# TECHNICAL APPENDIX C CENTRAL FLORIDA REGIONAL PLANNING MODEL 2045 SOCIOECONOMIC DATA



### PROJECT TRAFFIC FOR PD&E AND DESIGN

CFRPM 2045 Socio-Economic Data Development for Space Coast TPO, River to Sea TPO, Lake-Sumter MPO, Ocala/Marion County TPO and MetroPlan Orlando

Financial No. 405859-1-12-06

Prepared For:
FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT FIVE

Prepared By:
Kittelson & Associates, Inc.
March 2020

# CFRPM 2045 Socio-Economic Data Development for Space Coast TPO, River to Sea TPO, Lake-Sumter MPO, Ocala/Marion County TPO and MetroPlan Orlando

Prepared For:

Jason Learned FDOT – District 5 719 S. Woodland Blvd DeLand, FL 32720

Submitted By: **Kittelson & Associates, Inc.**225 E. Robinson Street, Suite 450

Orlando, FL 32801

(407) 540-0555

March 2020

# **TABLE OF CONTENTS**

1 Introduction	1
2 2045 Population and Employment Projections	2
3 Data Collection for 2045 Land use Development	7
4 Develop 2045 Land Use Data for Five MPOs/TPOs	11
4.1 Geocode Approved Large Development Data Into CFRPM v7 TAZ	
4.2 Remaining Background/Potential 2045 Land Use Data	22
4.3 School Data Allocation	32



## **LIST OF FIGURES**

Figure 1 Locations of the Approved Large Developments in Brevard County	12
Figure 2 Locations of the Approved Large Developments in Flagler County	13
Figure 3 Locations of the Approved Large Developments in Lake County	14
Figure 4 Locations of the Approved Large Developments in Marion County	15
Figure 5 Locations of the Approved Large Developments in Sumter County	16
Figure 6 Locations of the Approved Large Developments in Volusia County	17
Figure 7 Locations of the Approved Large Developments in Osceola County	18
Figure 8 Locations of the Approved Large Developments in Seminole County	19
Figure 9 Locations of the Approved Large Developments in Orange County	20
Figure 10 Vacant Parcels and Agriculture Lands in Brevard County	23
Figure 11 Vacant Parcels and Agriculture Lands in Flagler County	24
Figure 12 Vacant Parcels and Agriculture Lands in Lake County	25
Figure 13 Vacant Parcels and Agriculture Lands in Marion County	26
Figure 14 Vacant Parcels and Agriculture Lands in Sumter County	27
Figure 15 Vacant Parcels and Agriculture Lands in Volusia County	28
Figure 16 Vacant Parcels and Agriculture Lands in Osceola County	29
Figure 17 Vacant Parcels and Agriculture Lands in Seminole County	30
Figure 18 Vacant Parcels and Agriculture Lands in Orange County	31

# **LIST OF TABLES**

Table 1 Brevard County 2045 Population and Employment Projections	3
Table 2 Flagler County 2045 Population and Employment Projections	3
Table 3 Lake County 2045 Population and Employment Projections	4
Table 4 Marion County 2045 Population and Employment Projections	4
Table 5 Sumter County 2045 Population and Employment Projections	4
Table 6 Volusia County 2045 Population and Employment Projections	5
Table 7 Orange County 2045 Population and Employment Projections	5
Table 8 Seminole County 2045 Population and Employment Projections	5
Table 9 Osceola County 2045 Population and Employment Projections	6
Table 10 Counties and Municipalities in Study Area	8
Table 11 Employment Types Classified by Industrial, Commercial, and Service Industries	21
Table 12 Approved Large Development Conversion Rates	21
Table 13 Counties that Provided Student Capacity and Future New School Capacity	32
Table 22 BEBR Age Group Population Estimates by County	32
Table 23 Student Enrollments by County	33

### 1 INTRODUCTION

The Florida Department of Transportation (FDOT) District 5 retained Kittelson & Associates, Inc. (KAI) to develop the Central Florida Regional Planning Model (CFRPM) v7 2045 Socio-Economic (SE) data for the Space Coast Transportation Planning Organization (TPO), the River to Sea Transportation Planning Organization (TPO), the Lake-Sumter Metropolitan Planning Organization (MPO), the Ocala/Marion County Transportation Planning Organization (TPO) and the MetroPlan Orlando. This report documents the steps to develop the 2045 SE data for the five MPOs/TPOs.

The 2045 SE data discussed in this report is based on trend analysis. The future's adopted land use may have some different SE data based on scenario plans and other factors.



### 2 2045 POPULATION AND EMPLOYMENT PROJECTIONS

To develop the future year land use data, the 2045 population and employment control totals were established for the five MPOs/TPOs (nine counties) study area. The proposed population and employment projections were utilized as control totals. Allocation of the future population and employment data was conducted until the future year control totals for the study area were met.

The following describes the sources for the population and employment projections:

- Population Projections: Florida Bureau of Economic and Business Research (BEBR) Bulletin 180,
   January 2018; and
- Employment Projections: Woods & Poole Economics 2018 State Profile.

The 2015 CFRPM v7 model doesn't include the group quarter population data because persons who live in the group quarters don't travel on a daily basis. Compared to the BEBR 2015 population data which include the group quarter population, minor differences are expected between the 2015 CFRPM v7 population data and the 2015 BEBR population data. The Woods & Poole historical database is from the US Department of Commerce, Bureau of Economic Analysis. Because the 2015 Woods & Poole data includes full-time and part-time jobs and a person holding two part-time jobs would be counted twice, the 2015 Woods & Poole employment data are expected to be higher than the CFRPM v7 2015 employment data.

To develop the CFRPM v7 2045 population and employment projections, annual growth rates from the BEBR and Woods & Poole projections were referenced. The annual growth rates for population were calculated as:

The annual growth rates for employment were calculated as:

- Using the BEBR 2045 medium and BEBR 2045 high population projections, growth rates for the nine counties were developed by comparing them to the 2015 population.
  - Volusia County have low growth rates using the BEBR 2045 medium population projections. Flagler County have observed some large developments. It was suggested by the River to Sea TPO that the growth rates based on the BEBR 2045 medium to high population projections be used for these two counties.
  - For all other seven Counties including Brevard, Marion, Lake, Sumter, Orange, Osceola and Seminole, the growth rates based on the BEBR 2045 medium population projections were used.

• The growth rates from the Woods & Poole 2045 employment were used for the CFRPM v7 2045 employment projections.

Tables 1 through 9 contain the 2045 population and employment projections for each of the nine counties. The **C** and **D** columns represent the 2015 and 2045 population and employment control totals developed in the CFRPM V7 model. Sumter County (3.64%) and Osceola County (3.62%) have the highest annual population growth rate, while Brevard County (0.90%) and Seminole County (1.04%) are at the low end of annual population growth rates for the region. For employment projections, Osceola County (6.48%) and Sumter County (4.57%) have the highest annual employment growth rates, while Brevard County (1.57%) and Volusia County (1.64%) are at the low end of annual employment growth rates.

Table 1 Brevard County 2045 Population and Employment Projections

Brevard County	A: BEBR Population Projection		B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	561,714		272,727	555,850	252,418
2045	BEBR Medium Projection	711,100 (Annual Growth Rate: 0.89%)	400,637 (Annual Growth Rate: 1.57%)	705,162 (Annual Growth Rate: 0.90%) <sup>1</sup>	371,095 (Annual Growth Rate: 1.57%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 medium population projections. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) BEBR medium because of allocation process.

Table 2 Flagler County 2045 Population and Employment Projections

Flagler County	A: BEBR Population Projection		B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	101,353		36,289	101,289	25,805
2045	BEBR Medium Projection	165,800 (Annual Growth Rate: 2.13%)	70,427 (Annual	182,148 (Annual Growth Rate:	50,167 (Annual
	BEBR High Projection	210,500 (Annual Growth Rate: 3.6%)	Growth Rate: 3.13%)	2.66%)¹	Growth Rate: 3.15%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 medium to high population projections. Flagler County has observed large amounts of approved large developments growth. It was suggested to use BEBR medium to high projections. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) the middle of annual growth rate between BEBR medium and BEBR high population because of allocation process.

<sup>2.</sup> Annual employment growth rate was based on 2045 Woods & Poole projection.

<sup>2.</sup> Annual employment annual growth rate was based on 2045 Woods & Poole projection.

### Table 3 Lake County 2045 Population and Employment Projections

Lake County	A: BEBR Population Projection		B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	316,569		132,025	318,365	129,709
2045	BEBR Medium 509,600 (Annual Growth Rate: Projection 2.03%)		258,314 (Annual Growth Rate: 3.19%)	511,433 (Annual Growth Rate: 2.02%) <sup>1</sup>	252,743 (Annual Growth Rate: 3.16%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 medium projection. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) annual growth rate of BEBR medium population because of allocation process.

Table 4 Marion County 2045 Population and Employment Projections

Marion County	A: BEBR Population Projection		B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	341,20	05	141,765	333,186	111,501
2045	BEBR Medium Projection	452,900 (Growth Rate: 1.09%)	241,027 (Growth Rate: 2.33%)	444,911 (Growth Rate: 1.12%) <sup>1</sup>	174,481 (Growth Rate: 1.88%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 medium to high population projections. Marion County has observed large amounts of approved large developments growth. It was suggested to use BEBR medium to high projections. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) annual growth rate of BEBR high population because of allocation process.

Table 5 Sumter County 2045 Population and Employment Projections

Sumter County	A: BEBR Population Projection		B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	115,657		40,444	107,042	30,073
2045	BEBR Medium Projection	232,600 (Growth Rate: 3.37 %)	95,691 (Growth Rate: 4.57%)	223,979 (Growth Rate: 3.64%) <sup>1</sup>	71,336 (Growth Rate: 4.57%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 medium projection. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) annual growth rate of BEBR medium population because of allocation process.

<sup>2.</sup> Annual employment growth rate was based on 2045 Woods & Poole projection.

<sup>2.</sup> Annual employment growth rate was firstly developed based on 2045 Woods & Poole projection, and then adjusted based on review results by Ocala/Marion County TPO.

<sup>2.</sup> Annual employment growth rate was based on 2045 Woods & Poole projection.

### Table 6 Volusia County 2045 Population and Employment Projections

Volusia County	A: BEBR Population Projection		B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	510,494		232,518	503,615	204,694
2045	BEBR Medium Projection	642,400 (Growth Rate: 0.87%)	353,036 (Growth	698,777 (Growth	305,529 (Growth
2043	BEBR High Projection	759,400 (Growth Rate: 1.63%)	Rate: 1.73%)	Rate: 1.29%) <sup>1</sup>	Rate: 1.64%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 medium to high population projections. The BEBR 2045 medium population projection has the annual growth rate less than 1%. It was suggested by the River to Sea TPO to reference BEBR 2045 medium to high projections. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) the middle of annual growth rate between BEBR medium and BEBR high population because of allocation process.

Table 7 Orange County 2045 Population and Employment Projections

Orange County	A: BEBR Population Projection		B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	1,252,396		998,072	1,213,443	809,785
2045	BEBR Medium Projection	2,013,600 (Growth Rate: 2.03%)	1,677,658 (Growth Rate: 2.27%)	1,974,483 (Growth Rate: 2.09%) <sup>1</sup>	1,364,337 (Growth Rate: 2.28%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 medium population projection. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) annual growth rate of BEBR medium population projection because of allocation process.

Table 8 Seminole County 2045 Population and Employment Projections

Seminole County	A: BEBR Popula	ation Projection	B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	442,903		247,234	449,141	186,966
2045	BEBR Medium Projection	582,600 (Growth Rate: 1.05%)	466,852 (Growth Rate: 2.96%)	588,820 (Growth Rate: 1.04%) <sup>1</sup>	364,489 (Growth Rate: 3.16%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 medium population projection. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) annual growth rate of BEBR high population because of allocation process.

<sup>2.</sup> Annual employment growth rate was based on 2045 Woods & Poole projection, and then adjusted based on review results by River to Sea TPO.

<sup>2.</sup> Annual employment growth rate was based on 2045 Woods & Poole projection.

<sup>2.</sup> Annual employment growth rate was based on 2045 Woods & Poole projection.

### Table 9 Osceola County 2045 Population and Employment Projections

Osceola County	A: BEBR Population Projection		B: Woods & Poole Employment Projection	C: Population Projection in CFRPM V7	D: Employment Projection in CFRPM V7
2015	308,327		127,871	313,899	93,859
2045	BEBR Medium Projection	649,800 (Growth Rate: 3.69%)	275,094 (Growth Rate: 3.84%)	655,186 (Growth Rate: 3.62%) <sup>1</sup>	276,410 (Growth Rate: 6.48%) <sup>2</sup>

<sup>1.</sup> Annual population growth rate was based on BEBR 2045 high population projection. Osceola County has observed significantly large amounts of approved large developments growth. It was suggested to use BEBR high projection. Please note the annual growth rate in the CFRPM v7 model was close to (but not exactly at) annual growth rate of BEBR high population because of allocation process.

<sup>2.</sup> Annual employment growth rate was based on 2045 Woods & Poole projection, and then adjusted based on review results by Metroplan Orlando.



### 3 DATA COLLECTION FOR 2045 LAND USE DEVELOPMENT

The data collection efforts for the 2045 land use data development are summarized in this section. Through coordination with FDOT, the Space Coast TPO, River to Sea TPO, Lake-Sumter MPO, Ocala/Marion County TPO, Metroplan Orlando and county and cities agencies, the following data were collected:

- The developed CFRPM v7 2015 land use data
- Approved large development data:
  - The growth management coordinator of each county and the growth management coordinator of each city within the study area were contacted for approved large development data. The three important components of data collected included:
    - 1. Location of new development
    - 2. Size of new development
    - 3. Expected buildout year

The approved large development data came in different formats that were cleaned and used.

- Future land use and zoning data
- GIS data from County government offices and property appraiser records:
  - Property parcels
  - Appraiser data
  - Other files. These GIS data were downloaded from open public websites and included:
    - Major/Minor Roads
    - Public Lands
    - Lakes
    - Wetlands
    - Municipal Boundaries
    - Conservation Lands
- The 1000 Friends of Florida "Florida 2070" urbanized footprint data

Table 10 shows the counties and the municipalities within the county that were contacted for approved large development plan data, zoning, and future land use data.

### Table 10 Counties and Municipalities in Study Area

МРО	County	Cities
River to Sea	Volusia	Volusia County (Unincorporated Area) Pierson DeLand Lake Helen Orange City Debary Deltona Ormond Beach Holly Hill Daytona Beach Shores South Daytona Port Orange New Smyrna Beach Edgewater
	Flagler	Ponce Inlet Oak Hill Flagler County (Unincorporated Area) Beverly Beach Bunnell Flagler Beach Marineland Palm Coast
Ocala/Marion	Marion	Marion County (Unincorporated Area) Ocala Belleview Dunnellon Reddick McIntosh
Lake-Sumter	Lake	Lake County (Unincorporated Area)  Clermont  Eustis  Fruitland Park  Groveland  Leesburg  Mascotte

		Minneola
		Mount Dora
		Tavares
		Umatilla
		Sumter County (Unincorporated Area)
		Coleman
	C	Webster
	Sumter	Wildwood
		Bushnell
		Center Hill
		Brevard County (Unincorporated Area)
		Titusville
		Cocoa
		Rockledge
		Cape Canaveral
Space Coast	Brevard	Satellite Beach
		Cocoa Beach
		Melbourne
		Indian Harbour Beach
		West Melbourne
		Palm Bay
		Osceola County (Unincorporated Area)
	Osceola	Kissimmee
		St. Cloud
		Seminole County (Unincorporated Area)
		Altamonte Springs
		Casselberry
		Lake Mary
	Seminole	Longwood
		Oviedo
MetroPlan Orlando		Sanford
		Winter Springs
		Orange County (Unincorporated Area)
		Apopka
		Bay Lake (Reedy Creek Improvement District)
		Belle Isle
	Orange	Eatonville
		Edgewood
		Lake Buena Vista (Reedy Creek Improvement District)
		Maitland
	l .	Ivialciana

Oakland
Ocoee
Orlando
Windermere
Winter Gardens
Winter Park



# 4 DEVELOP 2045 LAND USE DATA FOR FIVE MPOS/TPOS

### 4.1 GEOCODE APPROVED LARGE DEVELOPMENT DATA INTO CFRPM V7 TAZ

The approved large development data were geocoded into Google Earth using the provided addresses from counties and cities. The Google Earth files were converted to the ArcGIS point shapefiles with the unique JoinID field. The JoinID was joined to the spreadsheets that contained the same JoinID and the approved large development data. All of the city and county unincorporated developments were merged into one point shapefile per county. The point shapefile had fields including:

- MPO (name of MPO)
- County
- City
- SFDUnits
- MFUnits
- Tot\_DU
- INDDevelop (square feet of industrial development)
- COMDevelop (square feet of commercial development)
- SEVDevelop (square feet of service development)
- Tot\_Devel (sum of INDDevelop, COMDevelop, and SEVDevelop)
- HotelRms (number of hotel rooms in development)
- SchoolStu (number of students that a future school would be built for)
- Buildout (buildout year)
- DevelopmenName (name of development/developer)
- ALF\_Beds (number of beds an assisted living facility is expected to provide for)
- Hosp\_Beds (number of beds a hospital is expected to provide for)

Figure 1 to Figure 9 show the locations of approved large development data in Brevard, Flagler, Marion, Lake, Sumter, Volusia, Osceola, Seminole, and Orange Counties.

The approved large development data were then converted to data format used by the CFRPM v7 model.

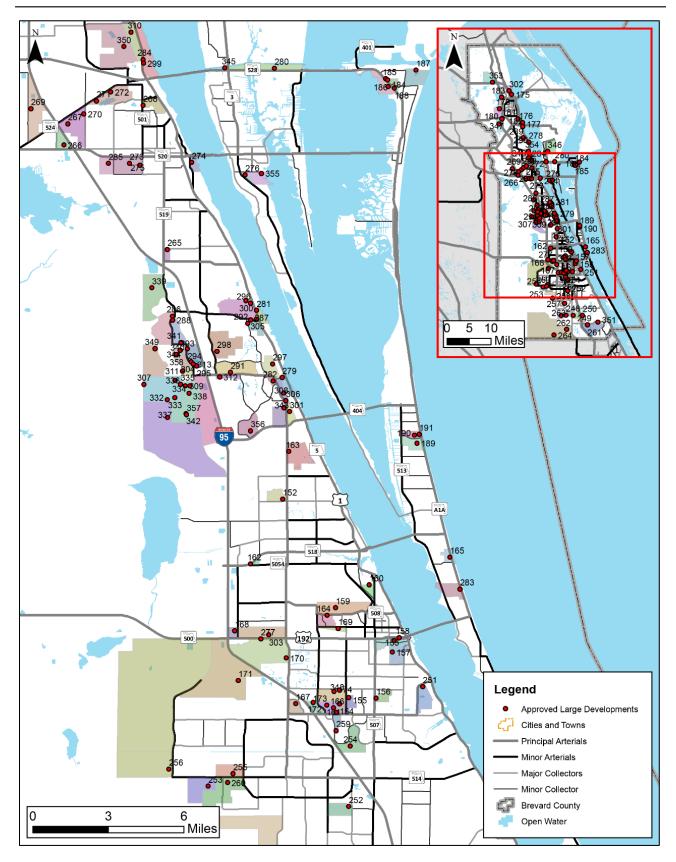


Figure 1 Locations of the Approved Large Developments in Brevard County

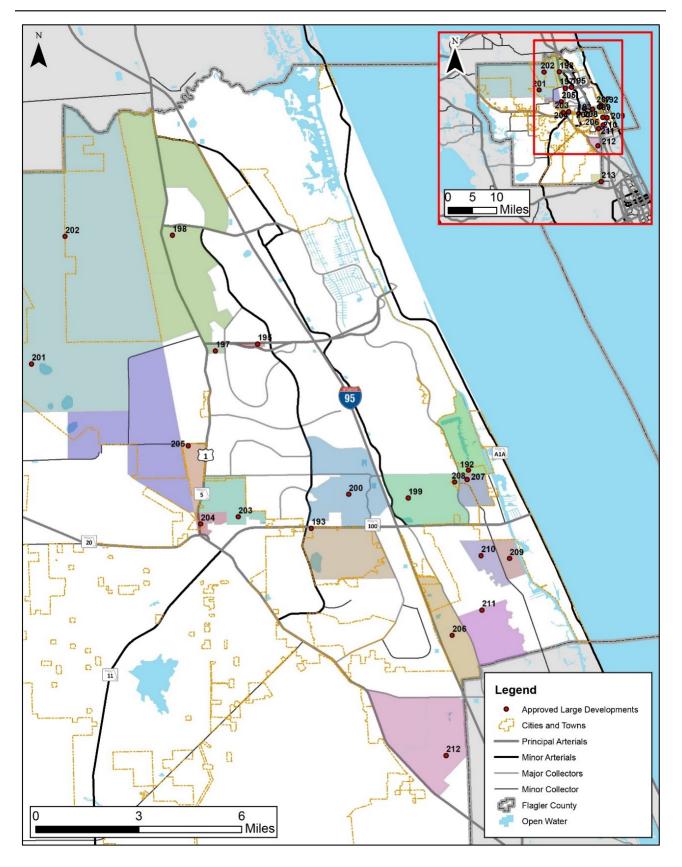


Figure 2 Locations of the Approved Large Developments in Flagler County

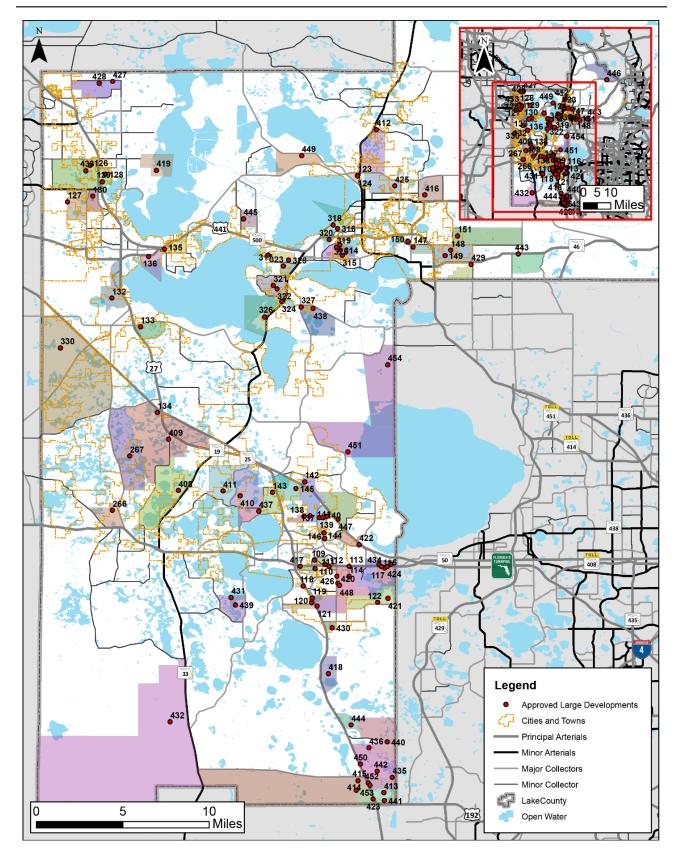


Figure 3 Locations of the Approved Large Developments in Lake County

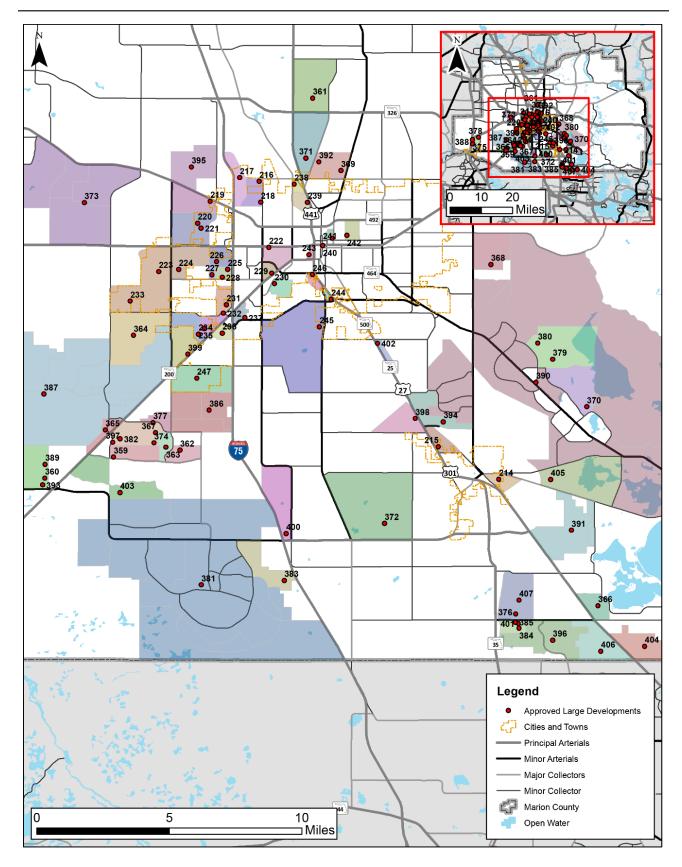


Figure 4 Locations of the Approved Large Developments in Marion County

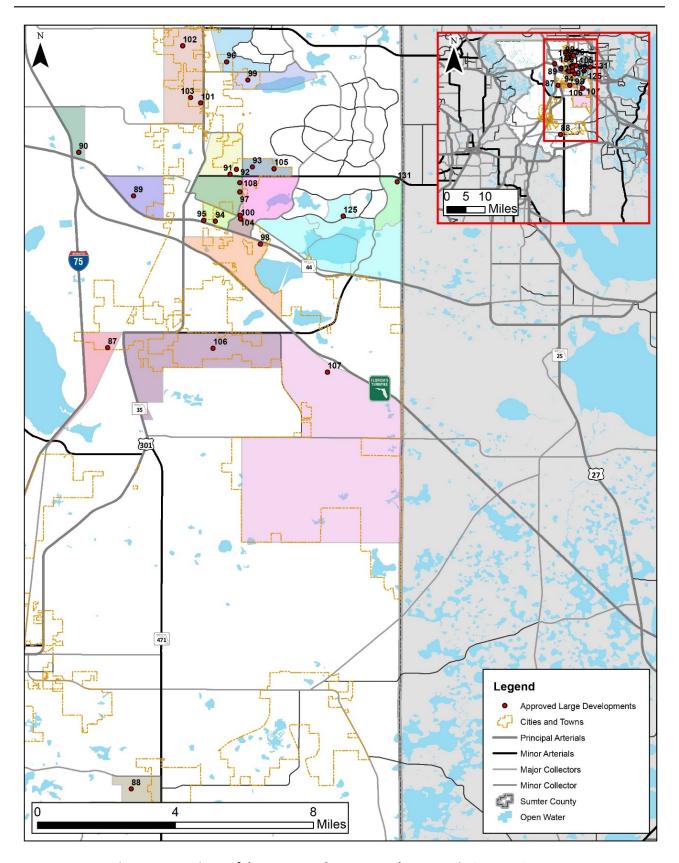


Figure 5 Locations of the Approved Large Developments in Sumter County

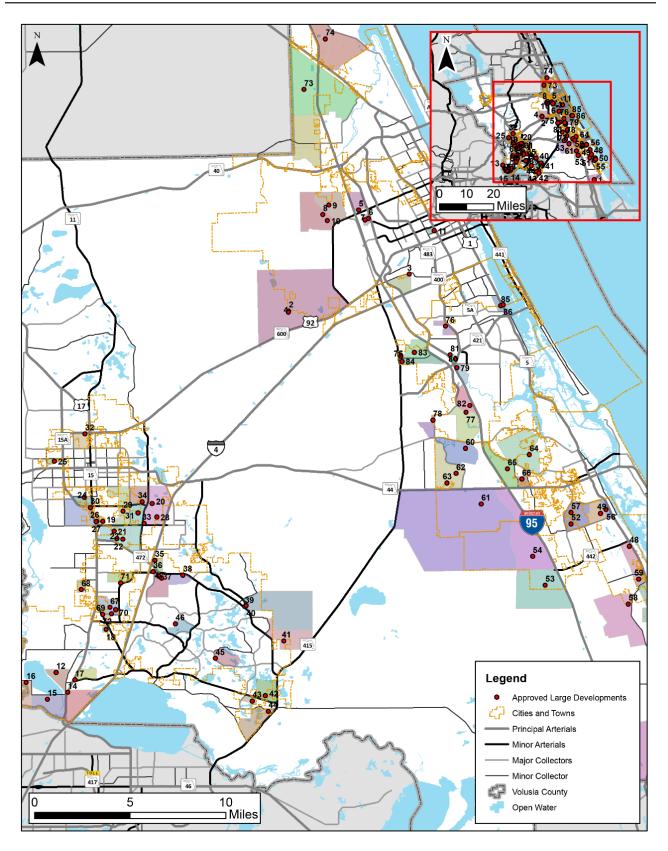


Figure 6 Locations of the Approved Large Developments in Volusia County

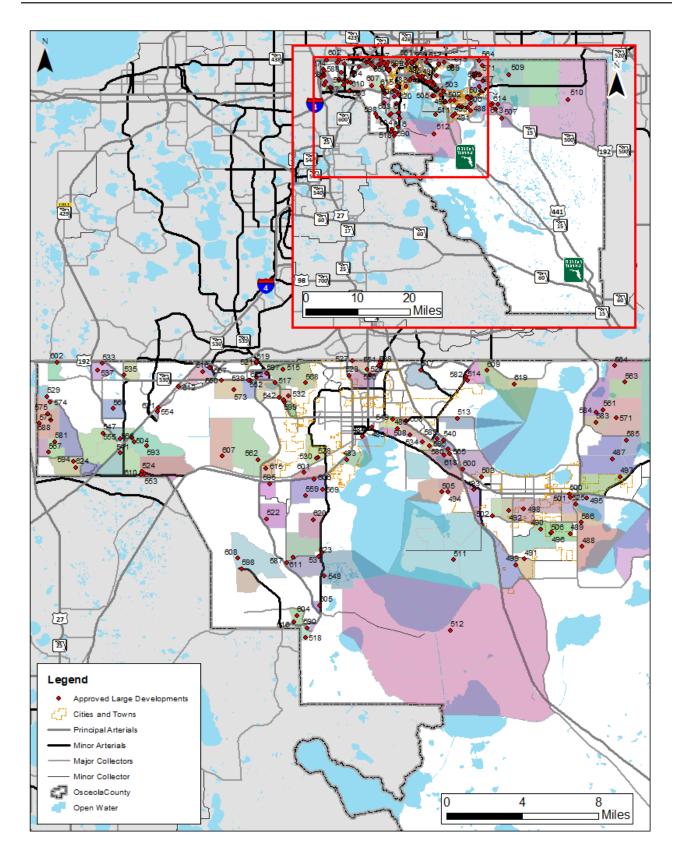


Figure 7 Locations of the Approved Large Developments in Osceola County

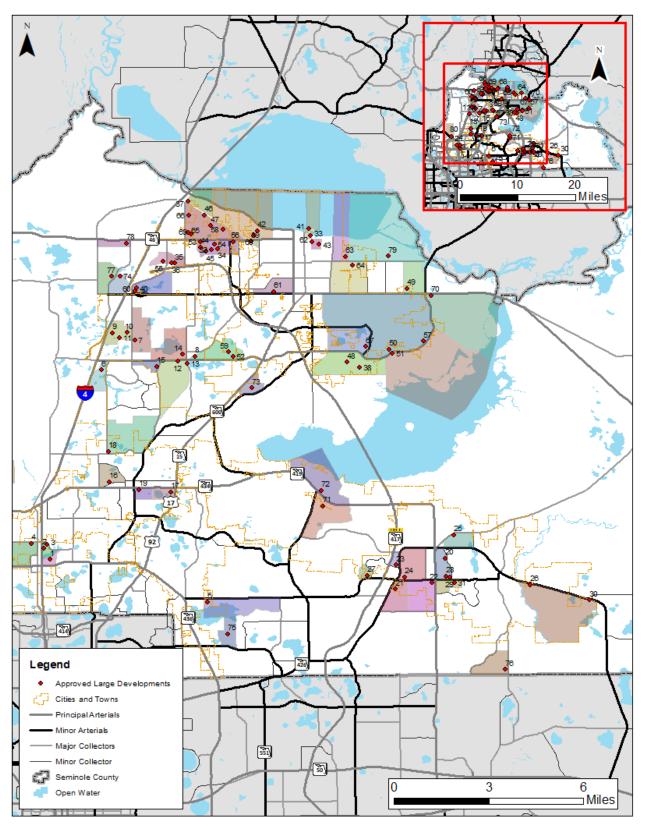


Figure 8 Locations of the Approved Large Developments in Seminole County

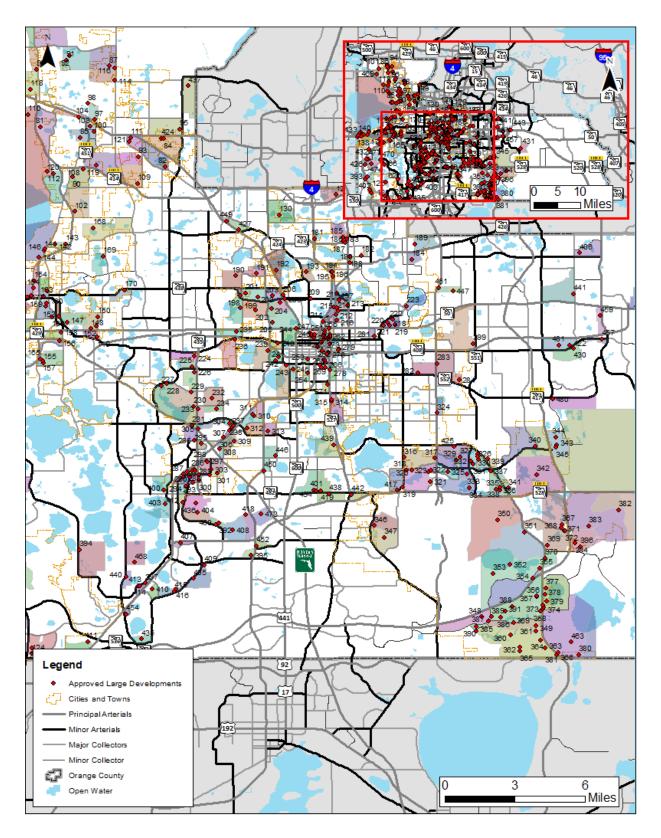


Figure 9 Locations of the Approved Large Developments in Orange County

Some counties or cities provided employment types for these approved large developments. **Table 11** lists various employment types classified by industrial, commercial, and service industries.

Table 11 Employment Types Classified by Industrial, Commercial, and Service Industries

NAICS	Description	Industry
Code		Categories
11	Agriculture, Forestry, Fishing and Hunting	Industrial
21	Mining, Quarrying, and Oil and Gas Extraction	Industrial
22	Utilities	Industrial
23	Construction	Industrial
31-33	Manufacturing	Industrial
42	Wholesale Trade	Commercial
44-45	Retail Trade	Commercial
48-49	Transportation and Warehousing	Service
51	Information	Service
52	Finance and Insurance	Service
53	Real Estate and Rental and Leasing	Service
54	Professional, Scientific, and Technical Services	Service
55	Management of Companies and Enterprises	Service
56	Administrative and Support and Waste Management and Remediation Services	Service
61	Educational Services	Service
62	Health Care and Social Assistance	Service
71	Arts, Entertainment, and Recreation	Service
72	Accommodation and Food Services	Service
81	Other Services (except Public Administration)	Service
92	Public Administration	Service

Square feet were provided for most of approved large developments development. The conversion rates in Table 12 were used to estimate the number of jobs per each industry type.

Table 12 Approved Large Development Conversion Rates

Land Use	Conversion Rate
Assisted Living Facility	1 bed = 0.5 service employee
Hospital	1 bed = 0.5 service employee
Hotel	1 room = 0.5 service employee
1,000 SF of service development	4 service employees
1,000 SF of industrial employment	1 industrial employee
<200,000 SF of commercial development	2.5 Commercial employees per 1,000 SF
>200,000 SF of commercial development	1.75 commercial employees per 1,000 SF

After converting the employment for each industry type, the updated conversion data were joined to each county's point shape file of approved large developments, and then aggregated to the CFRPM v7 TAZ level data.

### 4.2 REMAINING BACKGROUND/POTENTIAL 2045 LAND USE DATA

Allocation of the remaining background/potential 2045 land use data to individual TAZs was based on the following steps:

- The 2045 population and employment projections were developed for each county based on the growth rates from the BEBR and Woods and Poole Economics projections, shown in Table 1 to Table 6.
- The individual approved large development data were collected and manually coded (Figure 1 to Figure 9). The data were then converted to the CFRPM v7 2045 future land use data on the TAZ level.
- After the approved large development data were included, the remaining background/potential land use data were added until the control totals were met for each county. This step was done as described below:
  - The current property appraiser data was used to locate the vacant residential parcels, vacant industrial parcels, vacant commercial parcels, and agriculture parcels for each county.
  - Excluded the vacant parcels that could not be developed for reasons including open water and existing protected lands. The vacant parcels and agriculture lands for each county are shown in Figure 10 to Figure 18.
  - The 1000 Friends of Florida developed the Florida 2070 trend scenario for future land use plans. The Florida 2070 report was used as the guide for the future land use pattern in our study area.
  - The areas for each vacant and agriculture parcel were calculated to measure the future land use development potentials using parcel codes. General residential densities were used to convert areas to number of single family units (5 Single Family DUs/Acre) and multiple family units (20 multiple Family DUs/Acre). For employment, the conversation rates were 1 industrial employee or 2.5 commercial employees, or 4 service employees per 1000 square feet. Future land use and zoning data were received from counties and cities. Zoning codes usually have a maximum allowed residential density (dwelling units per acre) and a maximum allowed office/retail density (floor-area ratio) that corresponds to each land use code. The parcel data and general densities were reviewed and consistent with future land use data and zoning data.
  - After conversion, the future land use development potentials from vacant parcels and agriculture data were aggregated to be on the CFRPM v7 TAZ level. The remaining background/potential 2045 land use data were allocated based on the scale of potentials for each TAZ to match population and employment control total. The vacant parcels were allocated first. If the vacant parcels didn't have enough potentials, the agriculture lands were allocated for future land use growth.
  - The developed draft 2045 land use data were sent to each MPO/TPO for review. Received comments were manually checked and addressed on the TAZ level.

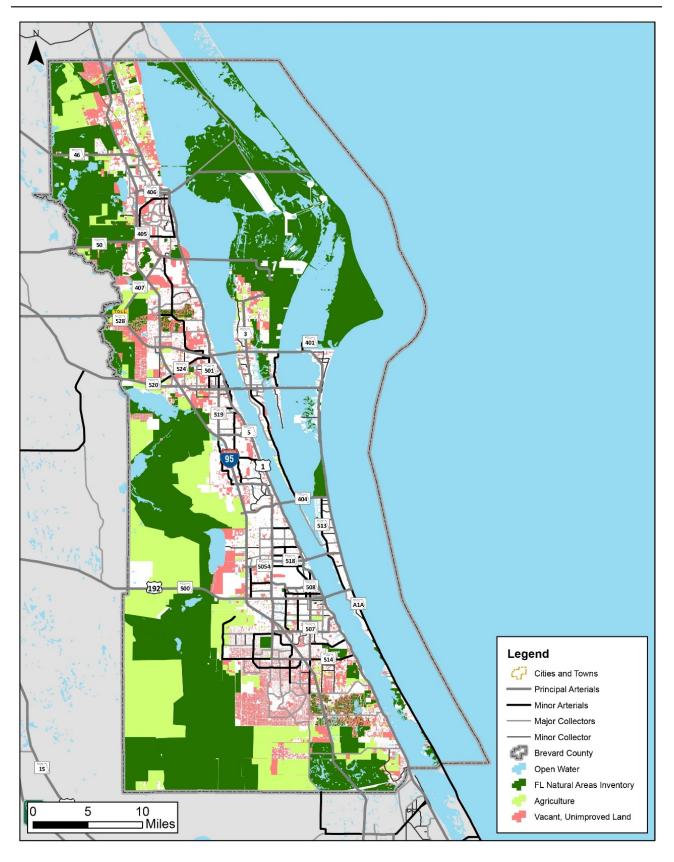


Figure 10 Vacant Parcels and Agriculture Lands in Brevard County

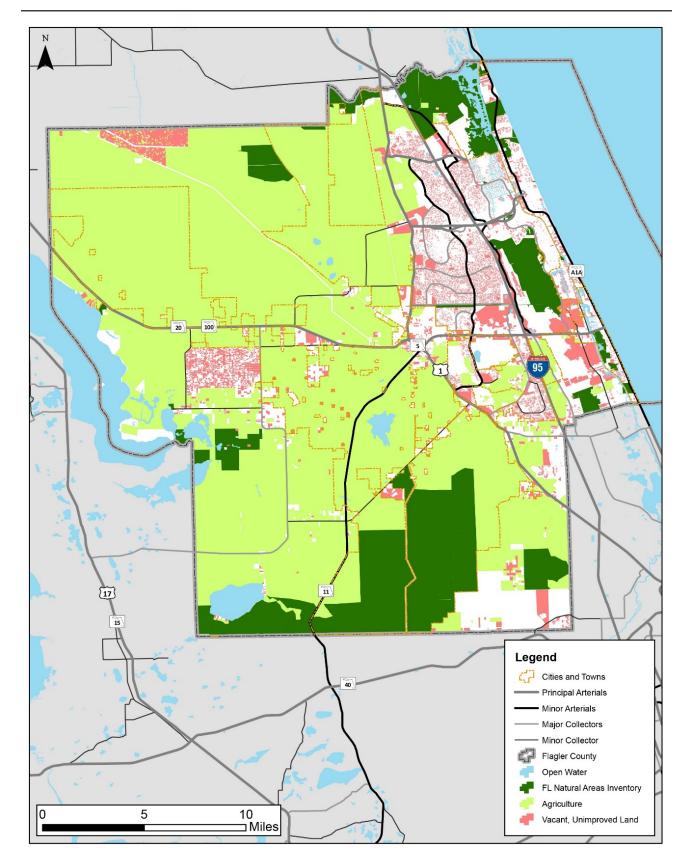


Figure 11 Vacant Parcels and Agriculture Lands in Flagler County

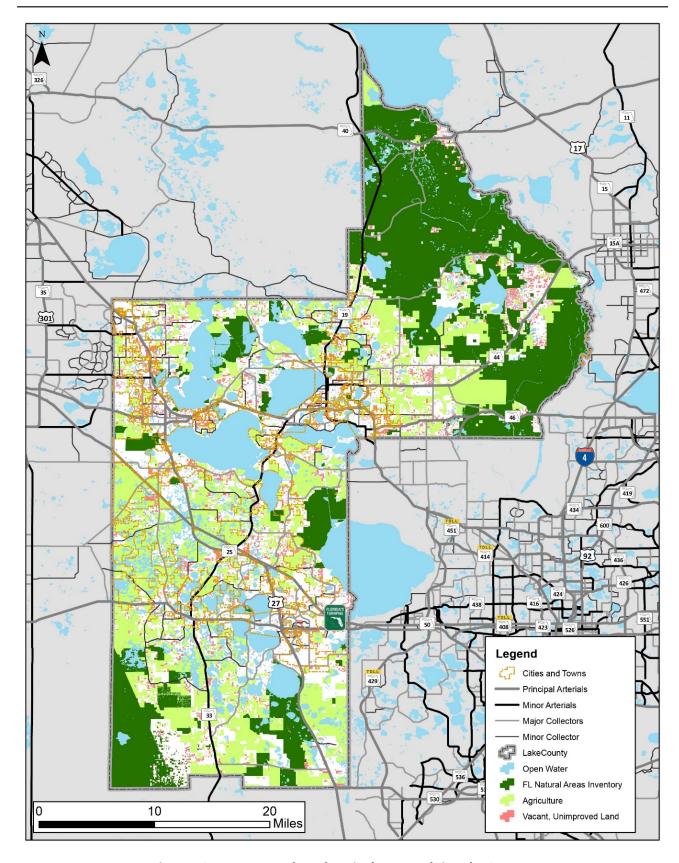


Figure 12 Vacant Parcels and Agriculture Lands in Lake County

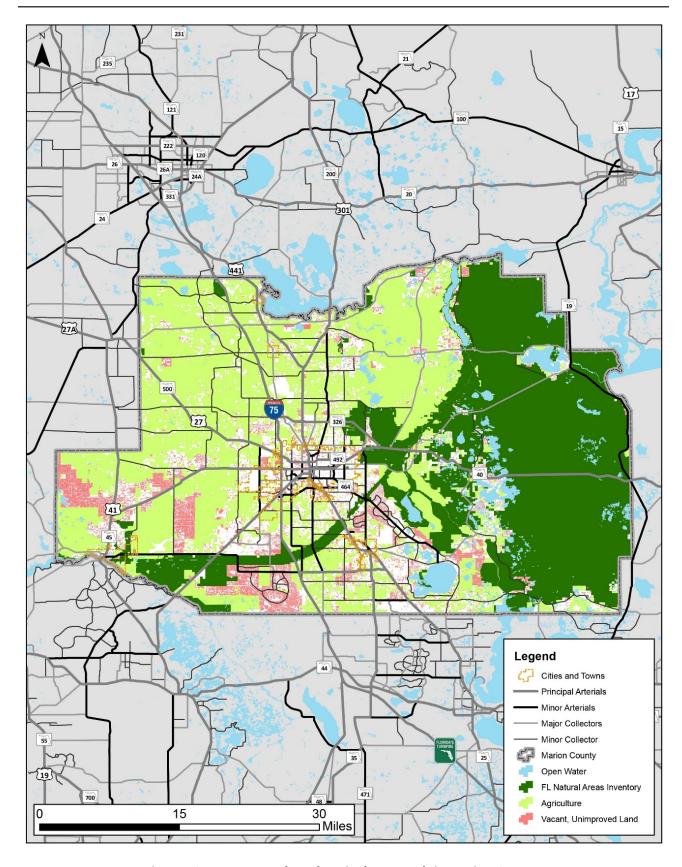


Figure 13 Vacant Parcels and Agriculture Lands in Marion County

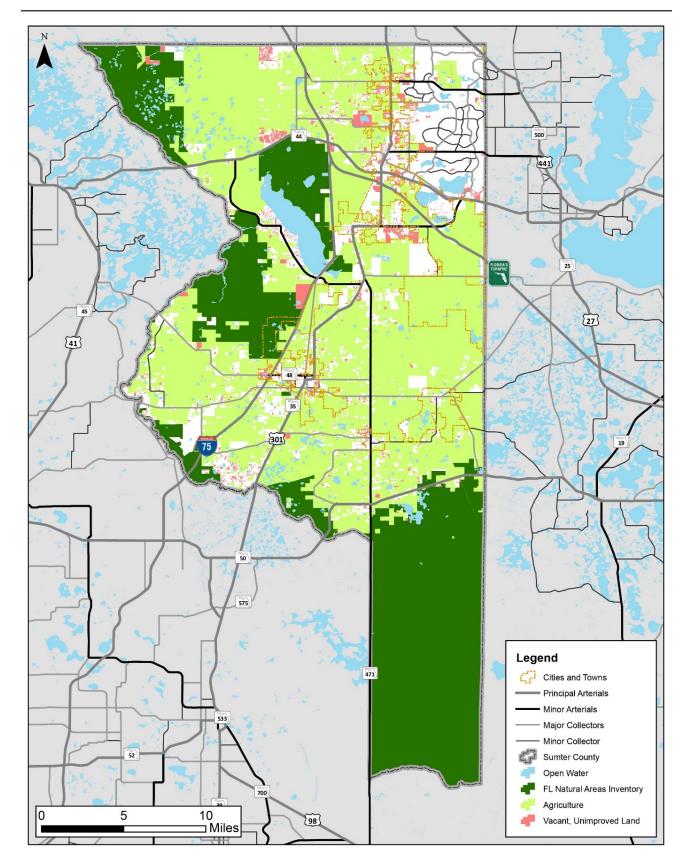


Figure 14 Vacant Parcels and Agriculture Lands in Sumter County

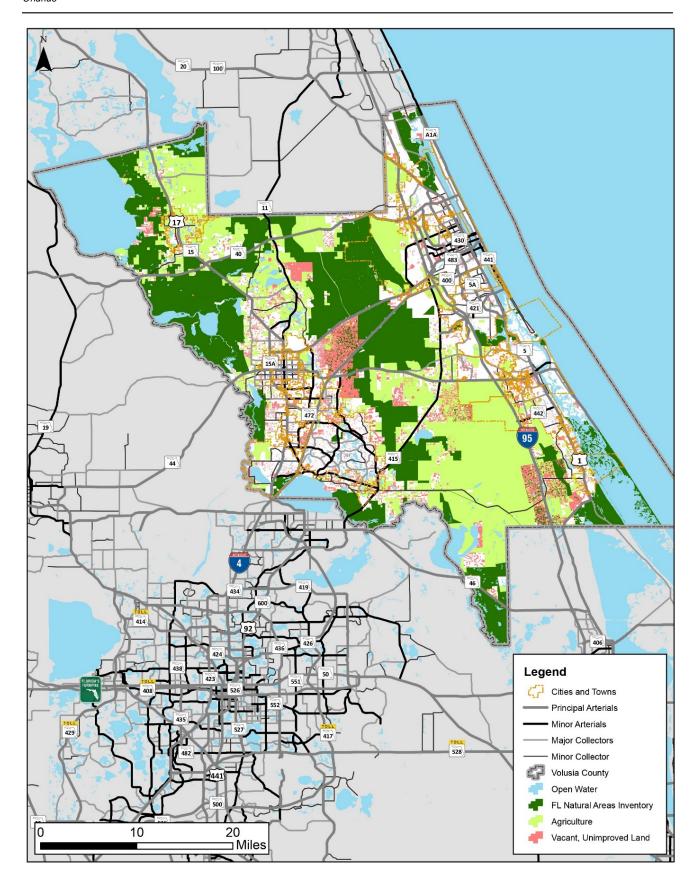


Figure 15 Vacant Parcels and Agriculture Lands in Volusia County

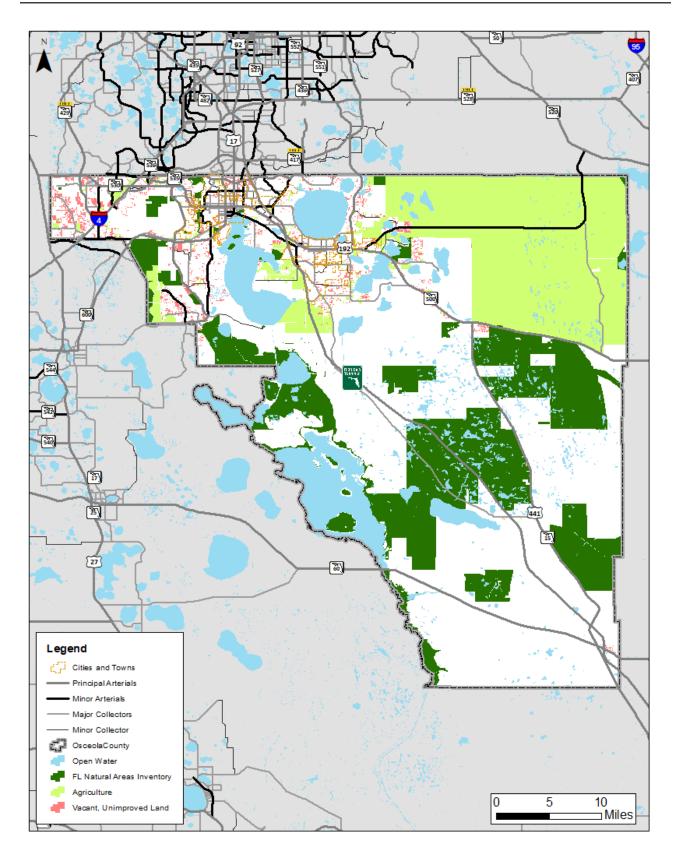


Figure 16 Vacant Parcels and Agriculture Lands in Osceola County

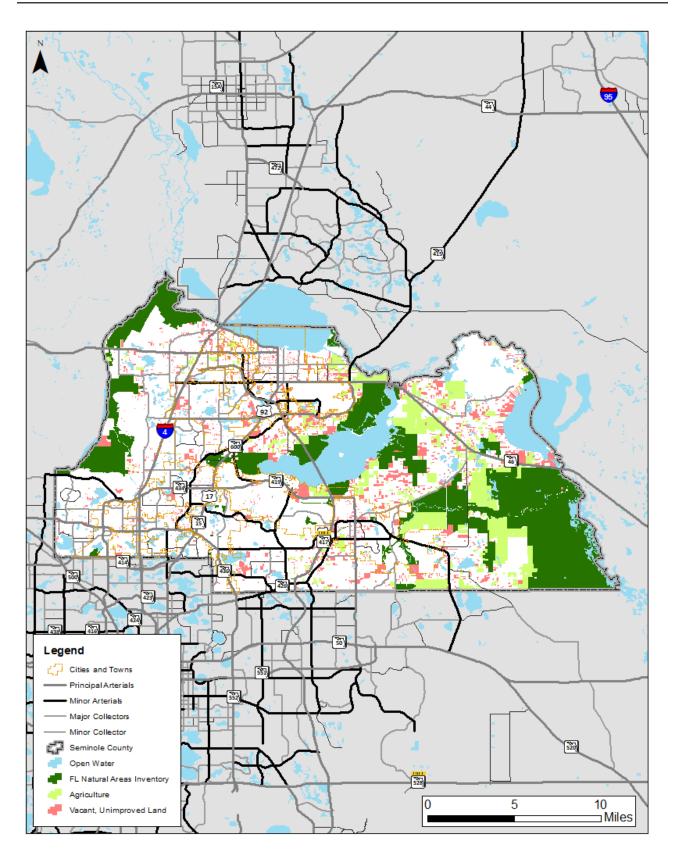


Figure 17 Vacant Parcels and Agriculture Lands in Seminole County

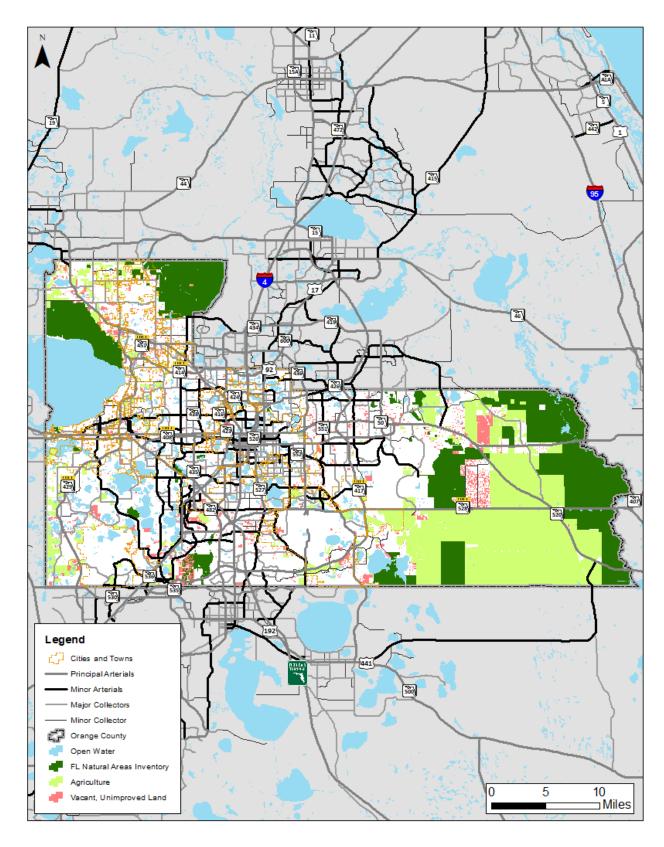


Figure 18 Vacant Parcels and Agriculture Lands in Orange County

### 4.3 SCHOOL DATA ALLOCATION

### 4.3.1 Future School Capacity Data Collection

The existing public-school point geometry data were from the US department of Education. The public-school student future capacity information was provided by each of the nine counties' public-school board. Two files were joined using the school name field.

Table 13 shows the counties which provided their public-school future capacity. For the counties that did not provide their existing public school student capacity numbers, the growth rate was applied to the 2015 public schools.

Table 13 Counties that Provided Student Capacity and Future New School Capacity

МРО	County	Provided Existing Public-School Student Capacity	Provided Future New Public- School Student Capacity
River to Sea	Volusia	Υ	Y
River to Sea	Flagler	N	No new schools planned
Ocala/Marion	Marion	Y	Y
Lake-Sumter	Lake	Y	Υ
	Sumter	Y	No new schools planned
Space Coast	Brevard	Υ	Υ
	Orange	Y	Y
MetroPlan	Osceola	Υ	Υ
	Seminole	Y	N

### 4.3.2 BEBR population breakdown to estimate total School enrollment

The total school enrollments were derived from the BEBR estimates per age group per county. Elementary school total school enrollments were founded on the BEBR estimates for the age group 5 to 9 years old. Middle school total school enrollments were founded on the BEBR estimates for the age group 10 to 14 years old. High school total school enrollments were founded on the BEBR estimates for the age group 15 to 17 years old. College total enrollments were based on the BEBR estimates for the age group 18 to 24. The 2015 student enrollment was calculated from the 2010 and 2017 BEBR estimates per age group; the 2045 projection was provided by BEBR per age group and the growth rate was the percent change between the BEBR estimate 2015 student enrollment number and the BEBR 2045 projections per age group per county.

Table 14 BEBR Age Group Population Estimates by County

County	Age Type	BEBR 2015 Age Group	BEBR 2045 Age Group	Growth Rate
Brevard	Age 5 to 17	79,328	94,021	18.5%
bievaiu	Age 18 to 24	43,662	49,847	14.2%
Flagler	Age 5 to 17	14,517	22,217	53.0%

	Age 18 to 24	6,739	9,905	47.0%
Lake	Age 5 to 17	47,444	70,220	48.0%
Lake	Age 18 to 24	22,524	32,973	46.4%
Marian	Age 5 to 17	46,788	57,354	22.6%
Marion	Age 18 to 24	23,675	28,474	20.3%
Orango	Age 5 to 17	213,056	324,427	52.3%
Orange	Age 18 to 24	151,856	219,333	44.4%
Osceola	Age 5 to 17	59,285	108,801	83.5%
Osceola	Age 18 to 24	31,213	54,973	76.1%
Seminole	Age 5 to 17	73,297	91,664	25.1%
Seminole	Age 18 to 24	43,177	50,925	17.9%
Cumtor	Age 5 to 17	7,236	14,295	97.6%
Sumter	Age 18 to 24	4,071	7,702	89.2%
Volusia	Age 5 to 17	69,581	83,029	19.3%
voiusia	Age 18 to 24	44,321	51,057	15.2%

Demonstrated in Table 22, Sumter County has the highest growth rate from 2015 to 2045 for both age groups 5 to 17 and 18 to 24 followed by Osceola County. Alternatively, Brevard County has the lowest growth rate from 2015 to 2045 for both age groups 5 to 17 and 18 to 24 followed by Volusia County.

### 4.3.3 School enrollment allocation

The future public-school capacity from each county was used as the maximum number for that school to allocate the school enrollment ZDATA. After the school capacity is achieved, the new school is allocated to reach the school growth in Table 23. For the new school locations, the Florida Department of Revenue (FDOR) 2018 parcel file was utilized. Vacant parcels for public schools were identified and used to school enrollment allocation.

The school enrollments by county are demonstrated in Table 23.

**Table 15 Student Enrollments by County** 

		2015 school	2045 school	
County	School Type	enrollments in ZDATA	enrollments in ZDATA	Growth Rate
Brevard	Total K-12	84,553	100,201	18.5%
Dievalu	Total College	29,764	33,991	14.2%
Flagler	Total K-12	15,247	23,326	53.0%
riagiei	Total College	432	635	47.0%
Lake	Total K-12	49,549	73,354	48.0%
	Total College	4,239	6,205	46.4%
Marion	Total K-12	53,301	65,345	22.6%
IVIATION	Total College	10,221	12,296	20.3%
Orange	Total K-12	218,425	332,708	52.3%
Orange	Total College	152,789	220,628	44.4%
Osceola	Total K-12	72,466	132,985	83.5%

	Total College	1,347	2,372	76.1%
Seminole	Total K-12	94,303	117,945	25.1%
Seminole	Total College	19,985	23,562	17.9%
Sumter	Total K-12	8,650	17,090	97.6%
	Total College	413	781	89.1%
Volusia	Total K-12	71,052	84,789	19.3%
	Total College	47,402	54,608	15.2%

