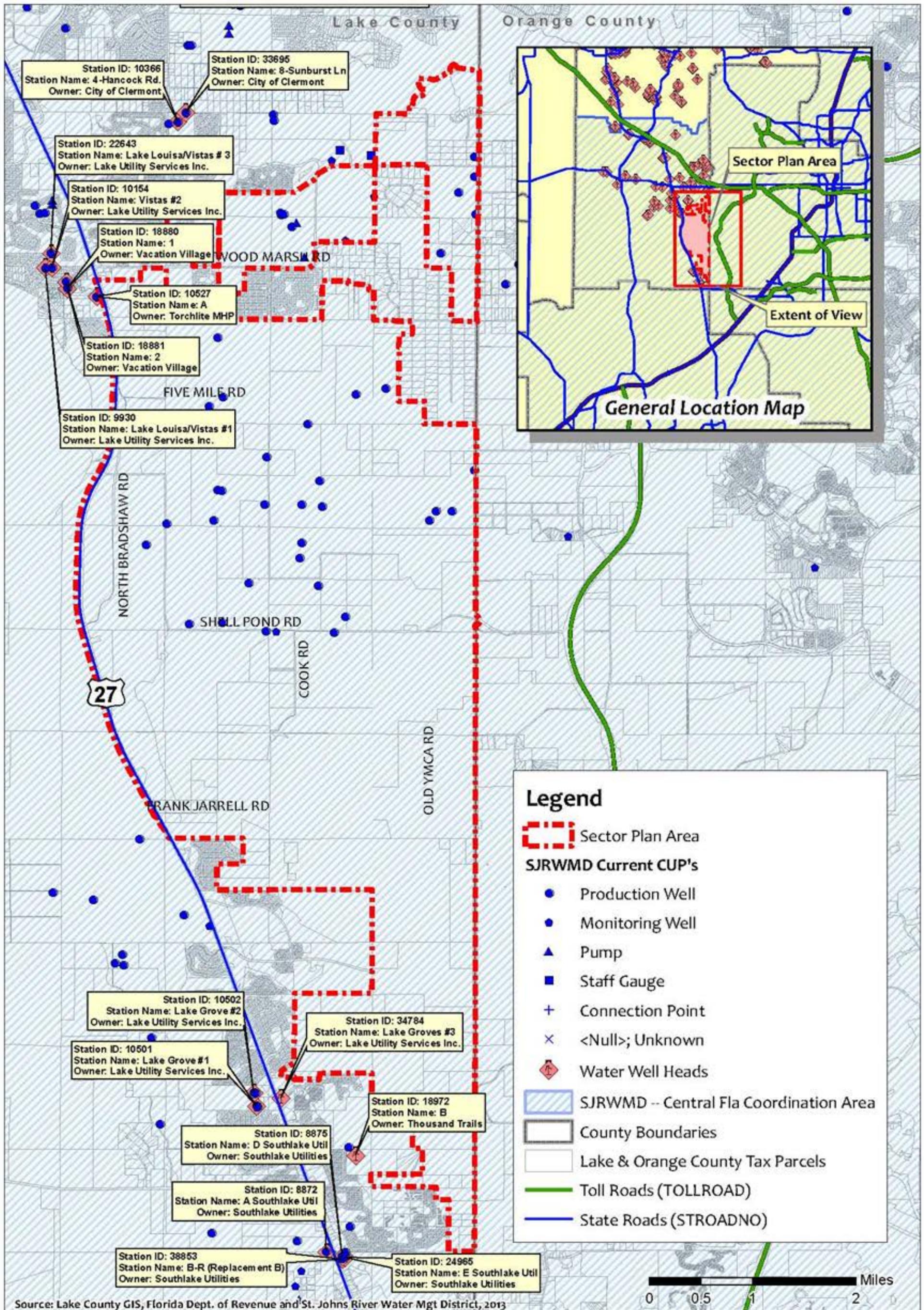
Orange County

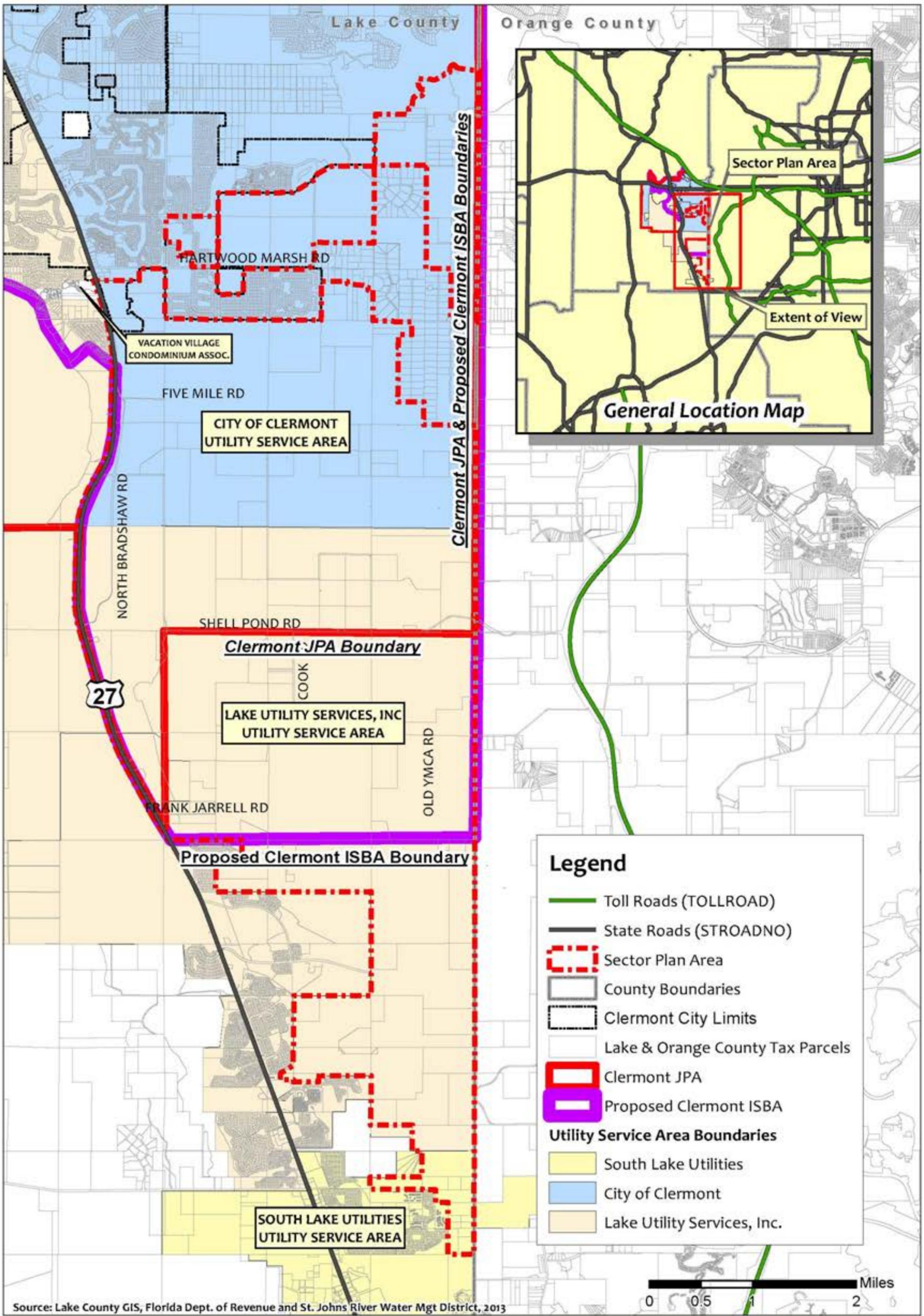
Legend

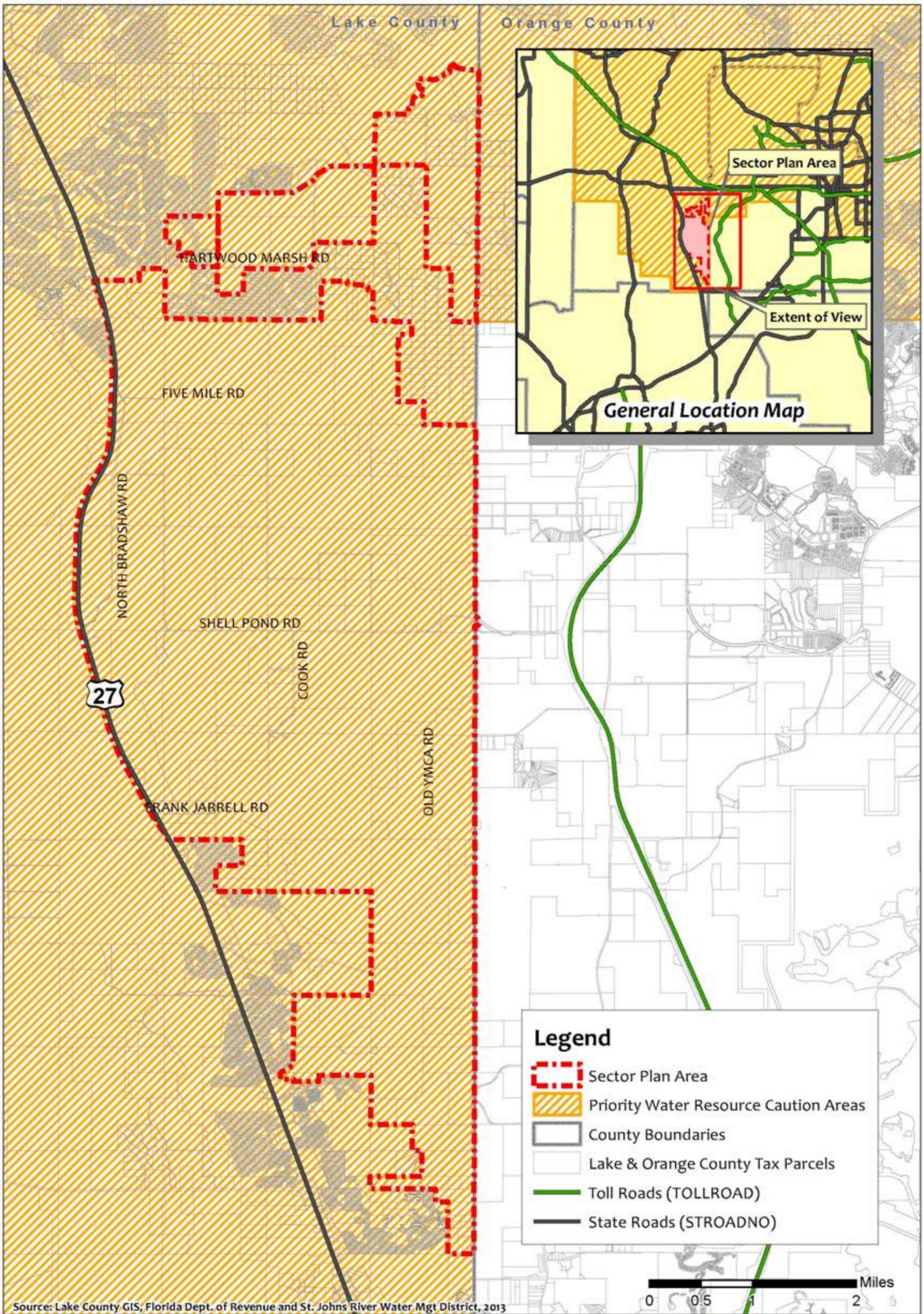
-  Sector Plan Area
- Recharge Range**
-  0 - 4 In/Yr
-  4 - 8 In/Yr
-  8 - 12 In/Yr
-  12 - 20 In/Yr
-  More than 20 In/Yr
-  Discharge Area

Source: SJRWMD Floridan Aquifer Recharge (2005)



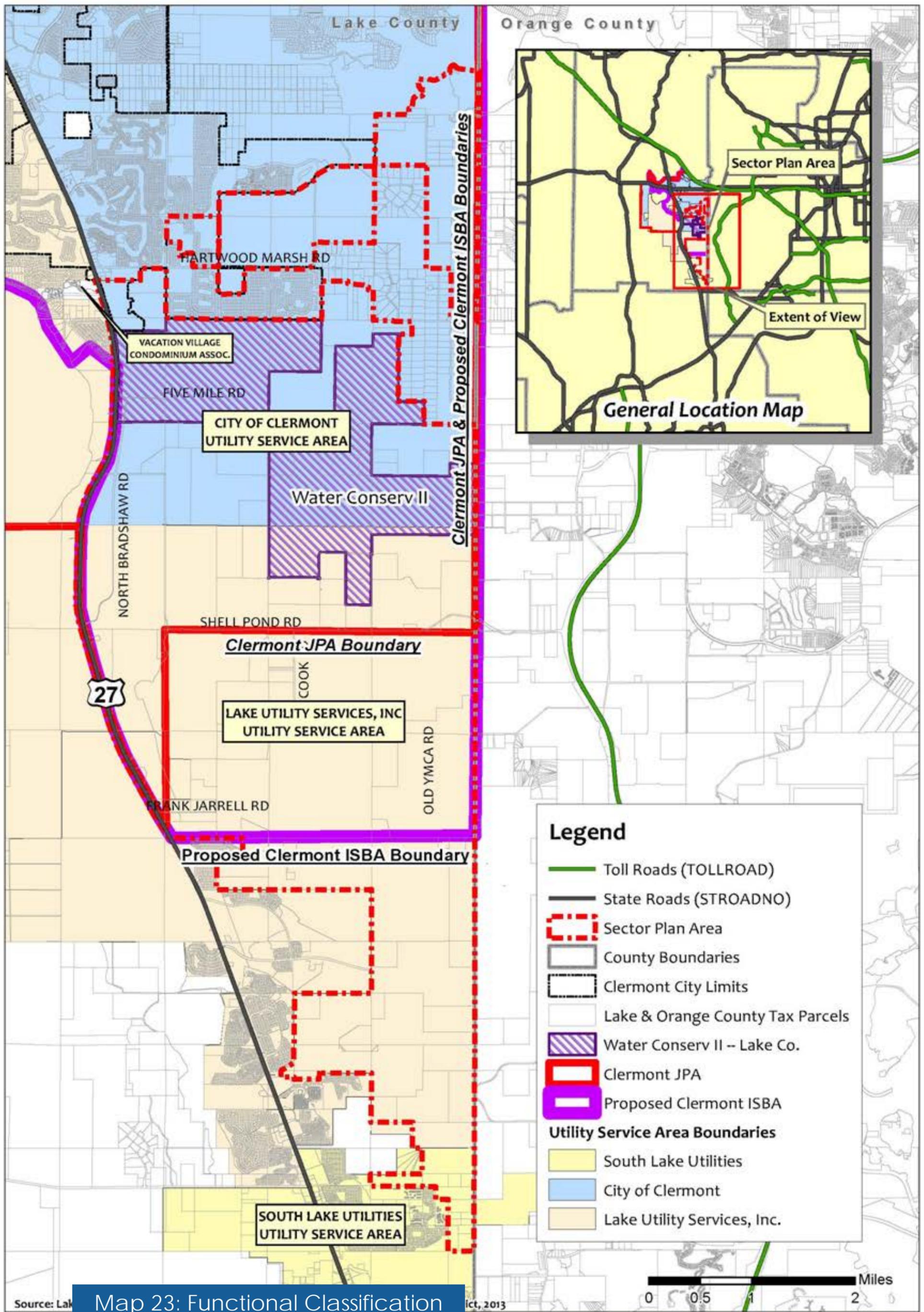






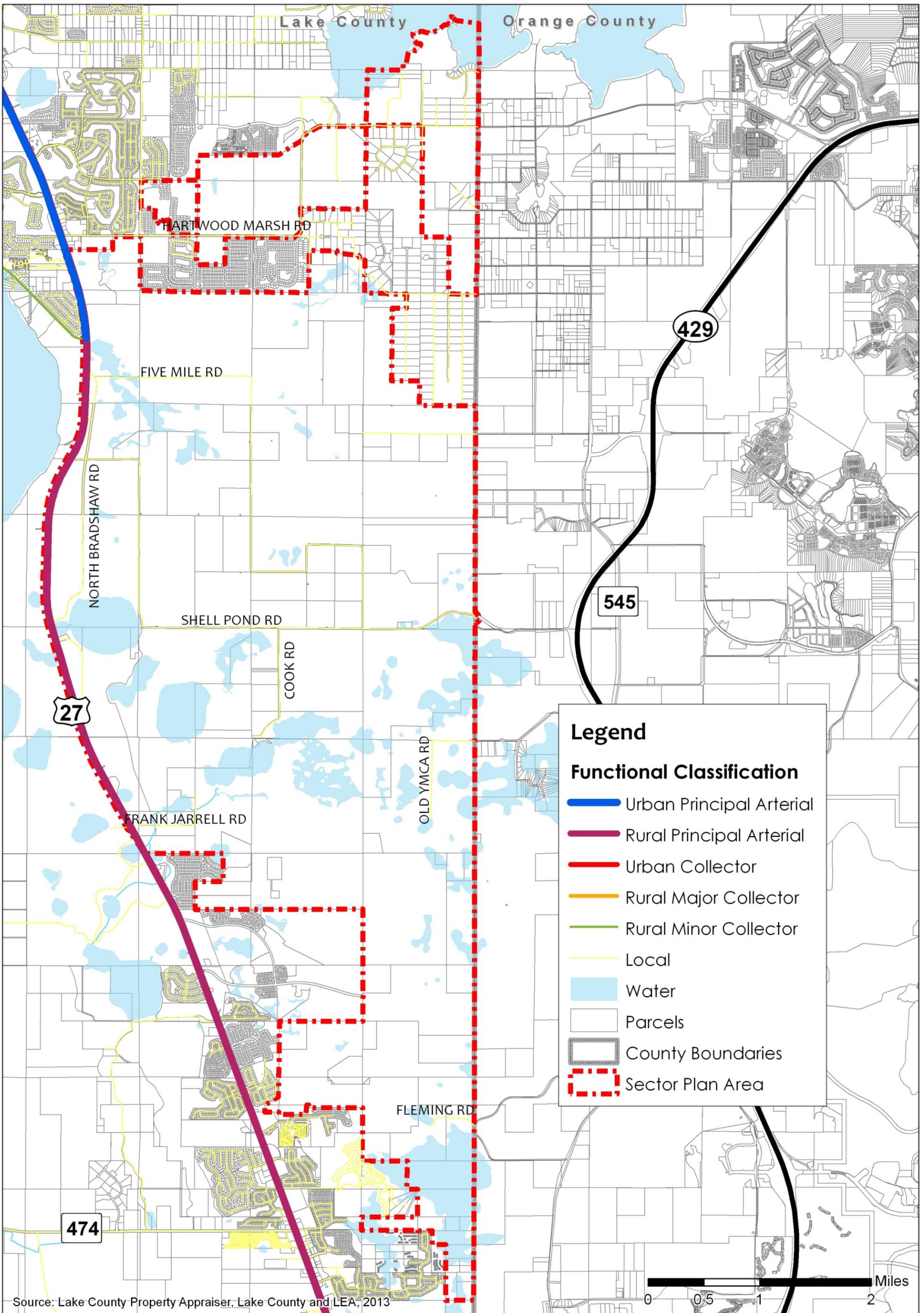
Source: Lake County GIS, Florida Dept. of Revenue and St. Johns River Water Mgt District, 2013

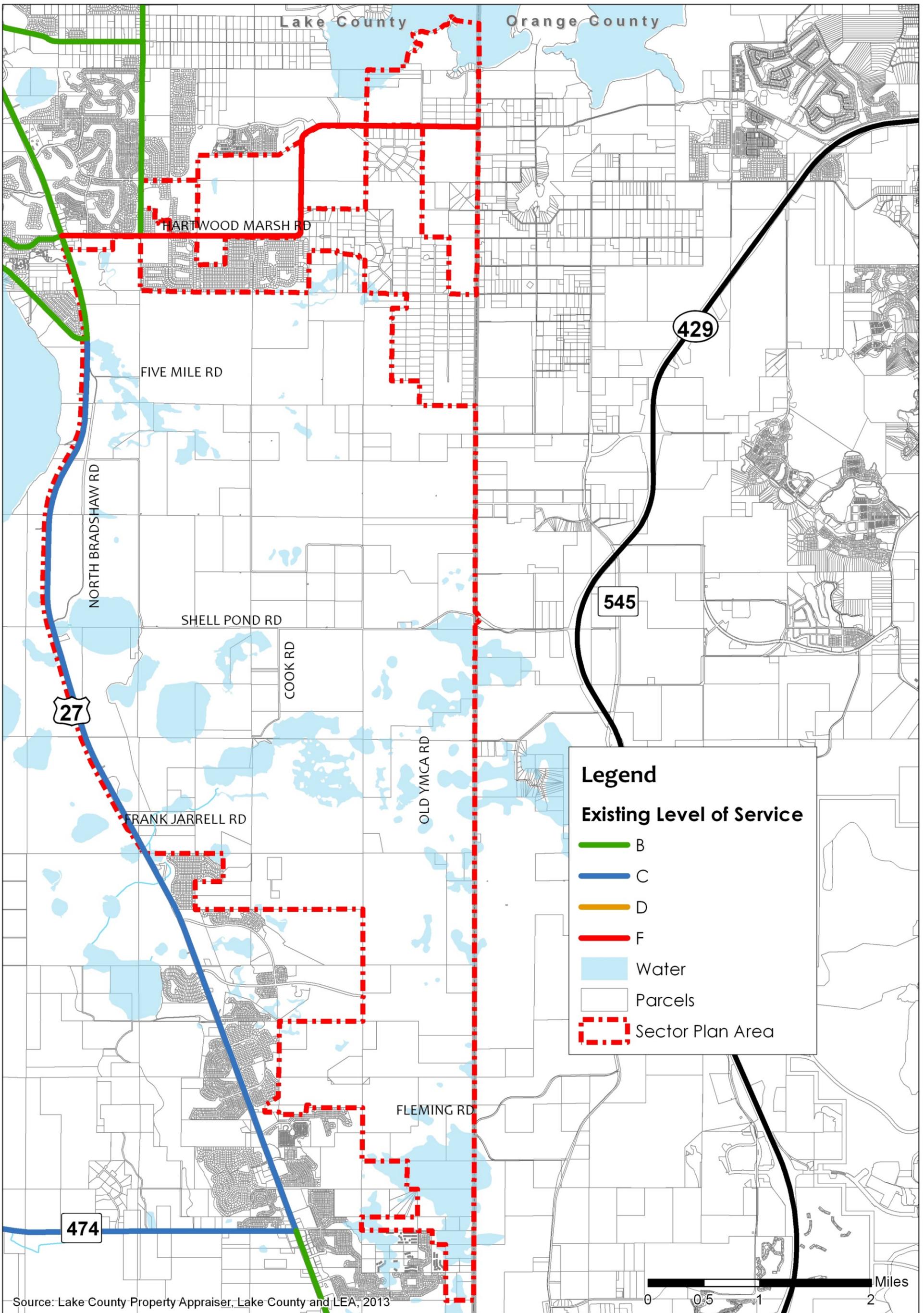


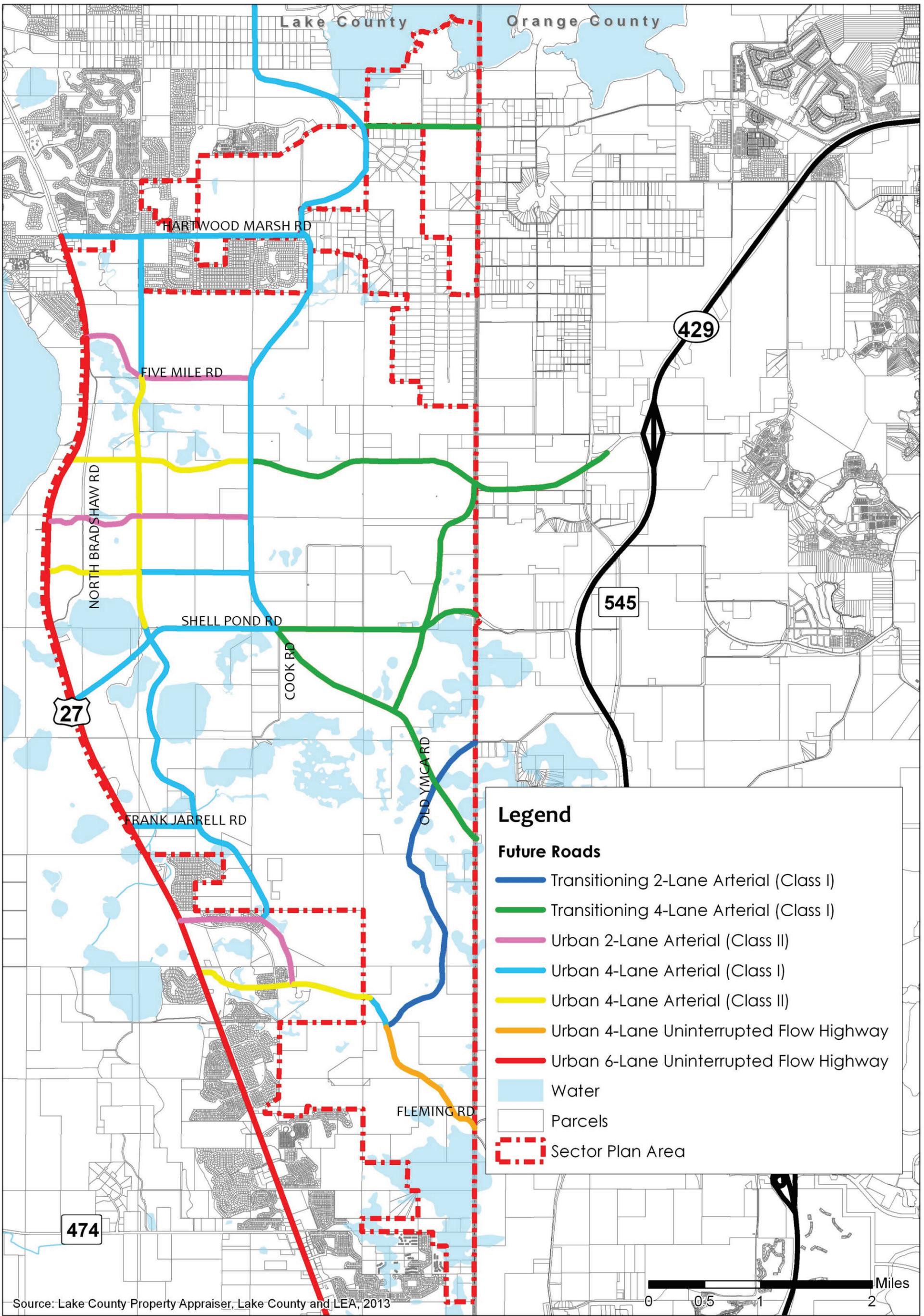


Map 23: Functional Classification

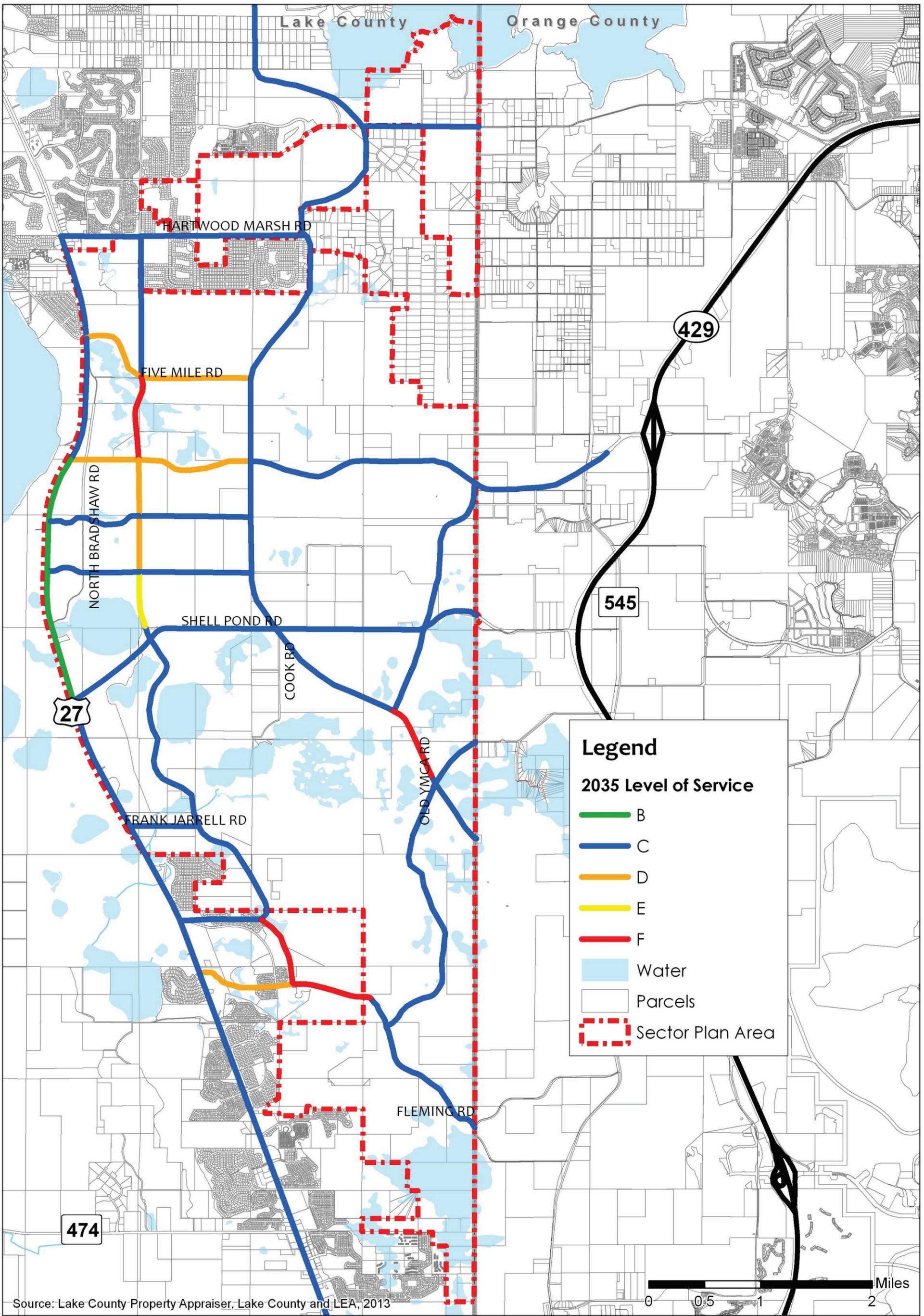


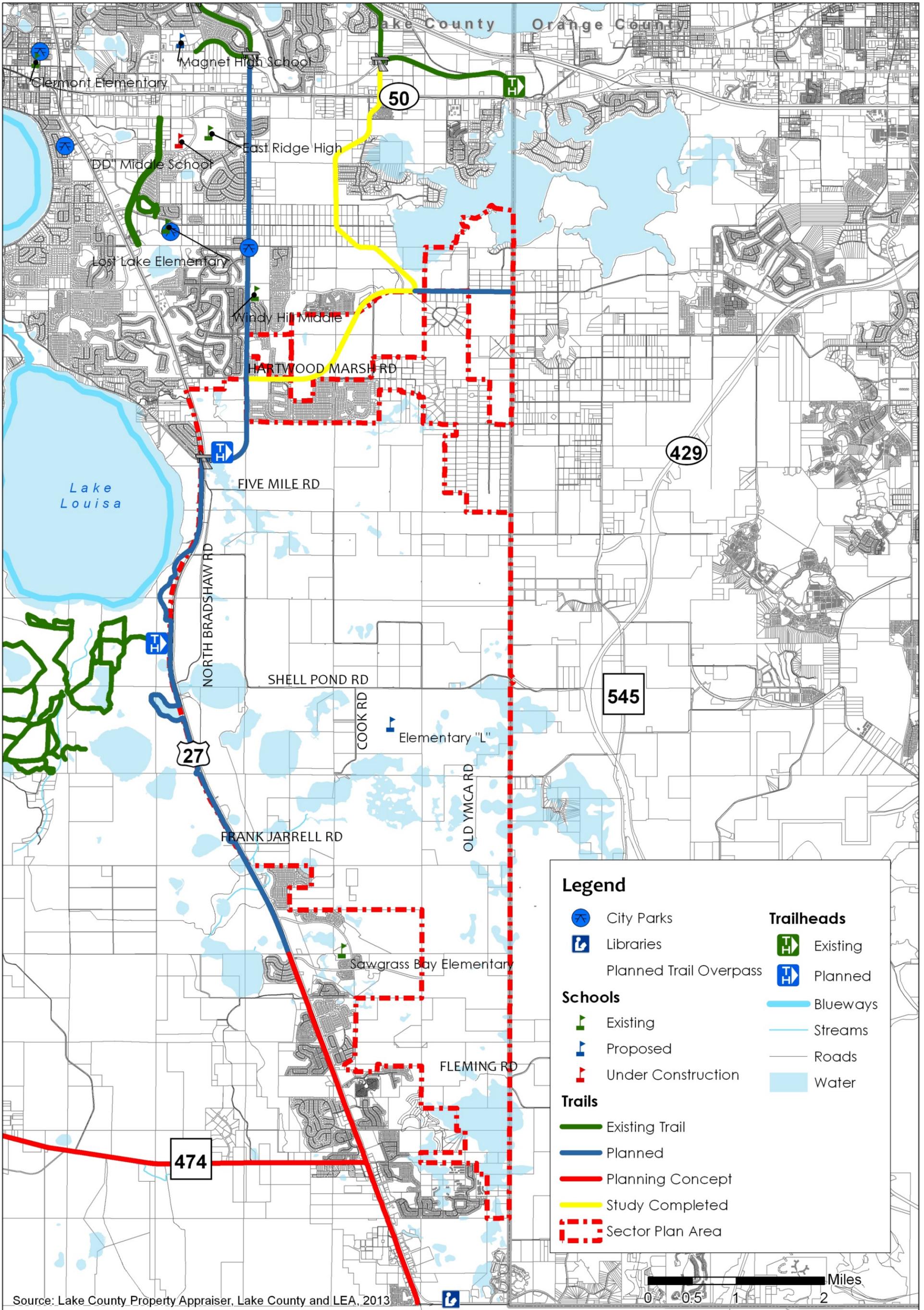


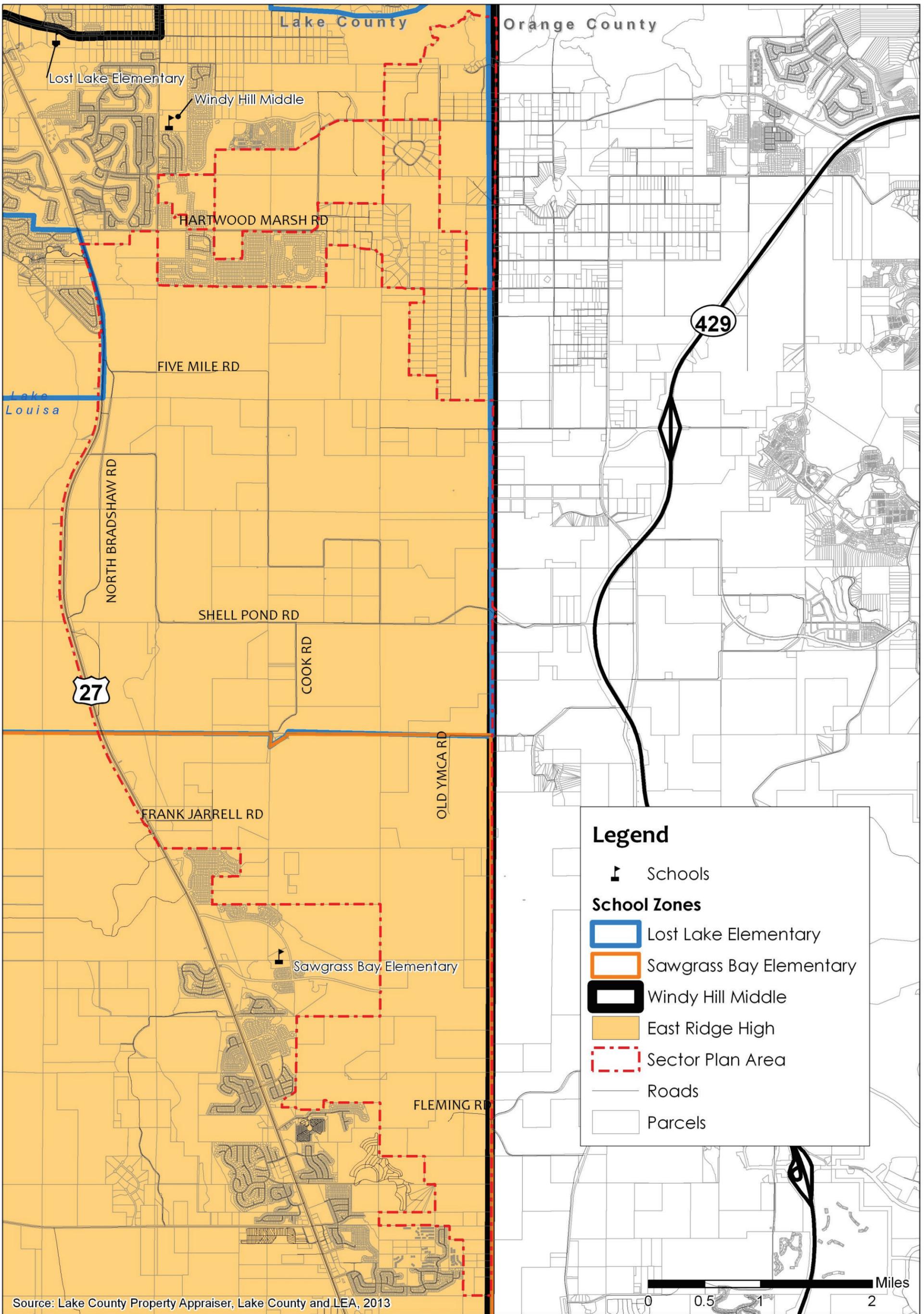


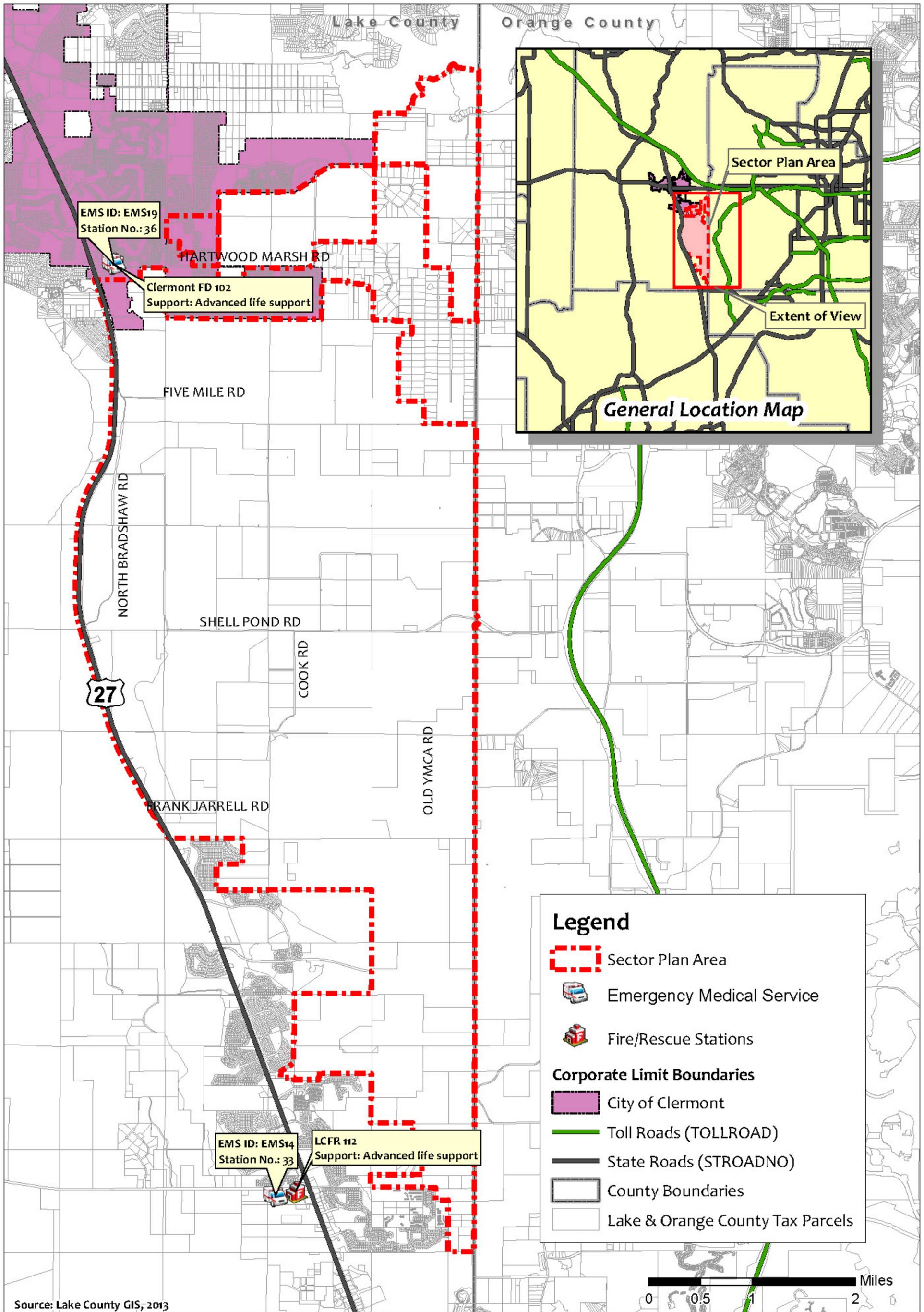


Source: Lake County Property Appraiser, Lake County and LEA, 2013









Legend

-  Sector Plan Area
-  Emergency Medical Service
-  Fire/Rescue Stations
- Corporate Limit Boundaries**
-  City of Clermont
-  Toll Roads (TOLLROAD)
-  State Roads (STROADNO)
-  County Boundaries
-  Lake & Orange County Tax Parcels





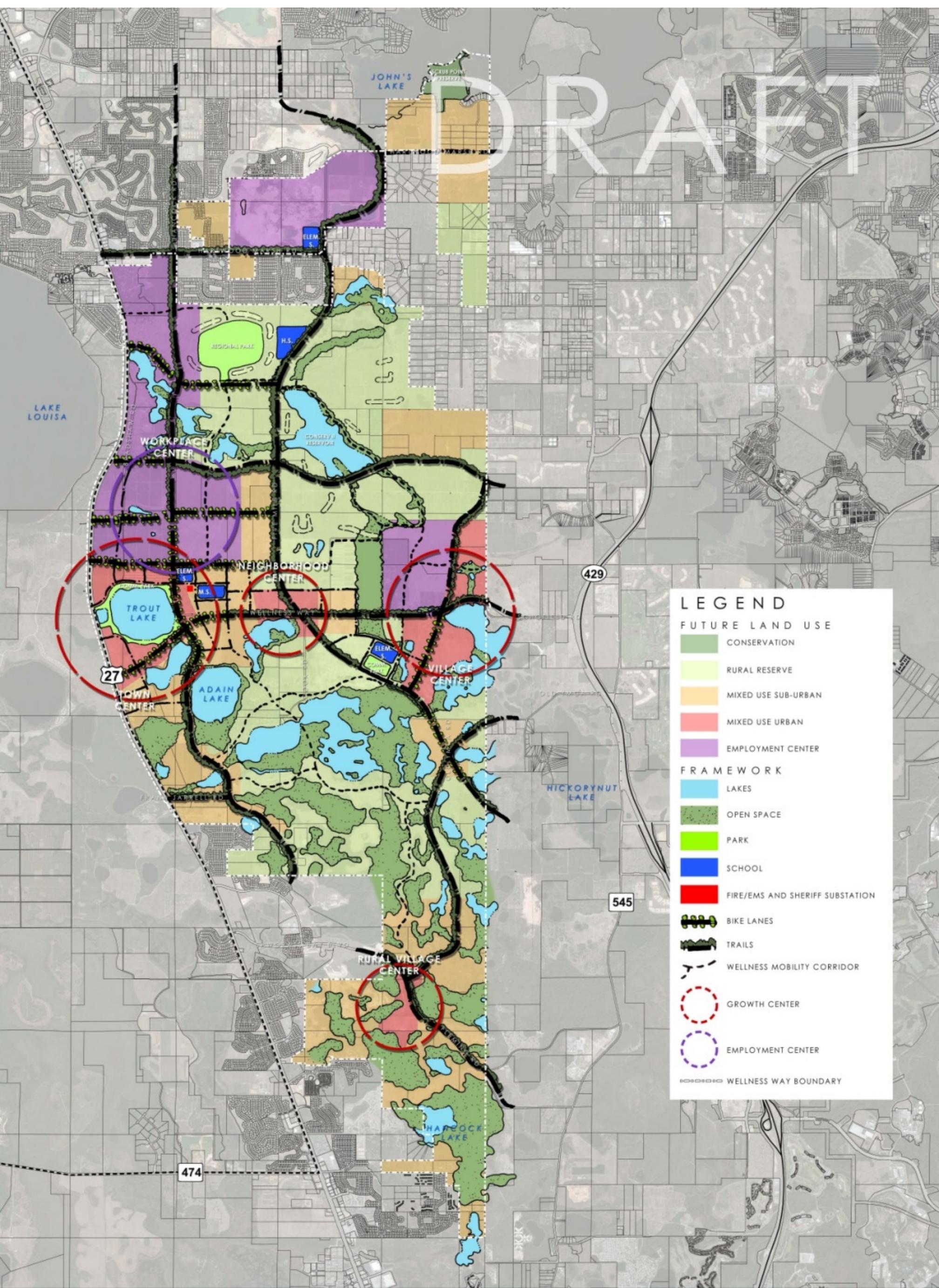
Section III:
FRAMEWORK MAP

III. Wellness Way Sector Plan Framework Map

A. Framework Map

The Wellness Way Sector Plan Framework Map is a long-term master buildout plan for the sector plan area in the year 2040. The Map (see next page) generally depicts urban form, a hierarchy of place, civic and open space areas, future roadway network, access and circulation, potential locations of a Workplace Center, Town Center, Village Center, Neighborhood Center and Rural Village Center, and a trails system. The Framework Map is intended to be instructive in the preparation of DSAPs and to guide the planning of compatible land uses and associated intensities and densities of development within the sector plan area. It also depicts the basic framework of the land use plan with the general location of road network, civic uses such as schools, trails and bike lane network and a parks/open space network.

DRAFT



LEGEND

FUTURE LAND USE

- CONSERVATION
- RURAL RESERVE
- MIXED USE SUB-URBAN
- MIXED USE URBAN
- EMPLOYMENT CENTER

FRAMEWORK

- LAKES
- OPEN SPACE
- PARK
- SCHOOL
- FIRE/EMS AND SHERIFF SUBSTATION
- BIKE LANES
- TRAILS
- WELLNESS MOBILITY CORRIDOR
- GROWTH CENTER
- EMPLOYMENT CENTER
- WELLNESS WAY BOUNDARY



1. Hierarchy of Place

A balanced community is envisioned for the Wellness Way Sector Plan Area at buildout in 2040. Such a community contains a full mix of uses to serve the daily needs of residents in a place as well as attract and serve residents from other communities to regional destinations for shopping, entertainment, resort experiences, and recreation.

The building blocks of a well-planned, balanced community include a hierarchy of places as follows:

Corridors of movement which are the predominant form-giving element within a community. They include walkways, streets, transit lines, railroads, and interstate highways.

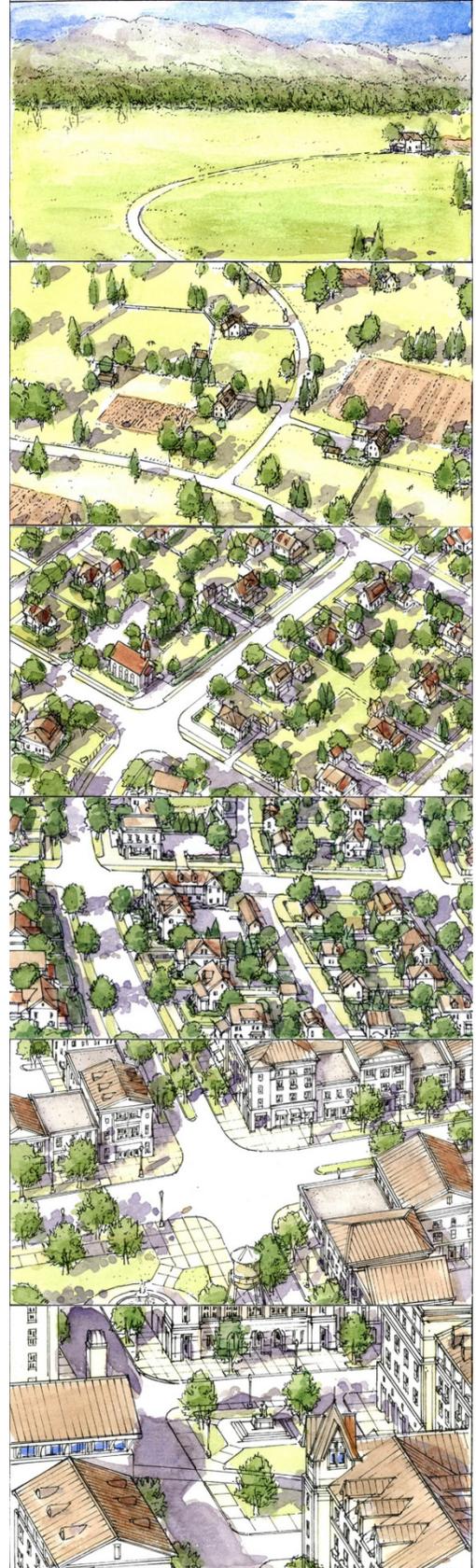
Edges are linear elements that serve as boundaries between two kinds of districts and area places of transition between two elements of community. Edges can be open spaces, conservation areas, areas of low density in rural settings, lakes, or a regulatory line such as an urban service area boundary.

Districts are areas that can be entered. Districts contain buildings and structures that share certain recognizable commonalities and characteristics and are perceived as a distinct place. Districts evoke and identify. Examples could include a downtown financial center, a gentrified upscale neighborhood, a shopping area such as Winter Park in Orlando or a warehousing area.

Centers are specific points in a community that are points to and from which people travel and they often serve as the center or core of a district. Clusters of like uses occur in centers. Centers are of varying scale and, in the Wellness Way area, range from a small rural village center, to a neighborhood center, a village center, a town center and a workplace center.

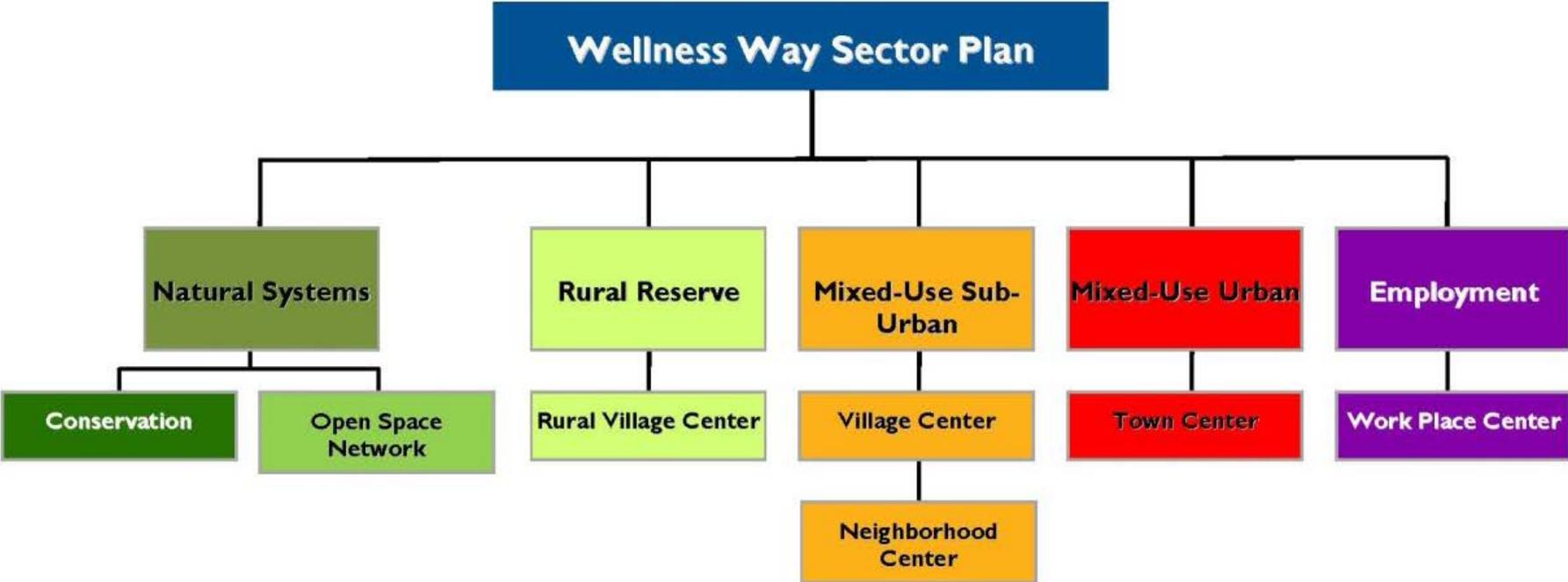


Neighborhoods are primarily residential in character and contain daily-serving needs located in a neighborhood center. They are the smallest of the hierarchy of places.



2. Wellness Way Sector Plan Hierarchy of Place

The following diagram displays the hierarchy of place proposed for the Wellness Way Sector Plan area. The subsections following the diagram define each of the levels of planned hierarchy.



a. Natural Systems

i. Conservation

This land use classification is defined in the County’s Comprehensive Plan and in the Wellness Way Sector Plan. Conservation in the Wellness Way Sector Plan includes lands that are in public ownership and have been set aside for the sole purpose of conservation of natural resources or are identified by the State of Florida for purchase for conservation.

ii. Open Space Network

The Open Space Network in Wellness Way is intended to identify areas comprised primarily of regionally significant natural resources such as floodplains, lakes and upland area and publicly owned lands. Lands within this designation form large, contiguous areas suitable for passive recreation and conservation.

Typical uses include:

- Preservation and Management of Natural Resources;
- Public facilities that support the protection of natural resources; and
- Passive and Active Recreation

Examples of development models encouraged to be applied within the Open Space Network are as follows:



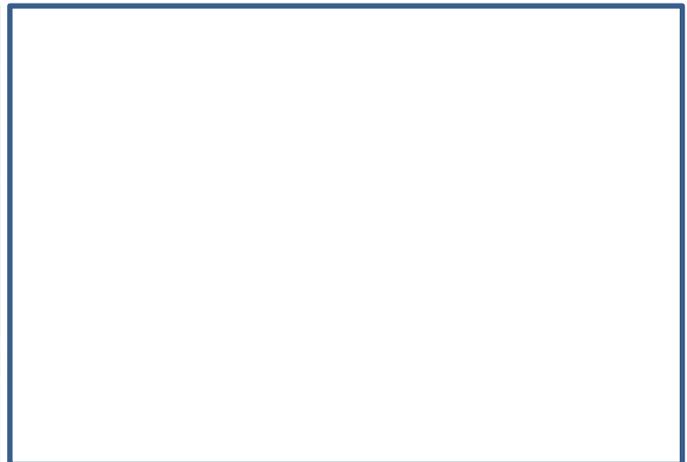
b. Rural Reserve

Defined in the Goal, Objectives and Policies of the Wellness Way Sector Plan.

i. Rural Village Center.

A center within the Rural Reserve area that consists of rural homes clustered around a crossroads or small civic or commercial area (e.g. a church or neighborhood store) and surrounded by a large expanse of agriculture or open space.

Examples of development models encouraged to be applied within a Rural Village Center are as follows:



c. Mixed Use Sub-Urban

Defined in the Goal, Objectives and Policies of the Wellness Way Sector Plan.

i. Village Center

Surrounded by a collection of neighborhoods, the Village Center is a core of higher density residential uses, employment, and commercial uses which shall be interconnected and accessible by pedestrians of surrounding areas. The Village Center shall provide goods and services including, but not limited to, apparel, home furnishings, banking, professional services, groceries, convenience goods and civic gathering places for the neighborhoods. The Village Center shall be located at the intersection of two roads one of which shall be classified a collector or arterial.

Examples of development models encouraged to be applied within the Village Center are as follows:



ii. Neighborhood Center

Neighborhoods are the fabric that holds a community together. The basic form of the neighborhood is determined by the primary street network, the neighborhood center, block design and open space. Neighborhoods should have functional centers, around which all development is based. The Neighborhood Center may take the form of a park or open space, civic building or small commercial use. Commercial and office uses in a neighborhood center should be on a neighborhood scale that serves residents of the neighborhood for their daily needs.



{To add more photos}

d. Mixed -Use Urban

Defined in the Goal, Objectives and Policies of the Wellness Way Sector Plan.

i. Town Center

The Town Center district is intended to be the social, economic, and educational hub of the Wellness Way Sector Plan area. The Town Center district shall be located adjacent to the Work Place district.

Examples of development models encouraged to be applied within Town Center district are as follows:



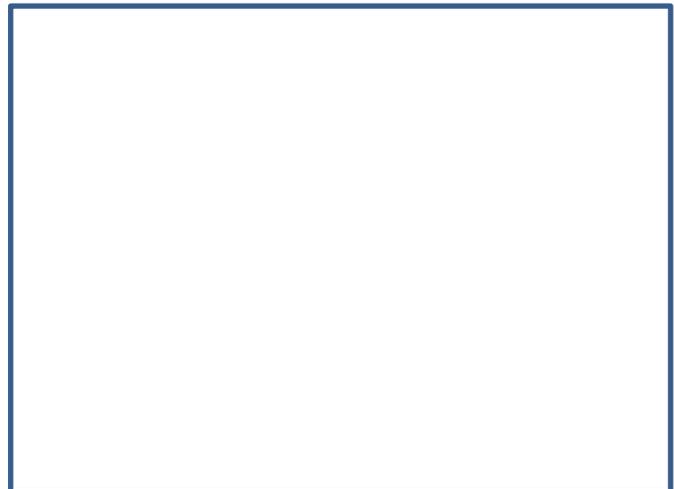
e. Employment Center

Defined in the Goal, Objectives and Policies of the Wellness Way Sector Plan.

i. Work Place Center

The Work Place district is intended to provide and promote the highest concentration of light industrial, professional office, research, and high tech, and regional/corporate headquarters as well as provide work force housing in close proximity. A Work Place Center shall be located with access from existing and planned arterial or collector roads.

Examples of development models encouraged to be applied within Work Place district are as follows:



B. Roadway Network Map

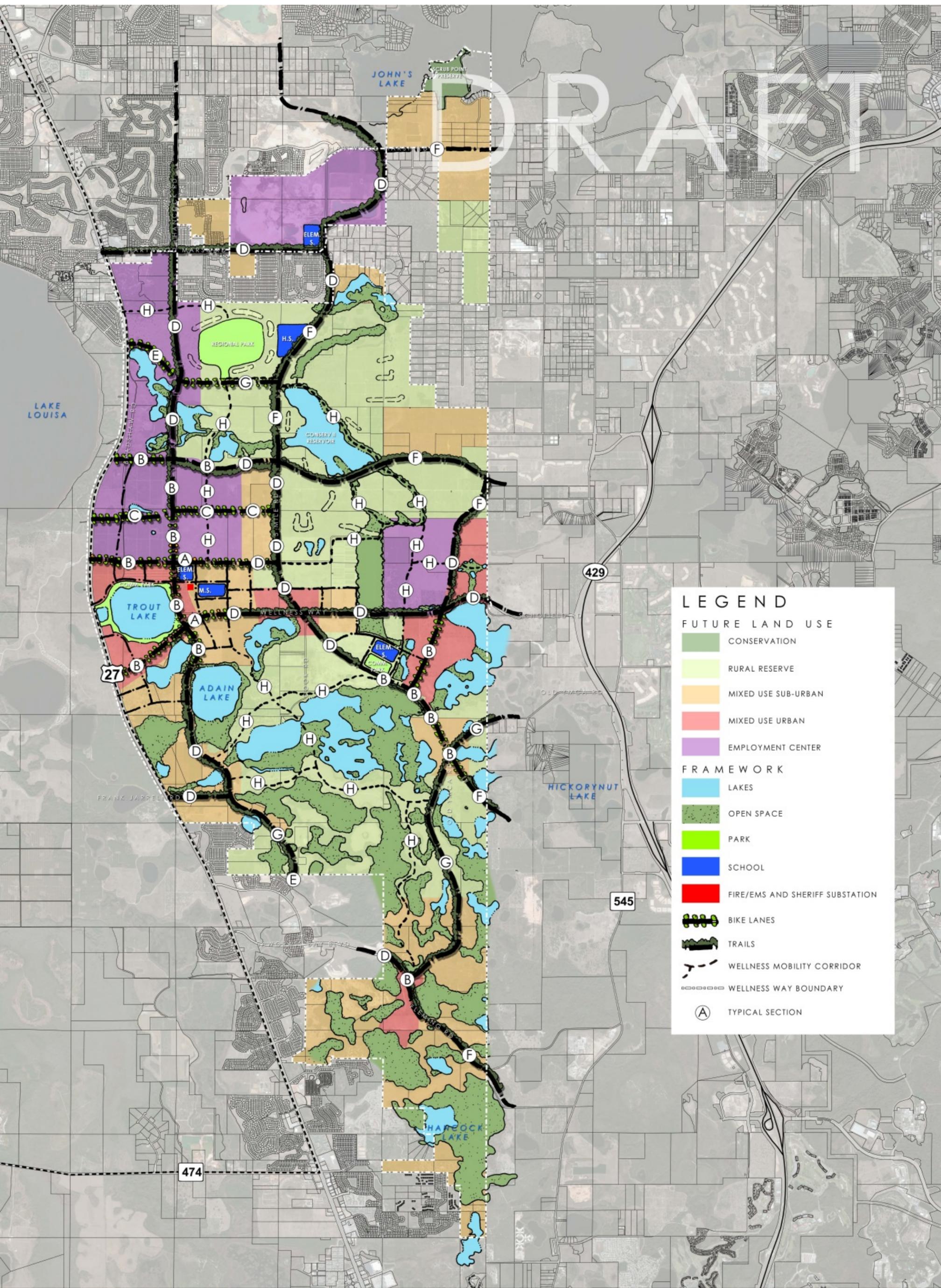
1. *Typical Roadway Design Sections*

In addition to the generalized arterial and collector roadway system, certain other connecting roadways and a range of typical sections depicting the ideas of multimodal elements and context sensitive design supportive of the desired development type and form have been prepared for the Wellness Way Sector Plan. These typical sections are included in this section as Typical Sections A through H. The envisioned location of where each of the sections would be applicable is shown on the Roadway Network Map included in the following page.

These cross sections, shown in perspective, are not intended to be design standards. However, the features and intent for all Wellness Way Sector Plan roadways and transportation network elements is to address every type of transportation need and mode that is appropriate for a given roadway segment or facility. The concept is to include the multi-modal facilities that improve mobility and accessibility in the proper manner for pedestrians, cyclists, transit riders and the conventional motorists as well. For example, one four-lane divided urban roadway may be the primary collector road traversing through an office campus that is served elsewhere by a system of bicycle paths or a regional trail. That facility would not necessarily require the additional costs of adding bicycle lanes to the roadway cross section.

The conceptual sections are also intended to guide urban form through the representation of urban design considerations such as pedestrian “zones”, parallel parking, building setbacks, streetscape, hardscape and lighting elements. Specific dimensions contained within these typical sections are intended to be recommendations and may not be entirely consistent with the Lake County Roadway Design standards that are applicable in other parts of the County.

The following provides a description for each typical section and an indication of where that section might be best incorporated into the Wellness Way Roadway Network.



LEGEND

FUTURE LAND USE

- CONSERVATION
- RURAL RESERVE
- MIXED USE SUB-URBAN
- MIXED USE URBAN
- EMPLOYMENT CENTER

FRAMEWORK

- LAKES
- OPEN SPACE
- PARK
- SCHOOL
- FIRE/EMS AND SHERIFF SUBSTATION

ROADWAY NETWORK

- BIKE LANES
- TRAILS
- WELLNESS MOBILITY CORRIDOR
- WELLNESS WAY BOUNDARY

SECTION

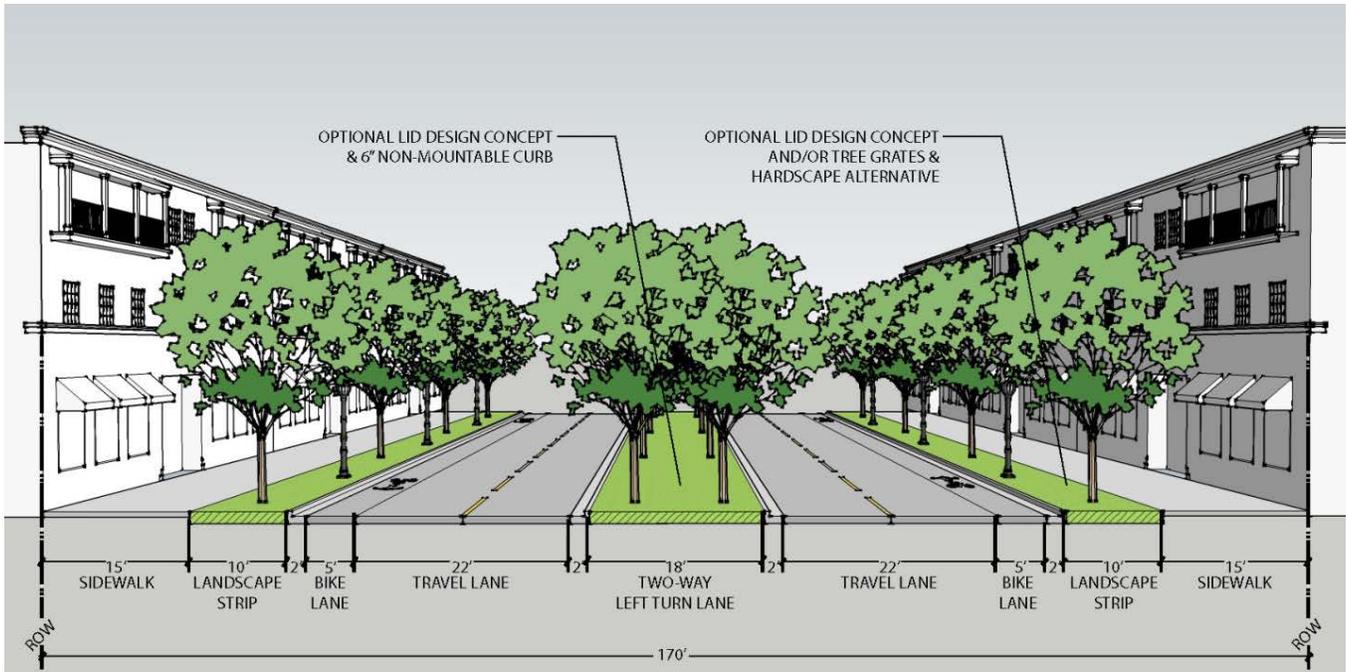
- TYPICAL SECTION



i. Section A: Urban Four-Lane w/Bike Lane

This cross section may have limited application within the town center or village center areas of the Sector Plan. Its primary application will be for locations that area transitioning between the highest density and intensity development and into the mixed-use suburban development neighborhoods. The cross section provides a 22' wide raised median to allow for the inclusion of an exclusive left-turn lane, two travel lanes in each direction and a 5' wide bicycle lane in each direction.

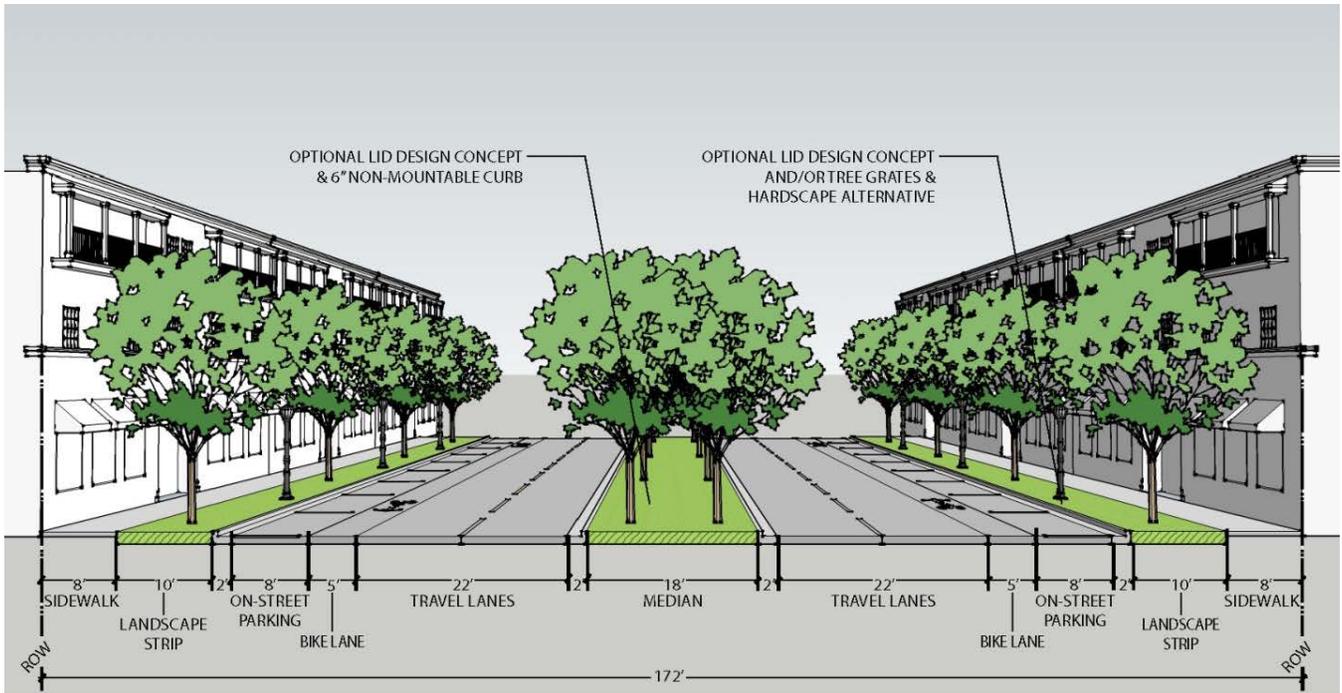
Where a left-turn lane is not required on the segment, the median should be planted with street trees and other landscape materials to enhance the corridor aesthetics. The bike lane is included based on the assumption that the likelihood of a bicycle path or trail being developed parallel to the roadways in this area is limited. Landscape parkways (buffer strips) 10' wide and separating the bike lane from the pedestrian walkway are included on these sections and the pedestrian walkway may be as much as 15 feet where foot traffic is anticipated to be significant. This section could be classified as an urban arterial or collector.



Urban Four-Lane w/ Bike Lane
Typical Section
NTS
Section A

ii. Section B: Urban Four-Lane w/Bike Lane and Parallel Parking

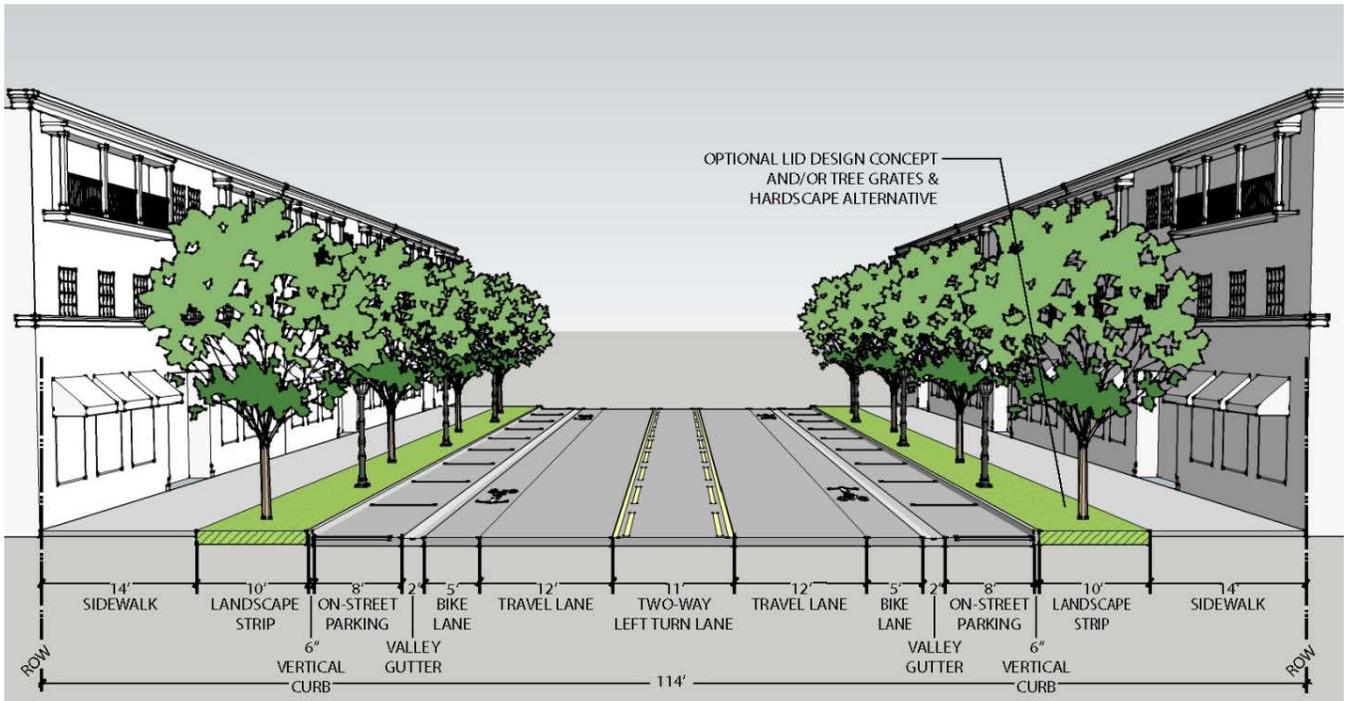
This cross section will be the “backbone” of the mixed-use urban town center, village center and quite possibly a portion of the “ Main Street” in the rural village center. This typical section is intended to provide two travel lanes in each direction, a raised median suitable for landscape or left-turn lanes, bicycle lanes and parallel parking, a 10 foot planting strip and a minimum of an 8 foot wide sidewalk. Additionally, either or both of the 10 foot planting strips could be treated with hard surface materials and tree grates to create outdoor seating or kiosks areas for on-street business activity. This section could be classified as an urban arterial or collector.



Urban Four-Lane w/ Bike Lane & Parallel Parking
 Typical Section
 NTS
 Section B

iii. Section C: Urban Three-Lane

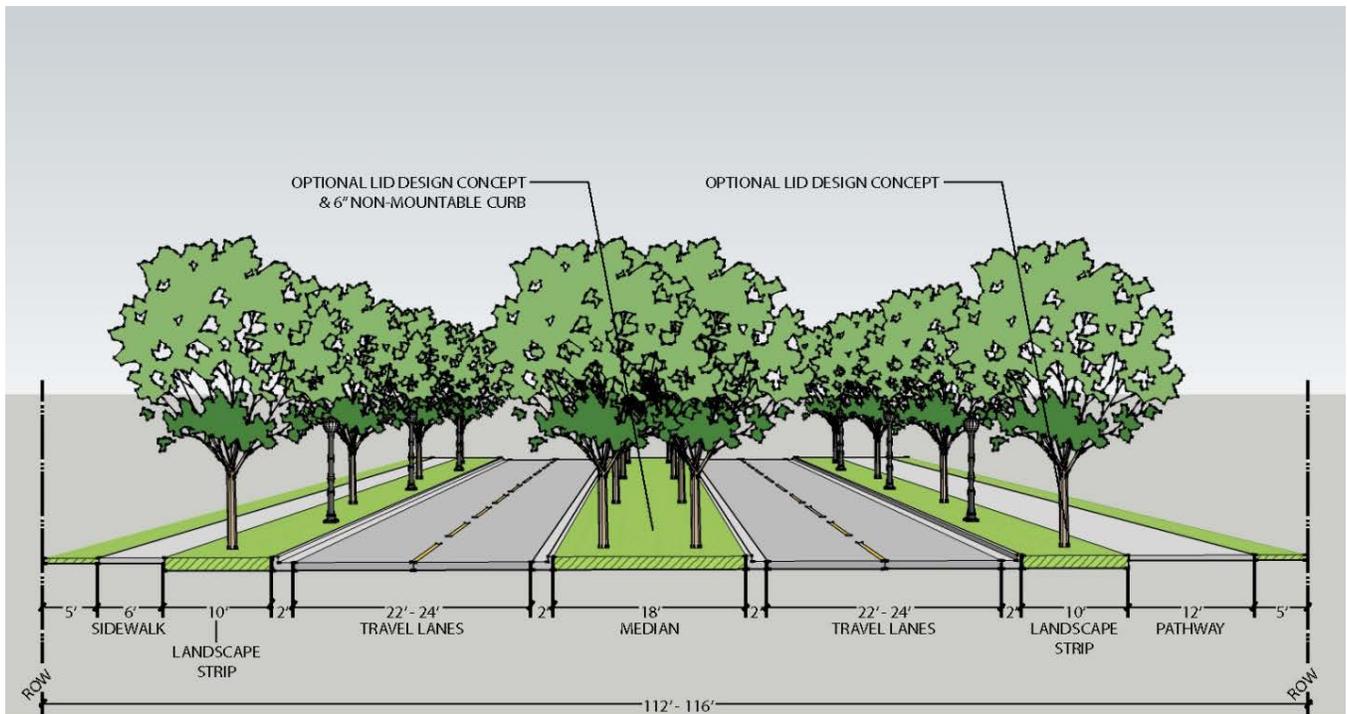
The Urban Three-Lane is intended for construction as primary collector/distributor facilities within the employment center areas and where there will likely be commercial and retail business fronting the roadways. Bicycle and parallel parking facilities are prominent features and the landscape strips and pedestrian areas are also flexible in width to provide outdoor seating through the use of additional hard surface material in the planting areas along with tree grates. With only one travel lane in each direction, it is recommended that those lanes be 12 feet in width and the continuous center left-turn lane be a minimum of 10 feet wide with 11 feet being desirable.



Urban Three-Lane
 Typical Section
 NTS
 Section C

IV. Section D: Urban Four-Lane w/Trail

This cross section would be the primary roadway section that can be classified as an arterial or collector and would serve the major traffic volumes in the Mixed-Use Suburban development area. The 22 foot raised median is included to allow for left-turn lanes or landscape treatment and there are two travel lanes in each direction. Due to anticipated higher travel speeds, consideration is given to expand the travel lanes from a standard of 11 feet to 12 feet where appropriate. Bike lanes and parallel parking have been eliminated from the cross section as the multimodal concept plan for the Sector Plan calls for trail facilities to provide the necessary connectivity that will allow for bicycle, pedestrian and other non-motorized travel between the same points that this cross section will connect. In addition, Section H later described will also provide supporting multimodal service for carts, bicycle, pedestrian and potentially equestrian travel. As with the three previous typical sections, storm water is managed by an enclosed drainage system.

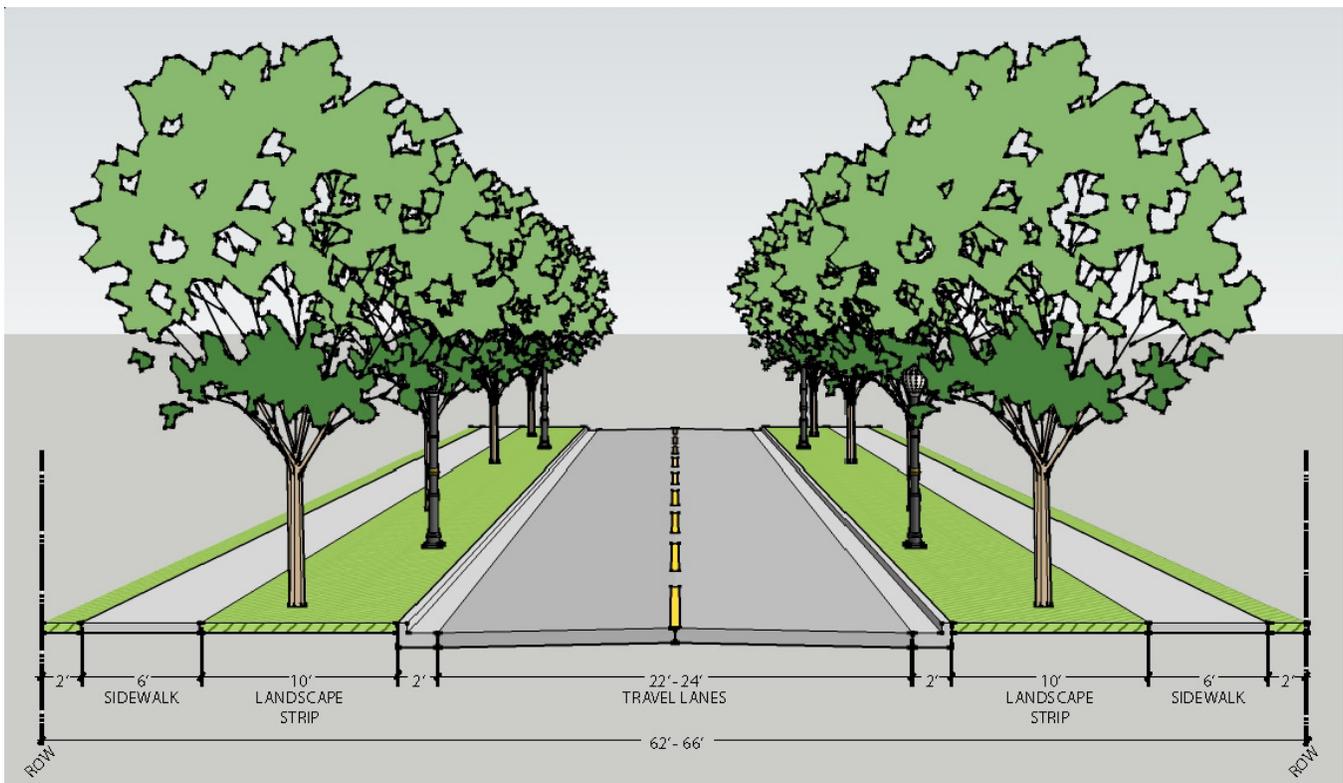


NOTE: D1 - 12' TRAIL IS REPLACED WITH 6' SIDEWALK.

Urban Four-Lane w/ Trail
 Typical Section
 NTS
 Section D

v. Section E: Urban/Residential Two-Lane

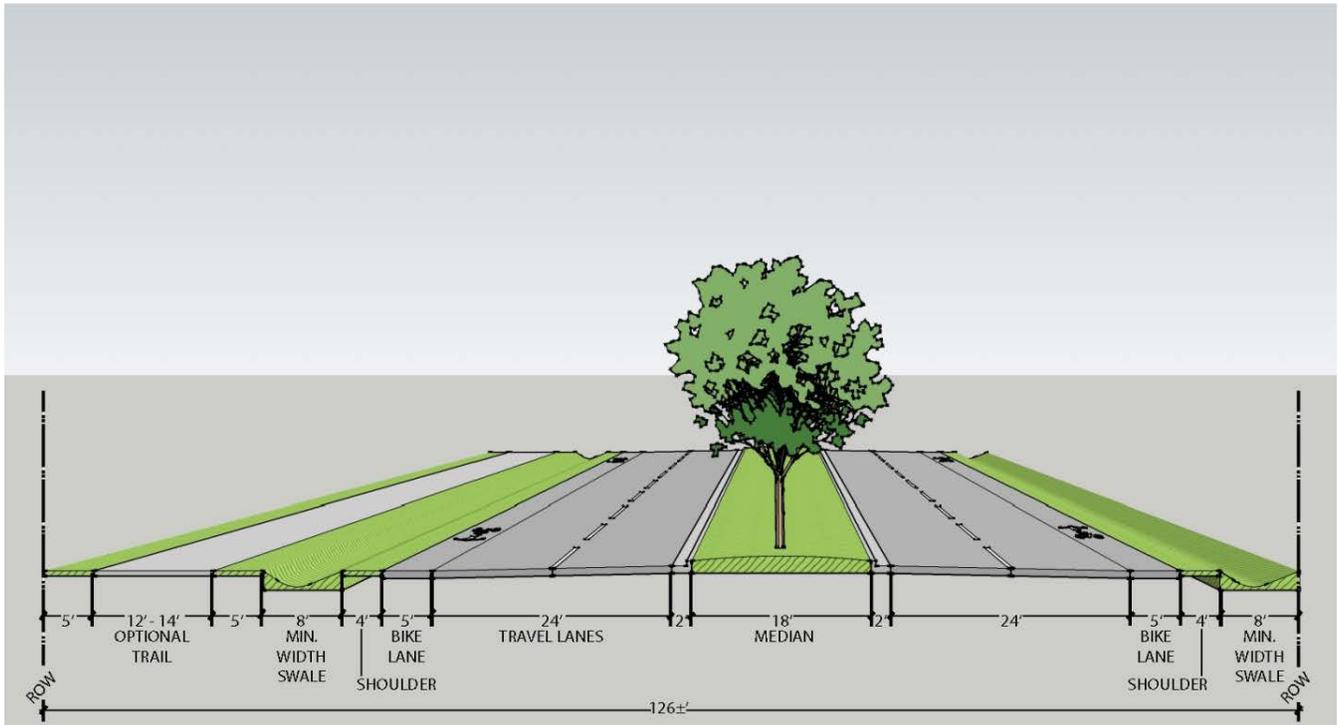
The Urban Two-Lane section is provided to show an example of the overall features that should be considered in the design of a basic two-lane residential street. The planting areas are shown sufficiently wide to minimize the impacts of the expanding root ball from shade trees as they mature and the 6 foot wide sidewalk should be considered a minimum width. Travel lanes can range from 11' to 12' in width. However, should the neighborhood be designed with traditional features (TND), expanding the overall street wide to 26' and eliminating any center stripping would allow for on-street parking and a yield street condition for two way traffic. This facility in limited cases could be classified as a collector roadway (not under the yield street condition), would have enclosed drainage systems and be among the lowest design speeds (25-30 mph).



Urban/Residential Two-Lane
Typical Section
MTS
Section E

vi. Section F: Rural Four-Lane w/Bike Lanes

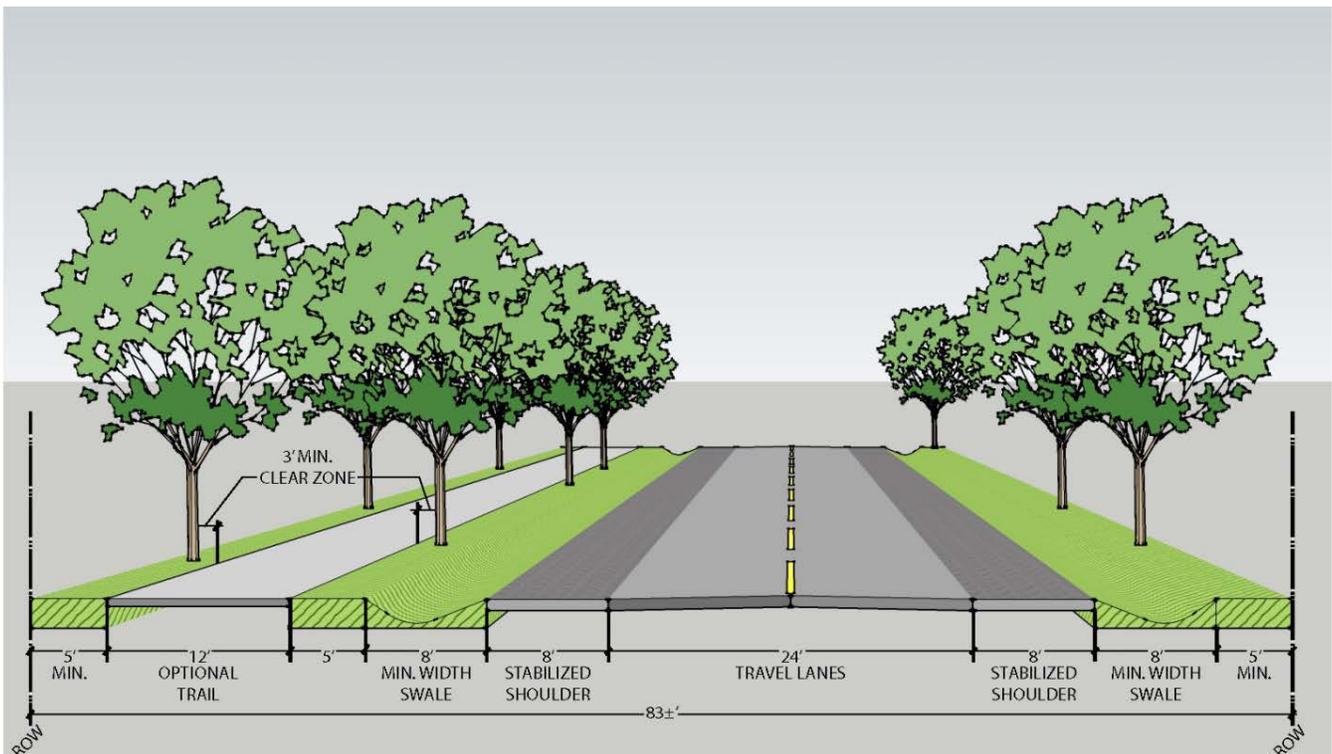
This is the major roadway section that is to be developed within and transitioning to the Rural Reserve properties. As the density of development will be lowest with the exception of any actual Conservation areas, the primary focus of travel on these roadway segments will be automobile, bus/transit, and bicycle. In some limited areas an optional 12'-14' trail facility may be included as part of a regional trail system connection. Travel lanes should be 12 feet in width as the design speeds for these facilities will reach 45-50 mph with posted speeds in that range. Storm water management will be through a system of roadway swales and the topography of the area may dictate an expanded overall right-of-way width to accommodate the broader area needed to provide proper clear zone and recovery area. It should be noted that the majority of the roadways connecting to and crossing the Lake/Orange County Line area proposed to utilize this transitional cross section.



Rural Four-Lane w/ Bike Lanes
Typical Section
NTS
Section F

vii. Section G: Rural Two-Lane

Similar to Section F, this typical roadway section is intended to serve travel through areas with lower density development, minimal pedestrian traffic and focus on automobile and bicycle travel. This section would be implemented to add connectivity between the arterial and major collector system and serve areas with relatively low travel demand and where the rural character of the adjacent property is to be maintained. An optional trail is shown where other parallel or alternate facilities are not provided and the stormwater would be managed using roadway swales. Stabilized shoulders would be included to provide a solid area for emergency stops and to provide clear zones between the travel lanes and the swales and streetscape materials. These facilities may reach the level of classification as a collector but would be on the lower end of the scale.

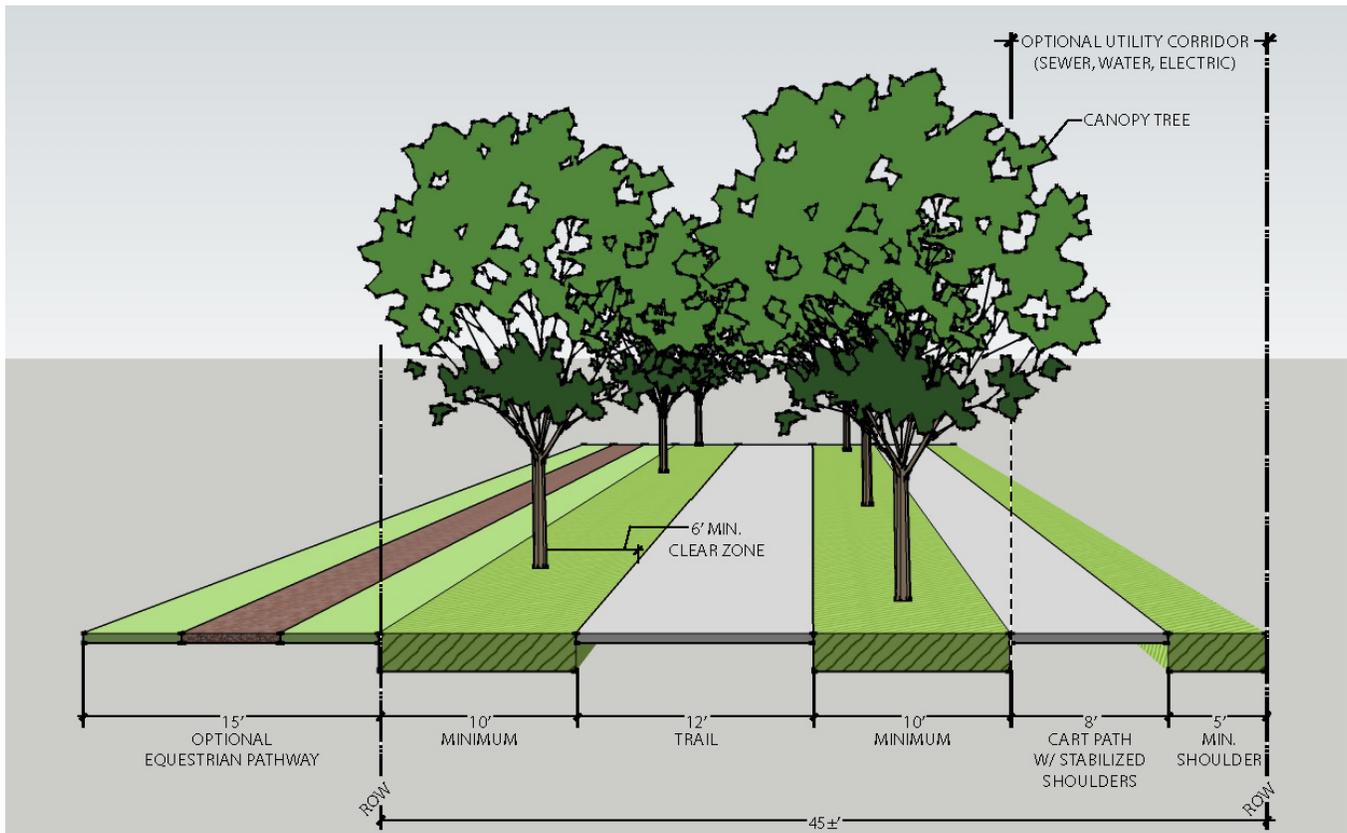


NOTE: G1 - 12' IS REPLACED WITH 6' SIDEWALKS ON EACH SIDE OF ROADWAY.

Rural Two-Lane
Typical Section
NTS
Section G

viii. Section H: Wellness Mobility Corridor

This transportation corridor is designed to provide mobility to multiple user types, none of which are truck, bus or automobile. Specific features of the corridor include the option for electric carts in locations where impervious pavement is acceptable (i.e. upland areas) and a 12 foot wide or greater trail that is designed for foot traffic or equestrian use. In areas where lands are considered sensitive (floodplains or conservation lands), the cart path can be converted to a stabilized shoulder and used by trail bikes or pedestrians but no form of motorized vehicles will be allowed. The connectivity and reduction in vehicle trips on the roadways due to this type of facility has proven to be measurable as the connections made between neighborhoods, schools and retail centers can be served satisfactorily by the use of an electric cart or bicycle. The right-of-way needed is nominal and can range between 45-50 feet. An additional benefit of the Wellness Mobility Corridor would be as a location for underground utility transmission to eliminate that infrastructure from roadway corridors and avoid the disruption that can cause when repairs or changes in pipe or line sizes are necessary. A minimal amount of stormwater swale and treatment will be needed for the areas with impervious cart path materials.

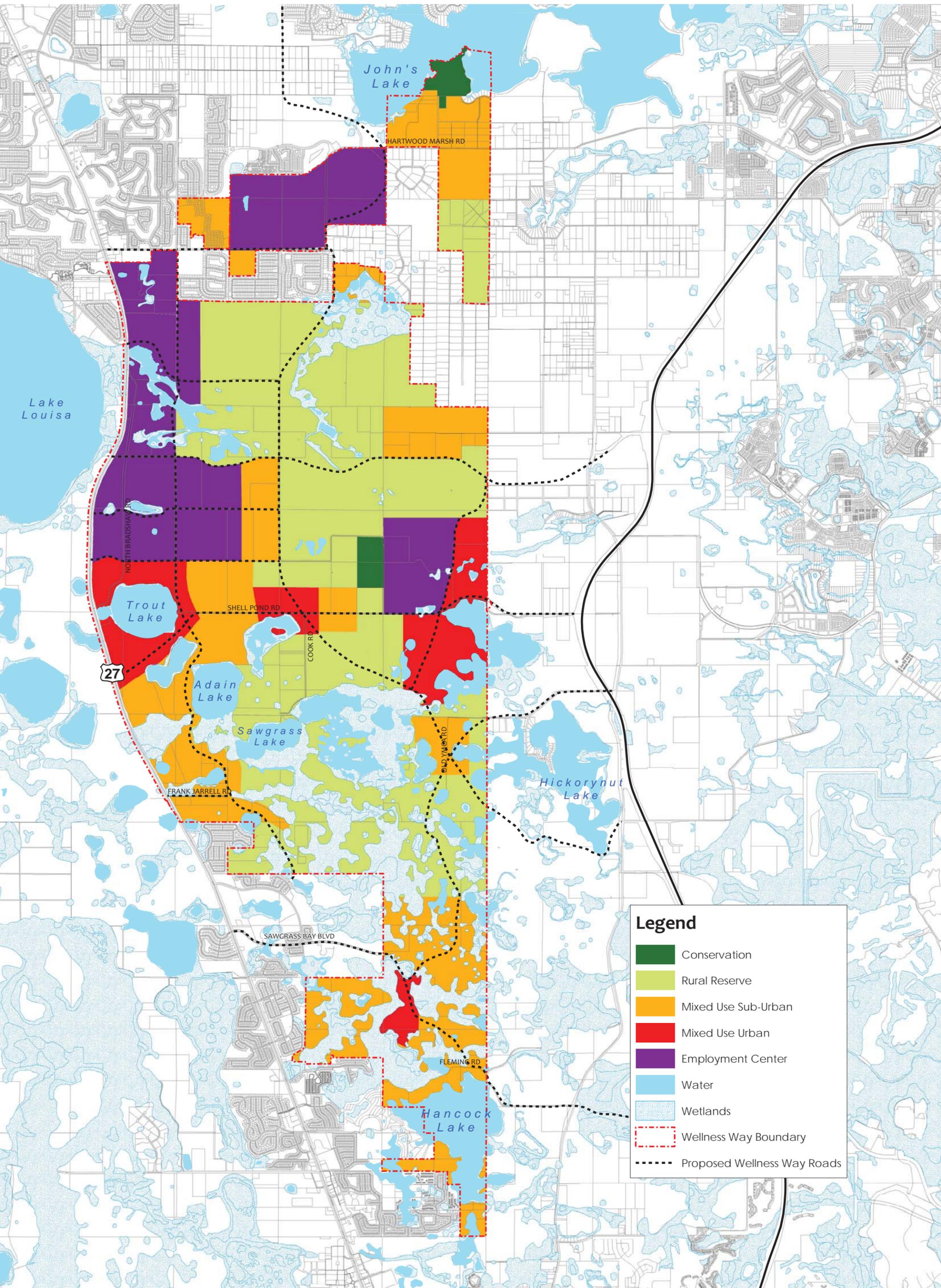


Wellness Mobility Corridor
Typical Section
MTS
Section H



Section IV:

FUTURE LAND USE MAP & GOAL, OBJECTIVES AND POLICIES



Legend

- Conservation
- Rural Reserve
- Mixed Use Sub-Urban
- Mixed Use Urban
- Employment Center
- Water
- Wetlands
- Wellness Way Boundary
- Proposed Wellness Way Roads



IV. Goal, Objectives and Policies: Wellness Way Sector Plan

GOAL 1-8.1. WELLNESS WAY SECTOR PLAN

The intent of the Wellness Way Sector Plan is to create a long-term master plan for the South Lake region which promotes significant economic development while encouraging fiscally efficient and well-balanced development patterns that minimize environmental impacts and leverage existing resources. The planning horizon for the Wellness Way Sector Plan is projected to be 2040.

Objective 1-8.1.1. ECONOMIC DEVELOPMENT

Through the Wellness Way Sector Plan, Lake County shall develop a comprehensive economic development strategy that achieves a target jobs-to-housing ratio within the South Lake region by focusing on growth and retention of target industries and the complimentary land uses and infrastructure needed to support them.

Policy 1-8.1.1.1: Jobs-to-Housing Ratio. At buildout of the Wellness Way Sector Plan, a jobs-to-housing balance of 1.5:1 shall be achieved. During development of the Wellness Way Sector Plan area, the jobs to housing balance shall be measured at no less than annual intervals and the results shall be reported to the Lake County Board of County Commissioners. Lake County shall analyze each Detailed Specific Area Plan (DSAP) submittal to determine the impact of the proposed development program on the target jobs-to-housing ratio within the South Lake region. If a proposed DSAP does not further the goal of achieving the target jobs-to-housing ratio, the County may deny the application or place conditions upon the DSAP to mitigate the plan's adverse impact. The methodology for evaluation is included in the Data, Inventory and Analysis.

Policy 1-8.1.1.2: Target Industries. Development within the Wellness Way Sector Plan shall target a broad base of industry sectors, allowing for a diverse and dynamic range of economic development and job growth opportunities. Target industries shall include:

- Agriculture, Forestry, Fishing and Hunting
- Eco-tourism and Agri-tourism
- Education and Health Services
- Human Performance, Sports Medicine and Sports Training Facilities
- Leisure and Hospitality
- Manufacturing
- Professional and Business Services
- Research Facilities
- Retail Trade
- Transportation, Trade and Utilities

Policy 1-8.1.1.3: Economic Development Incentives. Lake County shall develop a program intended to attract and retain target industries within the Wellness Way Sector Plan area. This program may include financial incentives, expedited permitting and review processes, flexibility in development standards and marketing/branding initiatives.

Policy 1-8.1.1.4: Allocation of Land for Economic Development. Through the Employment Center (EC); and Mixed-Use Urban (MU-U) Future Land Use Map (FLUM) designations, Lake County shall designate sufficient developable land to provide adequate geographic areas and appropriate land uses for the attraction and retention of target industries. Any proposed amendments to the FLUM which would result in a conversion of lands from Employment Center (EC); Mixed-Use Urban (MU), Mixed-Use Suburban (MS), and Rural Reserve (RR) land uses to another category shall be analyzed for impacts to the economic development objectives of the Wellness Way Sector Plan.

Amendments determined to result in an adverse impact may be denied.

Objective 1-8.1.2. LAND USE AND URBAN FORM

Create a more fiscally efficient development pattern through a greater diversity of land uses and more compact and cohesive urban form.

Policy 1-8.1.2.1: Future Land Use Categories. The following land use categories, as depicted on the Future Land Use Map, shall be unique to the Wellness Way Sector Plan and are intended to provide for a broad range of compatible and complimentary uses, including employment, urban, rural, agriculture and conservation uses.

To track land use allocations within each land use category, Lake County staff shall develop a tracking tool to record and monitor progress toward achieving the minimums and maximums defined below as development occurs through the DSAP process.

Employment Center

The Employment Center (EC) Future Land Use category is intended to form the basis of the Wellness Way Sector Plan and provide for and promote significant economic development opportunities. The EC designation identifies areas suitable for a broad mixture of employment generating uses, including manufacturing, regional headquarters, warehousing and distribution, professional and business services and health/wellness and educational facilities. Development within areas designated EC should be well connected to the regional transportation system, provide for the most efficient use of public infrastructure, and includes supporting uses, such as retail and lodging, which reduce the number and duration of automobile trips within the area.

To ensure an adequate mixture of employment generating uses, development within areas designated EC shall be subject to the following land use mix:

Table FLUE 1-8. 1 – Employment Center Land Use Mix

Land Use	Minimum Acreage	Maximum Acreage
Industrial	0%	80%
Office	0%	80%
Commercial	0%	10%

Recreation/Open Space	10%	No Maximum
Public/Institutional	0%	80%
Residential	0%	5%

For the purpose of determining consistency with Table FLUE 8.2.1, calculations shall use net acres (gross acreage less wetlands and water bodies) and be applied to the total area designated Employment Center (EC) and not to an individual parcel.

Example 1: A parcel consisting of 100 net acres is proposed for development as a manufacturing facility. Lands designated as Employment Center (EC) on the FLUM total 1,250 net acres. A total of 400 net acres or 32% of the EC has already been developed as Industrial. The proposed Industrial development would result in an additional 8%, bringing the total net acres designated Industrial to 40%. Maximum acreage allocated for Industrial uses is 80%; therefore, the proposed development would be CONSISTENT with the land use mix contained in Table FLUE 8.2.1.

Example 2: A parcel consisting of 20 net acres is proposed for development as an apartment complex. Lands designated as Employment Center (EC) on the FLUM total 1,250 net acres. A total of 60 net acres or 4.8% of the EC has already been developed as Residential. The proposed Residential development would result in an additional 1.6%, bringing the total net acres designated Residential to 6.4%. Maximum acreage allocated for Residential uses is 5%; therefore, the proposed development would be INCONSISTENT with the land use mix contained in Table FLUE 8.2.1.

The following shall be considered typical uses consistent with the land uses listed in Table FLU 8.2.1.

Table FLUE 1-8. 2 – Typical Uses

Industrial	Office	Commercial	Rec/Open Space	Public/Inst	Residential
Manufacturing	General Office	Retail	Active/Passive Recreation	Civic	Apartments
Warehousing/ Distribution Wholesale Trade	Medical/ Dental Office Corporate Headquarters	Banking Restaurants	Preservation Trails	Public Safety Hospitals	Condominiums
Transportation Services Communications Services	Government Office Research and Development	Convenience Lodging Gas/Service Station Day Care		Educational Facilities Transportation Facilities Utilities	

To allow for flexibility in design and use, the Floor Area Ratio (FAR) for non-residential development within the EC category shall be between .10 and 3.0. The maximum Impervious Surface Ratio shall be 0.80.

Residential development within the EC category is intended to be secondary to and complement the non-residential, employment generating uses. To ensure the most fiscally efficient use of land and infrastructure, residential development shall be limited to attached, multi-family products with a minimum density of eight (8) dwellings units per net acre and a maximum density of twenty (20) dwelling units per net acre.

Mixed-use Urban

The Mixed-use Urban (MU) Future Land Use category is intended to identify areas suitable for an intense mix of residential and non-residential uses within the Wellness Way Sector Plan area. To ensure the efficient use of land and infrastructure, development within areas designated MU shall include a highly interconnected and multi-modal street system, compact urban design, and a broad mixture of uses.

To ensure an adequate mixture of compatible uses, development within areas designated MU shall be subject to the following land use mix:

Table FLUE 8.2.3 – Mixed-use Urban Land Use Mix

Land Use	Minimum Acreage	Maximum Acreage
Industrial	Not Permitted	
Office	10%	30%
Commercial	20%	40%
Recreation/Open Space	10%	No Maximum
Public/Institutional	0%	20%
Residential	20%	50%

For the purpose of determining consistency with Table FLUE 8.2.3, calculations shall use net acres (gross acreage less wetlands and water bodies) and be applied to the total area designated Mixed-use Urban and not to an individual parcel (for example calculations see Employment Center description).

For developments which incorporate either a horizontal or vertical mixture of uses, proportional shares of individual uses shall be calculated by: determining the total floor area (vertical) or acreage (horizontal) of the various uses; then calculating the percentages of the total areas representing each of the respective uses. Common areas such as parking, stormwater and open space shall be allocated proportionally to the various uses.

Example 1: A horizontally mixed-use project is proposed for a parcel consisting of 25 net acres. 15 acres are to be townhomes and 5 acres are to be designated for neighborhood serving commercial, including retail and convenience uses. The remaining 5 acres will contain a shared stormwater pond. For the purpose of determining consistency with Table FLU 8.2.3, the 15 acres (or 60% of the site) containing the townhomes shall be considered Residential and allocated to that category. The 5 acres (or 20% of the site) containing neighborhood serving

commercial shall be considered Commercial and allocated to that category. The remaining 5 acres (or 20% of the site) shall be allocated proportionally with 3 acres or 60% going to Residential and 2 acres or 40% going to Commercial.

Example 2: A three-story, vertically mixed-use project is proposed for a parcel consisting of 3 net acres. The proposed building is 30,000 square feet with 10,000 square feet of retail and 20,000 square feet of condominiums. For the purpose of determining consistency with Table FLU 8.2.3, 1 acre or 33% of the total site shall be considered Commercial and 2 acres or 66% of the total site shall be considered Residential.

The following shall be considered typical uses consistent with the land uses listed in Table FLU 8.2.3.

Table FLUE 8.2.4 – Typical Uses

Office	Commercial	Rec/Open Space	Public/Inst	Residential
General Office	Retail	Active/Passive Recreation	Civic	Apartments
Medical/ Dental Office	Banking	Preservation	Public Safety	Condominiums
Corporate Headquarters	Restaurants Farmers Markets	Trails	Educational Facilities	Townhomes
Government Office	Convenience Entertainment		Transportation Facilities	Small lot, Detached Single Family
Research and Development	Lodging Gas/Service Station Day Care		Utilities Maintenance Yards	

To allow for flexibility in design and use, the Floor Area Ratio (FAR) for non-residential development within the MU category shall be between .25 and 2.0. The maximum Impervious Surface Ratio shall be 0.80.

Residential development within the MU category should be compact in design and may be integrated vertically or horizontally with other compatible uses. Housing types which provide an efficient use of space, such as lofts, live-work units and accessory dwellings, shall be encouraged. To allow for a broad array of urban housing types and ensure the most fiscally efficient use of land and infrastructure, residential development within the MU category shall occur within a density range of six (6) dwellings units per net acre to twenty (20) dwelling units per net acre.

Mixed Use Sub-Urban

The Mixed-use Suburban (MS) Future Land Use category is intended to identify areas suitable for a typical mixture of residential and daily-serving non-residential uses within the Wellness Way Sector Plan area. As with the Mixed-use Urban (MU)

designation, development within areas designated MS shall include a highly interconnected and multi-modal street system, compact urban design, and a broad mixture of uses.

To ensure an adequate mixture of compatible uses, development within areas designated MS shall be subject to the following land use mix:

Table FLUE 1-8. 3 – Mixed-use Urban Land Use Mix

Land Use	Minimum Acreage	Maximum Acreage
Industrial	Not Permitted	
Office	0%	20%
Commercial	10%	30%
Recreation/Open Space	20%	No Maximum
Public/Institutional	0%	20%
Residential	30%	80%

For the purpose of determining consistency with Table FLUE 8.2.5, calculations shall use net acres (gross acreage less wetlands and water bodies) and be applied to the total area designated Mixed-use Suburban and not to an individual parcel. For example calculations see Employment Center description.

For developments which incorporate either a horizontal or vertical mixture of uses, see example calculations in Mixed-use Urban description.

To allow for flexibility in design and use, the Floor Area Ratio (FAR) for non-residential development within the MS category shall be between .10 and 1.0. The maximum Impervious Surface Ratio shall be 0.60.

Residential development within the MS category should be in the form of compact but highly interconnected neighborhoods. Residential uses may be integrated vertically or horizontally with other compatible uses. To allow for a broad array of suburban housing types and ensure the most fiscally efficient use of land and infrastructure, residential development within the MS category shall occur within a density range of four (4) dwellings units per net acre to twelve (12) dwelling units per net acre in areas served by central water and sewer and other adequate public facilities.

Rural Reserve

The Rural Reserve (RR) Future Land Use category is intended to identify areas suitable for new or continued agriculture and silviculture activities and potential preservation of regionally significant natural resources within the Wellness Way Sector Plan area while also providing for a transition to more intensely developed areas. Development within areas designated RR shall occur in a manner that preserves the rural character of the area, maintains its viability for agricultural use, and protects the topography, view-sheds and significant natural resources.

The determination of areas most suitable for permanent preservation shall occur during the preparation of a Detailed Specific Area Plans (DSAP). Once an area is placed in permanent preservation, either through easement or acquisition, the Future Land Use Map designation of that area may be amended to Conservation.

The RR category provides for residential development at densities equal to or less than one (1) dwelling unit per five (5) net buildable acres. Alternatively, residential development, not to exceed a maximum density of one (1) dwelling unit per one (1) net buildable acre, may be permitted provided the proposed subdivision is developed as Rural Conservation Subdivision consisting of at least fifteen (15) net buildable acres. Within this subdivision, residential lots are to be clustered in a compact, efficient and well- defined manner and at least 50% of the net buildable area of the entire site is preserved as open space in a manner consistent with Policy I-1.4.6.

Rural Conservation Subdivisions developed under the RR category shall utilize regional water and wastewater utilities when available. Connection to these utilities shall not justify an increase in density or intensity on the site being served.

The maximum Impervious Surface Ratio within this category shall be 0.30, except for agricultural, civic and recreational uses which shall be 0.50.

TYPICAL USES INCLUDE:

- Agriculture and forestry;
- Preservation and Management of Natural Resources;
- Public facilities that support the protection of natural resources (i.e., Conserv II);
- Residential;
- Passive recreation;
- Equestrian related uses;
- K-12 schools;
- Religious organizations; and
- Rural Support uses as provided for in this Comprehensive Plan.

Policy 1-8.1.2.2: Compatibility of Adjacent Land Uses. Through the DSAP process, the protection of conservation, recreation, and open space areas from incompatible adjacent land uses and activities shall occur. Non-residential uses adjacent to residential, conservation, recreation, and open space areas shall be required to use appropriate screening and ample vegetated buffers to minimize off-site impacts, including but not limited to the undesirable intrusion of noise, light, access, traffic and other impacts. Land uses adjacent to and near natural resource-based extraction operations and natural resource-based recreation sites shall be of a low density and intensity as defined in the Future Land Use Element.

Policy 1-8.1.2.3: Urban Form. DSAPs, and subsequent development, within the Wellness Way Sector Plan area shall be designed to include the following:

- A hierarchy of places intended to create compact nodes of activity at the most appropriate locations with adequate public infrastructure to serve the development while directing higher intensity development away from environmentally sensitive areas;
- A fiscally efficient land use pattern that minimizes infrastructure costs and encourages travel by multiple transportation modes, thereby reducing vehicle miles travelled and net external trips produced;
- Residential neighborhoods that enhance economic development

through the provision of a broad range of housing options varying in size, style, cost and type of ownership;

- Parks, schools and other public services located within close proximity to housing;
- Development of balanced communities that shall provide opportunities throughout all phases of the development for residents to work in the community they live in, thereby reducing automobile dependence; and,
- Opportunities for a range of educational facilities so as to promote lifelong learning.

Policy 1-8.1.2.4: Framework Map. A Framework Map is included in Section III of the Wellness Way Sector Plan. This map is a long-term build-out plan for the sector plan area and generally depicts urban form, civic and open space areas, future roadway network, access and circulation, potential locations of a Town Center, Village Center and Rural Village Center, a trails system and open space network. The Framework Map is intended to be instructive in the preparation of DSAPs and serve to guide the planning of compatible land uses and associated intensities and densities of development within the sector plan area.

Objective 1-8.1.3. MOBILITY

Development within the Wellness Way Sector Plan area shall be managed to reduce vehicle trips, minimize vehicle trip lengths, and reduce vehicle miles travelled through the encouragement of mixed-use development and the internal capture of trips and through the development of a highly interconnected, multi-modal transportation network.

Policy 1-8.1.3.1: Primary Roadway Network. System-wide transportation capacity within the Wellness Way Sector Plan area shall be achieved through the design and development of a highly interconnected, multi-modal roadway network with appropriately spaced and properly sized roadway, pedestrian, bicycle, transit and alternative vehicular components.

Detailed Specific Area Plans (DSAP) within the Wellness Way Sector Plan shall be generally consistent with the primary roadway network identified on the Framework Map. Any deviations from the number and location of primary roadways identified on the Framework Map shall not deteriorate the high level of interconnectivity within the Sector Plan's network. Deviations to a significant extent are possible to protect environmentally sensitive lands so long as the continuity of the network and each of the multimodal features for that facility are maintained.

Policy 1-8.1.3.2: Roadway Design. Thoroughfares within the Wellness Way Sector Plan shall be designed to accommodate pedestrians, bicycles, transit, freight and motor vehicles within a fine-grained circulation network where the allocation of right-of-way on individual thoroughfares is based on local context and changes as the surroundings vary in character and context.

To assist with the design of future roadways and ensure that these facilities consider all modes of transportation, typical cross-sections have been placed in Section III of the Wellness Way Sector Plan and shall be used to guide the design of proposed facilities during the DSAP process.

Policy 1-8.1.3.3: Pedestrian Facilities. Through a complementary relationship between transportation, land use and urban design, development within the Wellness Way Sector Plan shall support walking as an important part of daily travel. Design and construction of transportation facilities and land uses within the Sector Plan shall give highest priority to walking as a basic and efficient mode of transportation and may include the following:

- Appropriately sized and obstruction-free sidewalks connecting residential neighborhoods to employment districts, retail areas, parks and schools;
- Well designed and highly-visible crosswalks which ensure pedestrian safety in areas where conflicts with vehicular traffic may occur;
- The use of streetscapes that offer a safe and inviting environment for pedestrians especially by providing shade, amenities and buffering from vehicular traffic; and,
- Pedestrian oriented design of buildings adjacent sidewalks including, minimal front setbacks, main entrances that directly access the sidewalk, maximum first floor opacity standards, and the placement of vehicular use areas to the back or side of buildings.

Policy 1-8.1.3.4: Bicycle Facilities. DSAPs within the Wellness Way Sector Plan shall include a safe and continuous bicycle network that encourages cycling as both a means of transportation and a recreational activity. Bicycle networks shall connect residential neighborhoods with employment districts, retail centers, parks and schools and may include:

- Shared lane markings or “sharrows”;
- Designated bike lanes;
- Separated bike facilities or “cycle tracks”;
- Multi-use paths and trails.

Policy 1-8.1.3.5: Transit. DSAPs within the Wellness Way Sector Plan shall include a master transit plan focused on linking job centers with employees and by providing connectivity to regional public transportation and localized circulator systems and shall introduce measures that will produce a transit utilization rate of 5% or greater. Employment districts, retail centers and residential neighborhoods shall be designed to accommodate current and future transit systems and shall utilize the DSAP’s bicycle and pedestrian facilities to create a seamless alternative transportation network.

Policy 1-8.1.3.6: External Trip Reduction. DSAPs within the Wellness Way Sector Plan shall introduce measures that will produce a reduction in net external trips of 20% or greater. A variety of options to meet this goal can be applied including transportation demand management techniques, transportation management association tools, support for utilization of public transportation systems and rideshare/vanpool or alternate programs.

Policy 1-8.1.3.7: Level of Service. The minimum roadway level of service standard within the Wellness Way Sector Plan shall be “E,” except for US 27 which shall remain at LOS “D.”

Policy 1-8.1.3.8: Multimodal Transportation District (MMTD). The County shall create a Sector Plan-wide Multimodal Transportation District (MMTD) where secondary priority is placed on vehicle mobility and conventional level of service and primary priority is placed on providing a safe, comfortable and attractive environment for pedestrians and bicyclists, with convenient access to transit.

Policy 1-8.1.3.9: Multimodal Street Design Standards. Lake County shall establish multimodal street cross-sections, design standards, and operational measures (e.g. pre-emptive signals, dedicated bus lanes, etc.) to ensure streets are safe, convenient and appealing for all modes of travel, including transit, automobiles, trucks, bicycles and pedestrians. Strategies shall include marked crosswalks, wider sidewalks, on-street parking, bus turnouts, traffic calming, raised medians, adequate drainage or other appropriate safety enhancements that reduce hazardous conflicts between modes and that are consistent with the planned functions of the roadway.

Policy 1-8.1.3.10: Connectivity. To promote communities that are physically connected to each other and to foster community and connectedness beyond the development, all DSAPs shall include sub-arterial streets stubbed to the boundary of the development in all cardinal directions unless physically constrained by natural or other features. Development plans within a DSAP shall include streets connecting to all streets stubbed to the boundary of adjacent development plans. Street connections shall be made between adjacent development regardless of the parent development and adjacent land uses in order to continue the interconnected street network.

Policy 1-8.1.3.11: Public Transportation. The County, in collaboration with FDOT, Lake-Sumter MPO, Lake Xpress, local governments, and the private sector, and when viable, will introduce roadway, mass transit and public transportation facilities and services, including rail or Bus Rapid Transit (BRT) technologies, on a local and regional scale.

Policy 1-8.1.3.12: Land Use. The County shall require land use densities, intensities and mixed uses that integrate and support alternative transportation modes, enhance the feasibility of transit, decrease trip lengths, and promote internal capture.

Objective 1-8.1.4. ENVIRONMENTAL RESOURCES AND OPEN SPACE

Identify and conserve regionally significant natural resources through the creation of an interconnected open space network within the Wellness Way Sector Plan area.

Policy 1-8.1.4.1: Identification of Environmentally Sensitive Areas. The Wellness Way Framework Map (included in Section III) shall identify areas of potentially environmentally sensitive lands within the Sector Plan area. This Framework Map shall guide the preparation of subsequent Detailed Specific Area Plans (DSAP) and their respective identification of lands for permanent preservation.

Policy 1-8.1.4.2: Conservation of Regionally Significant Natural Resources. The Critical Lands and Waters Identification Project (CLIP), Florida Natural Areas Inventory (FNAI) and Florida Fish and Wildlife Commission (FWC) databases shall be consulted during the preparation of DSAPs within the Wellness Way Sector Plan area. Areas designated as Priority 1 or 2 within the CLIP database and areas within the FNAI and FWC

databases containing known locations of rare and imperiled species of plants and animals shall be given the highest consideration for preservation within a DSAP.

Policy 1-8.1.4.3: Identification and Preservation of Wetlands and Water Bodies. The Wellness Way Sector Plan area contains approximately 4,000 acres of wetlands and waterbodies. These areas shall be generally delineated during the DSAP process and preservation of these areas shall occur in a manner consistent with the policies and regulations of the respective regulatory agencies tasked with the oversight of these resources.

Policy 1-8.1.4.4: Identification and Preservation of Xeric Uplands. The Wellness Way Sector Plan area is located along the Lake Wales Ridge. Xeric or Scrub habitats on the Lake Wales Ridge are considered important targets for conservation due to the presence of many rare, imperiled or endemic species. During the preparation of DSAPs, upland areas containing xeric or scrub habitats should be analyzed closely for permanent preservation. If preserved, these areas may serve as relocation sites for gopher tortoises, sand skinks, and other xeric-adapted species that may be present within the Sector Plan and surrounding areas.

Policy 1-8.1.4.5: Creation of Master Open Space Network. At build-out, the Wellness Way Sector Plan area shall contain a large, interconnected open space system comprised of waterbodies, wetlands, important upland habitats and publicly owned lands. This system shall serve to protect environmentally sensitive lands, allow for the continued and safe movement of wildlife and provide for significant passive recreation areas for the residents, employees and visitors of the Wellness Way Sector Plan area. Each DSAP shall be reviewed for consistency with this policy during the approval process.

Objective 1-8.1.5. PUBLIC FACILITIES

Ensure the provision of adequate public facilities in a manner that result in reduced fiscal impacts to Lake County, the City of Clermont and the residents of Wellness Way.

Policy 1-8.1.5.1: Identification of Water Supplies. Future potable water demands within the Wellness Way Sector Plan shall be provided in a manner determined by the St Johns River Water Management District. Non-potable demand shall utilize Alternative Water Supplies, such as reclaimed water, when available. The availability of and requirement to use and connect to Alternative Water Supplies will be determined during the DSAP approval process.

Policy 1-8.1.5.2: Potable and Re-use Water Facilities. DSAPs within the Wellness Way Sector Plan shall include an analysis of potable and re-use water facilities, including sources, treatment plants and delivery infrastructure, required to accommodate projected impacts and maintain the County's or utility provider's adopted level of service (LOS) for such facilities. If it is determined that sites and/or right-of-way is needed to accommodate the projected impacts, then those sites shall be conveyed prior to the issuance of building permits for development within the DSAP.

Policy 1-8.1.5.3: Sanitary Sewer Facilities. DSAPs within the Wellness Way Sector Plan shall include an analysis of sanitary sewer facilities, including treatment plants and delivery infrastructure, required to accommodate projected impacts and maintain the

County's or utility provider's adopted level of service (LOS) for such facilities. If it is determined that sites and/or right-of-way is needed to accommodate the projected impacts, then those sites shall be conveyed prior to the issuance of building permits for development within the DSAP.

Policy 1-8.1.5.4: Solid Waste Facilities. DSAPs within the Wellness Way Sector Plan shall include an analysis of solid waste impacts and, when necessary, mitigation plans that ensure adequate capacity exists to accommodate proposed demand.

Policy 1-8.1.5.5: Parks and Trail Facilities. DSAPs within the Wellness Way Sector Plan shall include an analysis of parks and trails required to accommodate projected impacts and maintain the County's adopted level of service (LOS) for such facilities. If it is determined that one or more park sites within the proposed DSAP are needed to accommodate projected impacts, then those sites shall be conveyed prior to the issuance of building permits for development within the DSAP. The Framework Map shall be used as a guide to provide parks and trails facilities within the Wellness Way Sector Plan area.

Trails within a proposed DSAP that serve as a component of the Wellness Way Sector Plan's multi-modal mobility system shall be identified as part of the DSAP process. The right-of-way required for such trails shall be conveyed prior to the issuance of building permits for development within the DSAP.

Policy 1-8.1.5.6: Educational Facilities. DSAPs within the Wellness Way Sector Plan shall include an analysis of public school impacts and, when necessary, mitigation consistent with the policies and procedures identified in the Public Schools Facilities Element (PSFE). If it is determined that one or more school sites within the proposed DSAP are needed to accommodate projected impacts, then those sites shall be consistent with the PSFE's School Facility Siting objective and policies.

Policy 1-8.1.5.7: Law Enforcement, Fire Protection and Emergency Services. DSAPs within the Wellness Way Sector Plan shall include an analysis of law enforcement, fire protection and emergency services impacts and shall include coordination with the agencies providing these services to determine if facility sites are required within the DSAP to ensure the provision of adequate public facilities and services. If it is determined that land is needed to accommodate the siting of facilities required to address the impacts of the proposed DSAP, these lands shall be conveyed prior to the issuance of building permits for development within the DSAP.

Objective 1-8.1.6. FINANCING

Develop financing mechanisms that support the Wellness Way Sector Plan's economic development goals while ensuring the equitable distribution of infrastructure costs.

Policy 1-8.1.6.1: Potential Funding Mechanisms for Regional Infrastructure. Each DSAP shall identify the revenue sources implementable by county ordinance (or by resolution of a dependent district created by county ordinance) as the public shares of a funding partnership to provide essential regional infrastructure including transportation, public safety and park improvements required to implement the economic development uses incorporated in the DSAP. Potential revenue sources may

include, but are not limited to, special assessments collected as non-ad valorem assessments on the ad valorem tax statement pursuant to section 196.3632, Florida Statutes; impact or mobility fees that are DSAP specific; allocation of a portion of the transportation needs component in a regional or countywide impact or mobility fee; dedication of tax increment funds within identified tax increment areas; and utility capacity assessment fees and advanced funding agreements with the appropriate utility providers.

Policy 1-8.1.6.2: Funding Mechanisms: Site Specific Infrastructure. Within each DSAP, the transportation related infrastructure and other infrastructure necessary to accommodate the economic goals of specific sites or individual development shall be incorporated as a cost requirement of site development either directly or provided as a funding component of any dependent district created to provide regional infrastructure.

Policy 1-8.1.6.3: Phasing of Regional Infrastructure. To the maximum extent possible, regional infrastructure shall be phased as necessary to support economic development of specific sites or individual developments within each DSAP and as required to meet economic expectations of the property bearing the burden of the infrastructure costs. Such site development infrastructure shall be, to the maximum extent possible, integrated with adjacent infrastructure and incorporated into the capital improvement plan of the County, the adjacent municipalities, the Florida Department of Transportation work plan or other the appropriate utility provider.

Objective 1-8.1.7. INTERGOVERNMENTAL COORDINATION

Ensure continued coordination of development plans, infrastructure planning and development, approvals and impacts with affected local governments and public agencies throughout the duration of the Wellness Way Sector Plan.

Policy 1-8.1.7.1: Coordinated Review of Detailed Specific Area Plans. To provide for intergovernmental coordination to address extra-jurisdictional impacts, Lake County shall provide to adjacent municipalities and counties, other units of government providing services but not having regulatory authority over the use of land, state and regional regulatory agencies, and the Lake County School Board, copies of applications for a Detailed Specific Area Plan (DSAP). This shall include, but not be limited to:

- The City of Clermont
- Orange County
- Polk County
- Osceola County
- St Johns River Water Management District
- East Central Florida Regional Planning Council
- Lake-Sumter MPO
- Lake Utility Services
- South Lake Utilities
- Florida Park Service (Lake Louisa)

- Florida Fish and Wildlife Conservation Commission
- Florida Department of Transportation
- Orlando-Orange County Expressway Authority
- Florida’s Turnpike Authority
- Reedy Creek Improvement District

To ensure communication and coordination are used to minimize any potential adverse impacts, these adjacent municipalities, counties, other units of government and regulatory agencies shall have thirty (30) days to review and provide comments to the County regarding the proposed DSAP.

Objective 1-8.1.8. IMPLEMENTATION

Develop a straightforward and efficient process for the preparation, review and approval of Detailed Specific Area Plans (DSAPs) and subsequent development approvals within the Wellness Way Sector Plan area.

Policy 1-8.1.8.1: Detailed Specific Area Plan Process. Consistent with state statute, development within the Wellness Way Sector Plan area shall be contingent upon the adoption of Detailed Specific Area Plans (DSAP). Each DSAP shall be developed in sufficient detail to allow evaluation of the interrelationship of its parts and establish consistency with principles and criteria contained within the Lake County Comprehensive Plan. A DSAP of less than 1,000 acres may be approved by Lake County based on consideration of the following criteria:

- Proximity to existing public infrastructure with adequate capacity to serve development;
- Compatibility with surrounding existing and future land uses; and,
- Consistency with the financial capability of local government and/or private entities to fund needed infrastructure concurrent with development.

DSAPs shall take the place of zoning within the Sector Plan area and be processed in a manner similar to a Planned Unit Development (PUD). Principles, guidelines, and standards for each DSAP shall be codified in the Lake County Land Development Regulations.

Until and unless a DSAP is approved by the Lake County Board of County Commissioners and found in compliance by the Florida Department of Economic Opportunity, the property in the Wellness Way Sector Plan area shall maintain the existing zoning (e.g. A, R-1, CFD, PUD). All applications for development approvals (i.e. lot splits, conditional use permits, variances, etc.) on any property within the Wellness Way Sector Plan area shall be reviewed on a case-by-case basis for the effect of such development approval on adopted or future DSAPs and compliance with the general principles of the Sector Plan.

At a minimum, processing of a DSAP must include the following:

DSAP Boundary Analysis

Conduct a preliminary analysis of the proposed DSAP area to determine appropriateness. This analysis shall include the following:

- Proposed DSAP boundary, including gross acreage and ownership information
- General identification of the extent and location of regionally significant natural resources
- Identification of net acreage (gross acres less water bodies and wetlands).
- Determination of a maximum development scenario based upon the uses, densities and intensities identified in the Future Land Use Map, the Framework Map and related goals, objectives and policies.
- A preliminary jobs-to-housing balance assessment consistent with Policy I-8.1.1 and utilizing the methodology contained in the Wellness Way Sector Plan Data and Analysis document.
- General identification of public facilities and services available to the area; available capacity; and potential deficiencies.

The final boundaries for a DSAP must be approved by the Lake County Board of County Commissioners (BOCC) before initiating a Preliminary DSAP.

Preliminary DSAP

The intent of the Preliminary DSAP process is to prepare an initial plan for public review and comment. The plan for the Preliminary DSAP shall consider the Framework Map and guidance provided in Section III of this plan. At a minimum, a Preliminary DSAP shall address the following:

- The location of proposed uses in a manner consistent with the long-term master plan. For residential areas, a computation of density shall be provided along with the permitted uses. For mixed-use and non-residential areas, a computation of intensity and, when applicable, density shall be provided, as well as the area and percentage of land use mix consistent with the categories found in policy I-8.2.1.
- A general description of proposed land use districts, including purpose and intent, permitted uses and general design standards.
- The identification of regionally significant natural resources and areas of potential preservation.
- Proposed circulation routes for pedestrians, bicycles, electric carts, transit and automobiles, including consideration for connection with areas outside the DSAP. For each facility to be included in the DSAP, design criteria should be included addressing:
 - Roadway cross-sections;
 - Pedestrian, Bicycle and Transit facilities ; and,
 - Landscape and streetscape standards
- Proposed location and size/capacity of major public facilities, including potable water, re-use water, sanitary sewer, solid waste, parks and trails, public schools, law enforcement, fire protection and emergency services.
- When necessary, strategies for the integration of existing development.

The Preliminary DSAP shall be presented to the public at a workshop. This workshop is to be advertised in a manner consistent with (CITATION OF COUNTY'S NOTIFICATION PROCEDURES). In addition, each property owner in the DSAP and each property owner within 1,000 feet of the boundary of the DSAP must be notified of the workshop. Substantial compliance with the provisions of this policy regarding the various methods for providing notice shall be sufficient to constitute notice to all affected parties. Comments from the public must be documented and included in a report to Lake County.

Final DSAP

Following the informational workshop described in the Preliminary DSAP phase, a Final DSAP shall be prepared. At a minimum, this plan shall consist of the following elements:

- A detailed land use plan indicating the distribution, extent and location of land use districts, including the proposed locations for transportation facilities (auto, transit, bike, pedestrian), major community services (water and wastewater plants, fire and police substations, government buildings), neighborhood school(s), parks and any conservation areas.
- Design standards for the various districts proposed in the land use plan, including:
 - Purpose and intent of districts;
 - Permitted and conditional uses;
 - District development standards, including:
 - Density;
 - Floor Area Ratio;
 - Impervious Surface Ratio;
 - Setbacks;
 - Height limitations; and,
 - Other regulations as deemed necessary.

A detailed natural resource plan that identifies regionally significant natural resources within the DSAP and outlines specific measures to ensure the protection and, as appropriate, preservation, restoration and management of areas containing these resources.

- A detailed transportation plan containing, at a minimum, the following:
 - A roadway plan containing the general location of all arterial and collector roadways necessary to serve the DSAP, their right-of-way width, and design cross section.
 - A transit plan containing the proposed location of transit routes and the manner in which they connect to the regional transportation system.
 - A bicycle network plan containing the general location of all bikeways and multi-use trails in a manner which connects residential neighborhoods with employment districts, retail centers, parks and schools.
 - A report demonstrating the DSAP's impact on transportation

facilities and documenting the timing and estimated cost and funding sources for needed transportation improvements. Each DSAP shall analyze the cumulative traffic impact of all previously approved DSAPs on the area road network.

- A detailed public facilities plan identifying regionally significant public facilities, including public facilities outside the jurisdiction of Lake County, anticipated impacts of land uses on these facilities, and required improvements and estimated costs consistent with the long-term master plan. At a minimum, this plan shall address:
 - Potable water
 - Re-use water
 - Sanitary sewer
 - Solid waste
 - Parks and trails
 - Public schools
 - Law enforcement, fire protection and emergency services
- Identification of specific procedures to facilitate intergovernmental coordination to address extra jurisdictional impacts from the DSAP.
- A matrix indicating compliance with the specific requirements of Sec. 163.3245, Florida Statutes.

The Final DSAP shall be submitted to Lake County for review and approval by the Planning Board and Board of County Commissioners. DSAP's prepared by an individual property owner or other venture must be presented through the County planning staff to the Board of County Commissioners. The DSAP will not be effective until approved by the Lake County Board of County Commissioners.

Policy 1-8.1.8.2: Changes to an Existing DSAP. Any addition or deletion of property or changes to the land use district boundaries in an approved DSAP shall follow the process for adoption of a DSAP. It shall include an evaluation and analysis of the impacts to the approved or planned land uses and the ability of the proposed amendment to meet the principles and standards set forth in the Wellness Way Sector Plan.

Policy 1-8.1.8.3: Development Approvals within a DSAP. Once a DSAP is adopted by the Board of County Commissioners, all applications for development approval (i.e., subdivision plans, site plans, lot splits, special exceptions, variances) shall be evaluated for compatibility and compliance with the adopted DSAP.

Policy 1-8.1.8.4: Continued Agriculture and Silviculture. The Future Land Use Map and associated objectives and policies for the Wellness Way Sector Plan do not limit the right to continue existing agricultural or silvicultural uses or other natural resource-based operations or to establish similar new uses that are consistent with the plans approved for Wellness Way.

Policy 1-8.1.8.5: Conflicts with other Goals, Objectives and Policies. The adopted Wellness Way Sector Plan comprehensive plan provisions establish the goals, objective and policies that govern the area depicted on the Future Land Use Map. In the event that these goals, objectives or policies present either an express (direct) or implied (indirect) conflict with the goals, objectives and policies that appear elsewhere in the comprehensive plan, the provision elsewhere in the comprehensive plan that is

in direct or indirect conflict with a Wellness Way goal, objective or policy shall be deemed to not apply to the Wellness Way sector plan area. All goals, objectives and policies in the Lake County Comprehensive Plan that do not directly or indirectly conflict with the Wellness Way Sector Plan shall apply to the area depicted on the Future Land Use Map .

Policy 1-8.1.8.6: Developments of Regional Impact. Nothing in the Wellness Way Sector Plan shall limit or modify the rights of any person to complete any development that has been authorized as a development of regional impact pursuant to Chapter 380, Florida Statutes, or who has been issued a final local development order and development has commenced and is continuing in good faith.

Policy 1-8.1.8.7: Existing Approved Developments. The Wellness Way Sector Plan land use categories and goals, objectives and policies shall not be applicable to any development that was an authorized use in a land use category in existence immediately prior to the adoption of the Wellness Way Sector Plan, and for which an application was pending prior to July 1, 2013 [or insert other reasonable date], and which application is subsequently approved by the Board of county Commissioners pursuant to requirements adopted as of that date. If approval of such an application occurs, the land use category existing on July 1, 2013 for the development so approved shall be amended into the Wellness Way Sector Plan during the next cycle of comprehensive plan amendments considered by the County or as soon thereafter as convenient for the County.

Policy 1-8.1.8.8: Jobs-to-Housing Tracking and Monitoring. The target jobs-to-housing ratio for the Wellness Way Sector Plan planning horizon is 1.5:1 jobs per residential unit. During development of the Wellness Way Sector Plan Area, the jobs/housing balance shall be measured at no less than annual intervals and the results shall be reported to the Lake County Board of County Commissioners. Each Detailed Specific Area Plan shall require milestones for achieving the jobs to housing target ratio. In the event that the jobs-to-housing ratio drops below a 0.53:1 ratio, residential development approvals shall be suspended until a remedial plan can be developed and approved by the County.

Policy 1-8.1.8.9: Sector Plan Build-out Date. The planning horizon for the Wellness Way Sector Plan is projected to be 2040.