

Appendix A

Charlotte County Parks Needs Assessment

Charlotte County Parks Needs Assessment Study

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EXECUTIVE SUMMARY

The purpose of this Charlotte County Parks Needs Assessment Study was to prepare background research and information in preparation for the county parks master plan.

There were several components to this project that provide a solid research foundation for a master plan. This needs assessment study was comprised of several different elements, including a demographic study of users and associated growth trends; recreational trends research; an exhaustive policy, plan, and regulatory framework review; and a level of service analysis comparing Charlotte County standards with other measures.

As part of the process of data collection, the researchers interviewed representatives from the South Florida Water Management District, The Southwest Florida Water Management District, Charlotte County Natural Resources, Florida Department of Environmental Protection, and Charlotte Harbor National Estuary Program, and the Charlotte County Community Development Department.

As much of this study was designed to be supporting data for future use, it is not primarily formatted for readability. Its intent was to collect and present data that could later be used as part of the parks master plan. As a result, the researchers erred on the side of providing more data, rather than less. Further, emphasis was placed on providing references for documents and data sources to be located at a later point.

Among the next steps in the development of a parks master plan will be to inventory existing parks, identify level of service and level of service gaps, map facilities relative to the needs and inventory, and develop an implementation plan for park acquisition and funding. Much of the data requirements to develop these next steps are compiled in this report.

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Section I

Demographic Research

SECTION I: DEMOGRAPHIC PROFILE AND SPATIAL ANALYSIS OF CHARLOTTE COUNTY

INTRODUCTION

This demographic profile and spatial analysis of Charlotte County focuses on key variables of the population as it relates to parks and recreation utilization. Population characteristics such as age group, income level, presence of disability, race and ethnicity, and English language proficiency are covered in this profile.

DEMOGRAPHIC PROFILE

The data used to assemble the demographic profile was obtained from the U.S. Census Bureau, the Florida Bureau of Economic and Business Research (BEBR), and the Charlotte County government website. All data was acquired between March 2014 and May 2014. Data from the U.S. Census Bureau was derived specifically from the American Community Survey (ACS). The ACS is a continuous data collection undertaking conducted by the U.S. Census Bureau to produce annual estimates on characteristics of the United States population at the national, state, and local level. Information is collected from approximately three million addresses in the United States annually. The ACS consists of one-year, three-year, and five-year estimates. In order to provide consistency throughout this report, a decision was made to use only one of these datasets. The three-year estimates were selected as the primary data source. There were two key reasons for this decision: 1) the three-year estimates represent the mid-point between precision and reliability against the one-year and five-year data estimates, and 2) using the three-year estimates allowed for the use of datasets from the years 2007 to 2012, whereas the five-year estimates are only available as of 2009. The three-year estimates were used to illustrate current demographics in Charlotte County as well as for the basis of calculating population projections focused on specific demographic variables.

POPULATION PROJECTIONS

Population projections for Charlotte County vary depending on the source of the estimates. For example, the Shimberg Center for Housing Studies estimates the county population to be 201,101 by the year 2040. Whereas, the figures provided in the *Smart Charlotte 2050* report estimate this figure to be higher at 228,362. Projections according to several demographic variables were calculated for this report to update those provided in the *Smart Charlotte 2050* report (Table 3) based on more recent estimates from the ACS. The projected estimates were calculated using a simple linear regression projection methodology. The ACS estimates for the years 2007 through 2012 were used as the basis for the projections. The updated projections for each demographic variable examined in this report are provided in the sections relevant to the specific variable.

SPATIAL ANALYSIS

The spatial analysis completed for this needs assessment also utilized data from the ACS. However, the ACS 2012 five-year estimates were used for this effort. This change is due to the spatial analysis being conducted at the census tract level. The five-year estimates provide the best data when examining census tracts and other smaller geographies. Census tracts are routinely used as a unit for spatial analysis as they provide a solid level of detail and specificity. A variety of digital maps, known as shapefiles, was used for the geographic analysis. The shapefiles were obtained from the Charlotte County geographic information system layer index and the U.S. Census Bureau. The spatial and demographic data were analyzed using the ArcGIS software platform (Environmental Systems Research Institute, Inc. [ESRI], Version 10.1, 2012). A series of maps have been produced on a majority of the demographic variables examined in this report. These maps are available in the Appendix K.

CURRENT POPULATION

POPULATION ESTIMATES

Among Florida's sixty-seven counties, Charlotte County currently ranks 29th in terms of population density at approximately 235 persons per square mile. According to the American Community Survey 2012 three-year population estimate, the population of Charlotte County is estimated to be 160,602. According to the three-year estimates from 2007 to 2012, the population increased in Charlotte County by approximately 4.92% during that period, equating to a 0.98% annual growth rate.

TABLE 1: ACS 2007-2012 THREE-YEAR POPULATION ESTIMATES (COUNT)

	2007	2008	2009	2010	2011	2012
Total Population	153,063	151,781	157,308	160,029	160,088	160,602

As noted in the first section of this report, projections were calculated on a variety of demographic variables that were examined for this report. The first projection provided is for the total population of Charlotte County. These projections provide figures that are higher than those provided in the *Smart Charlotte 2050* report starting with year 2020 (Table 2).

TABLE 2: SMART CHARLOTTE 2050 REPORT VS. LINEAR REGRESSION POPULATION PROJECTIONS (COUNT)

	2015	2020	2025	2030	2040	2050
Smart Charlotte 2050 (Permanent Residents)	168,000	176,500	184,701	192,601	206,701	217,901
Linear Regression Projections (Total Population)	167,412	176,746	186,080	195,414	214,082	232,749

GENDER

The population shows to be evenly distributed in terms of gender, a trend that has persisted since 2007 (Table 3 & Figure 1). The percentage of women to men has consistently been slightly higher. However, the estimates show a small but gradual change has been occurring in this regard. Projections estimate this trend will continue and that men will become a small majority by year 2030 (Table 5).

TABLE 3: ACS 2007-2012 3-YEAR POPULATION ESTIMATES BY GENDER (PERCENT)

	2007	2008	2009	2010	2011	2012
Male	48.0%	48.0%	48.2%	48.8%	48.6%	48.4%
Female	52.0%	52.0%	51.8%	51.2%	51.4%	51.6%

TABLE 4: ACS 2007-2012 3-YEAR POPULATION ESTIMATES BY GENDER (COUNT)

	2007	2008	2009	2010	2011	2012
Male	73,449	72,796	75,870	78,086	77,745	77,780
Female	79,614	78,985	81,438	81,943	82,343	82,822

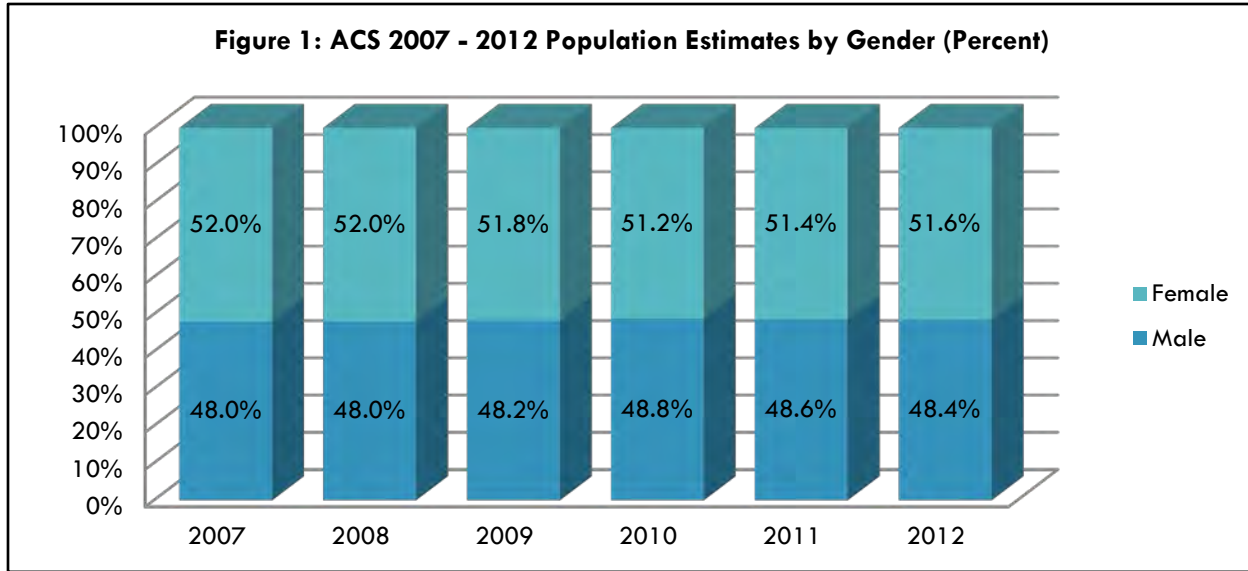


FIGURE 1: ACS 2007-2012 POPULATION ESTIMATES BY GENDER (PERCENT)

TABLE 5: LINEAR REGRESSION POPULATION PROJECTIONS BY GENDER (PERCENT)

	2015	2020	2025	2030	2040	2050
Male	49.0%	49.5%	50.0%	50.5%	51.2%	51.9%
Female	51.0%	50.5%	50.0%	49.5%	48.8%	48.1%

TABLE 6: LINEAR REGRESSION POPULATION PROJECTIONS BY GENDER (COUNT)

	2015	2020	2025	2030	2040	2050
Male	82,039	87,570	93,101	98,632	109,694	120,757
Female	85,374	89,177	92,979	96,782	104,387	111,993

RESIDENCY

The population of the county is stable in terms of residency as a high percentage of the population (84.1)% are estimated to have resided in the same house in Charlotte County over the past year. Furthermore, among individuals who moved into a new home, 7.7% remained in Charlotte County. These figures have been consistent since 2007 (Table 7 & Figure 2).

TABLE 7: ACS 2007-2012 ESTIMATES OF RESIDENCY/MOVEMENT (PERCENT)

	2007	2008	2009	2010	2011	2012
Same house	83.4%	83.7%	84.6%	84.1%	83.3%	84.1%
Different house	16.4%	16.0%	15.1%	15.7%	16.2%	15.4%
Same county	7.8%	8.1%	7.7%	7.7%	8.4%	7.7%
Different county	8.5%	7.9%	7.5%	7.9%	7.9%	7.7%
Same state	5.0%	4.4%	4.1%	3.5%	3.5%	3.3%
Different state	3.6%	3.5%	3.4%	4.4%	4.3%	4.4%

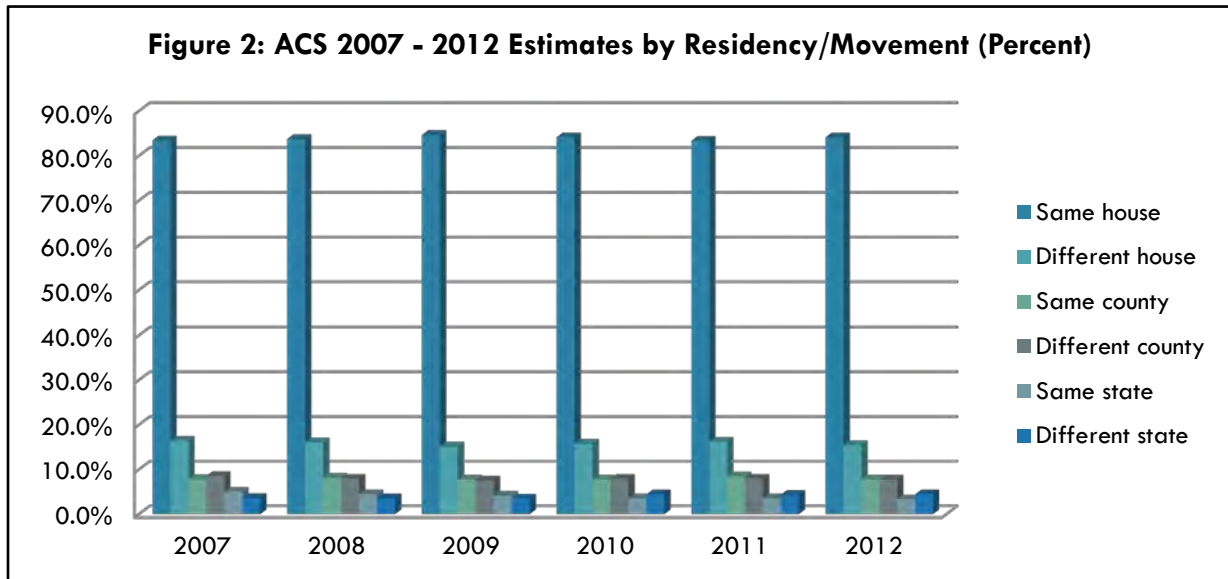


FIGURE 2: ACS 2007-2012 ESTIMATES BY RESIDENCY/MOVEMENT (PERCENT)

SELECTED AGE GROUPS

The 2012 median age estimate of all individuals in Charlotte County is 56.5 years, with the median age of the female population (56.5 years) being slightly higher than the male population (54.6 years). The highest percentage of the county population is currently held by individuals aged 65 and over (34%), the group aged 45 to 64 (30%) follows closely (Table 8 & Figure 3).

TABLE 8: ACS 2012 ESTIMATES BY AGE GROUP (COUNT AND PERCENT)

	Count	Percent
Under 5	5,325	3.3%
5 to 14	12,609	7.9%
15 to 24	13,424	8.4%
25 to 44	25,036	15.6%
45 to 64	47,489	29.6%
65 and over	56,719	35.3%

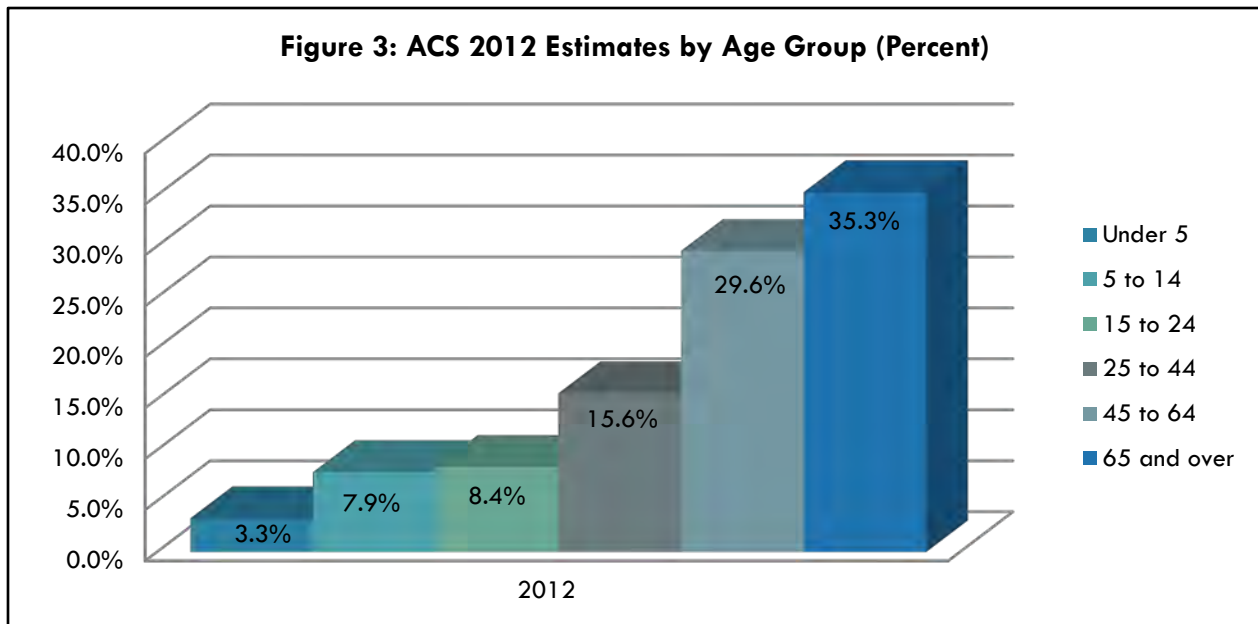


FIGURE 3: ACS 2012 ESTIMATES BY AGE GROUP (PERCENT)

A review of the three-year estimates from 2007 to 2012 shows that the 45 – 64 and 65 and over age groups have consistently been the highest and have been steadily increasing while other age groups display steady decreases (Tables 9-10 & Figure 4).

TABLE 9: ACS 2007-2012 ESTIMATES BY AGE GROUP (PERCENT)

	2007	2008	2009	2010	2011	2012
Under 5	3.8%	3.9%	3.7%	3.5%	3.4%	3.3%
5 to 14	9.1%	9.1%	8.3%	8.1%	7.9%	7.9%
15 to 24	9.1%	9.0%	8.7%	8.6%	8.5%	8.4%

25 to 44	20.1%	20.7%	16.5%	16.1%	15.7%	15.6%
45 to 64	26.5%	26.9%	29.4%	30.2%	30.1%	29.6%
65 and over	31.5%	30.5%	33.4%	33.5%	34.4%	35.3%

TABLE 10: ACS 2007-2012 ESTIMATES BY AGE GROUP (COUNT)

	2007	2008	2009	2010	2011	2012
Under 5 years	5,853	5,856	5,863	5,654	5,475	5,325
5 to 14 years	13,884	13,743	13,019	12,978	12,689	12,609
15 to 24 years	13,883	13,716	13,692	13,715	13,589	13,424
25 to 44 years	30,691	31,347	25,984	25,719	25,061	25,036
45 to 64 years	40,611	40,800	46,195	48,290	48,199	47,489
65 years and over	48,141	46,319	52,555	53,673	55,075	56,719

Figure 4: ACS 2007 - 2012 Estimates by Age Group (Percent)

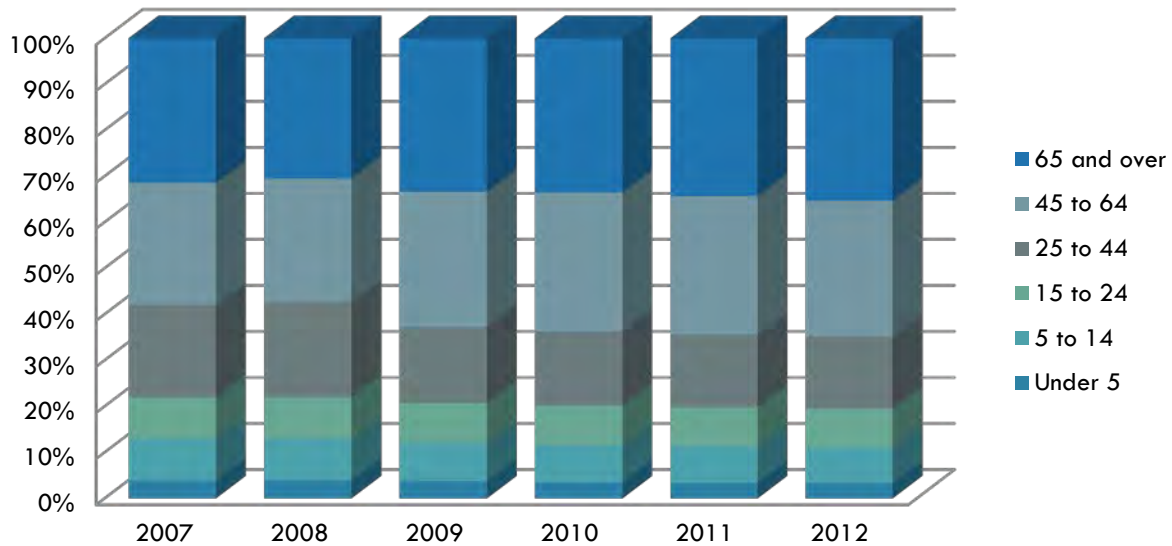


FIGURE 4: ACS 2007-2012 ESTIMATES BY AGE GROUP (PERCENT)

Projections suggest this trend will continue with the two most senior age groups continuing to increase as all other age groups decline (Tables 11-12 & Figure 5).

TABLE 11: LINEAR REGRESSION PROJECTIONS BY AGE GROUP (PERCENT)

	2015	2020	2025	2030	2040	2050
Under 5 years	3.0%	2.5%	2.1%	1.7%	1.0%	0.5%
5 to 14 years	7.0%	5.8%	4.8%	3.9%	2.2%	0.9%
15 to 24 years	7.9%	7.3%	6.7%	6.2%	5.3%	4.6%
25 to 44 years	11.9%	7.4%	3.4%	-0.2%	-6.5%	-11.8%
45 to 64 years	32.5%	35.6%	38.3%	40.8%	45.0%	48.6%
65 years and over	37.7%	41.4%	44.7%	47.7%	52.9%	57.3%

TABLE 12: LINEAR REGRESSION PROJECTIONS BY AGE GROUP (COUNT)

	2015	2020	2025	2030	2040	2050
Under 5 years	5,044	4,473	3,903	3,333	2,192	1,052
5 to 14 years	11,649	10,280	8,912	7,544	4,807	2,071
15 to 24 years	13,253	12,874	12,495	12,116	11,358	10,600
25 to 44 years	19,858	13,087	6,316	(455)	(13,998)	(27,540)
45 to 64 years	54,485	62,869	71,252	79,635	96,401	113,167
65 years and over	63,124	73,163	83,203	93,242	113,321	133,400

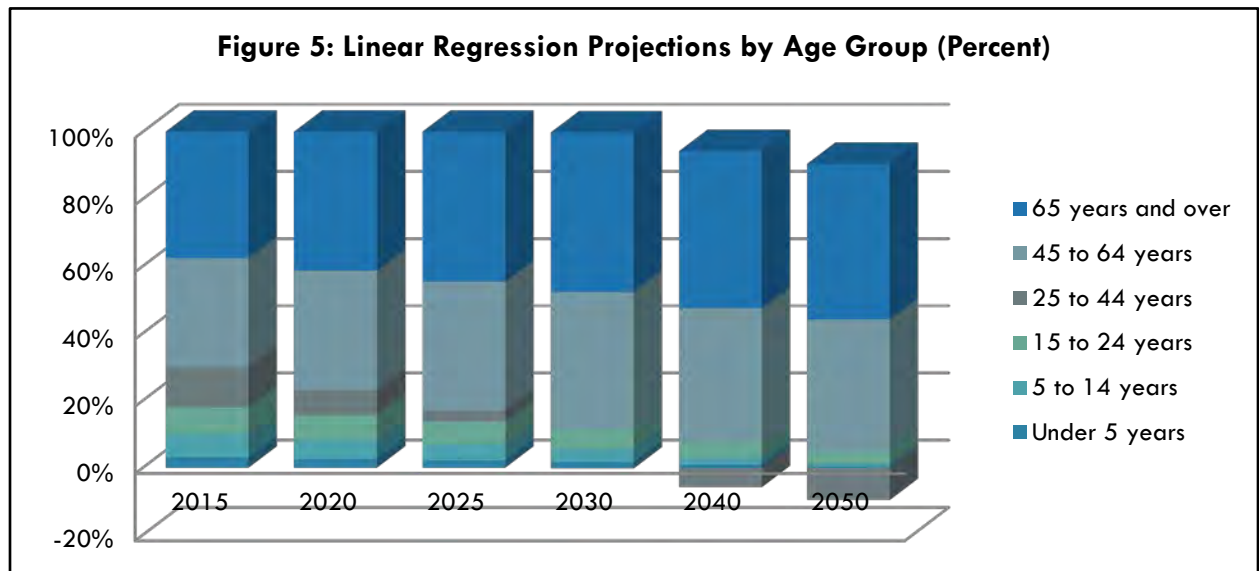


FIGURE 5: LINEAR REGRESSION PROJECTIONS BY AGE GROUP (PERCENT)

RACE, ETHNICITY, & LANGUAGE

The population of Charlotte County is limited in terms of racial diversity. Approximately 85.5% of the population identifies as White with no single minority population representing more than 7% of the remaining population (Tables 13-14 & Figure 6)¹. The 'Black or African American' (5.5%) and 'Hispanic or Latino' populations² (6.1%) are similar in terms of size but remain small in comparison.

TABLE 13: ACS 2007-2012 ESTIMATES BY RACE CATEGORY (PERCENT)

	2007	2008	2009	2010	2011	2012
White	87.4%	86.6%	86.8%	86.0%	85.9%	85.5%
Hispanic or Latino	4.8%	5.2%	5.1%	5.7%	5.8%	6.1%
Black or African American	5.2%	5.3%	5.0%	5.2%	5.2%	5.5%
Asian	0.9%	1.0%	1.1%	1.3%	1.3%	1.2%
Two or more races	1.1%	1.3%	1.7%	1.4%	1.5%	1.4%

TABLE 14: ACS 2007-2012 ESTIMATES BY RACE CATEGORY (COUNT)

	2007	2008	2009	2010	2011	2012
White	133,811	131,476	136,609	137,627	137,506	137,309
Hispanic or Latino	7,402	7,925	8,012	9,151	9,305	9,789
Black or African American	8,009	8,099	7,819	8,343	8,278	8,802
Asian	1,315	1,569	1,779	2,005	2,069	2,003
Two or more races	1,725	2,025	2,618	2,254	2,467	2,228

¹ The following race categories are not displayed as they represent less than 0.5% of the population: Native Hawaiian, and Other Pacific Islander, American Indian, and 'Some other race'.

² It is important to note that the Census Bureau does not measure Hispanic/Latino as a different race, but rather as an ethnicity that could be reported as part of other race categories.

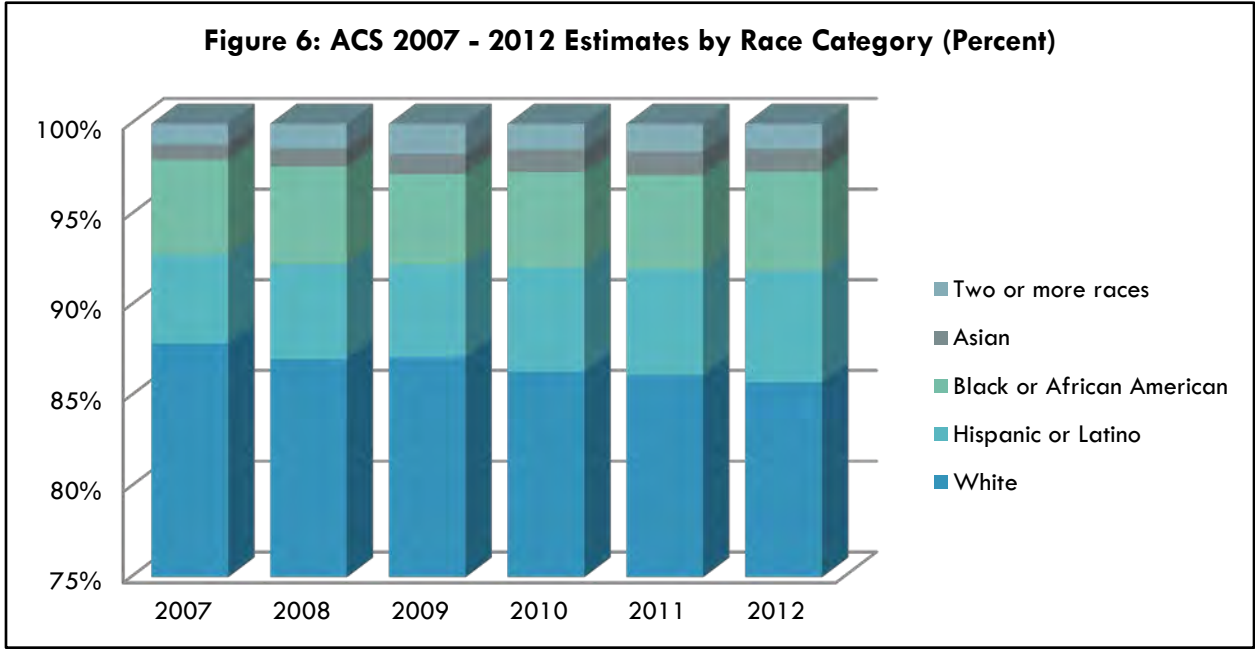


FIGURE 6: ACS 2007-2012 ESTIMATES BY RACE CATEGORY (PERCENT)

Projections show that while the ‘White’ population will maintain a significant majority, all minority groups will exhibit some level of increase. Both the ‘Hispanic/Latino’ and ‘Asian’ populations will nearly double in terms of percentage with the ‘Hispanic/Latino’ population eventually becoming the only minority group to exceed 10% of the total county population (Tables 15-16 & Figure 7).

TABLE 15: LINEAR REGRESSION PROJECTIONS BY RACE CATEGORY (PERCENT)

	2015	2020	2025	2030	2040	2050
White	84.5%	83.0%	81.6%	80.4%	78.3%	76.5%
Hispanic or Latino	6.8%	7.8%	8.7%	9.6%	11.0%	12.3%
Black or African American	5.4%	5.5%	5.6%	5.7%	5.9%	6.0%
Asian	1.6%	1.9%	2.2%	2.5%	2.9%	3.3%
Two or more races	1.7%	1.8%	2.0%	2.2%	2.5%	2.7%

TABLE 16: LINEAR REGRESSION PROJECTIONS BY RACE CATEGORY (COUNT)

	2015	2020	2025	2030	2040	2050
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White	141,474	146,702	151,931	157,159	167,616	178,072
Hispanic or Latino	11,302	13,762	16,221	18,680	23,598	28,516
Black or African American	9,015	9,733	10,451	11,169	12,605	14,041
Asian	2,602	3,340	4,078	4,816	6,292	7,768
Two or more races	2,766	3,263	3,759	4,256	5,249	6,243

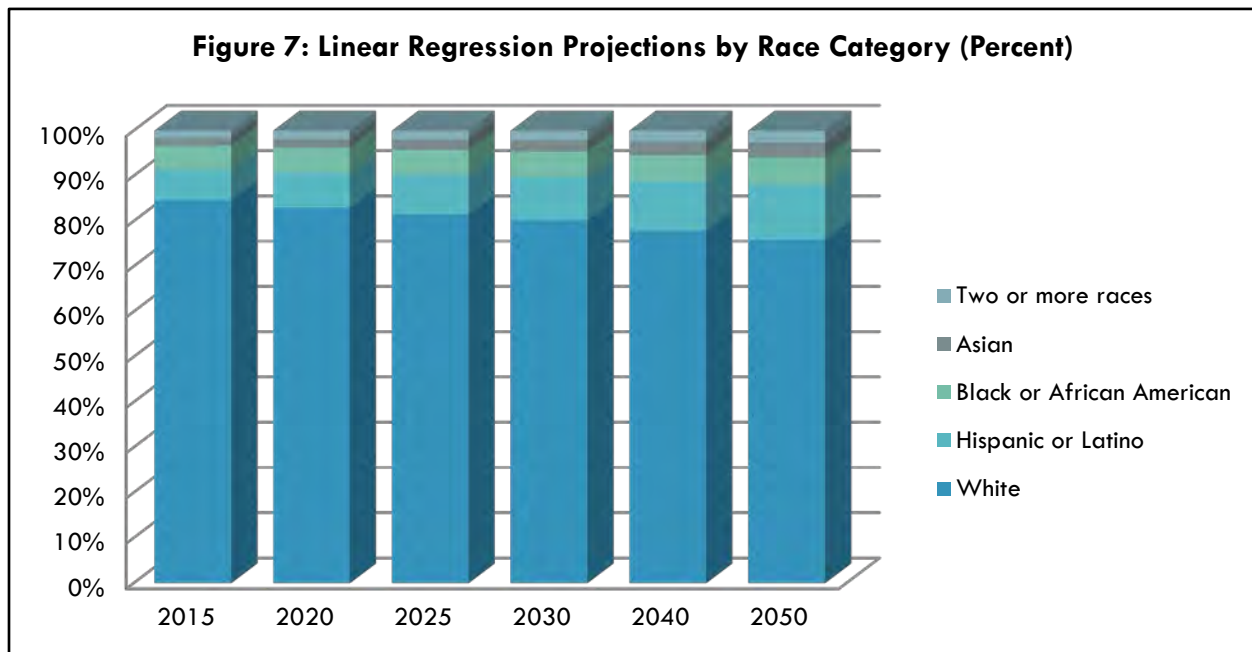


FIGURE 7: LINEAR REGRESSION PROJECTIONS BY RACE (PERCENT)

In terms of ethnicity, excluding the categories of ‘American’ and ‘English’, German (16.8%), Irish (14.9%), Italian (9.1%), French (4.0%), and Polish (3.8%) all hold percentages above 3% with the remainder falling below this threshold. A small, yet consistent, West Indian ethnic population (2.7%) is also noted in the county as well. The ethnic makeup of the county has been consistent overall with the population identifying as ‘German’ showing the most notable decline (Table 17).

TABLE 17: ACS 2007-2012 ESTIMATES BY ETHNIC GROUP (PERCENT)

	2007	2008	2009	2010	2011	2012
German	19.8%	18.0%	17.8%	17.3%	18.0%	16.8%
Irish	15.6%	15.6%	15.2%	14.7%	14.8%	14.9%
Italian	9.5%	10.0%	9.1%	8.5%	8.8%	9.1%
Polish	4.8%	4.4%	4.5%	4.4%	3.8%	3.8%
French (except Basque)	4.6%	4.8%	5.0%	4.5%	4.3%	4.0%
West Indian (excluding Hispanic origin)	3.2%	3.1%	2.8%	2.3%	2.5%	2.7%

The majority of the county population age five and over speaks English only (88.5%), while approximately 11.5% of the population speaks a language other than English. Of the population that speaks a language other than English, only 3.4% report speaking the English language “less than very well” (Table 18). Among individuals who speak a language other than English, a large majority speak Spanish (46.9%) while the next largest group speaks other Indo-European languages (38.7%) which include but are not limited to French, Russian, and German.

TABLE 18: ACS 2007-2012 ESTIMATES BY LANGUAGE SPOKEN AT HOME (PERCENT)

	2007	2008	2009	2010	2011	2012
English only	92.1%	91.9%	91.1%	89.6%	88.9%	88.5%
Language other than English	7.9%	8.1%	8.9%	10.4%	11.1%	11.5%
Speak English less than "very well"	3.0%	3.1%	2.8%	3.2%	3.4%	3.4%

Estimated patterns suggest that the number of individuals who speak a language other than English is increasing in the county. Again, the primary language displayed in this increase is Spanish. The English language fluency of these individuals is rapidly increasing as well (Table 19).

TABLE 19: ACS 2007-2012 ESTIMATES BY SPANISH LANGUAGE (PERCENT)

	2007	2008	2009	2010	2011	2012
Speak Spanish	3.8%	3.9%	3.9%	4.7%	4.8%	5.4%
Speak English less than "very well"	47.1%	46.1%	31.7%	30.2%	28.3%	27.9%

INCOME

Household income represents the earnings of all persons age 16 years or older that live together in a housing unit. This characteristic is reported in terms of both median household income (the midpoint of all household income figures) as well as mean household income (the average of all household income figures). The estimated 2012 median household income for Charlotte County is \$44,047. This figure is below both the statewide figure of \$45,637 as well as the national figure of \$51,771. The median household income has fluctuated over the past few years but has shown an increase from 2011 to 2012 (Table 20).

TABLE 20: ACS 2007-2012 ESTIMATES OF MEDIAN HOUSEHOLD INCOME

2007	2008	2009	2010	2011	2012
\$44,576.00	\$47,387.00	\$44,118.00	\$43,021.00	\$42,338.00	\$44,047.00

The estimated 2012 mean household income for Charlotte County is \$56,987. This figure is below both the statewide figure of \$64,623 as well as the national figure of \$71,579. As expected, the mean household income has also fluctuated over the past few years but has shown only a slight increase from 2011 to 2012 (Table 21).

TABLE 21: ACS 2007-2012 ESTIMATES OF MEAN HOUSEHOLD INCOME

2007	2008	2009	2010	2011	2012
\$57,491.00	\$59,658.00	\$57,294.00	\$55,748.00	\$56,021.00	\$56,987.00

The largest segment of county households (21.4%) has an income of \$50,000 to \$74,999 with more than half of households (55.9%) falling below this range (Figure 8).

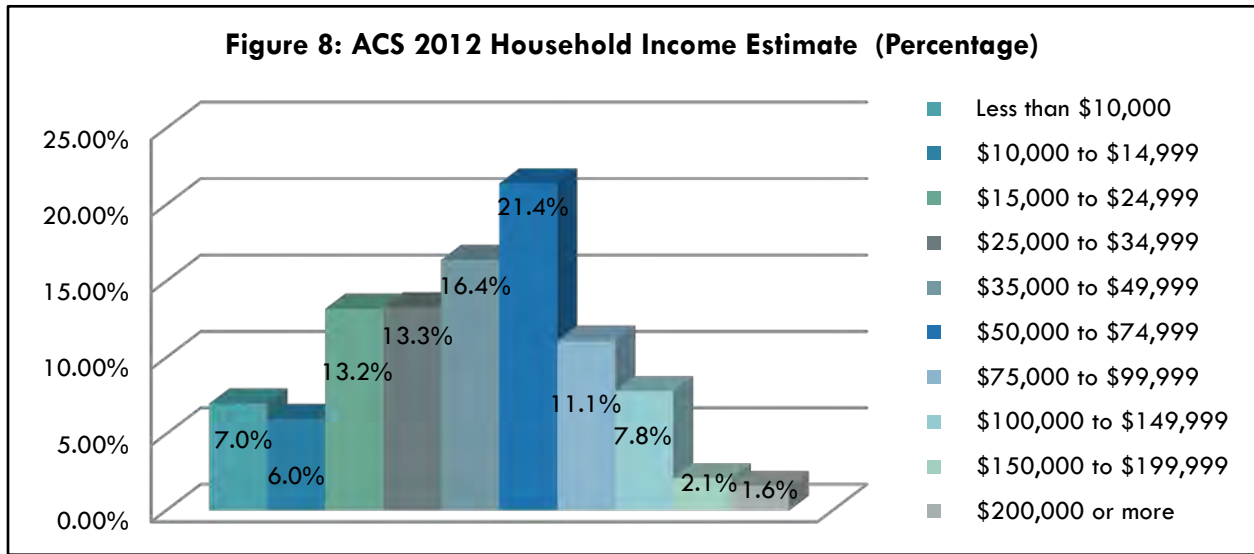


FIGURE 8: ACS 2012 HOUSEHOLD INCOME ESTIMATE (PERCENT)

The household income estimates have remained relatively stable over time (Table 22-23). While fluctuations have been seen in each of the income categories, they have remained constant overall. The 'less than \$10,000' income group has shown a somewhat steady increase since 2007 while the '\$35,000 to \$49,000' and '\$200,000 or more' groups have shown relatively steady decreases since 2007 (Figure 9).

TABLE 22: ACS 2007-2012 ESTIMATES OF HOUSEHOLD INCOME (PERCENT)

	2007	2008	2009	2010	2011	2012
Less than \$10,000	5.30%	4.70%	6.10%	7.60%	7.20%	7.00%
\$10,000 to \$14,999	5.10%	5.40%	5.50%	5.90%	6.40%	6.00%
\$15,000 to \$24,999	13.20%	12.40%	13.80%	13.40%	13.90%	13.20%
\$25,000 to \$34,999	13.90%	12.90%	13.00%	12.80%	12.40%	13.30%
\$35,000 to \$49,999	18.90%	18.30%	18.70%	18.60%	17.90%	16.40%
\$50,000 to \$74,999	20.40%	21.60%	20.70%	20.40%	20.40%	21.40%
\$75,000 to \$99,999	11.40%	11.80%	10.60%	9.90%	10.80%	11.10%

\$100,000 to \$149,999	8.10%	8.30%	7.20%	6.90%	7.20%	7.80%
\$150,000 to \$199,999	1.70%	2.40%	2.60%	2.90%	2.30%	2.10%
\$200,000 or more	2.10%	2.10%	1.80%	1.60%	1.50%	1.60%

TABLE 23: ACS 2007-2012 ESTIMATES OF HOUSEHOLD INCOME (COUNT)

	2007	2008	2009	2010	2011	2012
Less than \$10,000	3,741	3,381	4,484	5,466	5,102	4,934
\$10,000 to \$14,999	3,570	3,867	3,995	4,251	4,500	4,195
\$15,000 to \$24,999	9,265	8,854	10,133	9,698	9,764	9,214
\$25,000 to \$34,999	9,781	9,235	9,539	9,236	8,748	9,332
\$35,000 to \$49,999	13,336	13,086	13,680	13,395	12,632	11,497
\$50,000 to \$74,999	14,362	15,500	15,130	14,736	14,372	15,022
\$75,000 to \$99,999	7,992	8,481	7,786	7,180	7,618	7,802
\$100,000 to \$149,999	5,684	5,933	5,306	5,012	5,051	5,432
\$150,000 to \$199,999	1,202	1,728	1,892	2,079	1,651	1,476
\$200,000 or more	1,443	1,529	1,307	1,151	1,037	1,131

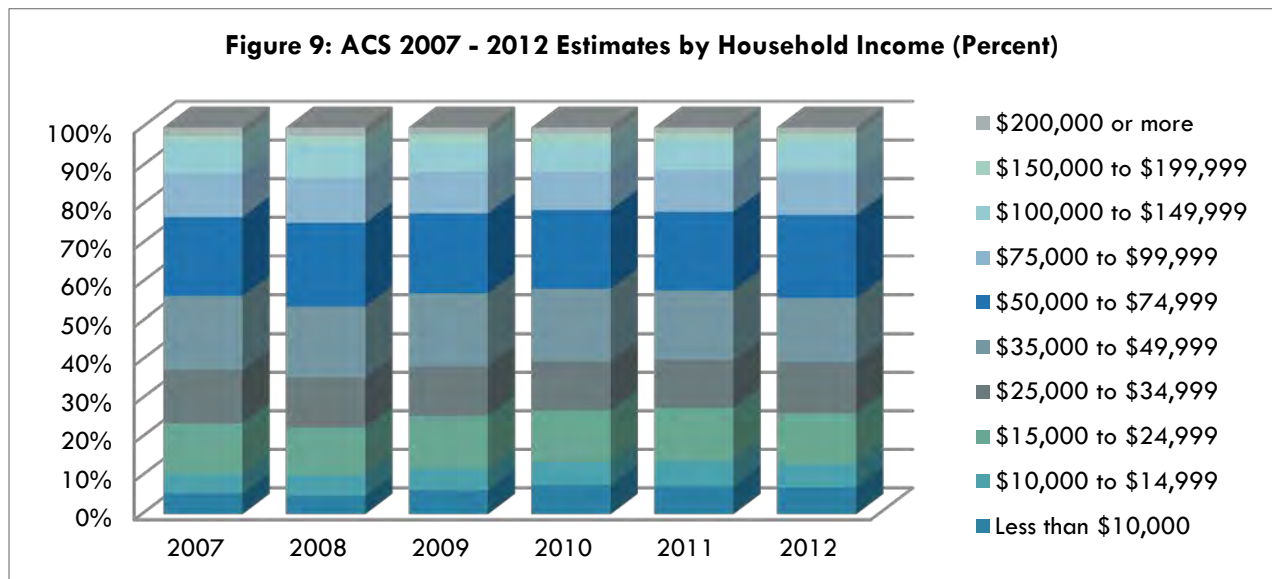


FIGURE 9: ACS 2007-2012 ESTIMATES BY HOUSEHOLD INCOME (PERCENT)

Projections for each income group show that four of the five lower income groups show varying trends. The two lowest income groups are projected to increase while the three highest income groups will virtually disappear. In addition, the '\$35,000 to \$49,999' group is projected to decrease drastically (Table 24-25 & Figure 10).

TABLE 24: LINEAR REGRESSION PROJECTIONS OF HOUSEHOLD INCOME (PERCENT)

	2015	2020	2025	2030	2040	2050
Less than \$10,000	3.8%	4.6%	5.3%	5.9%	7.0%	8.0%
\$10,000 to \$14,999	2.9%	3.2%	3.4%	3.7%	4.0%	4.4%
\$15,000 to \$24,999	5.9%	5.7%	5.6%	5.5%	5.3%	5.1%
\$25,000 to \$34,999	5.2%	4.6%	4.1%	3.6%	2.7%	2.0%
\$35,000 to \$49,999	6.7%	5.5%	4.4%	3.4%	1.6%	0.2%
\$50,000 to \$74,999	8.8%	8.3%	7.9%	7.5%	6.7%	6.1%
\$75,000 to \$99,999	4.3%	3.7%	3.2%	2.8%	2.0%	1.3%
\$100,000 to \$149,999	2.8%	2.3%	1.9%	1.5%	0.8%	0.2%
\$150,000 to \$199,999	1.1%	1.2%	1.2%	1.3%	1.3%	1.4%
\$200,000 or more	0.5%	0.2%	-0.1%	-0.3%	-0.7%	-1.0%

TABLE 25: LINEAR REGRESSION PROJECTIONS OF HOUSEHOLD INCOME (COUNT)

	2015	2020	2025	2030	2040	2050
Less than \$10,000	6,421	8,151	9,881	11,611	15,071	18,531
\$10,000 to \$14,999	4,893	5,647	6,401	7,156	8,664	10,173
\$15,000 to \$24,999	9,809	10,100	10,391	10,683	11,266	11,849
\$25,000 to \$34,999	8,682	8,109	7,536	6,964	5,818	4,673
\$35,000 to \$49,999	11,234	9,685	8,136	6,587	3,490	392
\$50,000 to \$74,999	14,779	14,710	14,642	14,574	14,437	14,301
\$75,000 to \$99,999	7,158	6,566	5,974	5,382	4,198	3,013
\$100,000 to \$149,999	4,743	4,143	3,543	2,943	1,743	543
\$150,000 to \$199,999	1,880	2,069	2,259	2,448	2,827	3,206
\$200,000 or more	765	309	(147)	(603)	(1,515)	(2,427)

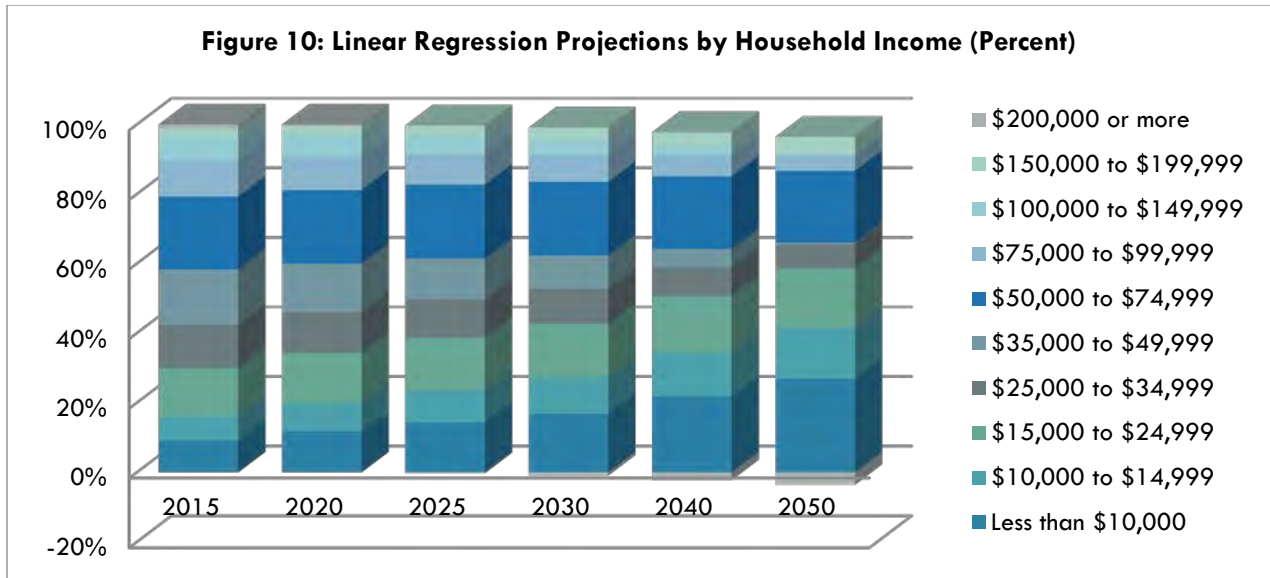


FIGURE 10: LINEAR REGRESSION PROJECTIONS BY HOUSEHOLD INCOME (PERCENT)

Approximately 12.8% of individuals living in Charlotte County have incomes that are below the Federal Poverty Level (FPL). This figure has increased by almost 4% since 2007, which coincides with the severe decline of the U.S. housing market and the subsequent domestic economic crisis that began in 2007-2008 (Table 26). The GIS maps associated with this analysis identified five of the Census tracts with the highest poverty in the county. These five tracts also had approximately 20% or more of individuals within that tract living below the poverty line.

TABLE 26: ACS 2007-2012 ESTIMATES OF INDIVIDUALS WITH INCOME BELOW THE FPL

	2007	2008	2009	2010	2011	2012
Individuals with income below the FPL	8.7%	8.7%	10.4%	12.3%	12.8%	12.8%

DISABILITIES

Approximately 19.4% of the county population aged five and over identifies as having some type of disability (Table 27).^{3 4} These disabilities include vision, hearing, and/or ambulatory difficulties. Individuals who identify having an ambulatory disability generally have serious difficulty walking or climbing stairs. The 65 and over age group displays the highest percentage of individuals (30.7%) identifying as having some type of disability with ambulatory difficulties being primarily cited (17.5%).

³ The three-year disability characteristics data is not available from the American Community Survey for years 2008 through 2009. To provide some consistency, only the years shown above were used as a result.

⁴ Additional disability categories deemed irrelevant to the content of the report are not shown above. These are 'cognitive difficulty', 'self-care difficulty', and 'independent living difficulty'.

TABLE 27: INDIVIDUALS WITH A DISABILITY BY AGE GROUP AND TYPE FOR ACS 2012

	2010	2011	2012
Population who identify as having a disability	18.2%	19.3%	19.4%
Population under 5 years			
With a hearing difficulty	0.0%	0.0%	0.0%
With a vision difficulty	0.0%	2.1%	3.2%
Population 5 to 17 years	5.8%	6.9%	8.0%
With a hearing difficulty	0.5%	0.6%	0.7%
With a vision difficulty	1.4%	0.9%	1.0%
With an ambulatory difficulty	0.6%	0.1%	0.4%
Population 18 to 64 years			
With a hearing difficulty	2.8%	2.7%	3.1%
With a vision difficulty	2.2%	1.6%	2.4%
With an ambulatory difficulty	7.1%	7.4%	8.6%
Population 65 years and over			
With a hearing difficulty	16.3%	15.9%	14.7%
With a vision difficulty	5.3%	6.1%	5.1%
With an ambulatory difficulty	18.2%	18.7%	17.5%

DEMOGRAPHICS SUMMARY

The population of Charlotte County will be growing in size over the next 10-15 years. With this growth in population, the county will see a significant rise in the most senior age groups. The racial diversity of the county will not change significantly from its current makeup. However, the Hispanic/Latino population is projected to grow in keeping with national population projection trends. Related to this projection, an increase is also projected in the number of individuals who speak Spanish. This population is also projected to have a high degree of English-language fluency. Households currently among the highest in terms of income are projected to decrease over time. The number of individuals identified as having some type of disability is highest among the population age 65 and over but is increasing slightly over all age groups.

Section II

Trends Research

SECTION II: TRENDS RESEARCH

There are several sources that are helpful to obtain current trends research. These are as follows:

- 2011 Florida Outdoor Recreation Participation Study conducted by Responsive Management completed 3,961 surveys with residents and 2,890 surveys with tourists. This study focused on a snapshot of participation in Florida outdoor recreational activities, rather than generating participation trends over time.
- The Outdoor Foundation's research into outdoor recreational activity studies activities and trends over time. The Outdoor Foundation's 2013 study compares annual trends over a seven-year period.
- The U.S. Fish & Wildlife Service's 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.
- The Physical Activity Council's 2013 Participation Report covering sports, fitness, and recreation participation in the United States. This report is produced by six major US sport, fitness, and leisure industry trade associations and summarizes levels of activity in the U.S.

The relevant data is divided into Florida and national trends. These two perspectives are important, as Charlotte County has distinct resources that other areas in the country do not (e.g., beaches). The trends separated by user groups are significant for an overall perspective. These can be helpful as park needs are tailored to the county's predominant user groups.

The 2011 Florida Outdoor Recreation Participation Study helps to frame participation levels across the state. The study provided some information by region. Charlotte County was included in the Southwest region. While the study covered such areas as satisfaction and importance of recreation, that data is not included in this report. The Florida study helps to provide context for both residents and tourists. The 2011 U.S. Fish and Wildlife Service's study provides important data focused on Florida recreation, however, it is limited to fishing, hunting, and wildlife viewing.

Other sources provide some good information relative to national trends for outdoor and other sports participation. These include the studies conducted by the Physical Activity Council and the Outdoor Recreation Council.

ACTIVITY TRENDS

POPULAR ACTIVITIES

FLORIDA RESIDENTS

The state study found that saltwater beach activities were the most popular with residents. The top five most popular activities based on what respondents enjoyed in the last 12 months were as follows:⁵

TABLE 28: FLORIDA RESIDENTS POPULAR ACTIVITIES

Activity	% enjoyed in last 12 months
Saltwater beach activities (not including fishing)	63%
Wildlife viewing ^{6 7}	49%

⁵ Responsive Management. (2011). *Statewide Comprehensive Outdoor Recreation Plan*. Retrieved May 8, 2014, from http://www.dep.state.fl.us/parks/files/scorp/scorp_survey.pdf

⁶ The 2011 National Survey of Fishing, Hunting, and Wildlife Survey confirmed the popularity of these results. That study found that of all participants in these three activities, 68% of participants enjoyed wildlife watching and 49% enjoyed fishing.

Fishing ⁸	46%
Bicycling	44%
Picnicking	40%

FLORIDA TOURISTS

The state study found that tourists' top activity preference was saltwater beach activities. The top five most popular tourist activities were as follows: ⁹

TABLE 29: FLORIDA TOURISTS POPULAR ACTIVITIES

Activity	%
Saltwater beach activities (not including fishing)	49%
Wildlife viewing	47%
Picnicking	37%
Swimming in Outdoor Pools	29%
Visiting historical or archeological sites	26%

NATIONAL TRENDS

Nationally, the most popular activities as defined by percentage of Americans who participated in these activities show a somewhat different picture of popularity.¹⁰ The Physical Activity Council's findings in Table 30 below show that of all sports, fitness and outdoor sports are the most popular.^{11 12}

TABLE 30: NATIONAL POPULARITY OF ALL SPORT ACTIVITIES

Sport	%
Fitness Sports	61.2%
Outdoor Sports	49.2%
Individual Sports	36.3%
Team Sports	20.6%
Racquet Sports	12.6%
Water sports	12.4%

Table 31 below shows that the most popular outdoor activity is running, jogging, and trail running. This is consistent with the Physical Activity Council's finding that fitness sports consistently generate the highest percentage of individuals over age 6.¹³ The difference is likely due to the wide availability of beaches in the state that attract both residents and tourists:

⁷ U.S. Fish & Wildlife Service. (2014). *2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. Washington, DC: U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce.

⁸ The 2011 National Survey of Fishing, Hunting, and Wildlife Survey confirmed the popularity of these results. That study found that of all participants in these three activities, 68% of participants enjoyed wildlife watching and 49% enjoyed fishing (U.S. Fish & Wildlife Service, 2014).

⁹ Responsive Management. (2011). *Statewide Comprehensive Outdoor Recreation Plan*. Retrieved May 8, 2014, from http://www.dep.state.fl.us/parks/files/scorp/scorp_survey.pdf

¹⁰ The Outdoor Industry Association. (2013). *2013 Outdoor Recreation Participation Report*. Retrieved May 8, 2014, from <http://www.outdoorfoundation.org/pdf/ResearchParticipation2013.pdf>

¹¹ Fitness sports include treadmill, elliptical, walking for fitness, running/jogging, aerobics, etc. Outdoor sports include bicycling, fishing, hiking, rafting, trail running, triathlon, and non-traditional/off road triathlon.

¹² Physical Activity Council. (2014). *2014 Participation Report*. Boston: Physical Activity Council.

¹³ Ibid.

TABLE 31: NATIONAL POPULARITY OF OUTDOOR ACTIVITIES

Activity	% of Americans
Running, jogging, and trail running	19%
Freshwater, saltwater, and fly fishing	16%
Road biking, mountain biking, and BMX	15%
Car, backyard, and RV camping	13%
Hiking	12%

CHANGES IN PARTICIPATION RATES

FLORIDA RESIDENTS AND TOURISTS PARTICIPATION TRENDS

The Florida Recreation Participation study showed that the participation rates of most activities have remained relatively constant since 2002.¹⁴ These include such activities as hiking, tennis, camping, fishing, and hunting. This was mostly confirmed in the 2011 National Fishing, Hunting, and Wildlife Survey. However, that study found that the most significant growth was in wildlife viewing around the residents home that grew between 2001 and 2011 by 26%.¹⁵

ALL SPORT ACTIVITIES: NATIONAL PARTICIPATION TRENDS

According to the Physical Activity Council, Outdoor, Water, and Fitness sports participation have remained mostly constant. The largest drop in participation has been in individual sports (a decrease of 3.7% since 2008). There were no notable increases in any other sport.

OUTDOOR SPORTS: NATIONAL PARTICIPATION TRENDS

However, for outdoor sports, the Outdoor Industry Association has shown that the biggest growth in over the past five years has been in the following sports.¹⁶

1. Adventure racing (211% growth)
2. Triathlon (non-traditional/off-road)(199%)
3. Triathlon (traditional/road)(174%)
4. Telemarking (136%)
5. Freestyle skiing (90%)

OUTDOOR SPORTS PARTICIPATION FOR FIRST TIMERS

It is also helpful to know what activities are the most popular if one is to try a new activity. Over the age of 6, the following activities generate the most first time participants:

1. Stand up paddling
2. Boardsailing/windsurfing
3. Triathlon (non-traditional)
4. Triathlon (traditional)
5. Adventure racing

¹⁴ Responsive Management. (2011). *Statewide Comprehensive Outdoor Recreation Plan*. Retrieved May 8, 2014, from http://www.dep.state.fl.us/parks/files/scorp/scorp_survey.pdf

¹⁵ U.S. Fish & Wildlife Service. (2014). *2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. Washington, DC: U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce.

¹⁶ The Outdoor Industry Association. (2013). *2013 Outdoor Recreation Participation Report*. Retrieved May 8, 2014, from <http://www.outdoorfoundation.org/pdf/ResearchParticipation2013.pdf>

The study also found that people in their late 20s to early 30s are most likely to start a new sports activity. If the county intends to promote a new activity to residents, this data may be helpful to assess its likely target audience by age.¹⁷

PARTICIPATION BY DEMOGRAPHIC GROUPS

Participation by age is also an important consideration as the master plan should also meet the needs of the population and estimates of the county.

AGE

Much of the Outdoor Recreation study separates individuals into five age groups, which has some use for Charlotte County.¹⁸ Still, more research is needed to understand the participation of older (over 65) groups, as this comprises a large part of the population in Charlotte County. The Table 32 below outlines the average rate of participation by age group:

TABLE 32: AVERAGE RATE OF PARTICIPATION BY AGE

Age	6-12	13-17	18-24	25-44	44+
Average rate of participation: 2006-2012	66%	62%	56%	54%	38%

While the trends show younger age groups participating more than older groups, participation rates for younger groups have dropped for 6-12 year olds and 13-17 year olds since 2006.¹⁹ ²⁰ On the other hand, the rate of participation has grown among 25-44 year olds.²¹ This is supported in another study that showed that adults 35 years and older increased their activity from 2008-2013.²²

However, certain sports attracted older participations. For example, the 2011 National Survey of Fishing, Hunting, and Wildlife found that the highest participation in wildlife viewing was among 45-54 year olds.²³

Regardless, female participation in all activities (team, outdoor, and indoor activities) begins to decline after the age of 21-25. For men, participation begins to decline after the age of 31-35.

The Outdoor Recreation Study focuses on the most popular activities for youth participants (6-17 years) and young adults (18-24 years).²⁴

Most Popular Activities (6-17 Year Olds)

1. Road, mountain, and BMX biking (27% of American youth)
2. Running, jogging, and trail running (24% of American youth)
3. Car, backyard, and RV camping (20% of American youth)

¹⁷ Ibid., p. 15.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Physical Activity Council. (2014). *2014 Participation Report*. Boston: Physical Activity Council.

²¹ Op. Cit., Outdoor Industry Council.

²² Op. Cit., Physical Activity Council.

²³ Op. Cit., U.S. Fish & Wildlife.

²⁴ Op. Cit., Outdoor Industry Council.

4. Freshwater, saltwater, and fly fishing (20% of American youth)
5. Hiking (12% of American youth)

Most Popular Activities (18-24 Year Olds)

1. Running, jogging, and trail running (36% of young adults)
2. Road, mountain, and BMX biking (15% of young adults)
3. Freshwater, saltwater, and fly fishing (15% of young adults)
4. Hiking (14% of young adults)
5. Car, backyard, and RV camping (14% of young adults)

Most Popular Activities by Generation

Another study reveals the most popular activities by generation, as seen in Table 33 below.²⁵

TABLE 33: POPULAR ACTIVITIES BY GENERATION

Birth Generation	Fitness Sports	Outdoor Sports
Gen Z (2000+)		X
Millenials (1980-1999)	X	
Gen X (1965-1979)	X	
Boomers (1945-1964)	X	

GENDER

Overall, males prefer outdoor over indoor activities across almost all age groups. After age 66, males participate in indoor activities.²⁶ However, females (53%) make up a larger percentage of participants engaged in wildlife viewing as compared to males (47%).²⁷

There are many more females participating in outdoor activities between the ages of 6-20. However, after the age of 16-20, females largely begin to prefer indoor activities.²⁸

Team sports across the board are more popular for both males and females before the age of 15, at which point they decline for both groups.²⁹

ETHNICITY

The Outdoor Recreation Study also focused on recreation among diverse groups. The rates of participation were reported for 2012. Table 34 reports the rates of participation among each ethnicity as well as the most popular activity by ethnicity. Running, jogging, and trail running were consistently the most popular activity among all ethnic groups.³⁰ The 2011 Florida Fishing, Hunting, and Wildlife study found that Non-Hispanic Whites made up the majority of wildlife viewing participants both away from and around the home.³¹ More data by ethnicity for

²⁵ Op. Cit., Physical Activity Council.

²⁶ Op. Cit., Outdoor Industry Association.

²⁷ Op. Cit., U.S. Fish and Wildlife.

²⁸ Op. Cit., Outdoor Industry Association.

²⁹ Ibid.

³⁰ Op. Cit., Outdoor Industry Association.

³¹ Op. Cit., U.S. Fish and Wildlife.

Florida-specific activities are available in the 2011 Florida Outdoor Recreation Study and should be analyzed in context of the public input and demographic data.³²

TABLE 34: RECREATION BY ETHNICITY

Ethnicity	Caucasian	Black	Hispanic	Asian
Participation Rate 2012	58%	44%	50%	53%
Most popular activity	<ol style="list-style-type: none"> 1. Running, jogging, and trail running (18%) 2. Freshwater, saltwater, and fly fishing (17%) 3. Road, mountain, and BMX biking (16%) 4. Car, backyard, and RV camping (16%) 5. Hiking (14%) 	<ol style="list-style-type: none"> 1. Running, jogging, and trail running (19%) 2. Freshwater, saltwater, and fly fishing (11%) 3. Road, mountain, and BMX biking (11%) 4. Birdwatching/ Wildlife viewing (5%) 5. Car, backyard, and RV camping (4%) 	<ol style="list-style-type: none"> 1. Running, jogging, and trail running (22%) 2. Road, mountain, and BMX biking (17%) 3. Freshwater, saltwater, and fly fishing (14%) 4. Car, backyard, and RV camping (11%) 5. Hiking (9%) 	<ol style="list-style-type: none"> 1. Running, jogging, and trail running (24%) 2. Road, mountain, and BMX biking (14%) 3. Hiking (13%) 4. Car, backyard, and RV camping (10%) 5. Freshwater, saltwater, and fly fishing (9%) 5. Cross-country, alpine, freestyle, telemark skiing (8%)

INCOME

Comparisons by income were only provided in the U.S. Fish and Wildlife studies. Most trend data tracks expenditures on recreational activities, rather than representation by income levels. In Florida, the income levels of fishing, hunting, and wildlife viewing participants were somewhat different in comparing these two activities.³³ Participants in fishing or hunting were more often represented by a higher income level than those of wildlife participants.

TABLE 35: FISHING, HUNTING, AND WILDLIFE VIEWING BY INCOME

Income	% fished or hunted	% of Wildlife Participants
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³² Op. Cit., Responsive Management

³³ Op. Cit., U.S. Fish and Wildlife.

Less than \$20,000	8%	11%
\$20,000 - 29,999	7%	39%
\$30,000-39,999	9%	20%
\$40,000-49,999	17%	24%
\$50,000-74,999	31%	37%
\$75,000-99,999	18%	34%
\$100,000-149,999	18%	26%
\$150,000 or more	21%	25%

OTHER RELEVANT TRENDS

In addition to participation trends relative to popular activities and demographic group, other trends might inform the development of the Master Plan.

TECHNOLOGY

The use of technology as a part of outdoor recreation has been studied. Music players and smart phones are the most used technology by all ages and genders, followed by laptops, fitness monitors, and tablets.³⁴ Hispanics use smart phones and music players at a rate higher than any other ethnic group, followed by Asian/Pacific Islanders (smart phones) and Blacks (music players), respectively. The use of technology may have implications for interpretive devices or apps in Charlotte County parks programs and facilities.

MOTIVATION

Another set of trends research is related to the motivation for participants to participate in outdoor activities. This data may be helpful in determining priorities for the development of park facilities and amenities. This data shows that for over 70% of outdoor participants, getting exercise is their primary motivator. This is followed by being with family and friends (54%), keeping physically fit (51%), and being close to nature (47%).³⁵

POTENTIAL FACILITY USAGE TRENDS

The Outdoor Recreation Survey also includes the rate of change for indoor fitness, team sports, and other activities (archery, bowling, etc.). Further review of this study may be warranted within the context of public input.³⁶

³⁴ Op. Cit., Outdoor Industry Association.

³⁵ Ibid.

³⁶ Ibid.

Section III

Document and Regional Plan Review

SECTION III: DOCUMENT AND REGIONAL PLAN REVIEW

SUBSECTION A: PLAN REVIEW

The purpose of the plan review section is to review relevant documents, plans, and policies for development of the master plan. The summary below is accompanied by a more extensive description of relevant policies in the Appendices. This section reflects the multilayered jurisdictional environment within which the county operates.

CHARLOTTE COUNTY

CHARLOTTE COUNTY COMPREHENSIVE PLAN

The Charlotte County Comprehensive Plan is the foundation for the creation of a master plan.³⁷ The County's Comprehensive Plan is specific as to how the County will "establish an integrated system of parks, open space and recreational resources that provides a diverse, yet balanced, range of user-based and resource-based recreational opportunities which are available to all of Charlotte County's citizens and visitors." The Plan also establishes the framework for the parks level of service (LOS) upon which the master plan needs are based.

The three broad goals within the recreation and open space element are:

1. Establish an integrated system of parks, open space and recreational resources that provides a diverse, yet balanced, range of user-based and resource-based recreational opportunities.
2. Promote, conduct and provide for high-quality, professional programs that are accessible, and provide traditional and alternative recreational venues and opportunities serving the needs of both residents and visitors.
3. Identify opportunities and promote and execute strategies that add value and validity to the delivery of community services including parks, recreation, libraries, historic preservation, arts and humanities.

Other relevant elements of the comprehensive plan include:

- **Future Land Use:** The Future Land Use (FLU) Goals, Objectives and Policies (GOPs) implement the Smart Charlotte 2050 Framework. This element focuses on the principles of Smart Growth as the underlying standard for the creation of land use policy; the Urban Service Area policies to establish a clearer focus on future neighborhood development in the right place and form; the recognition and introduction of "incentives" as the primary method for achieving the desired land use form; and a focus on economic development. These GOPs help to guide the role of parks within the larger context of the county's land use system.³⁸
- **Natural Resources:** The purpose of the Natural Resources element is to promote the conservation and protection of natural resources and guide the acceptable use of resources. The goals of this element speak to reducing pollution, protecting important flora and fauna, and protecting wetlands. Protecting ground and surface water from harmful pollutants is an important theme throughout the policies of this element. The other important theme is protecting habitat and promoting

³⁷ The relevant provisions of the Comprehensive Plan appear in Appendix A of this document.

³⁸ See Future Land Use GOPs at:

http://www2.charlottefl.com/CompPlan/main/view_doc.aspx?show_comments=true&docid=5

interconnections between existing preserved lands in order to provide adequate shelter for Florida's plant and animal life.³⁹

- Intergovernmental Coordination: This element is important to the development and implementation of a parks master plan. Collaborative and cooperative relationships between departments and agencies are important for the creation of recreational opportunities.⁴⁰

BLUEWAY TRAIL SYSTEM

Charlotte County currently has 57 blueway trails. As needs are identified through the public input and analysis stage(s) the blueway trail system may deserve additional attention.⁴¹

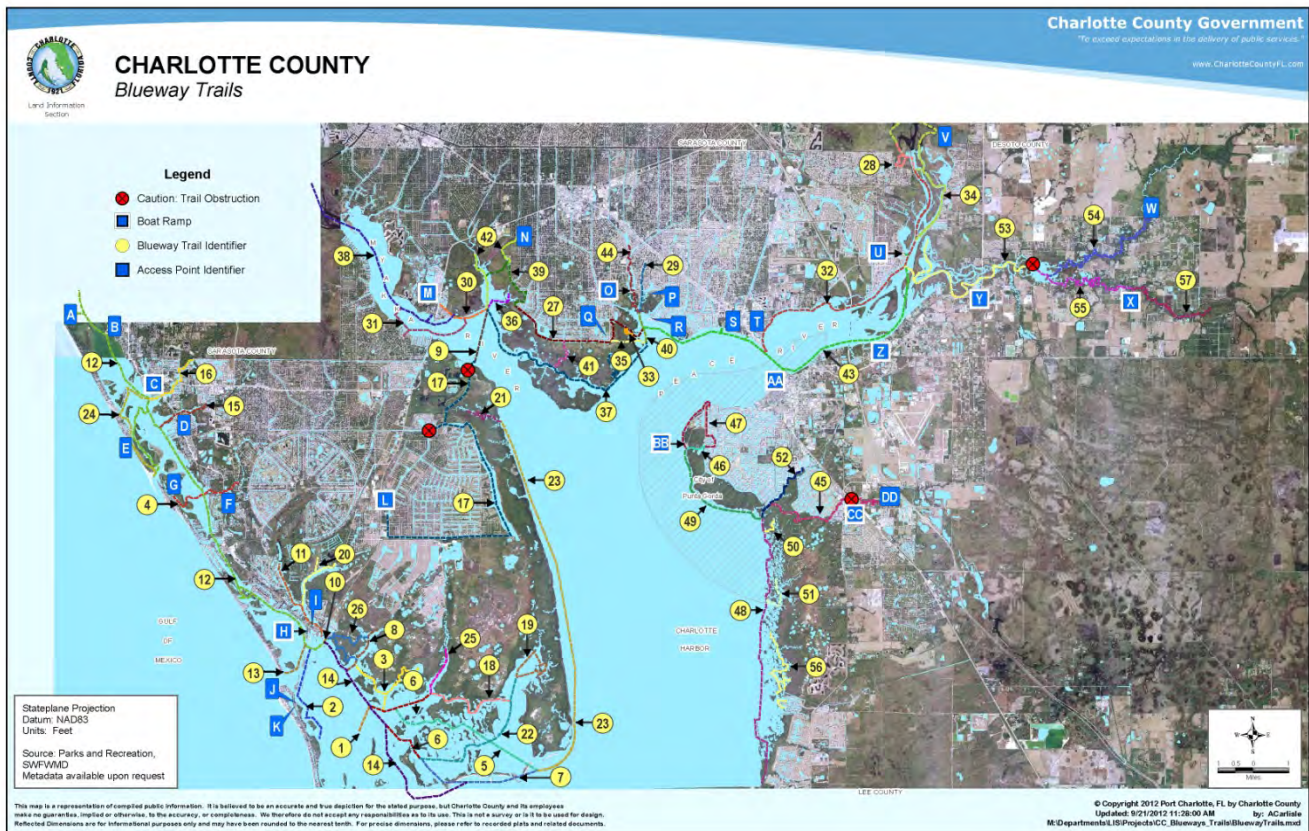


FIGURE 11: CHARLOTTE COUNTY BLUEWAY TRAILS⁴²

³⁹ See the Natural Resources Element at:

http://www2.charlottefl.com/CompPlan/main/view_doc.aspx?show_comments=true&docid=5

⁴⁰ http://www2.charlottefl.com/CompPlan/main/view_doc.aspx?show_comments=true&docid=1

⁴¹ <http://charlottecountyfl.com/communityservices/CalendarsRecreation/BWTbrochure.pdf>

⁴² <http://www.charlottecountyfl.com/communityservices/CalendarsRecreation/BWTmap.pdf>

INCORPORATED MUNICIPALITIES

CITY OF PUNTA GORDA

To develop a parks master plan for Charlotte County, it is also important to understand the plans of incorporated municipalities, which also contain parks-related goals, objectives, and policies.

The Parks and Grounds Division of the City of Punta Gorda is responsible for the development, operation and maintenance of city parks and recreation facilities. Approximately 17 developed parks and recreation facilities are maintained by the department. Impact fees and ad valorem taxes are the City's principal funding sources for parks and recreation. Impact fees can be used only for land acquisition and capital improvements that increase the level of service. Operation and maintenance expenses typically come from ad valorem taxes. There are 19 park locations that are classified as city parks, totaling about 109 acres. The City uses an acreage based LOS standard at 5.0 acres of developed parklands per functional or seasonal resident.⁴³

Details regarding the following document are located in Appendix B.

COMPREHENSIVE PLAN

PARK AND RECREATION ELEMENT

The Punta Gorda Comprehensive Plan contains a park and open space element which states the following goal: The City of Punta Gorda will act to provide public and private recreation resources; provide public parks appropriately located to the population they are intended to serve; coordinate the City facilities with those of other governments; and acquire important open space systems that protect property from storm surge events and/or preserve important habitats. It also contains four broad objectives, each with underlying policies for which to accomplish these objectives:

1. Punta Gorda will continue to develop a system of, neighborhood and community parks that serve the residents of the City and serve as part of a comprehensive outdoor recreational system consisting of city, county, state, and national parks.
2. Punta Gorda will maintain a system of open spaces that will conserve and preserve marine and terrestrial flora and fauna and their associated habitats.
3. Punta Gorda will promote the use of public and private resources to meet recreation demands.
4. Punta Gorda will promote access and/or public enjoyment of all parks and open space systems in the City.

INTERGOVERNMENTAL COORDINATION

The Intergovernmental Coordination Element of the Charlotte County Comprehensive Plan may be important for future collaboration with the City. That element states: "the County shall notify the City of Punta Gorda at the time of application for initial staff review of plan amendments, actions affecting shared boundaries, zoning, subdivision, site plan approval processes, and conditional use permits within the South County planning area to provide the City with an opportunity to provide meaningful input regarding those changes. The City of Punta Gorda is requested to reciprocate by extending the same courtesy to the County."⁴⁴

PARKS MASTER PLAN

⁴³ http://www.ci.punta-gorda.fl.us/userdata/growthmgmt/CompPlan/Rec_OpenSpacesApp012009.pdf

⁴⁴ http://www2.charlottefl.com/CompPlan/main/view_doc.aspx?show_comments=true&docid=13#contentelement_6024

Punta Gorda also has a Parks Master Plan which reviews the City's current and future delivery of recreation services for its growing population and as a vital component of its economic sustainability.⁴⁵ As a component of the County with legally binding policies, the City's Parks Master Plan provides goals in relation to recreation service delivery. These goals may highlight opportunities and gaps in service delivery.

1. Offer a wider variety of water based activities throughout the park system.
2. Maintain the unique small town, old Florida charm of Punta Gorda through the preservation and reinforcement of Historic Resources
3. Provide and encourage public spaces to soften the urban landscape – to put the right park with the right amenities in the right neighborhood.
4. Provide tree-lined avenues to connect parks, neighborhoods, and community destinations.
5. Utilize multi-use recreational trails that connect parks, neighborhoods, civic places and other community destinations
6. Design parks to accommodate multi-generational recreational needs
7. As transit becomes available, utilize it to reinforce community access to the Park system
8. Encourage events and activities in the parks to enliven the public realm
9. Provide opportunities for continued economic and social development and sustainability
10. To ensure conservation areas and critical habitats are protected and preserved
11. Enhance existing and underdeveloped parks to maximize potential and increase neighborhood benefits

The Parks Master Plan also provides objectives for the short, intermediate, and long term.

PUNTA GORDA PATHWAYS

The Punta Gorda Pathways is a system of approximately 18 miles of Bicycle and Pedestrian Trails and Paths that will connect the City's neighborhoods, parks, and commercial areas. See map provided in Figure B below. The Punta Gorda Pathways project is being funded through a combination of Federal Transportation Funds, 1 Cent Local Option Infrastructure Sale Tax, and private sector development projects. Three projects of importance are Harborwalk, Linear Park, and US 41 Multi-Use Recreational Trail⁴⁶.

Pathways are a source of recreational opportunity and provide a service for a multitude of amenities. Understanding what services the City provides or intends to provide as it relates to greenways, pathways, and trails will assist the County in planning for future development or redevelopment.

⁴⁵ <http://www.ci.punta-gorda.fl.us/depts/growthmgmt/rec&openspacemastplan.html>

⁴⁶ <http://www.ci.punta-gorda.fl.us/depts/growthmgmt/ringaroundcity.html>



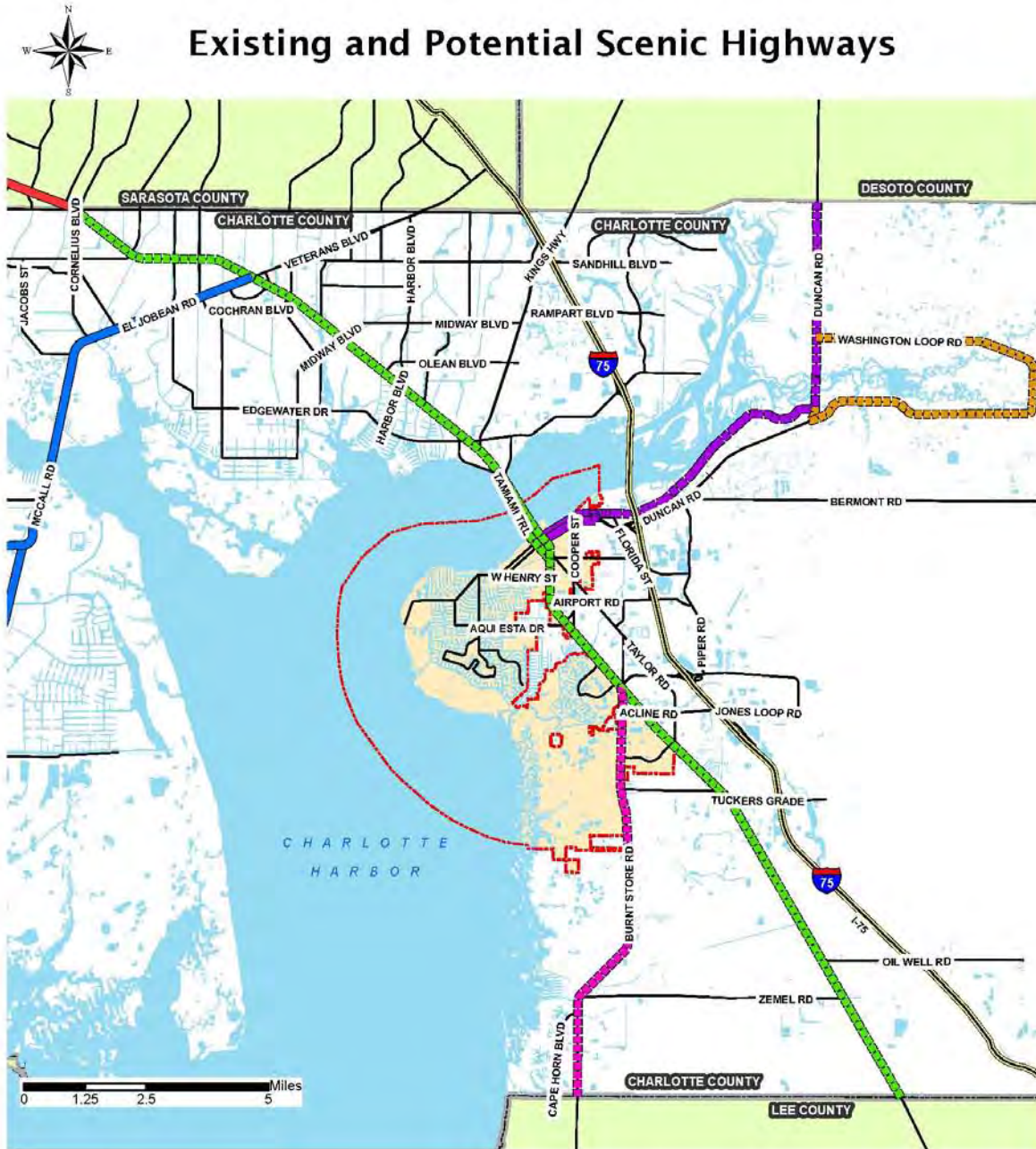
FIGURE 12: PUNTA GORDA PATHWAYS⁴⁷

⁴⁷ <http://ci.punta-gorda.fl.us/depts/growthmgmt/documents/MAPPuntaGordaPathways.pdf>

SOUTH COUNTY GATEWAY PLANNING AND SCENIC HIGHWAYS

The Charlotte County Growth Management Staff, TEAM Punta Gorda and City Staff have held two South County Gateway Meetings. These public meetings were held to solicit public input regarding the future development and desired community character in the South Charlotte County Area. One of the outcomes of the planning process was the creation of potential scenic routes. These were identified as: Tamiami Route along US 41 from Sarasota County to Lee County, Peace River Route along the Peace River via US 17 and Riverside Drive, Burnt Store Route along Burnt Store Road from US 41 to Lee County, and Washington Loop Route along the entire course of Washington Loop Road from US 17 to US 17. This map appears below in Figure 13.

Existing and Potential Scenic Highways



Legend

Potential Scenic Highway Routes

- - - - - Tamiami Route
- - - - - Peace River Route
- - - - - Burnt Store Route
- - - - - Washington Loop Route

Existing Scenic Highways

- - - - - Tamiami Trail-Windows on the Gulf Coast Waters Scenic Highway
- - - - - Lemon Bay-Mayakka River Scenic Highway
- City of Punta Gorda

FIGURE 13: EXISTING AND POTENTIAL SCENIC HIGHWAY MAP⁴⁸

⁴⁸ <http://www.ci.punta-gorda.fl.us/userdata/growthmgmt/ScenicHighwayStaffMap.pdf>

PUNTA GORDA ALTERNATIVE TRANSPORTATION PLAN 2030

The parks plan may also benefit from connections to the City's Alternative Transportation Plan 2030. The plan provides guidance for the logical long-range expansion of a network of pedestrian, bicycle, and kayak/canoe facilities. It encompasses the entire city of Punta Gorda, but due to a number of enclaves, some logical system connections cross into unincorporated Charlotte County. The plan aims to improve the quality of life for residents, creating a more sustainable environment, providing greater opportunity for recreation, reducing traffic congestion, and vehicle noise. The Plan is designed to maximize access, safety, recreation, and transportation through a logical plan for the long-range development of sidewalks, bicycle routes, and kayak/canoe facilities. This document provides three areas of importance: Downtown, South of Downtown, and Punta Gorda Isles, Burnt Store Isles, and Burnt Store Meadows.⁴⁹

⁴⁹ <http://www.ci.punta-gorda.fl.us/depts/growthmgmt/documents/AlternativeTransportation2030.pdf>

UNINCORPORATED COMMUNITIES

The documents and community plans of unincorporated municipalities provide guidance for the creation of a parks plan. The following is a list of communities and areas with relevant recreational goals, objectives, and policies.

The relevant portion of these plans are cataloged in Appendix C:

1. Parkside
2. South Gulf Cove
3. Placida
4. Boca Grande
5. Grove City
6. Little Gasparilla Island
7. Manasota and Sandpiper Key
8. Charlotte Harbor
9. Murdock Village
10. Babcock Ranch Recreation Master Plan
11. Burnt Store Area Plan
12. Fred C. Babcock – Cecil M. Webb Wildlife Management Area

FEDERAL AGENCIES

The federal government has responsibility for developing recreational facilities and programs that provide public opportunities that are not, or cannot, be made available by state or local government. Many federal agencies offer programs that provide guidelines and standards to local recreation development. Federal agencies also offer opportunities for funding.

A more expansive discussion each of the following Departments can be found in Appendix D.

U.S. DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

The National Park Service of the U.S. Department of the Interior has a goal to conserve the scenery and natural resources of national parks and provide a wide variety of outdoor recreation opportunities. Most relevant to the development of a master plan in Charlotte County is the management of the National Register of Historic Places, which provides a comprehensive list of nationally registered places.⁵⁰

NATIONAL TRAIL SYSTEM

The National Trail System Act of 1968 (Public Law 90-543), authorized creation of a national trail system comprised of National Recreation Trails, National Scenic Trails and National Historic Trails. In order to be certified as a National Scenic Trail, a trail must contain outstanding recreation opportunities and encompass more than 100 miles of a continuous, primarily non-motorized trail. Currently, there are no National Trails in Charlotte County.⁵¹

U.S. FISH AND WILDLIFE SERVICE

The U.S. Fish and Wildlife Service is responsible for enforcing federal wildlife laws, protecting endangered species, managing migratory birds, restoring nationally significant fisheries and conserving and restoring wildlife habitat including wetlands. It is also responsible for the administration of federal aid programs, including Federal Aid in Sport Fish Restoration (commonly referred to as the Dingell-Johnson Act and Wallop-Breaux Act), Federal Aid in Wildlife Restoration (commonly referred to as the Pittman-Robertson Act) and Wildlife Partnership Act (conservation of non-game species). These grant programs are managed in Florida by the Florida Fish and Wildlife Conservation Commission. Grants to Florida under the Clean Vessel Act (clean boating programs) are managed by the Clean Marina Program in the Florida Department of Environmental Protection's Office of External Affairs⁵².

The U.S. Fish and Wildlife Service manages the National Wildlife Refuges. The only National Wildlife Refuge in Charlotte County is Island Bay.

U.S. DEPARTMENT OF AGRICULTURE

U.S. FOREST SERVICE

The responsibility of USFS in the field of outdoor recreation is to fully develop the recreational potential of national forests and protect landscape aesthetics. USFS also cooperates with other federal, state and local agencies in planning and developing recreational resources on other federal, state, local and private lands. The U.S. Forest Service (USFS) provides leadership in the management, protection and use of the nation's forests and rangelands. The agency is dedicated to multiple-use management of these lands for sustained yields of renewable resources such as wood, water, forage, wildlife and recreation to meet the diverse needs of people.

⁵⁰ Retrieved from: <http://www.nps.gov/state/fl/index.htm?program=parks>

⁵¹ <http://www.nps.gov/nts/maps/National%20Trails%20map.pdf>

⁵² <http://www.fws.gov/refuges/refugeLocatorMaps/Florida.html>

There are no National Forests in Charlotte County.⁵³

U.S. ARMY CORPS OF ENGINEERS

Along with its primary responsibilities for navigation, flood risk management, environmental restoration and beach renourishment, the U.S. Army Corps of Engineers (USACE) has made considerable efforts to provide recreational facilities. It is the policy of USACE to plan for and provide outdoor recreation resources and facilities at all of its water resources projects. The agency also leads in the development of the Southwest Florida Comprehensive Watershed Plan. In relation to Charlotte County, the USACE acts in coordination with SWFMD to fulfill its water management/recreational objectives.⁵⁴

U.S. DEPARTMENT OF TRANSPORTATION

The Federal Highway Administration (FHWA) within the U.S. Department of Transportation provides grants to state and local governments for various recreational trail projects.

RECREATIONAL TRAILS PROGRAM

The Recreational Trails Program is responsible for providing funds to the states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized trail uses. At a state level, the FL DEP Office of Greenways and Trails acts as the managing agency.⁵⁵

NATIONAL SCENIC BYWAYS PROGRAM

Recognizes roads having outstanding scenic, historic, cultural, natural, recreational and archaeological qualities by designating them as National Scenic Byways, All-American Roads, America's Byways or State Scenic Byways. The national program provides grant opportunities to develop and maintain national scenic byways. There are no federal byways currently in or near Charlotte County.^{56 57}

U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

The National Ocean Service provides assistance to Florida in observing, understanding and managing coastal and marine resources⁵⁸.

NATIONAL ESTUARINE RESEARCH RESERVES

The National Estuarine Research Reserve System is a network of estuarine areas across the nation established for long-term stewardship, research and education. Each reserve has developed an organized ecological research program containing extensive teacher training, education, research and monitoring. Findings are communicated to coastal managers and other decision makers, as well as local citizens. Florida contains three of these reserves: Apalachicola, Guana Tolomato Matanzas and Rookery Bay. None of these are located in Charlotte County⁵⁹.

NATIONAL MARINE SANCTUARIES

⁵³ <http://www.fs.fed.us/recreation/>

⁵⁴ <http://www.usace.army.mil/>

⁵⁵ https://www.fhwa.dot.gov/environment/recreational_trails/

⁵⁶ <http://www.fhwa.dot.gov/byways/byways/nearby?q=charlotte+county>

⁵⁷ The federal and state programs are distinct entities. See the Florida Scenic Highway program at: www.fhwa.dot.gov/byways/byways

⁵⁸ <http://www.legendary.noaa.gov/NIYS/>

⁵⁹ <http://www.nerrs.noaa.gov/ReservesMap.aspx>

The National Marine Sanctuary Program designates and manages areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational or aesthetic qualities. The Florida Keys National Marine Sanctuary is the only sanctuary in Florida; there are none in Charlotte County⁶⁰.

NATIONAL COASTAL ZONE MANAGEMENT PROGRAM

In 2002, the National Coastal Zone program initiated the Coastal and Estuarine Land Conservation Program. The program is aimed at protecting important coastal and estuarine areas that have significant conservation, recreation, ecological, historical or aesthetic values and that are threatened by conversion from their natural or recreational state to other uses. The Florida Coastal Management Program manages this grant program, which provides up to \$3 million for each eligible project.⁶¹

⁶⁰ <http://sanctuaries.noaa.gov/>

⁶¹ <http://coastalmanagement.noaa.gov/programs/czm.html>

REGIONAL AGENCIES

Regional agencies include those that manage several recreational related activities or interlocal agreements in the Southwest Florida, or Charlotte County area. These agencies provide goals, policies, and objectives that relate to proper and allowable development of recreational opportunities. All regional agency details and document details are located in Appendix E.

CHARLOTTE COUNTY SCHOOL DISTRICT

As in many communities, the County's schools are a strong hub of activity regarding outdoor and indoor sports and athletics. The County has agreed to maintain an inter-local agreement with the Charlotte County School Board to provide for mutually beneficial utilization of resources and provision of recreational, educational and extracurricular opportunities. Charlotte County has an Interlocal Agreement with the Charlotte County School Board allowing for public access to school recreational facilities on a case-by-case basis. The School District would benefit from joint use of parks adjacent to or in the vicinity of public schools. This includes the shifting of recreational facilities to adjacent parks to reduce maintenance costs or the amount of property needed to accommodate the new school. There are several opportunities for joint use of existing facilities and proposed school sites. However, potential sites for future schools have not been yet been determined by the School District beyond the twenty-year planning period.⁶²

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

The South Florida Water Management District (SFWMD) has responsibility for the southeastern portion of Charlotte County, which is generally in the less urbanized portion of the county. Based on interviews with SFWMD staff, the agency has no acquisition plans for open space in Charlotte County. However, some relatively minor opportunities for water management open space exist on private land adjacent to I-75. This is unlikely to affect the park planning process in Charlotte County.⁶³

CHARLOTTE HARBOR PLAN AND COMPREHENSIVE EVERGLADES RESTORATION PLAN (CERP)

The primary goal of the CERP is to restore, preserve and protect the South Florida ecosystem through improved water management while providing for other water related needs of the region such as flood protection and water supply. The Everglades Restoration Plan has minimal effects on Charlotte County operations. However, SFWMD aims to improve water quality throughout the Caloosahatchee Estuary through inflows from the Charlotte Harbor Area.⁶⁴

MASTER RECREATION PLAN (MRP)

The Master Recreation Plan developed by the SFWMD is somewhat important to consider in the development of the County Master Plan because it offers regulations and guidelines when developing and maintaining parklands under the management of SFWMD. The primary goal of the CERP MRP is to develop a comprehensive plan for addressing recreational needs within the C&SF Project consistent with the project's authorized purpose. The plan has the following objectives:

- Provide the best possible combination of responses to regional needs, resource capabilities, and suitability, and expressed public interests and desires consistent with authorized purposes.

⁶²<http://webapps.dep.state.fl.us/DrpOrpccr/UpdateInventoryView.do?submitTo=UpdateInventoryPark&selectedSite=CHARLOTTE+COUNTY+SCHOOL+BOARD>

⁶³ Interview with Phil Flood, South Florida Water Management District.

⁶⁴ <http://www.evergladesplan.org/>

- Contribute towards providing restoration compatible recreational opportunities, public access, activities and diversity within CERP projects.
- Emphasize the particular quantity, quality, character and potential of each of the nine CERP regions when developing recreational, educational, and public access opportunities.
- To the extent possible, minimize impacts to existing recreational uses.
- Seek consistency and compatibility with national, state and regional programs, goals, and objectives.
- Identify public, private, and intergovernmental partnerships to enhance and promote recreational, educational, and public access opportunities.
- Develop and implement guidelines for recreation planning, needs and impact assessments, on a regional basis for integration into the CERP Project Implementation Report (PIR), Pilot Project Design Report (PPDR), and feasibility study (FS) processes for each specific project.
- Develop measures to assess change in recreational opportunities and types of uses as it relates to CERP.⁶⁵

LOWER CHARLOTTE HARBOR SURFACE WATER IMPROVEMENT AND MANAGEMENT PLAN

The SFWMD defines Lower Charlotte Harbor (LCH) as the basins of Pine Island Sound, Matlacha Pass, East and West Caloosahatchee, Estero Bay, and the southern portion of Lower Charlotte Harbor. The SWIM Plan for Lower Charlotte Harbor has the following goals:

1. Protect and improve surface water quality
2. Preserve and restore, where appropriate, native ecosystems along with their water resource related functions
3. Maintain the integrity and functions of water resources and related natural systems
4. Improve degraded water resources and related natural systems to a more natural functionality

It also provides 2025 land use estimations for Charlotte Harbor, including urban and built-up land, agriculture, range and upland forest, wetlands, and open water usage. The plan includes initiatives in order to achieve its goals. The SWIM Plan provides some collaborative opportunities for water-based recreational opportunities in Charlotte Harbor.⁶⁶

CHARLOTTE HARBOR FLATWOODS INITIATIVE

The Charlotte Harbor Flatwoods Initiative is in its planning and development stages with the following objectives:

- Sheet flow restoration
- Restoring more natural flows to Charlotte Harbor
- Water Quality Improvement
- Ground Water Recharge
- Enhancement of fish and wildlife habitats

The Initiative makes the following recommendations:

⁶⁵ http://www.evergladesplan.org/pm/pm_docs/master_rec_plan/111204_pmp_master_rec_mainbody.pdf

⁶⁶ http://my.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/lower_charlotte_harbor_swim.pdf

- Re-establish sheet flow east of US 41
- Water storage and treatment west of US 41
- Enhance sheet flow across Yucca Pens
- Restore flow across Burnt Store Road
- Implement monitoring network

The Charlotte Harbor Flatwoods Initiative is important as it may limit available development of alternate recreational uses.

SOUTHWEST FLORIDA COMPREHENSIVE WATERSHED PLAN

Although a project of the U.S. Army Corp of Engineers, the SWFCWP is a regional plan designed to produce a regional restoration plan that addresses water resources issues within all watersheds in southwest Florida. The SWFCWP primarily addresses ecosystem restoration, although it also recommends seven flood risk management studies to investigate water resources problems and opportunities in all or parts of Lee, Collier, Hendry, Glades, Charlotte, and Monroe counties, Florida.

Regional problem descriptions developed by the project delivery team (PDT) with extensive public involvement include:

- Loss of natural ecosystems and landscape connectivity/degradation of critically endangered wildlife habitat
- Altered, unnatural freshwater flows to wetlands and estuaries (Altered Surface Water Hydrology);
- Water quality degradation in surface waters;
- Saltwater intrusion into aquifers and surface waters; and
- Flooding and/or drought in various locations within the study area.

The areas in Charlotte County affected by the Comprehensive Watershed Plan include Lemon Bay, Gasparilla Sound, and Charlotte Harbor.⁶⁷

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

The SWFWMD has jurisdiction over approximately 46,609 acres of preserved land within Charlotte County, in joint management with either the State or the County. The SWFWMD has responsibility for northwest Charlotte County and covers the majority of the urbanized area(s). The Charlotte Harbor Preserve State Park and the Prairie/Shell Creek Preserve are under SWFWMD management.

RECREATION EVALUATION 2013

The SWFWMD created and conducted a recreation evaluation for all of the recreational lands under their jurisdiction. The evaluation provides a preliminary inventory of available resource-based recreation opportunities, levels of service for each recreation use, and information on current and projected recreation trends and demands. SWFWMD has provided LOS recommendations that appear in Appendix E. As the second phase of the evaluation continues, it may be desirable to periodically check whether or not Charlotte County managed parks are meeting SWFWMD recommendations.⁶⁸

⁶⁷http://www.saj.usace.army.mil/Portals/44/docs/Planning/ReviewPlans/South%20West%20Florida%20Comprehensive%20Watershed%20Plan_508.pdf.

⁶⁸ http://www.swfwmd.state.fl.us/recreation/evaluation/files/Recreation_Evaluation_Findings.pdf

SWFWMD FLORIDA FOREVER WORK PLAN

The Florida Forever Work Plan outlines those eligible projects that the District could fund through the Florida Forever program over a five-year period and for which future Florida Forever funding under the Florida Forever Act may be available. The Florida Forever Act provides for the issuance of up to \$3 billion in bonds through 2020 to be used for land acquisition (including less-than-fee purchases), water resource development, storm water management, water body restoration, recreational facility construction, public access improvements, invasive plant control and related projects. Over the life of the program, at least 50 percent of the funds allocated to the water management districts must be spent on land acquisition. Based on the work plan documents and interviews with SWFWMD staff, there are currently no land acquisition plans in the Charlotte County area.⁶⁹

STRATEGIC PLAN 2014-2018

The Strategic Initiatives section provides information on each of the SWFWMD initiatives, including goals and strategies. While the Strategic Initiatives identify activities implemented throughout the District, the water resource needs vary from one planning region to another. The top water resource priorities for each region, along with measurable objectives, are identified in the Regional Priorities section of this document.

The two areas of concerns within the strategic plan are the Charlotte Harbor Preserve State Park and the Prairie and Shell Creek watersheds. The initiatives in this plan should be consulted as public input and recreational needs are finalized.⁷⁰

CONSOLIDATED ANNUAL REPORT

The Consolidated Annual Report provides an update on the completion and cost of several ongoing projects. These projects include active water supply and resource development, and water protection and sustainability trust fund projects. The report provides a recap of projects within Charlotte County that were funded with FY2014 Funds.⁷¹

CHARLOTTE HARBOR PRESERVE STATE PARK- UNIT MANAGEMENT PLAN

The Charlotte Harbor Preserve State Park falls under partial management by the SWFWMD. The Unit Management Plan provides several goals, as well as proposed additional development, including water-based recreational activities, facility management, and trail expansion projects. Details of these goals and additional developments can be found in Appendix E.⁷²

SHELL CREEK AND PRAIRIE CREEK WATERSHEDS MANAGEMENT PLAN

The purpose of this document is to provide "reasonable assurance" that the Shell Creek and Prairie Creek Watersheds Management Plan (SPCWMP) will restore and maintain water quality conditions to the water quality criteria set forth in Chapter 62-302, Florida Administrative Code (F.A.C.). This document identifies management plans and projects specifically developed by the Shell, Prairie, and Joshua Creeks Watershed Management Plan.⁷³

CHARLOTTE HARBOR SURFACE WATER IMPROVEMENT AND MANAGEMENT (SWIM) PLAN

The Surface Water Improvement and Management (SWIM) Act of 1987, directed the State's water management districts to "design and implement plans and programs for the improvement and management of surface water" and under the SWIM Act, water management districts prioritize water bodies based on their need for protection and/or restoration. The goals of the Charlotte Harbor SWIM plan are:

⁶⁹ https://www.swfwmd.state.fl.us/documents/plans/FFworkplan_2013Final.pdf

⁷⁰ <https://www.swfwmd.state.fl.us/about/strategic-plan/assets/StrategicPlan.pdf>

⁷¹ https://www.swfwmd.state.fl.us/documents/reports/2014_CAR.pdf

⁷² <https://www.swfwmd.state.fl.us/documents/plans/landusemgmt/files/CharlotteHarborPreservestatePark.pdf>

⁷³ https://www.swfwmd.state.fl.us/files/database/site_file_sets/2477/spjc_wmp.pdf

- Improve the environmental integrity of the Charlotte Harbor study area.
- Preserve, restore and enhance seagrass beds, coastal wetlands, barrier beaches, and functionally related uplands.
- Reduce point and non-point sources of pollution to attain desired used of the estuary
- Provide the proper fresh water inflow to the estuary to ensure a balanced and productive ecosystem
- Develop and implement a strategy for public participation and education
- Develop and implement a formal Charlotte Harbor management plan with a specified structure and process for achieving goals for the estuary

The SWIM Plan lists several priority projects. These elements are important for consideration in the development of a Parks Master Plan for Charlotte County in its development proposals.⁷⁴

FLORIDA SEA GRANT

The Florida Sea Grant is Florida Sea Grant is a university-based program that supports research, education and extension to conserve coastal resources and enhance economic opportunities. The program is a partnership between the Florida Board of Education, the National Oceanic and Atmospheric Administration, and Florida's citizens and governments.

RECREATIONAL BOATING CHARACTERIZATION FOR THE GREATER CHARLOTTE HARBOR

The Sea Grant program developed a study that analyzes the preferences, activities, and water-use patterns of boaters on the basis of trip departure type. The Greater Charlotte Harbor study region extends approximately 70 miles from Englewood (Lemon Bay) in the north to Bonita Springs (Estero Bay) in the south, in Charlotte, and Lee counties. An estimated 61,540 pleasure boats are currently registered in the study region according to the Florida Department of Highway Safety and Motor Vehicles. The results of the study will help determine level of service needs and demands. Appendix E provides details of the statistics obtained from survey results.⁷⁵

THE FUTURE OF RECREATIONAL BOATING ACCESS TO CHARLOTTE COUNTY WATERWAYS

This document provides a regional trend of recreational boating in Charlotte County. It differs from the previous document in that it provides future estimations of needs and demands in recreational boating. This is a key document for park planning in the area of future boating recreational opportunities.⁷⁶

The objectives of this project were:

- To profile the supply-demand characteristics of boating access;
- To inventory and map current land-side infrastructure and water access characteristics adjacent to parcel locations;
- To assess the suitability of expanding existing marinas and ramps, siting new ones on vacant saltwater parcels, and siting mooring fields to meet projected public access demand;
- To identify regulatory policies that affect development and use of Charlotte County's marine resources;
- To present results to the BOCC for adoption as plan amendments to the Smart Charlotte 2050 Comprehensive Plan.

SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL

⁷⁴ https://www.swfwmd.state.fl.us/files/database/site_file_sets/34/charlotte_harbor.pdf

⁷⁵ <http://nsgl.gso.uri.edu/flsgp/flsgps05004.pdf>

⁷⁶ https://www.flseagrant.org/wp-content/uploads/tp186_charlotte_marine_access_study1.pdf

The purposes of the SW Florida Regional Planning Council (RPC) is to serve as the regional coordinator for members, to exchange, interchange and review various programs of member jurisdictions relating to regional problems; to promote communication between members for the conservation and compatible development within the region; and to cooperate with federal, state, local and non-governmental agencies to accomplish these objectives. The Regional Planning Council identifies opportunities and gaps in land use development around Southwest Florida.

REGIONAL PLANNING COUNCIL STRATEGIC REGIONAL POLICY PLAN

The Strategic Regional Policy Plan (SRPP) for Southwest Florida is a long range guide for the physical, economic, and social development of the region. The overall purpose of the SRPP is to steer the region toward a more healthy and sustainable future. There are several initiatives with corresponding goals include:

1. Public Awareness Initiative
2. Natural Resource Protection
3. Water Resource Management
4. Regional Cooperation
5. Livable Communities⁷⁷

The goals and policies relevant for Charlotte County appear in Appendix E.

CHARLOTTE HARBOR NATIONAL ESTUARY PROGRAM

COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN

The Charlotte Harbor National Estuary Program created a Comprehensive Conservation and Management Plan (CCMP) that addresses four priority problems common throughout the CHNEP study area and that have been identified to impede the health of the watersheds and estuaries. They are water quality degradation, hydrologic alterations, fish and wildlife habitat loss, and stewardship gaps. The CCMP includes a series of graphic vision maps, quantifiable objectives, priority actions and many support documents. It identifies priority problems within five distinguished areas:

1. Myakka River
2. Peace River
3. Caloosahatchee River
4. Dona, Roberts, and Lemon Bays
5. Charlotte Harbor, Myakka and Peace Estuaries⁷⁸

The goals and objectives within this plan implement regulatory suggestions for land use and development within these areas and will be beneficial when identifying recreational needs and opportunities in Charlotte County.

Based on an interview with CHNEP staff, the program does not have current acquisition plans in Charlotte County. However, the program's NEPORT report tracks restoration and acquisition projects that may be opportunities for future collaboration.⁷⁹

⁷⁷ http://www.swfrpc.org/content/Regional_Planning/SRPP/EAR/SWFRPC_SRPP_EAR_Final10-20-11.pdf

⁷⁸ This link provides more details on strategies to reach these goals: <http://www.chnep.org/CCMP/CCMP2013.pdf>

⁷⁹ Interview with Judy Ott, CHNEP conducted 5/14/14.

STATE AGENCIES

The State of Florida's responsibilities for providing public recreation are fulfilled through a variety of facilities and programs, each unique to the mission of the separate entities listed below. State agencies provide guidelines, standards, and funding opportunities for local government entities, including Charlotte County.

Details of each department and their subsequent divisions and offices can be found in Appendix F.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Department of Environmental Protection is directed by the Florida Legislature to cooperate with state and federal agencies, private organizations, and commercial and industrial interests in the promotion of a state outdoor recreation program. Florida's outdoor recreation program is a diverse, connected and balanced system of outdoor recreational resources, facilities and programs.

SOUTH DISTRICT PROJECTS

The Florida DEP currently has one dredging project in the South District affecting Charlotte County. It is the Charlotte County Dredging.⁸⁰

DIVISION OF RECREATION AND PARKS

The Division of Recreation and Parks is an important agency relationship for park development. In addition to administering Florida's state park system, DRP also administers the Florida Recreation Development Assistance Program and the federal Land and Water Conservation Fund. The Florida Recreation Development Assistance Program provides financial assistance to eligible local governments, including the 67 county general governments and 412 incorporated municipalities of Florida. It also provides the Statewide Comprehensive Outdoor Recreation Plan which is the state's official document regarding outdoor recreation planning. The SCORP provides an analysis of LOS demands and needs, as well as identifies goals for recreation in Florida.⁸¹ A detail of these demands, needs, opportunities, and goals can be found in Appendix F.

POTENTIAL COLLABORATIVE OPPORTUNITIES

FDEP manages the state park system. Based on an interview with park staff, there are several key opportunities for Charlotte County parks.⁸² These include the following:

- Coordination and marking of blueway trails
- Nature trail along sunrise water way
- Nature trail along Tippe East with potential parking access
- Boat ramps at Cattedock Point with potential parking access to primitive trail
- Creation of public access to Charlotte Harbor Preserve State Park through mining area to the South of Robin Road with potential equestrian trails and collaborative development and acquisition
- Biking trails between parks for mountain bike access
- Collaborative planning for GC Herring Park for active recreation
- Fishing, kayak, and canoe launch in the Linx Lane Cape Haze neighborhood
- Potential collaboration on Don Pedro State Park for kayak concessionaire
- CHEC collaboration for educational programs

⁸⁰ <http://publicfiles.dep.state.fl.us/SDRO/ERP/CharlotteCountyDredging/Application.pdf>

⁸¹ <http://www.dep.state.fl.us/parks/outdoor/scorp.htm>

⁸² Interview with John Aspilea, Charlotte Harbor Preserve State Park.

OFFICE OF GREENWAYS AND TRAILS

OGT coordinates with and provides technical assistance regarding the acquisition, development, designation and management of greenways and trails projects that fulfill the FGTS plan and vision. OGT administers the Recreational Trails Program (RTP), a federally funded competitive grant program that provides financial assistance to local communities for the development of trails.

The Florida Greenways and Trails System (FGTS) Plan 2013-2017 identifies goals and objectives which can be found in Appendix F. OGT also maintains and updates the vision maps that are a companion to the FGTS Plan, encompassing land-based trails, paddling trails and ecological greenways that may be key collaborative opportunities for the park plan.⁸³

⁸³ http://www.dep.state.fl.us/gwt/FGTS_Plan



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Florida Greenways & Trails System Plan

0 5 10 20 Miles

* 2012 LAND TRAILS OPPORTUNITY

FLORIDA NATIONAL SCENIC TRAIL OPPORTUNITY

A1	A2	A3	A4
B2	B3	B4	B5
C4	C5		
D4	D5		
E4	E5		

* The different colors of the Land Trails represent the beginning and ending points of individual corridors. Map Date: 1/25/12

FIGURE 14: GREENWAYS AND TRAILS SYSTEM PLAN⁸⁴

⁸⁴ http://www.dep.state.fl.us/gwt/FGTS_Plan/

BUREAU OF NATURAL AND CULTURAL RESOURCES

The Bureau of Natural and Cultural Resources supports the Florida Park Service mission by providing technical and professional services to coordinate and standardize effective preservation and management of the natural and cultural resources in Florida's state parks. The Resource Management Annual Report published by the Bureau contains goals towards the management of natural systems and resources as it relates to recreational opportunity.⁸⁵

DIVISION OF STATE LANDS

The Division of State Lands (DSL) administers land acquisition programs on behalf of the Board of Trustees of the Internal Improvement Trust Fund and DEP. DSL also provides administrative oversight for approximately 11 million acres of state owned lands, including 700 freshwater springs, 4,510 islands of ten acres or more and 7,000 lakes. The DSL also administers the Florida Forever program. Florida Forever supports a variety of land acquisition purposes, including the preservation of environmental, conservation, and water management lands and to provide grants to local governments. Appendix F provides a chart of the funding distribution of Florida Forever funds across the state, as well as lists several Florida Forever projects conducted within Charlotte County borders.

The Florida Communities Trust is another source of recreational project funding administered by the DSL. The Florida Communities Trust (FCT), established in 1989 to help local governments preserve parks, open space, beaches and natural areas, has created more livable communities throughout Florida. The source of funding for Florida Communities Trust comes from *Florida Forever* proceeds.

Lastly, the DSL manages the Bureau of Land Acquisition which provides guidelines and regulations for negotiation and closing, as well as details of the land acquisition process and stewardship opportunities⁸⁶.

Details of these separate entities and responsibilities can be found in Appendix F.

OFFICE OF COASTAL AND AQUATIC MANAGED AREAS

The Office of Coastal and Aquatic Managed Areas (CAMA) is the principal manager of submerged lands and their associated marine and aquatic resources in Florida. The Florida Aquatic Preserve Act of 1975 (Chapter 258, Part II, Florida Statutes), authorizes the Board of Trustees of the Internal Improvement Trust Fund to maintain state owned submerged lands with exceptional biological, aesthetic and scientific value as aquatic preserves. These areas offer prime opportunities for fishing, boating, swimming, paddling, snorkeling, diving and other water-related types of recreation. Two of these aquatic preserves are located in Charlotte County: Cape Haze Aquatic Preserve and Gasparilla Sound-Charlotte Harbor Aquatic Preserve. Links to details about these preserves can be found in Appendix F.^{87 88}

DIVISION OF WATER RESOURCE MANAGEMENT

The Division of Water Resource Management (DWRM) is responsible for protecting the quality of Florida's drinking water as well as its rivers, lakes and wetlands, and for reclaiming lands after they have been mined for phosphate and other minerals. Its programs establish the technical basis for setting the state's surface water and ground water quality standards, which are critical to maintaining the viability of water resources for public outdoor recreational use.⁸⁹

⁸⁵ http://www.dep.state.fl.us/parks/bncr/forms/12-13_res_mgt_annual_report.pdf

⁸⁶ <http://www.dep.state.fl.us/lands/>

⁸⁷ <http://www.dep.state.fl.us/coastal/sites/capehaze/info.htm>

⁸⁸ <http://www.dep.state.fl.us/coastal/sites/gasparilla/info.htm>

⁸⁹ <http://www.dep.state.fl.us/water/>

The Florida Beaches Habitat Conservation Plan has a mission to aid the Florida Department of Environmental Protection's (FDEP) Bureau of Beaches and Coastal Systems in obtaining an Incidental Take Permit from the U.S. Fish and Wildlife Service. This will be accomplished by developing a Habitat Conservation Plan (HCP) that will minimize and mitigate the take of federally listed species resulting from activities permitted through FDEP's Coastal Construction Control Line Program. The HCP will enable FDEP to fulfill its statutory responsibilities under Florida law and the Federal Endangered Species Act.⁹⁰

OFFICE OF SUSTAINABLE INITIATIVES

The Office of Sustainable Initiatives manages the Clean Marina Program which is a voluntary designation program with a proactive approach to environmental stewardship. Participants receive assistance in implementing Best Management Practices through on-site and distance technical assistance, mentoring by other *Clean Marinas* and continuing education.⁹¹

Currently, there are no designated Clean Marinas in Charlotte County, but Appendix F lists details of how to become designated, as well as links to further information.

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

The mission of the Florida Department of Agriculture and Consumer Services (FDACS) involves conserving and protecting the state's agricultural and natural resources by reducing wildfires, promoting environmentally safe agricultural practices, and managing public lands.

FLORIDA FOREST SERVICE

The Florida Forest Service is managed by the FDACS and identifies a mission to protect and manage the forest resources of Florida, ensuring that they are available for future generations. Wildfire prevention and suppression are key components to protect homeowners from the threat of damage in a natural, fire-dependent environment. In addition to managing over one million acres of State Forests for multiple public uses including timber, recreation and wildlife habitat, the FSS also provided services to landowners throughout the state with technical information and grant programs.

The closest state forest to Charlotte County is the Myakka State Forest, located in the south western portion of Sarasota County within the city limits of North Port.⁹²

FLORIDA DEPARTMENT OF STATE

DIVISION OF HISTORICAL RESOURCES

Appendix F contains a list of links and sources characterizing a dataset of historic resources in Charlotte County, a list of regulations and guidelines in the preservation of historic resources, and a compliance review module for agencies interested in development through the integrity maintenance of historical resources. Appendix F also provides a summary of the Florida Comprehensive Historic Preservation Plan, which utilizes the State Comprehensive plan to identify regulations and statutes regarding historic preservation, especially in the areas of urban downtown revitalization, cultural and historic resources, and historic preservation in general.⁹³

FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY

⁹⁰ <http://www.flbeacheshcp.com/>

⁹¹ <http://www.dep.state.fl.us/cleanmarina/marina/default.htm>

⁹² <http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/State-Forests/Myakka-State-Forest>

⁹³ http://archive.org/stream/62683_FDS_84Pg_Publication#page/n0/mode/2up

RURAL LAND STEWARDSHIP AREA PROGRAM

The Rural Land Stewardship Area Program relates to resource management and land use through a “long-term incentive-based strategy to balance and guide the allocation of land to accommodate future land uses in a manner that protects the natural environment, stimulates economic growth and diversification, and encourages the retention of land for agriculture and other traditional rural land use”.⁹⁴ Landowners may request that the local government designate their lands as a rural land stewardship area. Currently, there are no designated Rural Land Stewardship Areas in Charlotte County.

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN AND BICYCLE PROGRAM

Two purposes of the Conserve by Bicycle Program are to: 1) provide recreational opportunities for Florida’s residents and visitors, and 2) provide healthy transportation and recreation alternatives to help reduce the trend toward obesity and reduce long-term health costs. The plan summary, found in Appendix F, outlines goals, objectives, decision influences, and recommendations, which are helpful to Charlotte County officials when determining recreational opportunities in the area.⁹⁵

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

DIVISION OF HABITAT AND SPECIES CONSERVATION

The core mission of the Division of Habitat and Species Conservation is to ensure healthy populations of all native species and their habitats on a statewide basis. The division integrates scientific data with applied habitat management for the purpose of maintaining stable or increasing populations of fish and wildlife. Appendix F lists of the several functions of the DHSC as it relates to recreational usage.

DIVISION OF FRESHWATER FISHERIES MANAGEMENT

The Fisheries Management section ensures the best freshwater fishing opportunities in Florida’s lakes, rivers and streams through stocking desirable sport fish, regulating harvest, enhancing habitats and maintaining fish management areas. Fisheries Management coordinates with stakeholders and federal, state and local entities to protect and conserve freshwater resources and maintain fishing quality.

DIVISION OF MARINE FISHERIES MANAGEMENT

The Division of Marine Fisheries Management (MFM) works with many agencies and groups to accomplish its mission to sustain the long-term health and abundance of Florida's marine fisheries. Fishery management requires coordination with federal agencies and other states, including the Gulf of Mexico Fishery Management Council, the South Atlantic Fishery Management Council, the Atlantic States Marine Fisheries Commission and the Gulf States Marine Fisheries Commission. As a local entity located on the coast with access to the Gulf of Mexico, it is important that Charlotte County officials be aware of the goals and responsibilities of the MFM, for which details can be found in Appendix F.

DIVISION OF LAW ENFORCEMENT

The Division of Law Enforcement bases its patrol efforts on resource protection, environmental protection, boating and waterways, and public safety. Details regarding these services can be found in Appendix F. Being aware of these functions will aid officials in designating regulations and rules to different recreational services and opportunities.

⁹⁴ <http://www.floridajobs.org/community-planning-and-development/programs/technical-assistance/planning-initiatives/rural-planning/rural-land-stewardship-area-program>

⁹⁵ <http://www.dot.state.fl.us/safety/4-Reports/Bike-Ped/CBBphase1%20Report062907.pdf>

DIVISION OF HUNTING AND GAME MANAGEMENT

The Division of Hunting and Game Management provides for the safe and responsible use of wildlife species that are hunted. Many of the recreational sites in Charlotte County, including the Charlotte Harbor Preserve State Park, Babcock Ranch, and Babcock-Webb Preserves allow hunting on their grounds. Understanding the regulations set forth by the DHGM are important for compliance standards.

OFFICE OF PUBLIC ACCESS

The Office of Public Access and Wildlife Viewing Services (OPAWVS) provides opportunities for Floridians and visitors to view wildlife and experience the expanses of Florida's wildlife management area system. OPAWVS works with agency biologists to develop wildlife-viewing sites and recreational trails. They also develop recreation guides and interpretive products to increase visitors' enjoyment and understanding of wildlife and wildlife habitat and how the FWC works to sustain them.

Coordinating with the Office of Public Access will allow Charlotte County to utilize innovative ideas towards this recreational frontier and expand on services regarding educational opportunities within their parks system.

NONPROFIT AND PRIVATE ENTITIES

In addition to other government agencies, there are several nonprofit and private entities providing recreation services in the Charlotte County area.

LEMON BAY CONSERVANCY

Lemon Bay Conservancy is a not-for-profit land trust based in Englewood, Fl. Its long-range vision is: “To forever protect and preserve the natural features of Lemon Bay, Charlotte Harbor, their surrounding waters and uplands, and vital fish and wildlife habitat, through property preservation, environmental education and advocacy for sustainable land and water conservation policies and practices.”⁹⁶ To support that long-range vision, the Conservancy focuses the mission in three areas: saving land; environmental education; and advocacy for sustainable environmental policies.

The Lemon Bay Conservancy is involved in protecting land from development. They work with individuals, businesses, government agencies, and other environmental groups to create conservation corridors for the protection of the water supply, to deter storm surge, to provide critical habitat for wildlife, and to sustain the quality of life enjoyed by residents and visitors to the communities. Often, the land is placed into public ownership. In other cases, private land owners choose to preserve the natural resources on their property. In some cases, Lemon Bay Conservancy becomes the land owner.

Lemon Bay Conservancy has the following owned properties:

1. 1.8 acres – Cedar Point Environmental Park – contiguous with county-owned property
2. 52 acres – James E. Cook Memorial Park; Buttonwood and Rookery Islands
3. 1 acre - Mangrove Place, donated by the Eleanor Dietzel Hillebrand Trust
4. 9.8 acres – Hidden Lakes
5. 80 acres – Wildflower Preserve
6. Four Lots – Harbour Heights Scrub Jay Preserve

CHARLOTTE HARBOR ENVIRONMENTAL CENTER, INC. (CHEC)

The Charlotte Harbor Environmental Center “CHEC,” a private, non-profit 501(c)(3) corporation, founded in 1987, provides environmental education, recreation, environmental research, and conservation lands management services to the citizens and visitors of the greater Charlotte Harbor area.⁹⁷ CHEC provides over 20 different educational programs, manages 8 environmentally sensitive lands, and provides a total of over 8 miles of hiking trail and other recreational opportunities to the community.

CHEC locations include the following:

- Alligator Creek Preserve (adjacent to the 30,000+acre Charlotte Harbor State Park Preserve). CHEC is located on property owned by the State of Florida and the Center’s portion is leased to the Charlotte Harbor Environmental Center, Inc. for environmental education and recreation. The Alligator Creek Preserve includes four miles of nature trails.
- Cedar Point Environmental Park – owned by Charlotte County and includes trails and visitor center. CHEC has been actively involved in its management and the coordination of its educational and recreational

⁹⁶ <http://lemonbayconservancy.org/about-us/>

⁹⁷ <http://www.checflorida.org/>

programs. Cedar Point Environmental Park is a 115-acre Charlotte County Park that borders Ainger Creek, Oyster Creek and Lemon Bay. Three trails lead directly to Lemon Bay.

CHEC Activities include the following

- School Programs including fourth grade field studies of 2 days; second grade wading trips are available to public, private and home-schooled 2nd grade level classes; and 3rd grade estuary & manatee programs held in the classroom.
- Youth Programs. CHEC holds a week long summer camp at Alligator Creek Preserve and Cedar Point Environmental Park each summer.
- Public Programs. Wading Sea Grass Adventures, guided hikes, estuary pontoon boat journeys, speaker programs, volunteer water monitoring programs, and adopt-a-pond programs.

In addition, CHEC has a biodiversity project whose goal is to assess and educate citizens relative to Charlotte Harbor biodiversity.

FLORIDA TRACKS AND TRAILS

Located within the City of Punta Gorda, Florida Tracks and Trails is a private outdoor recreational facility that is currently under development with an anticipated completion date of 2016.⁹⁸ When completed it plans to provide the following:

- Approximately 26 miles of one directional Off-Road Trails in Florida's natural setting
- Off-road Vehicle Repair and Rental Facility
- 40 acres of action-packed Paintball Scenario and Speedball fields
- Concerts and Special Events at our outdoor 15,000 seat Outdoor Amphitheater
- A total of 5 Off-Road Vehicle Tracks, including Motocross, Mud Track, and a Kid's Track
- Special Event Facilities for Birthdays and other Private Parties
- Camping with approximately 500 slips, including amenities exclusive to Camping guests
- General Store

Florida Tracks & Trails is designed for up to 20,000 visitors a day. There are 6 different parking areas on the grounds, with extra parking capacity as needed for concerts and special events.

The park includes a 12-acre fresh water recreation lake and white sand beach, with beachside food and beverage service, play areas for children and shaded cabanas.

REDNECK YACHT CLUB

The Redneck Yacht Club Mud Park was established and began construction in 2008.⁹⁹ It offers amenities such as:

- Trail Riding (vehicular)
- ATV Riding Area
- Primitive Camping Areas
- Concessions
- Mud Park open every weekend from Friday to Sunday

⁹⁸ <http://www.floridatracksandtrails.com/general-information/>

⁹⁹ <http://redneckyachtclubmudpark.com/>

OPPORTUNITIES FOR COLLABORATION

Using the data collected through the policy and plan review and the interviews, there are several opportunities for collaboration as the parks plan goes forward. These include the following:

Florida State DEP

- Coordination and marking of blueway trails
- Nature trail along sunrise water way
- Nature trail along Tippe East with potential parking access
- Boat ramps at Cattedock Point with potential parking access to primitive trail
- Creation of public access to Charlotte Harbor Preserve State Park through mining area to the South of Robin Road with potential equestrian trails and collaborative development and acquisition
- Biking trails between parks for mountain bike access
- Collaborative planning for GC Herring Park for active recreation
- Fishing, kayak, and canoe launch in the Linx Lane/ Cape Haze neighborhood
- Potential collaboration on Don Pedro State Park for kayak concessionaire
- CHEC collaboration for educational programs

City of Punta Gorda

- Assist in the development of the Harborwalk, Linear Park, and US 41 Multi-Use Recreational Trail pathways
- Continue participation in the South County Gateway Planning Meetings

Parkside Community

- Cleanup Sunshine Lake and Sunshine Waterway
- Transform McGuire and Lake Betty Parks into Destination Attraction
- Install interconnecting Multi-use Trails
- Connect district areas with multi-use bridges

South Gulf Cove

- A linear waterfront park at Calumet and St. Paul on County-owned property adjacent to the lagoon waterfront along Section 93.
- Connect the pathways system to the "Pioneer Trail" using a single access point at Ingraham Blvd. and CR 771.

National Park Service

- Federal Lands-to-Parks Program, which enables states and local governments to establish park and recreation areas on federal properties which are no longer needed for military or civilian uses by conveying lands for that purpose
- Rivers and Trails Conservation Assistance Program by providing planning assistance to communities for projects that are designed to protect rivers, trails and greenways on lands outside of the federal domain

U.S. Department of Transportation

- Recreational Trails Program: Provides funds to the states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized trail uses.

South Florida Water Management District

- Recreational opportunities on private lands acquired by SFWMD
- Work in conjunction on Charlotte Harbor Flatwoods Initiative

Southwest Florida Water Management District

- Apply for recreational grants through the Florida Forever Work Plan – land acquisition, recreational facility construction, and public access improvements.
- Charlotte Harbor Preserve State Park developments and improvements (outlined in appendix)

Southwest Florida Regional Planning Council

- Establish non-regulatory, educational, urban non-listed wildlife programs
- Have programs based on scientific modeling to protect surface water, potable wells, wellfields, and contributing areas from contamination

Florida Department of Transportation

- Accommodate bicycling on roadways
- Build new multi-use paths, especially in scenic areas and near population centers
- Establish minimum standards for bicycle accommodation on roadways
- Implement education and marketing programs to promote bicycle commuting and recreational bicycling

SUBSECTION B. REGIONAL PLANNING RESEARCH AND COORDINATION PERMITTING RULES AND POLICIES

The permitting review for Charlotte County parks development largely depends on the type, size, and location of projects. The following section outlines these regulations. Because there are complex, multiple, and overlapping jurisdictions in Charlotte County, this section is outlined as follows:

- Water Management: County-wide considerations, Southwest Florida Water Management, South Florida Water Management District, Charlotte County, and the City of Punta Gorda
- Beach / Coastal and Shoreline Protection: County-wide regulations, Charlotte County, and Punta Gorda
- Land Development: Project Location, Site Design, and Architectural at the county and municipal level(s)

WATER MANAGEMENT

COUNTY-WIDE WATER MANAGEMENT: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Florida Department of Environmental Protection (FDEP) is responsible for issuing some types of Environmental Resource Permits throughout the county. For the purpose of Charlotte County parks planning, these include mining; docking facility boardwalks; shore protection structures and piers; activities seaward of coastal construction control line; navigational dredging conducted by governmental entities; seaports and adjacent development; activities conducted in wetlands that are not part of a larger development, including boat ramps, ski jumps, ski slalom courts, aids to navigation, mooring buoys and fields, piling supported structures not physically connected to uplands, and aquatic plant management activities; mitigation banks for government solid waste facilities; or magnetic levitation demonstration projects.¹⁰⁰

AQUIFER & WELL HEAD PROTECTION PROGRAMS

FDEP's program implements the Underground Injection Control (UIC) regulations that prevent degradation of the quality of other aquifers adjacent to the injection zone. This program would apply in where projects might use injection wells. Generally, park development may be concerned about Class V injection wells that include air conditioning return flow wells, swimming pool drainage wells, stormwater drainage wells, lake level control wells, domestic waste wells, and aquifer storage and recovery (ASR) wells.¹⁰¹

The Wellhead Protection Program establishes rules for the Wellhead Protection Rule that establishes a 500-foot radius circular Wellhead Protection Area around all wells which serve community and non-transient non-community public water systems.¹⁰²

WASTEWATER

In the instance that park development may involve wastewater treatment, the FDEP's Wastewater Program may permit these facilities.¹⁰³ However, it is more likely that the program will involve sewer water or septic tank wastewater treatment, depending on the area in which the park may be located. Septic tanks are permitted by the State Department of Health.¹⁰⁴

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

¹⁰⁰ http://www.swfwmd.state.fl.us/files/database/site_file_sets/33/S-ERP-FDEP-Summary-P1--2.pdf

¹⁰¹ <http://www.dep.state.fl.us/water/uic/index.htm>

¹⁰² <http://www.dep.state.fl.us/water/groundwater/wellhead.htm>

¹⁰³ <http://www.dep.state.fl.us/water/wastewater/>

¹⁰⁴ <http://www.floridahealth.gov/healthy-environments/onsite-sewage/index.html>

The Florida NPDES program controls water pollution by regulating point sources that discharge pollutants into waters of Florida. Point sources are discrete conveyances such as pipes or man-made ditches. Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Where there are projects that discharge to surface waters, these permits may apply.¹⁰⁵

UNINCORPORATED CHARLOTTE COUNTY NPDES

Charlotte County works with the state to regulate stormwater and non-stormwater discharge as part of NPDES. Its provisions aim to reduce pollutants in discharges and prohibits non-stormwater discharges into the storm drain system.¹⁰⁶

CITY OF PUNTA GORDA NPDES

The City of Punta Gorda has jurisdiction over stormwater discharge and erosion and sediment control within its jurisdiction and unincorporated Charlotte County served by the City's Municipal Separate Storm Sewer System. Projects that disturb over one acre as part of construction activity require FDEP Generic Permit for Stormwater Discharge.¹⁰⁷

WATER MANAGEMENT DISTRICTS

Two water management districts each cover a portion of Charlotte County: The South Florida Water Management District (SFWMD) and the Southwest Florida Water Management District (SWFWMD). The SFWMD covers the eastern and less urbanized area of the county, while SWFWMD covers the more urbanized western portion. The Florida Department of Environmental Protection (DEP) shares some responsibility for managing water resources for certain projects to protect water resources. These resources include wetlands, rivers, streams, lakes, ponds, estuaries, coastal systems, springs, groundwater and surface water supplies.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)

COVERAGE AND SCOPE

The SWFWMD covers the northwestern portion of Charlotte County. The SWFWMD is responsible for maintaining the balance between the water needs of current and future users while protecting and maintaining water and related natural resources which provide the District with its existing and future water supply. The SWFWMD oversees flood protection, water use, well construction and environmental resource permitting, water conservation, education, land acquisition, water resource and supply development, and supportive data collection and analysis efforts.

RESOURCES AND TRAINING

SWFWMD provides an ePermitting portal that provides fast access to permit information and allows applicants to complete and manage many different types of applications online. Information about environmental resource, water use and well construction permits can be accessed through ePermitting.¹⁰⁸ In addition, the regulatory program offers a variety of handbooks for applicants.

REGULATORY FRAMEWORK: PERMITS AND COMPLIANCE CONSUMPTIVE WATER USE

¹⁰⁵ <http://www.dep.state.fl.us/water/stormwater/npdes/index.htm>

¹⁰⁶ Certain exemptions apply. See Charlotte County, Florida Ordinances: https://library.municode.com/HTML/10526/level4/PTIILADEGRMA_CH3-5PLDE_ARTVSTFLWE_DIV2NAPODIELSYNPOR.html#TOPTITLE

¹⁰⁷ Certain exemptions apply. See City of Punta Gorda: http://www.ci.punta-gorda.fl.us/userdata/cityclerk/Ch_6An.pdf

¹⁰⁸ See ePermitting link: <http://www.swfwmd.state.fl.us/permits/>

Water use is divided into seven types and many permits are for a combination of those uses. These include, public supply, industrial, mining/dewatering, landscape/recreation, agricultural, institutional, or other. Permits are based on the amount of water needed and are categorized by thresholds.¹⁰⁹ Depending on where the project is located, there may be additional rules, as they may fall into Water Use Caution Areas or Areas of Water Resource Concern.¹¹⁰ Portions of Charlotte County fall into the Southern Water Use Caution Area.

WELL CONSTRUCTION PERMITS

SWFWMD governs permitting of wells. The purpose is to ensure that all water wells, soil borings and foundation holes within the District are located, constructed, maintained, used, and abandoned in a manner that protects the water resources. When a Water Use Permit is required, it must be obtained before seeking a Well Construction Permit.¹¹¹

ENVIRONMENTAL RESOURCE PERMITS

An environmental resource permit (ERP) is required before beginning any construction activity that would affect wetlands, alter surface water flows, or contribute to water pollution.¹¹² The review process of an environmental resource permit application ensures that the permit will authorize activities or situations that are not harmful to the water resources or inconsistent with the public interest. The Florida Department of Environmental Protection shares responsibility for this activity, as described below. The Florida Department of Environmental Protection works with the water districts on ERPs.¹¹³

SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)

COVERAGE AND SCOPE

SWFWMD is responsible for managing Environmental Resource permits, consumptive and water use permits, well construction permits, and works of the district permits. They are also responsible for overseeing monitoring reports and other compliance documentation. The scope of projects that need authorization include construction or abandonment of wells and systems, large volume water usage, development or new construction, storm water management and wastewater discharges and activities in, on or near wetlands and other water resources.

RESOURCES AND TRAINING

There are several resources from SWFWMD to assist with the permitting processes that they manage. ePermitting allows users to register online and can sign up to be notified of permitting information and access helpful guidelines and assistance. The ePermitting links directs users to help videos, regulatory documents, and training webinars. Additionally, application and permit coverages are available using Google Earth.¹¹⁴

REGULATORY FRAMEWORK: PERMITS AND COMPLIANCE

LAKE OKEECHOBEE WORKS OF THE DISTRICT PERMITS

Permits are required for certain land uses that are in the Lake Okeechobee Surface Water Improvement and Management (SWIM) Plan area. The goal is to reduce phosphorus flowing into Lake Okeechobee and are generally in the Lake Okeechobee Watershed Basin. These permits outline target reductions in phosphorus, monitoring and reporting requirements and Best Management Practices (BMPs) for private and public landowners

¹⁰⁹ See water consumption thresholds at: <http://www.swfwmd.state.fl.us/permits/wup/>

¹¹⁰ See: <http://www.swfwmd.state.fl.us/permits/wup/>

¹¹¹ See: <http://www.swfwmd.state.fl.us/permits/wellconstruction/>

¹¹² <http://www.swfwmd.state.fl.us/permits/erp/>

¹¹³ http://publicfiles.dep.state.fl.us/dwrm/slerp/erphelp/mergedProjects/erphelp/Start_an_Application.htm

¹¹⁴ SWFWMD EPermitting:

<http://www.swfwmd.gov/ePermitting/MainPage.do;jsessionid=E7A11C893CC32ECAD8B75151DAC9ACA9>

in tributary basins. Permits are required of landowners or entities within or discharging to drainage basins in the Everglades Agricultural Area (EAA) or C-139 Basin that ultimately drain to the Everglades. Generally all lands are required to apply for an EWOD Permit, however, there is a very small portion of south eastern Charlotte County within which this applies and these lands are primarily within private ownership and unlikely to affect park development.

CONSUMPTIVE USE PERMITS

These permits allow the holder to withdraw a large but specified amount of water, either from the ground, a canal, a lake or a river. The water can be used for a public water supply; to irrigate crops, nursery plants or golf courses; or for industrial processes. Individual homeowners do not need consumptive water use permits. Projects in the south eastern portion of Charlotte County may have to apply for this type of individual or general permit, depending on the type of project¹¹⁵.

WELL CONSTRUCTION PERMITS

In the instance that a well is installed as part of a project, a well construction permit may be required. Firefighting water wells and saltwater use or reclaimed water use wells do not need a permit.¹¹⁶

ENVIRONMENTAL PERMITS

SFWMD's Environmental Resource Permit (ERP) is required before beginning any land use or construction activity that could affect wetlands, alter surface water flows or contribute to water pollution. SFWMD regulates residential and commercial developments, while the Florida Department of Environmental Protection oversees power plants, wastewater treatment plants and single-family home projects. An ERP covers activities such as dredging and filling in wetlands, constructing flood protection facilities, providing stormwater containment and treatment, site grading, building dams or reservoirs and other activities affecting state waters. The ERP process is streamlined by combining wetland resources permitting with management and storage of surface waters permitting into a single permit. As with water management, the majority of SFWMD lies within privately held lands in south eastern Charlotte County¹¹⁷. The Florida Department of Environmental Protection works with the water districts on ERPs.¹¹⁸

RIGHT OF WAY PERMITS

Right of Way Permits apply to the use of the canal and levee rights of way for compatible public and private uses such as docks, fences or walkways. The regional system includes canals and levees, major rivers and lakes, water conservation areas, the works of the Big Cypress Basin and certain other canals and rights of way. The permits, acknowledge that the requested use is consistent with the applicable rules and District missions, is required prior to connecting with, placing structures in or across, discharging into or making use of the canal and levee system or "Works of the District" and certain other canals and Works, and, applies to rights of way acquired for the canal and levee system that makes up the U.S. Army Corps of Engineers Central and Southern Florida Project and other canals and works. The Right of Way Occupancy Permit Program does not apply to lands acquired under Save Our Rivers, P-2000 or other District-sponsored land preservation or restoration projects. The specific information required for Right of Way Occupancy Permits depends on the type of use proposed¹¹⁹.

NUTRIENT SOURCE CONTROLS

¹¹⁵ <http://www.sfwmd.gov/portal/page/portal/xweb%20-%20release%202/water%20use%20permits>

¹¹⁶ See: <http://www.sfwmd.gov/portal/page/portal/xweb%20-%20release%202/well%20construction%20permits>

¹¹⁷ <http://www.sfwmd.gov/portal/page/portal/xweb%20-%20release%202/environmental%20resource%20permitting>

¹¹⁸ http://publicfiles.dep.state.fl.us/dworm/slerp/erphelp/mergedProjects/erphelp/Start_an_Application.htm

¹¹⁹ <http://www.sfwmd.gov/portal/page/portal/xweb%20-%20release%202/right%20of%20way%20permits>

Portions of south eastern Charlotte County are within the Caloosahatchee River Watershed and are a part of the SFWMD's source control program. The source control program addresses the reduction of pollutants through on site activities that prevent or reduce pollution at its source, such as agricultural and urban Best Management Practices (BMPs) and regulations. Nonpoint source control programs, regional construction projects, and point source programs are designed to achieve mandated water quality standards. These programs are further documented in SFWMD's reports.¹²⁰ The Florida DEP also has some responsibility for implementing nonpoint source controls.¹²¹

BEACH, SHORELINE, AND WETLANDS

FDEP HABITAT CONSERVATION PLAN / COASTAL CONSTRUCTION CONTROL LINE PROGRAM

Where there are parks that fall within the coastal areas, development may need to comply with the requirements established through the CCCL program's Habitat Conservation Plan(s). The CCCL establishes criteria for the preservation and protection of the state's beaches from construction jeopardizes the stability of the beach-dune system, accelerates erosion, provides inadequate protection to upland structures, endangers adjacent properties, or interferes with public beach access. Activities regulated under the CCCL program fall into include: New construction or rebuilding of single- or multi-family residences, commercial developments, stormwater facilities, beachfront lighting, swimming pools, parking lots, garages, decks, cabanas, beach-dune walkovers, public infrastructure, etc; armoring, such as seawalls, bulkheads, retaining walls, revetments, and geotextile bags or tubes; beach maintenance, such as beach raking and debris removal; beach berm and dune restoration, such as placement of beach fill landward of the Mean High Water Line (MHWL), and planting of native vegetation; special activities, concerts, rallies and other beach events; post-storm emergency activities, such as removal of hurricane-generated debris, repair of public facilities, return of sand to the beach-dune system, repair or reconstruction of coastal armoring, foundation repairs, and reconstruction of major and minor structures; and other miscellaneous minor activities permitted or explicitly authorized by the FDEP through its CCCL program.¹²²

JOINT COASTAL PERMITTING

The FDEP now has an additional program that allows for concurrent processing of applications for coastal construction permits, environmental resource permits and sovereign submerged lands authorizations. These permits and authorizations, which were previously issued separately, and by different state agencies, have now been consolidated into a "joint coastal permit" or JCP. JCPs are required if an activity meets all of the following locational criteria and include beach restoration or nourishment; construction of erosion control structures such as groins and breakwaters; public fishing piers; maintenance of inlets and inlet-related structures; and dredging of navigation channels that include disposal of dredged material onto the beach or in the nearshore area.¹²³

- Located on Florida's natural sandy beaches facing the Atlantic Ocean, the Gulf of Mexico, the Straits of Florida or associated inlets;
- Activities that extend seaward of the mean high water line;
- Activities that extend into sovereign submerged lands; and
- Activities that are likely to affect the distribution of sand along the beach.

SEA TURTLE PROTECTION

Sea turtle protection consists of construction, lighting, vehicular circulation and parking, beach-dune stabilization, and other disruptive activities. Regulation of construction activity is shared with FDEP. Construction within the nesting

¹²⁰ See:

http://www.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_prevreport/2014_sfer/v1/chapters/v1_ch4.pdf

¹²¹ <http://www.dep.state.fl.us/water/nonpoint/index.htm>

¹²² <http://www.flbeachshcp.com/docs/FLBHCP%20Primer.pdf>

¹²³ <http://www.dep.state.fl.us/beaches/programs/envpermt.htm>

zone is limited to non-nesting season to the maximum extent possible (November 1 through April 30). During any portion of the nesting period construction is to be conducted during daylight hours. Builders are required to obtain written approval from the FDEP pursuant to 62B-33, Florida Administrative Code, F.S. Ch. 161, and F.S. section 370.12 and provide a copy to Charlotte County Community Development Department.¹²⁴

CHARLOTTE COUNTY SHORELINE PROTECTION

Charlotte County also regulates structures and activities in areas seaward of the CCCL unless permitted by FDEP. This includes dune walkover structures in publicly owned lands, artificial and dune based shoreline stabilization structures.¹²⁵

CHARLOTTE COUNTY WETLAND PROTECTION

The county regulates development within wetlands and surface waters of the county without a federal or state-issued permit. This applies to surface waters, wetlands, buffers in wetland and surface water areas, and marinas. The county has adopted additional permitting criteria for consideration in its development review process.¹²⁶

LAND DEVELOPMENT AND SITE DESIGN

There are two separate regulatory bodies that may affect park development. These are in the jurisdictions of Charlotte County and in the City of Punta Gorda. These regulations affect site development, site design, and construction. The following section compiles these regulations by jurisdiction.

COUNTY-WIDE REGULATIONS

SITE LOCATION CONSIDERATIONS: ZONING AND CONCURRENCY

Certain aspects of site location are covered in the Charlotte County code. These include site location criteria as areas of flood damage, protection, and control.¹²⁷ Much of the considerations for site review, however, are addressed in county code by zoning district. It is important to note that the county is currently in the process of developing a parks district. The draft regulations are provided in Appendix G.

ZONING DISTRICTS

Charlotte County has established zoning districts wherein certain uses are allowed.¹²⁸ Some zoning districts also have additional regulatory design standards. Zoning districts form a key consideration for planning of future park spaces. This is because the zoning districts prescribe use, density, lot coverage, height limits, and conditions for special exceptions and variances.

Gasparilla Island Conservation District. Certain unique regulations apply within the area of the Gasparilla Island Conservation District. The boundaries of the district are Gasparilla Island, including Boca Grande Isles and Gasparilla Golf Course Island, Three Sisters Island, Hoagen's Key, and Loomis Island, situated in Lee County and Charlotte County, including all adjacent submerged lands, tidal lands, overflow lands, and tidal ponds. These

124 Charlotte County, Florida Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTXIISETUPR.html#TOPTITLE

125 Charlotte County, Florida Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTXIIISHPR.html#TOPTITLE

126 Charlotte County, Florida Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTXVSUWAWEPR.html#TOPTITLE

127 Charlotte County, Florida Code of Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-2BUBURE_ARTVIIIIFLDAPR.html#TOPTITLE

128 Charlotte County, Florida Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-9ZO_ARTIIDIRE.html#TOPTITLE

regulations cover use, density, signage, and height requirements. However, much of these regulations are directed at constraining residential, commercial, and industrial development.¹²⁹

CHARLOTTE COUNTY CONCURRENCY

County regulations require that adequate public facilities are available concurrent with development impacts. These regulations implement the concurrency program outlined in the county's comprehensive plan. Concurrency applies to roads, parks, sewer, water, solid waste, drainage, and schools. Concurrency conditions may or may not apply to park development.¹³⁰

CHARLOTTE COUNTY SITE DESIGN

Elements of County code provide regulations for site-related concerns. Not all of these codes can be found in one section of the code. These are outlined here:

- tree requirements, including placement, design, and maintenance¹³¹
- land clearing, filling and soil conservation; these provisions cover such areas as erosion control, stabilization, and conservation. They are in addition to those required by the FDEP, Florida Game and Fresh Water Fish Commission, and the relevant water management district¹³²
- waste cleanup. The Florida Division of Waste has responsibility for implementing state and federal laws to protect the environment from the improper handling and disposal of solid and hazardous wastes. In the unlikely case that cleanup of hazardous waste sites are required, DEP's waste management program oversees waste facilities and pollutant storage systems, and non-regulatory activities such as financial and technical assistance for recycling and waste reduction.¹³³
- Historic preservation, including conservation, rehabilitation, moving, maintenance, repair, use, and demolition of historic structures¹³⁴
- Open space / habitat reservation; these provisions define open space percentages for development¹³⁵
- landscaping and buffering requirements; these provisions establish standards to ensure the aesthetic, green space, soil conservation, and adjoining property compatibility throughout the county¹³⁶
- additional site design is applied to commercial zoning areas regulating parking, pedestrian access, and architecture

CHARLOTTE COUNTY STRUCTURES

County code covers various aspects of building codes and design that may impact park facilities. These include:

- Adherence of Florida Building Code and additional building material and radon mitigation standards¹³⁷
- Green Building Program¹³⁸

¹²⁹ Charlotte County, Florida Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTVIGAIS.html#TOPTITLE

¹³⁰ Charlotte County, Florida Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTXIVCOMA.html#TOPTITLE

¹³¹ Charlotte County, Florida Code of Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-2BUBURE_ARTIXTRRE.html#TOPTITLE

¹³² Charlotte County, Florida Code of Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTIVCLFISOCORE.html#TOPTITLE

¹³³ See: <http://www.dep.state.fl.us/waste/categories/wc/default.htm>

¹³⁴ Charlotte County, Florida Code of Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTXHIPR.html#TOPTITLE

¹³⁵ Charlotte County, Florida Code of Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTXVIOPSPHARE.html#TOPTITLE

¹³⁶ Charlotte County, Florida Code of Ordinances. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-5PLDE_ARTXVIIIABU.html#TOPTITLE

¹³⁷ Ibid. See: https://library.municode.com/HTML/10526/level3/PTIIILADEGRMA_CH3-2BUBURE_ARTIVBURE.html#TOPTITLE

- Fire Prevention Code ¹³⁹

CITY OF PUNTA GORDA

SITE LOCATION CONSIDERATIONS: ZONING AND CONCURRENCY

CITY OF PUNTA GORDA ZONING DISTRICTS

The City of Punta Gorda has established zoning districts within which certain uses are allowed. For example, the City's Environmental Preserve District allows for uses such as: public and private game preserves and wildlife management areas, fish hatcheries, refuges, parks and open spaces; nature conservation areas, water reservoirs and control structures, drainage, and water wells; noncommercial piers, docks, wharves; single-family homes, excluding mobile homes; and any governmental use. Additional uses, such as recreational facilities are allowed with conditions.¹⁴⁰ Further, districts define development standards, such as residential density and lot coverage, but establish special exceptions for some uses (varies by district).

PLANNED DEVELOPMENTS

The City also allows for recreational facilities within planned developments. A planned development district also defines the appropriate level of service. However, this may be relevant to the extent that there is private provision of recreational space within the district.¹⁴¹

CO-LOCATION OF PUBLIC RECREATIONAL FACILITIES

The City also encourages recreational facilities to be built adjoining school campuses, parks, greenbelts, parkways, greenways, or waterfronts.

CITY OF PUNTA GORDA CONCURRENCY

City regulations also require that properties are concurrent, meaning that the necessary roadway, potable water, sanitary sewage, stormwater, drainage, solid waste, public schools, and park services and facilities are in place prior to approval. These conditions may or may not apply to park development.¹⁴²

CITY OF PUNTA GORDA SITE DESIGN

Elements of the City code provide additional site design guidance for the design and construction of the following elements of the site. These include:

- Parking ^{143 144 145 146}
- Seawall construction¹⁴⁷
- Setbacks on water bodies ¹⁴⁸

¹³⁸ Charlotte County, Florida Code of Ordinances. See:

https://library.municode.com/HTML/10526/level3/PTIIIILADEGRMA_CH3-2BUBURE_ARTVGRBUPR.html#TOPTITLE

¹³⁹ Ibid., https://library.municode.com/HTML/10526/level3/PTIIIILADEGRMA_CH3-3FIPRCO_ARTIINGE.html#TOPTITLE

¹⁴⁰ http://www.ci.punta-gorda.fl.us/userdata/cityclerk/Ch_26_013.pdf

¹⁴¹ City of Punta Gorda Land Development Code, Chapter 26, Section 5.6-5.9. See: http://www.ci.punta-gorda.fl.us/userdata/cityclerk/Ch_26_013.pdf

¹⁴² See Ibid., Art., 16, Sec. 16.4.

¹⁴³ City of Punta Gorda Land Development Code, chapter 26, Section 4.2.9. See: http://www.ci.punta-gorda.fl.us/userdata/cityclerk/Ch_26_013.pdf

¹⁴⁴ See also Ibid., Article 7.

¹⁴⁵ Ibid., Article 10.

¹⁴⁶ Parking landscaping regulated in Art. 12, Sec. 12.4 (a)

¹⁴⁷ Ibid., Chapter 6.

¹⁴⁸ Ibid., Section 8.19

- Streets and sidewalks ¹⁴⁹
- Traffic and parking ¹⁵⁰
- Landscaping placement, design, materials selection, and maintenance designed to reduce heat, glare, dust; ensure privacy; prevent soil erosion, excessive water runoff, ground water depletion and pollution; and protection of plant species from canker and other disease^{151 152}
- Fire Prevention and hydrants ¹⁵³

CITY OF PUNTA GORDA STRUCTURES

City code requires that outdoor recreational facilities meet certain building construction, screening, fencing, lighting, and operating standards.¹⁵⁴ Chapter 26 of the City's code covers such site development regulations as building type, definition, style, and character. These include:

- Setbacks, height, and use are components of a building's frontage and type.¹⁵⁵
- Exterior lighting and fences ¹⁵⁶
- Placement and design of underground utilities¹⁵⁷
- Placement, design, and maintenance of signage and flagpoles¹⁵⁸

¹⁴⁹ City of Punta Gorda Land Development Code, Chapter 20. See: http://www.ci.punta-gorda.fl.us/userdata/cityclerk/Ch_20_005.pdf

¹⁵⁰ City of Punta Gorda Land Development Code, Chapter 23. See: http://www.ci.punta-gorda.fl.us/userdata/cityclerk/Ch_23_008.pdf

¹⁵¹ Ibid., Article 12.

¹⁵² Landscape plans and surveys are required for commercial developments. See Ibid., Art. 12, Sec. 12.6, and 12.8.

¹⁵³ Charlotte County, Florida Code of Ordinances. See:

https://library.municode.com/HTML/10526/level3/PTIILADEGRMA_CH3-3FIPRCO_ARTIINGE.html#TOPTITLE

¹⁵⁴ Op. Cit, Chapter 26, Art., 4, Sec. 4.2.4

¹⁵⁵ Ibid., Article 7.

¹⁵⁶ Ibid., Section 8.4-Section 8.5.

¹⁵⁷ Ibid., Section 8.17

¹⁵⁸ Ibid., Article 11.

SUBSECTION C: CHARLOTTE COUNTY LEVEL OF SERVICE STANDARDS RESEARCH

There are two components of assessing the level of service standard assessment system in preparation for a park master plan. The purpose of this section is to compare the current point system used by Charlotte County with the guidelines recommended by other agencies. As a result, it was important to compare the park typology system used for those relevant agencies. The second part of this analysis is to summarize the history of the Charlotte County LOS point-based system, compare changes since the initiation of the point system, update the analysis, and provide national benchmarking data.

PARK TYPOLOGIES

Table 36 (below) illustrates the definitions of park types established within the Charlotte County Comprehensive Plan. In addition, this study also research typologies used by the National Recreation and Parks Association 1995 standards, and those from the Florida Department of Environmental Protections' State Comprehensive Outdoor Recreation Plan (SCORP).¹⁵⁹

The following sources provide written typologies for park systems:

1. Charlotte County Comprehensive Plan
2. National Recreation and Parks Association (NRPA)
3. Florida Department of Environmental Protection SCORP

These typologies are used in part for the level of service point-based system and comparison. The full comparison table appears in Appendix H.

LEVEL OF SERVICE COMPARISON

DESCRIPTION OF THE CHARLOTTE COUNTY LOS POINT SYSTEM

Calculating the parks level of service in Charlotte County has evolved from an acreage system into a points system. Currently the measure bases its points on a per 1,000 residents ratio. The Charlotte County Comprehensive Plan has set a goal LOS of 16 points per 1,000 residents. Points are based off of a variety of elements, including the amenities in each park in the County and the type of park (active or environmental).

The Charlotte County Parks, Recreation and Open Space LOS system combines three primary factors that are often individually used to assess level of service: size (acreage), amenities and location (service radius). The resulting composite LOS standard enables a more balanced perspective regarding the provision of a park system that is intended to meet evolving and emerging needs over time.¹⁶⁰

As summarized by Charlotte County staff, many local governments, including Charlotte County, formerly used a standard of acres/population. This is considered a normative, or norm-referenced, standard. Although this type of standard allowed maximum flexibility, it presented many limitations in its practical implementation:

- an unclear determination of when the threshold of “developed” (as dictated by SB360) is reached

¹⁵⁹ Florida's SCORP does not offer comprehensive definitions of park types as it once had, due its new LOS system (discussed below).

¹⁶⁰ Most of this section has been provided by David Milligan, Director, Facilities Construction & Maintenance Dept. “Charlotte County Parks, Recreation and Open Space Level-Of-Service Rating System Description.” Charlotte County, Florida.

- defined a standard that may or may not contribute to most-needed improvements
- did not address how phased development contributes to the LOS
- gave no credit for park amenity infill
- often required very costly expenditures to keep up with LOS requirements
- did not allow credit for responding to naturally changing and evolving needs
- did not accommodate small incremental increases in level of service requirements

The new point system moved toward a performance-based standard, but retained its norm-referenced characteristics (acreage). In addition, it retained some guidance for amenity provision. This system has allowed flexibility within established boundaries, yet recognizes interdependency among assessment factors. It allows Charlotte County to achieve level-of-service credit for most every dollar spent while addressing its unique park and recreational needs.

Unlike a strict acreage-based standard, this system responds to changes over time.

- As new technology and recreational trends emerge, the points system will allow the opportunity to apply weighted points to factors such as green development and eco-tourism.
- As other recreational interests wane, point scales can be adjusted to reward high-demand and discourage low-demand activities.
- It can be structured to reflect the value of the parks and recreation system to the quality of life in Charlotte County, not just the content of its components.
- It can respond quickly and efficiently to incremental increases in mandated level of service.
- Recognizing that, in addition to County-owned facilities, other federal, state, non-profit, and private parks, open space and recreational facilities contribute toward quality of life, this point system may be may accommodate pro-rated credits for those parks and facilities.

The following factors play a role in assessing the relative value and contribution of individual elements to an overall public parks and recreation system. The point system assigns 'points per unit' relative to the following considerations:

- size
- distribution
- amenity type
- supply/demand
- initial cost
- uniqueness
- operations and maintenance

LOS POINT SYSTEM METHODOLOGY

The methodology for the point system relies on data elements that are generated from a comprehensive park inventory. This inventory consists of the following data elements:

- acreage by type of park (environmental / active)
- park type (neighborhood, community, special purpose, etc.)
- amenity inventory by park (e.g., basketball court, linear feet of paved trail, etc.)

- distribution of parks (e.g., number and proximity of special purpose parks)
- population

Additional features of the point system are important for the LOS calculations. These include:

- points were not awarded on an amenity basis for those parks that are considered 'reduced level of service'
- amenities not listed on the point scale were assigned a point value equal to the closest comparable amenity
- support facilities and elements required by codes, such as parking, stormwater management, and landscaping, are required to be developed in proportion to primary facilities sufficient to adequately support the intended activity
- no additional credit points were to be awarded for required support facilities. Amenities must be sized relative to their intended function and role within the park classification system

Because the basis of the system requires a comprehensive park inventory, the researchers as part of this study have provided a "Park LOS Spreadsheet Tool" that calculates the LOS points using the existing parks inventory and relative to the methodology above. The park inventory reflected in the Park LOS Spreadsheet Tool is designed to be consistent with the GIS layer maintained by Natural Resources. Future park acquisitions might use this spreadsheet to assess how changes will affect LOS, including population increases, park acquisition, or increased level of service on existing parks.

The LOS analysis using these elements appear below.

LOS POINT SYSTEM DATA ELEMENTS AND ESTIMATED NEED

ACREAGE DATA

The current parks inventory by park type is outlined below in Table 36.¹⁶¹ A comprehensive inventory appears in the Appendix J and is included in the Park LOS Spreadsheet Tool. This table below summarizes the basis for a county-by-county comparison based on acreage (see LOS comparison section below).

TABLE 36: CURRENT PARK ACREAGE BY PARK TYPE

Park Type	Count	Acreage
Mini-Park ¹⁶²	0	0
Neighborhood Park	29	194.69
Community Park	6	210.70
Regional Park	3	237.64
Environmental Park	13	4337.51
Special Purpose Park	24	353.82
Total	74 ¹⁶³	5320.02

In addition, the LOS point system assigns points for overall park acreage, including environmental and active. This means that the LOS points are sensitive to any changes in the park inventory. This includes organizational changes where existing lands held by another department would be counted as part of the parks inventory. This was the case as Parks and Natural Resources were reorganized, affecting the park inventory. While some of this acreage increases may have been due to land acquisition, others were due to reorganization. This may give a false sense that LOS provision has been increased or decreased, but may in fact be due to reorganization. This analysis highlights that further consideration should be given to methods to ensure that the inventory that represents the basis for the points system reflects comparable LOS points over time. The table below compares the old and new acreages.

TABLE 37: LOS ACREAGE BASED POINTS COMPARISON

2010 LOS	Acreage	Factor	Points	2014 LOS	Acreage	Factor	Points
Environmental	1330	0.1	133.0	Environmental	4338	0.1	433.8
Active	1008	0.3	302.5	Active	936	0.3	280.9
			435.5				714.7

¹⁶¹ Source: Charlotte County Community Services Department, (formerly Parks, Recreation & Cultural Resources Department) and Growth Management Department, 2014.

¹⁶² Mini-Parks conflated with neighborhood parks per M. Koenig.

¹⁶³ The total number of parks adds to 75. However, Ann Dever Memorial Regional Park has both active recreation and environmental features and were treated as separate parks in the typology count. To adjust for this, total number of parks was reduced by one.

AMENITIES DATA

In addition to the park type inventory, the Charlotte County points-based LOS system counts amenities provided in the system. The current provision by amenity appears below in Table 38.

TABLE 38: CURRENT PROVISION BY AMENITY

Amenity	Measure	Unit of Measurement
Shuffleboard/Bocci/Horseshoes/Volleyball	55	courts/fields
Single Picnic Shelter	18	shelter
Nature Trail/Walking Trail (unpaved)	196,000	linear feet
Dock/Boardwalk/Fishing Pier	8,600	square feet
Sports Lighting (Court)	24	courts
Remote Control Car Track/Boat Basin	3	tracks/basins
Skatepark/In-Line Hockey Rink	3	rinks
Multi-Purpose Trail (paved)	39,000	linear feet
Environmental and/or Historical Interpretive Features	10	sets
Specialty Garden	4	garden
Group Pavillion	36	pavilion
Sports Lighting (Ballfield)	29	lighted fields
Paw Park	2	parks
Canoe/Kayak Launch	10	launches
Basketball Court/Tennis	48	courts
Playground/Fitness Trail/Disc Golf Course	21	trails/courses
Horse Arena	1	arenas
Restroom	31	restrooms
Concession Building	7	buildings
Meeting Room	4	rooms
Soccer Field/Football Field	13	fields
Baseball Field/Softball	26	fields
Boat Ramp	15	ramps
Environmental/Historical Center	2	centers
Swimming Pool	3	pools
Gymnasium/Recreation/Fitness Center	8	centers
Special Event Venue	2	venues

POPULATION DATA

Finally, population estimates drive the LOS calculations as articulated in the Smart Charlotte 2050 plan. As part of this study, the estimated population has decreased from previous analyses. The 2009 population estimate was based on a permanent and seasonal population of 178,193, whereas the current population estimate for 2012 is 176,217. This estimate used the current permanent population estimates in concert with the Smart Charlotte 2050 seasonal estimates (see table below). This yields a somewhat, but not significantly different LOS.

TABLE 39: POPULATION DATA FOR LOS SUMMARY

	2012	2015	2020	2025	2030	2040	2050
FGCU Linear Regression Projections	160602	167412	176746	186080	195414	214082	232749
Smart Charlotte Seasonal Estimates	15615	16081	16538	16943	17292	17776	17944
Total	176217	183493	193284	203023	212706	231858	250693

CHARLOTTE COUNTY LOS POINTS SUMMARY

Using the data discussed above, the research updated the Charlotte County LOS Points summary. This data is also captured in the LOS Spreadsheet Tool. Estimated future needs into 2050 follow.

TABLE 40: LOS POINTS SUMMARY

LOS Points Summary				
Factor	Quantity	Unit	Points per Unit	County-wide Points
Acreage				
Acreage Environmental	4338	ac.	0.1	433.8
Acreage Active*	936	ac.	0.3	280.9
Amenities				
Shuffleboard/Bocci/Horseshoes/Volleyball	55	ea.	0.2	11.0
Single Picnic Shelter	18	ea.	0.5	9.0
Nature Trail/Walking Trail (unpaved)	196	1000 l.f.	1	196.2
Dock/Boardwalk/Fishing Pier	86	1000 s.f.	1.5	128.7
Sports Lighting (Court)	24	ea.	2	48.0
Remote Control Car Track/Boat Basin	3	ea.	3	9.0
Skatepark/In-Line Hockey Rink	3	ea.	3	9.0
Multi-Purpose Trail (paved)	39	1000 l.f.	3	118.1
Environmental and/or Historical Interpretive Features	10	set	3	30.0
Specialty Garden	4	ea.	3	12.0
Group Pavillion	36	ea.	4	144.0
Sports Lighting (Ballfield)	29	ea.	4	116.0
Paw Park	2	ea.	4	8.0
Canoe/Kayak Launch	10	ea.	4	40.0
Basketball Court/Tennis	48	ea.	5	237.5
Playground/Fitness Trail/Disc Golf Course	21	ea.	5	105.0
Horse Arena	1	ea.	5	5.0
Restroom	31	ea.	6	186.0
Concession Building	7	ea.	6	42.0
Meeting Room	4	ea.	6	24.0
Soccer Field/Football Field	13	ea.	6	78.0
Baseball Field/Softball	26	ea.	8	208.0
Boat Ramp	15	lane	8	120.0
Environmental/Historical Center	2	ea.	20	40.0
Swimming Pool	3	ea.	25	75.0
Gymnasium/Recreation/Fitness Center	8	ea.	30	240.0
Special Event Venue	2	ea.	40	80.0

Distribution				
Park location follows FLU Policy 4.1.1 neighborhood framework prioritization, OR	62	ea.	3	186
Park is resource-based, OR				
Park contains a Special Purpose Facility				
Total Points, Current (2012)	3220.2			
Population (2012)	176,217			
Points per 1000 people	18.3			

*Active does not include reduced LOS Parks

FUTURE POINTS NEEDED

Based on the population projections and given the current inventory, future LOS needs will become apparent by 2025 (or in less than 11 years) at the Smart Charlotte LOS standard set at 16 points, given no changes in inventory.

TABLE 41: FUTURE LOS NEEDS TO 2050

	2012	2015	2020	2025	2030	2040	2050
	176217	183493	193284	203023	212706	231858	250693
Points	3220.20	3220.20	3220.20	3220.20	3220.20	3220.20	3220.20
Estimated LOS	18.27	17.55	16.66	15.86	15.14	13.89	12.85

FURTHER LOS COMPARISONS

Other LOS comparisons can be made based on acreage and other (older) standards. However, the changing nature of LOS assessment measurement in the field makes the task of comparison somewhat difficult. The following section uses both older acreage-based and new performance-based standards as the basis for comparison. Because these are very different systems, performance based measurement must be addressed separately from acreage-based measures.

ACREAGE-BASED COMPARISON(S)

The last time the National Recreation and Parks Association (NRPA) published guidelines for parks acreage was in 1995, when it recommended a minimum of 10 acres per 1,000 residents.¹⁶⁴ The previous LOS system in Charlotte County required 6 acres of active parkland per 1000 people and 4 acres of environmental parkland per 1000 people.

Currently, Charlotte County has 4,337.51 acres of environmental parklands and 982.5 acres of active parklands (note that this includes those parks with reduced LOS). Utilizing a permanent and seasonal 2012 population of 176,217 and the previous acreage-based standards it becomes clear that the county needs 74.8 acres of active park lands. However, it had many more acres of passive land than was needed.

Incorporating the current NRPA Proragis median acres of parkland offers a meaningful comparison. It demonstrates that Charlotte County is above the national median of the 84 counties that have entered their data into the Proragis system. However, this is due to the significant overage of passive / environmental park lands.

TABLE 42: LOS ACREAGE-BASED COMPARISON

	Standard	Acres Required	Current Inventory	Acres Needed
	6 acres active	1057.30	982.50	74.80
Charlotte (2008 Standards)	4 acres passive	704.87	4337.50	-3632.63
NRPA 1995 Standards	10 acres/1000	1762.17	5320.00	-3557.83
Current NRPA Proragis Median (84 counties nationwide)	13.1 acres/1000	2308.44	5320.00	-3011.56

PERFORMANCE-BASED LOS COMPARISON

The NRPA Proragis system offers the best promise for a performance-based LOS system. However, it is important to also discuss the standards as measured by the FDEP SCORP. Comparison with the SCORP is not recommended without significant and more comprehensive analysis.

FLORIDA SCORP

Florida's 2013 Draft Statewide Comprehensive Outdoor Recreation Plan (SCORP) published level of service standards based on amenity/activity, drawing from samples of participants, rather than total population. In other words, existing facility LOS is calculated for each region not based on total population, but on the percentage of residents and tourists within that region that actually use that facility.

¹⁶⁴ Lee and Manatee County data was not available on a per acreage basis.

The 2013-2018 SCORP divides the state into eight planning regions to establish consistency with VISIT FLORIDA planning regions. Charlotte County is part of the SCORP's Southwest Region, along with the Manatee, Sarasota, Desoto, Glades, Lee, Hendry, and Collier counties.

However, using the SCORP as a LOS comparison gives inaccurate results. For example, when compared against the SCORP Southwest Region Standard, Charlotte County appears to have less facilities; including user-based recreation such as football fields, baseball fields, and basketball courts. Further, it appears that Charlotte County is behind in boat ramp provisions. This is misleading as there is a marked difference in measuring *participants* at a regional level versus the facilities as measured by the county *population* (which would be some portion of the region). Further, assessing these numbers causes measurement issues, as Charlotte County and the SCORP use different labels and measurements for their amenities.

TABLE 43: EXAMPLE OF INACCURATE SCORP COMPARISON: AMENITIES AND PARTICIPANT CONFLICTS

	SCORP Standard Southwest Region - Per 1000 Participants	Existing Amenities Charlotte County - Per 1000 Population
Non-Boat Fishing	88.38 feet of pier	481 square feet
Boat Ramp	.18 lanes	.08 lanes
Historic Sites	.12 sites	.07 sites
Nature Study Trails	.23 miles	884 linear feet
Picnic Areas	4.60 tables	.1 shelter
Paved Trails	.13 miles	218.36 linear feet
Unpaved Trails	.76 miles	884 linear feet
Horseback Areas	.53 miles of trail	.006 horse arenas
Baseball Fields	1 field	.17 field
Basketball Courts	1 court	.28 courts
Football Field	.56 fields	.096 fields
Swimming Pool	.1 pool	.017 pools
Soccer	.53 fields	.096 fields
Tennis	1.7 courts	.28 courts

If desired, the county may develop measures that can be accurately compared across the region. However, this may be unnecessary, as other existing benchmarking standards used by the NRPA can offer more accurate comparisons.

NRPA PRORAGIS

ABOUT PRORAGIS

Recently the NRPA published the PRORAGIS Database Report: Counties. The report detailed findings from system profiles submitted by 83 counties nationwide.¹⁶⁵ The median acreage LOS was 13.1 acres per 1,000 residents. Among these 83 entries, a median of 70% percent of parkland was undeveloped.

¹⁶⁵ http://www.nrpa.org/uploadedFiles/PageBuilder_Proragis/Content/common_elements/PRORAGIS-Database-Report-Counties.pdf

Charlotte County's point system relates well to the NRPA ProRagis data because all methods account for recreational opportunities beyond the acreage of parklands. Utilizing these averages, Charlotte County officials will be able to determine their standing. The NRPA ProRagis data is useful for the measurement of its LOS standard because it gives averages for other systems nationwide. It accounts for all types of recreational amenities and the data can be pulled for different jurisdictional ranges. The analysis of park systems in the ProRagis system is determined based on data that is entered in by the agency. The data collected includes demographics, department responsibilities, programs information, budget and funding, personnel, facilities, and park land acreages.

Charlotte County data was collected from a variety of resources, including Census data, budget documents, the Comprehensive Plan, and Parks and Natural Resources staff. The data entered into ProRagis was limited to 2013.

PRORAGIS BENCHMARKING RESULTS

The research staff pulled several exemplary tables; however the ProRagis data is much more comprehensive than is shown here. Charlotte County staff or consultants can tailor the data to specific needs.

A category under the "Charlotte County" column denoted by an "x" indicates that data was entered for Charlotte County. Numbers in this column are actual reported numbers and calculations. Blank cells in this column represent that Charlotte County does not offer this feature or no data was entered / available.

The second column is data collected from counties nationwide. There were 49 counties in the United States that entered in information into the ProRagis system to be used as benchmarking for the 2013 year. Note that these tables only represent the current (2013) year. The data may or may not be consistent with the previous year's reports produced by NRPA.

The third column represents data collected from cities and counties in the state of Florida only. This column includes 23 respondents - 61% of which are cities, and 39% are counties. The data in these benchmarking columns are measured by either averages or medians. Only one category of this data portrays an average (percentage of your total operating expenditures by category). All other numbers in the columns, including percentages, are the median. Most benchmarking ratios within the system report as a median so they are not skewed by outliers like averages can be. For many of the measures, the ProRagis system shows the Lower Quartile, Median, and Upper Quartile. Below is a summary of those measures:

- Median (50th Percentile): a measure of central value that is not affected by extreme values; calculated by arranging all responses in numerical order and selecting the value that falls exactly in the middle, with half higher and half lower.
- Lower Quartile (25th Percentile): when responses are ordered from lowest to highest, the lower quartile is the response 25% from the bottom. In other words, 75% of all responses are higher than this measure.
- Upper Quartile (75th Percentile): when responses are ordered from the lowest to highest, the upper quartile is the response 25% from the top. In other words, 25% of all responses are higher than this measure.

The table below reflects median values. Charlotte County data can then be compared to these measures to assess where they fall in relation to national numbers and Florida statistics.

When comparing the figures, several percentages are of those municipalities that indicated that they do offer a certain feature. For example, in the Programs Benchmarks table, Charlotte County officials indicated that they do

not offer visual arts and crafts programs. However, 62.5% of counties nationwide and 80% of cities and counties in Florida indicate that they do offer these types of programs.

Several of the categories are also standardized in order to provide an accurate comparison. These categories include:

- Program Participations per Jurisdiction Population - An indication of how much of the population participates in offered programs
- Operating Expenditures per Capita -An indication of how many dollars are spent in relation to population data
- Median Jurisdiction Population per Facility - An indication of how many people there are per one facility
- Acreage of Parkland per 1,000 Population
- Park Attendance per Jurisdiction Population - An indication of how much of the population contributes to park attendance

Below is a summary of each of several exemplary tables that compare Charlotte County to the state and nation.

TABLE 44: PRORAGIS DEMOGRAPHIC COMPARISON

Jurisdiction Ethnic Distribution	Charlotte County	Nationwide Median	FL Cities and Counties
White/Caucasian Persons	90.80%	74.40%	71.27%
Black/African American Persons	6.10%	14.21%	14.10%
American Indian/Alaska Native Persons	0.30%	1.61%	0.37%
Asian Persons	1.30%	3.04%	2.10%
Native Hawaiian/Pacific Islander Persons	0.10%	0.12%	0.08%
Hispanic or Latino (any race) or Spanish Origin Persons	6.50%	12.32%	22.63%
Other	1.40%	5.60%	0.44%

TABLE 45: PRORAGIS PROGRAM BENCHMARKING DATA

	Charlotte County	% of Counties Nationwide (Median)	FL Cities and Counties
Total annual number of participants attending programs, classes and small events	59,604	30,254	30,298
Non-resident fees		45.00%	50.00%
Program or Class Offerings			
Visual Arts and Crafts		62.50%	80.00%
Performing Arts	X	48.78%	56.25%
Health and wellness	X	83.33%	100.00%
Fitness	X	78.05%	100.00%
Martial Arts	X	56.10%	75.00%
Trips and tours		58.54%	56.25%
Organized team sports	X	63.41%	93.75%
Youth sports leagues	X	68.18%	83.33%
Adult sports leagues	X	81.82%	83.33%
Golf program		23.81%	35.29%
Tennis programs		53.66%	87.50%
Water safety	X	56.10%	70.59%
Environmental Ed//Nature Study//Cultural History	X	82.93%	75.00%
Summer Camp	X	76.19%	94.12%
Weeks of camp	12	9	9
Number of campers per week	150	138	900
Feeding programs for summer camp		42.31%	69.23%
Before and after school programs		31.71%	60.00%
Preschool		21.43%	17.65%
Full Daycare		4.76%	12.50%
Specific Teen programs	X	47.62%	64.71%
Senior Programs		51.22%	81.25%
Programs for people with disabilities	X	60.00%	85.71%
Accommodation for inclusion in activities	X	85.71%	100.00%
Assessments of clients w/ significant disabilities		52.38%	54.55%
Opportunities for people w/ significant disabilities		85.71%	90.91%
Community gardens	X	43.59%	60.00%
Edible garden program	X	60.00%	50.00%
Farmer's market		20.00%	20.00%
Rental or permit spaces for gardens	X	45.00%	50.00%
Major Special Events	X	79.31%	88.89%
Program Participants per Jurisdiction Population	0.37	0.09	0.02

TABLE 46: PRORAGIS BENCHMARKING BUDGET DATA

	Charlotte County	Nationwide Median	FL Cities and Counties
Jurisdiction Total Operating Budget	\$142,243,449	\$142,243,449	\$23,866,202
Jurisdiction Capital Budget	\$45,594,310	\$20,831,910	\$2,710,414
TOTAL operating expenditures for your fiscal year	\$15,025,112	\$5,300,000	\$12,367,029
Percentage of total operating expenditures are in the following categories			
Personnel Services	43.00%	58.83%	47.71%
Operations	52.00%	33.17%	35.79%
Capital	4.00%	4.45%	9.25%
Other	1.00%	3.55%	7.25%
Total capital budget	\$11,139,000	\$2,036,049	\$384,500
Operating Expenditures per Capita	\$93.55	\$22.55	\$62.06

TABLE 47: PRORAGIS BENCHMARKING FOR PARK LANDS

	Charlotte County	Nationwide Median	FL Cities and Counties
Park Attendance - including visitors and program participants	No Data	500,000	1,190,500
Number of Parks	74	15	29
Number of Park Acres	5,325	1,624	389
Total Number of Park and Non-Park Acres	5,343	2,310	885
Acreage for parks & recreation purposes	No Data	55%	71%
Designated Open Space Acres	1,637	3,102	1,976
Conservation Lands - Managed Habitat	2,658	3,822	6,650
Preservation Land Acres (no management)	18	2,358	5,601
Percentage of Undeveloped Land that is:			
Designated Open Space Acres	0.40%	12.71%	6.57%
Conservation Lands - Managed Habitat	0.60%	14.32%	22.84%
Preservation Land Acres (no management)	0.00%	5.85%	6.06%
Total mileage of greenways and trails managed			
a. Multi-purpose - No Equestrian	14.69	19.59	21.79
b. Multi-purpose - Equestrian permitted	0.2	14.63	21
c. Hiking/walking only	36.24	10.63	0.67
d. Bicycling only	0	2.15	12.44
e. Equestrian only	2.35	0.91	0
f. Other	0	3.39	0
Total	53.48	51.3	55.9
Acreage of Parkland per 1,000 Population	33.3	11.3	12.1

NEXT STEPS

The following appendices cover all of the policies and plans outlined in the body of this report. With these and the data analysis presented earlier in this document, the future consultant for the Charlotte Parks Master Plan will have a comprehensive set of data from which to begin analysis.

Future work for the consultant may consist of a brief verification of the park inventory amenities, analysis of location-based collaboration opportunities, an assessment of needs based on population demographics and public input, policy recommendations, and future implementation and funding opportunities.

Data from this study has been made available to the future consultant, including electronic maps, charts, data files, spreadsheets, and GIS layers. In addition, a comprehensive list of documents and how to access those documents is provided.

APPENDIX A: CHARLOTTE COUNTY COMPREHENSIVE PLAN

The Foundation of the System

The County's current Comprehensive Plan provides the regulatory foundation of the existing system. Unlike many communities, the County's Comprehensive Plan is very specific as to how the County will "establish an integrated system of parks, open space and recreational resources that provides a diverse, yet balanced, range of user-based and resource-based recreational opportunities which are available to all of Charlotte County's citizens and visitors."

The following goals and objectives address the current and future parks and open space system:

REC GOAL 1 PARKS AND OPEN SPACE

Establish an integrated system of parks, open space and recreational resources that provides a diverse, yet balanced, range of user-based and resource-based recreational opportunities.

REC OBJECTIVE 1.1 PLANNING, ACQUISITION, DESIGN AND DEVELOPMENT

To plan for a park and open space system, acquire sites and facilities, design and develop parks that will ensure that residents and visitors to Charlotte County are afforded opportunities to readily access a variety of parks and open space.

REC Policy 1.1.1 Park Classifications

The County has developed park classifications based on park size, function and service area. These classifications include the following:

- Mini-park
- Neighborhood Park
- Community Park
- Regional Park
- Environmental Park
- Special Purpose Facility
- Greenway
- Blueway

REC Policy 1.1.2 Park System

The County shall classify the role of each park in the park and open space system in order to create an integrated and balanced system, and shall pursue efforts toward the identification, acquisition, and preservation or development of essential components of the park system.

REC Policy 1.1.3 Waterfronts and Beaches

The County shall continue public acquisition of waterfront property and, through public resources and public/private partnerships, seek new opportunities to preserve recreational and commercial working waterfronts, expand and maintain public beach and water access and protect coastal and marine resources.

REC Policy 1.1.4 Boating Access

The County shall encourage responsible use of waterways and marine resources by evaluating the characteristics and needs of the County's boating population, both residents and visitors, and providing public access for motorized and non-motorized watercraft and mooring facilities.

REC Policy 1.1.5 Coordination of Efforts

The County shall coordinate with developers, property owners associations, private business, citizen-based neighborhood and community planning initiatives, special funding districts and governmental agencies to plan and provide for parks, open space, and recreational facilities in order to achieve common development goals through synergy of efforts.

REC Policy 1.1.6 Concurrency

The County shall develop a park, recreation, and open space system that is, at a minimum, consistent with Florida State Concurrency Management requirements by incorporating elements of County, State, Federal, and private park and recreation opportunities. The County shall meet a Level of Service (LOS) Standard based on Park, Recreation and Open Space (PROS) points of 16 PROS points/1,000 population. Assignment of PROS points shall consider factors such as, but not limited to, acreage, distribution, specific amenities, demand, facility capacity, maintenance and operations impacts, and availability for public use.

REC Policy 1.1.7 Private Development Participation

The County shall consider amending its Code of Laws and Ordinances within one year of the effective date of this comprehensive plan to require private residential development to participate in the provision and development of public parks and recreation facilities through land dedication, in-kind services or fees-in-lieu thereof. This participation shall be in addition to paying all required impact fees.

REC Policy 1.1.8 County-wide Master Plan

The County shall develop a formal, comprehensive, county-wide Parks and Recreation Master Plan by 2012.

REC Policy 1.1.9 Park Site Master Plans

The County shall create master plans for park sites in order to: plan for parks that function in harmony with the environment; incorporate active and passive opportunities together; and to guide phased park development providing a uniform basis for establishing management and maintenance practices and levels of service.

REC Policy 1.1.10 Park Design and Construction Standards

The County shall create standards for public park design and construction that establishes a consistent functional and aesthetic vocabulary while allowing for unique response to site and program.

REC OBJECTIVE 1.2 PARK AND RECREATION MAINTENANCE AND MANAGEMENT

To protect and maintain existing parks and assets to preserve physical, environmental, functional, recreational and aesthetic values.

REC Policy 1.2.1 Public Awareness

The County shall protect, restore, and manage natural resources in parks and provide interpretive information regarding environmental resources, conservation easements and ecosystems within parks. The County shall consider the proper long-term ecological functions and recreational value of the land and will work to increase public awareness and understanding of ecological systems.

REC Policy 1.2.2 Park Management and Maintenance Guidelines

The County shall develop and implement guidelines for all park assets and improvements that will serve to provide a uniform basis for establishing management and maintenance practices and criteria which consider periodic, short and long-term needs.

REC Policy 1.2.3 Invasive Species Removal

The County shall develop and pursue invasive, exotic plant and animal eradication programs for parks and open space by 2012.

REC GOAL 2 RECREATION

Promote, conduct and provide for high-quality, professional programs that are accessible, and provide traditional and alternative recreational venues and opportunities serving the needs of both residents and visitors.

REC OBJECTIVE 2.1 RECREATION, ATHLETICS AND AQUATICS PROGRAMS

To create and provide for events, programs and staffing to enhance the quality of life and physical well-being of residents and visitors.

REC Policy 2.1.1 Programming

The County shall annually create programming plans considering factors such as implementation strategies, utilization of resources and assets, scheduling and public needs.

REC Policy 2.1.2 Promoting Recreation

The County shall program, promote and conduct activities to fulfill the diverse needs of County residents and visitors for recreational, educational and leisure activities. The County shall facilitate and participate with vendors, event sponsors and organizations in the use of parks and facilities.

REC Policy 2.1.3 Quality through Collaboration

The County shall maintain high quality recreational programming by working with and utilizing best practices and program curriculum of recognized organizations such as National Recreation and Park Association, American Red Cross, Little League Baseball, Florida Recreation and Parks Association, and other national and State professional organizations.

REC Policy 2.1.4 Sports Fields

The County shall provide a variety of sports fields, maintained and programmed in compliance with recognized standards to serve active recreation needs of youth and adults.

REC Policy 2.1.5 Aquatic Facilities

The County shall provide a variety of recreational aquatic facilities to be maintained, programmed and staffed in compliance with recognized standards to serve active recreation needs of youth and adults.

REC OBJECTIVE 2.2 SPECIAL PURPOSE VENUES

To provide special purpose venues that are capable of offering high-quality, professional-level, diverse events and programs attracting and meeting the needs of residents and visitors on a regional, State and national level.

REC Policy 2.2.1 Sports Park

The County shall maintain and provide for operation of a multi-field sports park capable of hosting a number of diverse events and programs throughout the years

REC Policy 2.2.2 Event Center

The County shall maintain and provide for operation of an indoor/outdoor event and conference center capable of hosting a number of diverse meetings, conferences, events and programs throughout the year.

REC Policy 2.2.3 Contracts and Partnerships

The County shall enter into contracts and partnerships with businesses and groups such as local restaurants, hotels, promoters, trade organizations and business, civic and fraternal organizations for advertising and marketing and other event-related services at special purpose venues in order to provide the best possible experience for clients and guests.

REC Policy 2.2.4 Food, Beverage and Sundries Services

The County shall ensure provision of professional food, beverage and sundry services catering to both popular-type fare as well as specialized culinary services when needed.

REC Policy 2.2.5 Marketing

The County shall market the special event venues locally, regionally and nationally through a broad spectrum of resources including but not limited to press releases, sales kits, website, advertising and public outreach opportunities.

REC Policy 2.2.6 Technology

The County shall research and implement technological improvements and best-practice enhancements that contribute to competing with like facilities in order to maintain standing as a premiere special event venue.

REC GOAL 3 – Library Services

The goal is not immediately relevant to the development of a parks master plan.

REC GOAL 4 SERVICE DELIVERY

Identify opportunities and promote and execute strategies that add value and validity to the delivery of community services including parks, recreation, libraries, historic preservation, arts and humanities.

REC OBJECTIVE 4.1 FUNDING

To identify, evaluate and use alternative sources of revenue for acquisition, development and operation of facilities and programs.

REC Policy 4.1.1 Grants

The County shall seek and, where necessary, provide matching funds as financially feasible to use State, Federal, foundation and other grant programs to assist with the provision of facilities and services.

REC Policy 4.1.2 Alternative Funding

The County shall create procedures and mechanisms to allow the County to accept donations, exchanges-in-kind, bequests, and to solicit and use private sector investment through sponsorships in order to assist in the provision of real property, capital improvements and delivery of programs.

REC Policy 4.1.3 Usage Fees

The County shall establish a schedule of fees appropriate to the provision of facilities and services, and shall provide for reevaluation every two years or sooner, as appropriate.

REC Policy 4.1.4 Capital Investments

The County shall use impact fees, bonds, sales tax and other alternative sources of revenue to finance land, facilities and capital investment in accordance with State Statutes.

REC Policy 4.1.5 Concession Agreements

The County shall determine the potential for providing and operating facilities, programs and services through concession-type agreements.

REC Policy 4.1.6 Special Revenue Fund

The County shall maintain a special revenue fund that provides need-based assistance for children to attend summer and other specialty camps through donations, sponsorships, grants and other revenue opportunities as they become available.

REC Policy 4.1.7 Library Funding

The County shall investigate and make a recommendation regarding the establishment of a dedicated property tax millage to fund the provision of libraries and library services by 2015.

REC Policy 4.1.8 Self-sufficiency

The County shall identify and promote strategies that contribute to the financial self-sufficiency of facilities and programs.

REC OBJECTIVE 4.2 SERVICE BASE

To promote availability, expand accessibility and ensure sustainability of activities by taking advantage of emerging and alternative strategies and recognizing opportunities to serve broader segments of the population.

REC Policy 4.2.1 Green Practices

The County shall encourage the use of green building, conservation and recycling practices in the sustainable design, construction and operation of facilities and programs.

REC Policy 4.2.2 Inclusiveness

The County shall provide facilities and operate programs so that, when viewed in their entirety, they are readily accessible to and usable by individuals with disabilities and other special needs populations.

REC Policy 4.2.3 Trends

The County shall monitor, evaluate and incorporate as appropriate new trends in the provision of amenities, programs and service delivery methods.

REC Policy 4.2.4 Web-based Accessibility

The County shall implement interactive, web-based access to information at each level of citizen contact.

REC Policy 4.2.5 Interlocal Agreements

The County shall maintain an interlocal agreement with the Charlotte County School Board to provide for mutually beneficial utilization of resources and provision of recreational, educational and extracurricular opportunities.

REC OBJECTIVE 4.3 CITIZEN INVOLVEMENT

To actively seek and encourage citizen involvement to assist with and improve the provision of facilities, programs and services.

REC Policy 4.3.1 Public Input

The County shall periodically identify, evaluate and respond to residents' and visitors' needs, desires and satisfaction with respect to their use and participation in amenities and programs.

REC Policy 4.3.2 Park and Recreation Advisory Board

The County's Park and Recreation Advisory Board, a citizen advisory board to the Board of County Commissioners (BCC), shall review park and recreation issues and opportunities and make recommendations to the BCC for the provision and promotion of recreational opportunities.

REC Policy 4.3.3 Accreditation

The County shall meet high standards in the delivery of a park and recreation program as evidenced by the pursuit of accreditation through a recognized State or national program by 2020.

REC Policy 4.3.4 Partnerships

The County shall expand and enhance the delivery of facilities, programs and services through the establishment of cooperative partnerships with businesses, organizations, and governmental agencies.

REC Policy 4.3.5 Support Groups

The County shall encourage and facilitate the establishment of non-profit organizations in order to leverage available public resources to solicit financial support and provide manpower to acquire, develop and operate programs and services.

REC Policy 4.3.6 Volunteer Programs

The County shall establish formal programs, including appropriate inducements, for using volunteers in constructing, operating and maintaining facilities, library services and historical division services, and assisting with and providing programs, services and research to supplement available public resources.

REC Policy 4.3.7 Internships

The County shall encourage and facilitate the use of interns to enable students and other qualified individuals to formally participate in the delivery of services as part of an educational pursuit.

Future Land Use Map Series: http://www2.charlottefl.com/compplan/external/1-FLU/NGOP/1-FLU_AppII_July24-2013.pdf

http://www2.charlottefl.com/CompPlan/main/view_doc.aspx?show_comments=true&docid=11

APPENDIX B: CITY OF PUNTA GORDA Comprehensive Plan

The Parks and Grounds Division of the City of Punta Gorda is responsible for the development, operation and maintenance of city parks and recreation facilities. Approximately 17 developed parks and recreation facilities are maintained by the department. Impact fees and ad valorem taxes are the City's principal funding sources for parks and recreation. Impact fees can be used only for land acquisition and capital improvements that increase the level of service. Operation and maintenance expenses typically come from ad valorem taxes. There are 19 park locations that are classified as city parks, totaling about 109 acres. The current LOS standard for the City is 5.0 acres of developed parklands per functional or seasonal resident.

Goal: The City of Punta Gorda will act to provide public and private recreation resources; provide public parks appropriately located to the population they are intended to serve; coordinate the City facilities with those of other governments; and acquire important open space systems that protect property from storm surge events and/or preserve important habitats.

OBJECTIVE 5.1.1: PUNTA GORDA WILL CONTINUE TO DEVELOP A SYSTEM OF, NEIGHBORHOOD AND COMMUNITY PARKS THAT SERVE THE RESIDENTS OF THE CITY AND SERVE AS PART OF A COMPREHENSIVE OUTDOOR RECREATIONAL SYSTEM CONSISTING OF CITY, COUNTY, STATE, AND NATIONAL PARKS.

Policy 5.1.1.1: Punta Gorda will maintain and improve the park system through continual redesign and renovation of existing parks and by the acquisition and development of new parks.

Measurement: Maintenance activities improvements and land acquired for parks.

Policy 5.1.1.2 : Punta Gorda will cooperate with Governmental entities for the use of appropriate e facilities as neighborhood or community parks.

Measurement: Agreements with governmental entities for use of recreational facilities.

Policy 5.1.1.3: The Punta Gorda park system will include intensive play areas, nature oriented activity areas, extensive natural areas, special activity areas, and urban scenic and passive areas.

Measurement: Amount of such areas in City parks.

Policy 5.1.1.4: Punta Gorda will incorporate its historic districts and structures, and the multi-use recreational trails into the overall park system.

Measurement: Number of multi-use recreational trails connecting the historic districts to the park system.

OBJECTIVE 5.1.2: PUNTA GORDA WILL MAINTAIN A SYSTEM OF OPEN SPACES THAT WILL CONSERVE AND PRESERVE MARINE AND TERRESTRIAL FLORA AND FAUNA AND THEIR ASSOCIATED HABITATS.

Policy 5.1.2.1: Punta Gorda will preserve or restore the natural features to include native plant species and natural water flows of a site when acquiring or developing City owned open spaces.

Measurement: Amount of lands, vegetative cover types, restored or preserved for such properties acquired or developed by the City.

Policy 5.1.2.2: Punta Gorda will encourage the protection of privately owned environmentally sensitive lands by public acquisition, conservation easements, transfer of development rights, or by voluntary dedication.

Measurement: Acres of conservation lands protected by the aforementioned means.

Policy 5.1.2.3: Punta Gorda will consider the following criteria when pursuing the acquisition of open space:

a. Unique features such as plant communities, wildlife populations, mangrove stands, saltwater marshes, freshwater wetlands, beaches, or sand flats.

- b. Critical ecological features such as protection of surface and groundwater quality or as a protection from severe storms surge events.
- c. Locations suitable for outdoor educational programs.
- d. Relatively undisturbed examples of biological communities.

Measurement: Documentation of the aforementioned factors of any open space purchase by the City.

Policy 5.1.2.4: Punta Gorda will make available density bonuses, or other appropriate incentives for developments that preserve environmentally sensitive lands.

Measurement: Acres preserved through development incentives.

Policy 5.1.2.5: Punta Gorda will assist Charlotte County in the development of a scenic wildlife corridor or trail system around the perimeter of the City and which connects to the populated City areas or the Charlotte Harbor State Preserve.

Measurement: Amount of funding, staff support, or other assistance leading to such a corridor or trail system

OBJECTIVE 5.1.3: PUNTA GORDA WILL PROMOTE THE USE OF PUBLIC AND PRIVATE RESOURCES TO MEET RECREATION DEMANDS.

Policy 5.1.3.1: By 2010, Punta Gorda will develop a park and open space plan with standards that will integrate public, semi-private, and private recreational facilities into an overall plan.

Measurement: Drafting and adoption of such a plan

Policy 5.1.3.2: Punta Gorda will require developers of residential subdivisions or planned unit developments to dedicate or set aside lands for parks, or to develop and maintain a private or semi-private park system as part of their development, or otherwise contribute to the acquisition and/or development of parks.

Measurement: Amount of land or contributions received.

Policy 5.1.3.3: Punta Gorda will assist Charlotte County through the County General Fund revenues received from City taxpayers, or other appropriate financing mechanisms, in the acquisition of regional or district park sites which complement the City's neighborhood and community park systems.

Measurement: Charlotte County tax funds received from City residents and used for acquisition of park sites.

Policy 5.1.3.4: Punta Gorda will acquire, when possible, property for parks and open spaces in advance of annexation to provide an adequate amount and distribution of recreation and open space lands.

Measurement: Acres of park land acquired.

Policy 5.1.3.5: Punta Gorda will work with the Charlotte Harbor Environmental Center (CHEC) in the development of bicycle/sidewalk and passive recreation facilities.

Measurement: Planning and development accomplished for such a system in and around CHEC.

OBJECTIVE 5.1.4: PUNTA GORDA WILL PROMOTE ACCESS AND/OR PUBLIC ENJOYMENT OF ALL PARKS AND OPEN SPACE SYSTEMS IN THE CITY.

Policy 5.1.4.1: Punta Gorda will operate a park and open space system in a manner that will promote an equal opportunity for enjoyment by all persons including those with disabilities.

Measurement: Accessibility features included in City parks.

Policy 5.1.4.2: Punta Gorda will not charge user fees at its park and open space facilities, but may require fees for events taking place at a park or to maintain its specialized recreation facilities such as boat ramps and night lighting for tennis facilities.

Measurement: Absence of user fees prohibited by this policy.

Policy 5.1.4.3: All public parks will have public access via a public street.

Measurement: Documentation of public street access to public parks.

Policy 5.1.4.4: Punta Gorda will seek to distribute parks and open spaces so as to serve all neighborhoods.

Measurement: Park and open space acres acquired that satisfy locational needs identified by plan described in Policy 5.1.3.2

http://www.ci.punta-gorda.fl.us/userdata/growthmgmt/CompPlan/Rec_OpenSpacesApp012009.pdf

City of Punta Gorda Parks Master Plan

The Plan reviews the City's current and future delivery of recreation services as it relates to the City's growing population and as a vital component of the continued economic sustainability of the City.

Goals

1. Offer a wider variety of water based activities throughout the park system.
2. Maintain the unique small town, old Florida charm of Punta Gorda through the preservation and reinforcement of Historic Resources
3. Provide and encourage public spaces to soften the urban landscape – to put the right park with the right amenities in the right neighborhood.
4. Provide tree-lined avenues to connect parks, neighborhoods, and community destinations.
5. Utilize multi-use recreational trails that connect parks, neighborhoods, civic places and other community destinations
6. Design parks to accommodate multi-generational recreational needs
7. As transit becomes available, utilize it to reinforce community access to the Park system
8. Encourage events and activities in the parks to enliven the public realm
9. Provide opportunities for continued economic and social development and sustainability
10. To ensure conservation areas and critical habitats are protected and preserved
11. Enhance existing and underdeveloped parks to maximize potential and increase neighborhood benefits

Level of Service

Historically the Level of Service for components of a Park System has been measured on a simple acres-per-thousand of population basis. This flat analysis does not provide any data relative to the quality of service for the delivery of the parks as a public good. Over the past decade a number of studies by local governments, universities, and others have illustrated the personal, environmental, social, and economic benefits associated by being within ¼ - ½ mile radius of a park.

Regional and Environmental Parks

The City of Punta Gorda currently relies on the Charlotte County Parks System for the provision of Regional Park facilities. South County Regional Recreation Center and Carmalita Athletic Park provide the City with sufficient access to athletic fields, Skate Park, BMX track, recreational center and public pool facilities. The Charlotte Harbor Environmental Center (CHEC) provides the regional environmental educational component serving both local and regional populations. In addition, the City's waterfront parks (Gilchrist, Laishley, and Ponce De Leon) serve as a regional attraction for parts of Charlotte, Sarasota, Desoto & Lee County. Level of Service shall be: 5 mile radius (Primary Service Area); 10 mile (Secondary Service Area).

Urban Parks

The Urban Park provides a green relief from the intensity and excitement of the urban landscape. This green relief creates a public gathering place for the exchange of ideas and the random social interactions that provide the lifeblood of a city, town, or village. Level of Service shall be: ¼ mile radius (Primary Service Area); ½ mile (Secondary Service Area).

Waterfront Parks

Waterfront Parks such as Gilchrist, Laishley & Ponce de Leon, serve regional and local users. Citizen and Council input seeks to increase recreational opportunities and restore some of the historical activities that once occurred along the waterfronts. Level of Service shall be: ¼ mile radius (Primary Service Area); ½ mile (Secondary Service Area).

Neighborhood Parks

Neighborhood Parks generally serve a small geography with the park amenities deemed vital to the function of that particular neighborhood. These facilities should occur within a reasonable walking/biking distance of the neighborhood it is intended to serve. Level of Service shall be: ¼ mile radius (Primary Service Area); ½ mile (Secondary Service Area).

Linear Parks

Linear Parks serve the vital function of connecting the varied park types to each other and to the communities they serve. They are designed to move residents and visitors safely and logically through the Park System in a seamless manner. This linkage was the general consensus among the citizens and business owners surveyed during the Charrette. The proximity to these facilities is a good secondary determining factor of quality of life within the context of the Parks System. These facilities should occur within a reasonable walking/biking distance of the neighborhoods they are intended to serve. There are currently no Linear Parks in the City, however many are in the planning, engineering or construction phases and once completed, will be a major component of the Ring Around the City. Level of Service shall be: ¼ mile radius (Primary Service Area); ½ mile (Secondary Service Area).

Implementation

Short Range

1. Linear Park Development Phase I-III
2. Bike Path and Multi-Use Recreation Trail Phase I-III
3. Harborwalk- Best Western to Fisherman's Village
4. Harborwalk- Patty Avenue Trail Head (Trabue Park)
5. Shreve Street Connector: An alternative route for a system of greenways connecting community parks, recreation areas to the Linear Park system (phase III) by means of a trail along the Rail Road Right-of-Way
6. Waterfront Sports Activity Park: Proposed project to include boat storage for nonmotorized boats (sailboats, kayaks, canoes) and a facility Staff is to gather preliminary needs analysis and report back to Council.
7. Park Safety Equipment: Implement provision of police patrol on paths, trails and other hard to access areas through the purchase of a T-3 electric 3 wheel vehicle.
8. Laishley Parking Improvements: Improvements to Laishley Park to include grading, drainage & turf improvements to the Center Drive Circle

9. Day Docks: Construction of docks for boaters and tourists allowing access to the downtown businesses, Harborwalk, Gilchrist and Lashley Parks and the Charlotte County Events Center
10. East Mooring Field: Creation of a 40 ball mooring field approximately 1,000 feet offshore (1100' X 1100' SF)
11. Lashley Park: Rework the main Event Lawn, to include regarding, drainage, irrigation & turf management

Intermediate Range

1. Intersection Enhancements: Pedestrian Safety and Access
2. Retta Esplanade Improvements: to enhance street parking, sidewalks, and lighting and increase open space in Gilchrist Park along the north side of W. Retta Esplanade
3. Tree Inventory: update the existing tree inventory to include Historic Overlay district
4. Colony Point Drive: community garden, small pavilion, on street parking
5. Nature Park Improvements: restrooms, bus loop, parking, educational pavilion, and paddle craft launch.
6. Trabue Park: US 17S/ Marion Ave streetscape, pavilions, restrooms, play area, environmental mitigation, observation pier.
7. Gilchrist Park Improvements: replace bathroom and picnic pavilion; regarding, drainage, irrigation & turf for event lawn; new playground equipment, play surface, restroom, pavilion, picnic area & fencing
8. Summer houses gazebo in style of original pavilions associated with the Punta Gorda Hotel
9. Park Improvements: carousel house
10. Develop partnerships

Long Range

1. Royal Poinciana Avenue Improvements: Bicycle Pedestrian improvements, street trees, overhead utilities, drainage modifications
2. Burnt Store Meadow Neighborhood Park: neighborhood meetings and concept design, construction and permitting documents for neighborhood park. Construction of playground area, picnic pavilion, parking and other improvements.
3. Monaco to Madrid Improvements: Bicycle/pedestrian improvements, street trees, overhead utilities, drainage modifications
4. Bal Harbor Avenue Apartments: Bicycle/pedestrian improvements, street trees, overhead utilities, drainage modifications
5. Park Beach Circle Park: "Summer Houses" gazebo in style of original pavilions associated with the Punta Gorda Hotel, on street parking, landscape improvements
6. Gilchrist Park Boat Club/Bayfront Redesign and Construction: concept design, construction, permitting design documents. Construction of community facilities, parking, and site improvements.

<http://www.ci.punta-gorda.fl.us/depts/growthgmt/Rec&OpenSpaceMastPlan.html>

Punta Gorda Pathways

The Punta Gorda Pathways is a system of approximately 18 miles of Bicycle and Pedestrian Trails and Paths that will connect the City's neighborhoods, parks, and commercial areas. The Punta Gorda Pathways project is being funded through a combination of Federal Transportation Funds, 1 Cent Local Option Infrastructure Sale Tax, and private sector development projects. This major infrastructure investment represents a down payment on the path to a more sustainable Punta Gorda. The Punta Gorda Pathways is composed of four various projects.

Harborwalk

Punta Gorda Harborwalk established in 2010, is situated along scenic Charlotte Harbor. The Harborwalk encompasses approximately three (3) miles of Punta Gorda Pathways. This signature feature connects East Punta Gorda at Charlotte Regional Medical Center to West Punta Gorda at Fishermen's Village with safe means of access under both US 41 bridges. Featured destination points along the Harborwalk include:

- Laishley Park Marina
- Laishley Park
- Interactive Fountain
- Gilchrist Park
- Trabue Park
- Fishing Pier
- Restaurants/Shops/Hotels
- Spirit of Punta Gorda Sculpture

Linear Park

The City's Linear Park transformed the historic railroad right-of-way, once the southern terminus of railroad service on the western coast of Florida, into a scenic trail. Connecting the Harborwalk, to the north, to US 41 at the southern end of downtown, the path traverses for approximately two miles through the City's historic neighborhood district. Accessible from Linear Park Pathways are:

- Fisherman's Village (Restaurants/Shops/Marina)
- Visual Arts Center
- Sculpture Park
- Educational Markers
- Connection to Harborwalk

US 41 Multi-Use Recreational Trail (MURT)

Approximately four miles long the US 41 Multi-Use Recreational Trail provides visitors and residents an opportunity to connect to neighborhoods and commercial areas south of the historic core of Punta Gorda:

- Burnt Store Meadows
- Burnt Store Isles
- Seminole Lakes
- History Park
- Punta Gorda Library
- Golf Course
- Muscle Car Museum
- Hounds on Henry
- YMCA (gym & tennis)
- Shopping & Dining

Connector Projects

Bridges: A 30 mile ride runs over 13 bridges in the Punta Gorda area including a round trip over Charlotte Harbor

Tropical Gulf: A 31 mile ride runs south to the Webb-Babcock National Wildlife Refuge and back to Downtown Punta Gorda

Punta Gorda: A 17 mile ride runs west from Downtown Punta Gorda through the Punta Gorda Isles neighborhood, then east past Edison State College, and back Downtown.

Washington Loop: A 30 mile ride runs east from downtown past the Punta Gorda Airport on a route in the countryside around Washington Loop Rd and Riverside Dr.

<http://www.ci.punta-gorda.fl.us/depts/growthmgmt/ringaroundcity.html>

South County Gateway Planning Meetings

The Charlotte County Growth Management Staff, TEAM Punta Gorda and City Staff have held two South County Gateway Meetings. These public meetings were held to solicit public input regarding the future development and desired community character in the South Charlotte County Area.

Based on the public input received at the meeting City Staff created this map: <http://www.ci.punta-gorda.fl.us/userdata/growthmgmt/ScenicHighwayStaffMap.pdf>, which illustrates four potential routes: Tamiami Route along US 41 from Sarasota County to Lee County, Peace River Route along the Peace River via US 17 and Riverside Drive, Burnt Store Route along Burnt Store Road from US 41 to Lee County, and Washington Loop Route runs the entire course of Washington Loop Road from US 17 to US 17.

The Planning Meetings are still a work in progress. More attention should be given to further community dialog.

<http://www.ci.punta-gorda.fl.us/depts/growthmgmt/southcountygateway.html>

Alternative Transportation Plan 2030

The Alternative Transportation Plan 2030 provides guidance for the logical long-range expansion of a network of pedestrian, bicycle, and kayak/canoe facilities. It encompasses the entire city of Punta Gorda, but due to a number of enclaves, some logical system connections cross into unincorporated Charlotte County, so funding for these areas should be sought through Charlotte County, FDOT, and other sources. The plan works towards the goal of improving the quality of life for residents, creating a more sustainable environment, providing greater opportunity for recreation, reducing traffic congestion, and vehicle noise. The Plan is designed to maximize access, safety, recreation, and transportation through a logical plan for the long-range development of sidewalks, bicycle routes, and kayak/canoe facilities.

Downtown Punta Gorda

Downtown has a great potential to be a place where primary transportation can be by walking or bicycling. The goal for this area is the completion of the Harborwalk and additional beautification through additional landscaping, street furniture, and decorative pavers, bricks or stamped concrete where appropriate. Priority is also focused on enhancing the bicycle facilities within the downtown through signage, bicycle lanes and the development of the Linear Park multi-use path. Additionally, two kayak/canoe launch points will be designated through signage and possible site improvements at Laishley Park and Gilchrist Park.

South of Downtown

The primary goal in this area is increasing connectivity from the surrounding neighborhoods to the school locations, which are densely packed in this area. Through new private development, the city would work toward providing sidewalks along all streets in these areas that have multifamily or commercial zoning designations. Additional funding for sidewalks in this area may be available through the Safe Route to School Program administered by the FDOT.

Punta Gorda Isles, Burnt Store Isles, and Burnt Store Meadows

The primary goal for this area is to construct sidewalks on the remaining connecting streets. The second goal will be to better connect Burnt Store Meadows, Burnt Store Isles, and Punta Gorda Isles to the rest of the City's pedestrian and bicycle network by multiuse path linkages along Burnt Store Road, Aqi Esta Road, and US 41.

Standards

Standard sidewalks shall be a minimum of 5-feet wide concrete with engineering standard. Street intersections and major driveways shall require textured and colorized concrete meeting generally accepted engineering practices designed to visually and tactilely warn pedestrians of the potential of vehicular conflicts.

In areas of new commercial development or in existing urban areas, minimum of 8 feet-wide sidewalks constructed of concrete, special pavers, bricked, or stamped concrete, curb and gutter drainage is required. Sidewalks shall be separated from the street by a minimum 6-feet wide planning strip or a minimum 5-foot wide strip of paving material with tree cutouts at regular intervals.

Special sidewalks predominately located near schools shall be a minimum of 8-feet wide. Sidewalks shall be separated from the street by a minimum 6-feet wide planning strip.

Trails shall be constructed a minimum of 8-feet wide shell, sand, and Portland cement construction to simulate shell with a higher durability factor. This standard is designated for park settings and nota associated with standard road right-of-ways.

Boardwalks shall be a minimum of 8-feet wide and constructed of wood or similar material and elevated from the surface by piers to protect environmentally sensitive areas. Railings shall be constructed to a height of 43-inches with a grab bar at 36-inch height. This standard is designated for park settings with environmentally sensitive areas and not associated with standard road right-of-ways.

Multi-use paths shall be a minimum of 8-feet wide concrete, or asphalt engineering standard. Hybrid bicycle lanes for motor vehicle and bicycle traffic shall be a minimum of 14 feet wide but no wider than 14-feet-9-inches not including gutter. A width of 14 feet allows a motor vehicle to safely pass a bicycle without grossing into the adjacent travel lane, and the maximum 14'9" width prohibits a motor vehicle from passing another motor vehicle on the right. Standard bicycle route and share the road signage shall also be required. Standard bicycle lanes shall be a minimum of 5-feet wide from the outside edge of the outer lane marker to the edge of pavement.

<http://www.ci.punta-gorda.fl.us/depts/growthmgmt/documents/AlternativeTransportation2030.pdf>

APPENDIX C: UNINCORPORATED COMMUNITIES

Parkside

- **Objective 1: Safe and Attractive**
 - Implement a Park Watch Program
 - Regulate Alcohol and Tobacco Use in District Parks
 - Currently, two parks McGuire and Lake Betty are within the district. They are configured as individual, isolated neighborhood parks. McGuire has large tennis courts, basketball, horseshoes, playground equipment, a Girl Scout facility, and public restrooms. Most of these features are old and broken. There is very poor line of sight visibility into the park, so it is very comfortable and convenient for groups of homeless people to spend their day sitting, drinking in the park. Poor line of sight visibility also makes this park a magnet for criminal activity. Lake Betty has a basketball court, picnic facilities, a small children's playground, and fishing. The district also contains several canals as open space. These facilities, particularly the Sunshine waterway and Sunshine Lake, are in need of dredging to enhance both the drainage control function and area aesthetics.
- **Objective 2: Urban in Character**
 - Cleanup Sunshine Lake and Sunshine Waterway
- **Objective 3: Known for Great Public Spaces**
 - Transform McGuire and Lake Betty Parks into Destination Attraction
 - Acquire and Construct New Events Square as Destination
 - Establish Pocket Parks and Waypoint
 - The County shall develop nine pocket parks within the district providing an active venue for recreation and attractive waypoints between district parks and other destinations. The County shall develop a pocket park on the south side of the Cultural Center of Port Charlotte as a bocce ball court and shall develop a checker/game board park near the corner of Aaron Street and Brinson Avenue. Other park themes are yet to be determined. Pocket parks shall have active features within them to promote healthy living. The County shall consider providing benches every one-eighth of a mile between pocket parks within the core commercial area and in other locations, as it determines appropriate.
 - Facilitate Design Charrettes for Parks and Pocket Parks
 - Consider Dedicating Park in Memory of "Younique" Miller
- **Objective 4: Fostering Community**
 - The County shall promote community events and encourage community gatherings within the district.
- **Objective 5: Livable and Walkable**
 - Install Interconnecting Multi-use Trails
 - Connect District Areas with Multi-use Bridges
- **Objective 6: Supporting Sustainable Economic Growth**
 - The quality of amenities anticipated in the district must be appropriate to attract and encourage land development by technology companies and new medical, professional, and financial service offices, and other quality employers.
- **Objective 7: An Identifiable Destination**

- The district will have signature features such as well-identified gateways, lighting, wayfinding signs and landscaping.

<http://www.charlottecountyfl.gov/CRA/Parkside/Pages/default.aspx>

South Gulf Cove

Although SGC has generally smaller parks, the combination of a to-be-identified-and-assembled community park site, the lagoon waterfront park, the publicly owned larger parcels and the securing of park boundaries and needed parcels as recommended in this plan, SGC could achieve a minimum level of service of 3.40 acres per 1,000 population in comparison to the countywide 3.29 acres per 1,000 population.

- **Objective 1:** Create a well-planned system of open space and recreation lands to reduce the impact of urbanization, reduce density, and serve the leisure and aesthetic needs of all residents. The system will recognize the relationship between developed areas and the natural character of the land and drainage ways.
- **Objective 2:** Provide a pedestrian and bicycle-friendly community by establishing a pedestrian/ bicycle system on major trafficked roadways to allow easy access from residential areas to major parks/recreation, public facilities, private parks/recreation and commercial areas. Anchors to the system will be:
 - Northeast: A linear waterfront park at Calumet and St. Paul on County-owned property adjacent to the lagoon waterfront along Section 93.
 - North: A waterfront park at Calumet/San Domingo enhanced by the three private park and recreation tracts at the same intersection.
 - Northwest: An active neighborhood park at San Domingo/Wheeling.
 - Southwest: A large park to include sports fields.
 - Central: A community park to be assembled in a location central to SGC and accessible from the pedestrian bikeway and at least one main road.
 - Commercial concentrations along C.R. 771 and on Ingraham, Keystone, and Appleton. The system will be further supported by small parks, urban open spaces and vistas along and proximate to the system, neighborhood parks and special facilities throughout SGC, and private park/recreation sites, church and public/semipublic sites.
- **Objective 3:** Bridge crossings for the pedestrian/bicycle system will need to be worked out as they may have inadequate width, although they do provide a pedestrian walkway. Buffer, maintain and beautify these small parks and spaces so they do not become obtrusive to surrounding properties.
- **Objective 4:** Where possible use waterfront parks as special facilities for picnicking and similar low intensity uses. Preserve vistas in these parks and prohibit parking.
- **Objective 5:** Connect the system to the "Pioneer Trail" using a single access point at Ingraham and C. R.771. Other accesses to commercial along C. R. 771 should end at the easternmost boundary of the commercial to discourage access to the interior of SGC by nonresidents. County owned parcels along C. R. 771 should be landscaped and beautified by the county using thematic vegetation as specified by SGC.
- **Objective 6:** Strengthen the waterfront identity of the community by stressing water vistas and access wherever possible

<http://www.charlottecountyfl.gov/boards-committees/sgcac/Site%20Documents/SouthGulfCove.pdf>

Placida

To create the citizen's master plan for the Placida community, there were "vision" sessions held in order to conduct a needs assessment focused on three central areas of recreation:

Sidewalks

- The Ad Hoc committee recommended extending sidewalks along the entire length of the project corridor on C.R. 775 and C.R. 771. The extension of the sidewalks should be considered part of the proposed Coral Creek Bridge Project. Extension beyond the Bridge should be considered secondary phase.
- Coral Creek Bridge Sidewalks should join with the Cape Haze Pioneer Trail.
- The Extension of the sidewalks to the boundary of the Placida community should be funded through extension of the 1% sales tax.

Bicycle/Pedestrian Trails

- The consensus was not to extend the bicycle path to the Boca Grande Causeway beyond C.R. 775.
- Recommendation to endorse the inclusion of Phase III of the Cape Haze Pioneer Trail into the Coral Creek Bridge project to complete the last leg of the trail two years ahead of time.

Boat Ramps

- The boat ramps within the Placida Community are located within the Charlotte County boat ramp facility. Citizens do not want additional ramps or parking associated with the County facility. Citizens also want "No Parking" signs and associated fines for the area along C.R. 775 and C.R. 771.
- It is proposed that the County should consider requiring a permit to use the boat facility, providing a vehicular decal to identify permit holders. The permit would be free for Charlotte County residents.

<http://www.charlottefl.com/OutReach/pzdocs/Placida/PlacidaCommunityPlan.pdf>

Boca Grande

The Boca Grande community has a goal to promote, protect, and enhance existing and potential open space, recreational facilities, and the quality of life for the residents and stakeholders of Boca Grande. These efforts will enhance the aesthetic qualities of Boca Grande and benefit its residents while preserving the characteristics of its fragile barrier island system. The following objectives align with this goal:

- **Objective 1:** Charlotte County will seek to enhance and protect the quality of life for residents, visitors, and stakeholders through the preservation of functional open space and recreational opportunities while seeking to limit demands upon a restricted infrastructure and enhance the aesthetic qualities of Gaspirilla Island.

<http://www.charlottefl.com/OutReach/pzdocs/bocagrande/CommunityPlanDraft/BocaGrandeCommunityPlan.pdf>

Grove City

Grove City has developed parks and facilities within and surrounding the community. Funds from the Grove City MSBU have gone towards a variety of community enhancements including community entrance signage, Placida Road median beautification, and development of the Colorado Walking Park, which serves to link other amenities and initiatives. The community has within its boundaries a large portion of the 420 acre Oyster Creek Regional Park. Cedar Point Environmental Park is a 115 acre park situated adjacent to Lemon Bay. Ainger Creek has an affiliated Boat Ramp. Below are objectives relating to park and recreation development within the community:

- **Objective 1:** partner with agencies and organizations to educate the public regarding the protection of critical habitats and the reestablishment of habitat connectivity through greenways, water courses, and habitat corridors.
- **Objective 2:** liaison with the Parks and Recreation Department to facilitate community programs involving youth.
- **Objective 3:** promote opportunities to experience the natural beauty of the community's location along Lemon Bay and surrounding waterways through the protection of view corridors, open spaces, vistas, and related resources.
- **Objective 4:** maintain lines of communication with appropriate County and agency staff with regards to programs focused on the protection of the environment and affiliated natural resources.

<http://www.charlottecountyfl.gov/boards-committees/gcab/Site%20Documents/GroveCityCommunityPlan.pdf>

Little Gasparilla Island

Little Gasparilla Island is approximately 2.5 miles in length and averages between ¼ and ½ mile in width. The island is physically connected to Don Pedro Island to the north; however, the Don Pedro State Park serves as a buffer that only allows for pedestrian access. The goal of the Little Gasparilla Island community is: to “maintain and protect Little Gasparilla Island’s low-density residential nature, while providing for limited non-residential uses to meet community needs...and manage growth and the rate of growth in a manner that ensures the sustainability of its resources and the attainability of its community vision.” There is a privately owned church that serves as a meeting place for the residents. Other than the church there are no community facilities. There is a small library that operates on an honor system, attached to a home owned by a stakeholder.

- **Objective 1:** Charlotte County will coordinate with the LGI Advisory Committee to identify an island site that serves as the location from which community services may be provided.
- **Objective 2:** while low-density residential is the principal land use, Charlotte County will explore zoning revisions and other measures to promote limited commercial and community land uses on the island.
- **Objective 3:** Land acquisition for conservation and green space will be promoted. The acquisition of land and partnership opportunities should be explored.
- **Objective 4:** Charlotte County will encourage the LGI Advisory Committee to work with private entities to reduce platted lots through assembly and deplating, public acquisition, transfers of density rights, and the possibility of lot swaps.
- **Objective 5:** Maintain boat access to the island through ensuring the water-based network for residents and visitors is navigable.

<http://www.charlottecountyfl.gov/boards-committees/lgiac/Site%20Documents/FinalCommunityPlan.pdf>

Manasota and Sandpiper Key

The purpose and intent of the environmentally sensitive district is to preserve and protect certain land and water areas in unincorporated Charlotte County which have overriding ecological, hydrological, physiographic importance to the public at large. It is intended to preserve and protect open spaces, park lands, wilderness areas, marshlands, watersheds and water recharge areas, scenic areas, beaches and native flora and fauna in those areas designated ES or LD on the comprehensive plan map. It is intended to allow limited public/private recreational/educational uses and their incidental accessory uses and structures. It is of high interest that the existing green spaces on Manasota Key are preserved as much as possible. The loss of this resource will adversely affect not only the quality-of-life of residents and visitors, but will also have a profound impact on the wildlife that currently exists.

- **Objective 1:** extend sidewalks from the public beaches to the side roads so all main roads have a sidewalk on at least one side.
- **Objective 2:** Charlotte County must test all outflow pipes into Lemon Bay Preserve to ensure pollution requirements compliance.
- **Objective 3:** Attention must be given to the lack of adequate public and private parking near the beach.

<http://www.charlottecountyfl.gov/boards-committees/mskac/Site%20Documents/ManasotaKeyCommunityPlan.pdf>

Charlotte Harbor

The Charlotte Harbor CRA is located in the Mid-Section of Charlotte County beginning on the west side of the Peace River Bridge and measures approximately 766 acres in size. There are four main districts within this CRA.

Riverwalk District

- Coordination with the Punta Gorda CRA will allow for enhanced recreational and marketing opportunities.
- By building a pedestrian walkway under the US 41 northbound bridge, pedestrians could access river walks on either side of the bridge, connecting Laishley Park, Gilchrist Park, and Bayshore Live Oak Park. The county should consider acquiring waterfront easements to complete the Riverwalk east and west of the bridge.

US 41 Gateway District

- The CRA includes a portion of an older commercial corridor, US 41. The CRA currently has ordinances that enact architectural guidelines and sign restrictions, which will be enforced as buildings are rebuilt and new businesses start up. To improve the appearance of the corridor, investment in landscaping, sidewalks, signage, wastewater, and stormwater management plans are needed. In addition, the CRA will need to coordinate with the private water utility franchise to improve waterlines in the area. While there is already pressure to develop the waterfront properties, the CRA should develop incentives to businesses and property owners along the corridor to expedite the cohesion of architectural styles and infrastructure improvements by offering such incentives as facade-improvement low-interest loans and/or grants, tax increment rebates, or height and/or density bonuses.

Charlotte Harbor Neighborhood District

- The county realizes that it may need to acquire some land to implement the stormwater master plan and to provide future parking. Currently some of the neighborhood still uses wells and septic tanks. To improve the quality and level of development in the neighborhood, financing options need to be developed to allow for the completion of a wastewater system and improved water lines within the district.
- The Parks and Recreation Department has set aside funds to create the Bayshore Live Oak Park, which will include a water feature, playground, concert pavilion, picnic facilities, restrooms, and historical and environmental interpretative signage. The County continues to seek additional funding to complete the land acquisition of the designated park boundaries.

Melbourne Neighborhood District

- The residential district west of US 41 requires infrastructure improvements including water, wastewater, and stormwater management. Many of the improvements will be accomplished as new developments are built because of the larger tracks of land available for development. The CRA will work with this neighborhood to provide financing and grant opportunities to complete the infrastructure improvements identified. Melbourne Street provides direct access to Harper Avenue which leads to I-75. Because of this connection, the neighborhood is impacted by vehicular traffic that at times exceeds posted speed limits. The goal of preserving and enhancing this neighborhood is centered on improving the traffic conditions, by encouraging traffic-calming devices and improving pedestrian and bicycle access.

<http://www.charlottecountyfl.gov/CRA/CharlotteHarbor/Pages/default.aspx>

Murdock Village

Murdock Village is a neighborhood located in the northwest section of Charlotte County, within one mile of the spring training complex of the Tampa Bay Rays and measures approximately 1200 acres. Intended use of property for public parks, recreation areas, streets, public utilities and public improvement includes:

- The Community Redevelopment Area will be redeveloped as a pedestrian and environmental friendly mixed-use community. Public facilities such as parks, recreational facilities, greenways, streets, utilities, government buildings and services shall be located throughout the community in a manner that provides for convenient and safe access while enhancing the aesthetic character of the area.
- Development of a vibrant and attractive gathering place for the entire community in the form of a Town Center, "five minute walk" access to parks, facilities and services, a pedestrian friendly street and access network, and interior greenway and blueway open space linkages that integrate the Community Redevelopment Area with existing County and community resources.
- This Community Redevelopment Plan specifies that the County, CRA and the redevelopment partner will strive to dedicate 20% of the total acreage within the Community Redevelopment Area to parks, recreation and open space; therefore the provision of parks, recreation and open space will exceed the County's level of services standard.

<http://www.charlottecountyfl.gov/CRA/MurdockVillage/Pages/default.aspx>

Babcock Ranch Recreation Master Plan

The Babcock Ranch Recreation Master Plan utilizes a strategy of analyzing existing amenities and proposed land uses in six neighboring counties, Charlotte, Collier, Glades, Hendry, Lee and Sarasota, in order to determine how recreation on the Ranch might be affected. The surveys identified areas of low provision throughout the region and identified opportunities for the Ranch to provide these services. In particular is camping.

Recommended Low Impact Recreational Uses

- Trails (Hiking, Equestrian, and Mountain Biking)
- Hunting
- Primitive Camping
- Remote Improved Campsites (Potentially located at or nearby former hunt camp sites)
- Guided and Self-Guided Nature Study
- Wildlife Viewing

Recommended Intensive Recreational Uses

- Visitor and Environmental Education Center
- Ecological and Heritage Tours and Events (Wilderness Adventures)
- Equestrian Facilities and Program
- Full Facility Camping (RV, Camper, Tent)
- Trap, Skeet and Sporting Clays Range
- Specialty Lodging and Meeting Facilities

Charlotte Harbor Environmental Center. The Charlotte Harbor Environmental Center (CHEC) is in the Charlotte Harbor Preserve State Park, but is a private nonprofit entity that operates an environmental research and education center on the 3,000 acre Alligator Creek Preserve leased from the State. The Center is located a few miles south of Punta Gorda and has a number of facilities and programs. Facilities include the Caniff Visitor Reception Center, Watershed Resource Center and CHEC Nature Gift Shop, a bird blind, wildlife display structure called the Animal Clubhouse, a butterfly garden, three nature trail loops totaling 5.25 miles, along which there are a number of picnic tables, and a screened picnic pavilion. Volunteers lead nature walks. The Caniff Center is elevated on stilts to facilitate views out over the Preserve. Free nature information and publications are available at the Watershed Resource Center. The Nature Gift Shop has shirts, handmade birdhouses and various other articles for sale. The Center also provides ecocruises on nearby waterways with pontoon boats. Admission to the Center and trail system is free.

Goals for Babcock Ranch:

1. Achieve financial self-sufficiency in recreational operations by maximizing compatible recreational uses while minimizing costs.
2. Provide a diverse mix of low impact and clustered/more intensive day use and overnight use activities.
3. Plan, market, and operate the BRP recreation opportunities as a unique combination of experiences that are not typically available to the public, while maintaining the natural features and not impacting the ranching activities.

4. Consider utilizing contract concessionaires/private operators wherever possible for equipment rentals, guided tours, guided hunts, food services, lodging operations, and other facilities and activities in order to fund the recreation activities and minimize public operating costs.

Low impact recreational opportunities and uses most desirable and suitable for the BRP are:

1. Trail System

- a. Networks of unpaved single use and multiuse trails for hiking, horseback riding, bicycle riding and nature study should be provided throughout the Preserve to take advantage of and provide exposure to the varied high quality natural environments found in the Preserve, including woodlands, ranch lands and the Telegraph Swamp

2. Hunting

- a. Hunting will be continued in the Preserve, although not through private land leases as in the past. Recognizing the importance of continuing the hunting experience in the Preserve, 17,000 acres in the northeast corner of the property has been designated as the initial public hunting area. Hunting and related activities should also be permitted on other areas of the property generally east of Telegraph Swamp. Hunting related activities for which the Preserve is very well suited include deer, hog, quail, turkey, and hunting dog field trials.

3. Primitive Camping

- a. Sites for primitive individual and group camping, including horseback campers, should be provided in the areas generally east of Telegraph Swamp. Infrastructure would generally be limited to tent sites, composting or vault toilets and fire pits. Development of screened shelters would provide welcomed amenities in these remote areas for walking, campers, horseback campers and hunters.

More intensive recreational opportunities and uses most desirable and suitable for the BRP are:

1. Visitor and Environmental Education Center

- a. A nature research center is proposed in the Kitson section of the Babcock Ranch Community on a 100 acre site near the Babcock Wilderness Adventures facility. The possibility of utilizing and expanding the Babcock Wilderness Adventures facility as the main visitor introduction point to the Preserve should be considered, at least until a permanent center is developed in a manner and location compatible with the interests of both the Preserve and the Babcock Ranch Communities.

2. Ecological and Heritage Tours and Events

- a. Eco-tourism supports numerous businesses in Southwest Florida including public and commercial attractions and tour guides and operators. Fees for individual and group tours and special outings can be significant revenue generators. Babcock Wilderness Adventures is already a well-established and popular attraction and can be the basis for expanding offerings available in the Preserve, including exclusive group eco-tours, day safaris and overnight tour packages.

3. Equestrian Facilities and Programs

- a. The BRP has potential for hosting a number of more intensive equestrian activities and events including endurance rides and trail challenges. These will require large well drained event staging and parking fields for trucks and trailers, food vendors, and other activities that support these events.

4. Full Facility Camping

- a. Provision of 100-150 RV/trailer/tent campsites is recommended for the BRP. The campground should be located clustered within the core recreation area and have showers, electric and

water hookups, sewage pump out facility, and recreational amenities. Development and operation of this facility is an opportunity for the private sector.

5. Trap, Skeet and Sporting Clays Range
 - a. Adding trapshooting, skeet shooting, and five stand shooting should be considered to broaden the range of potential users and events. In addition, consideration should be given to include an archery range.
6. Specialty Lodging and Meeting Facilities
 - a. The addition of several (4-6) cabins/cottages would increase the overnight capacity of the Lodge and allow for accommodation of larger groups. Cabins/cottages in natural outdoor settings were mentioned by several contacts as being very desirable to add to the mix of overnight lodgings available in the region.

Table 4-3

Recreation Opportunity Spectrum (ROS)			
SETTING Characterization			
Primitive (P)	essentially an unmodified natural environment motorized use in area is not permitted	interaction between users is low	minimal evidence of other users
Semi-Primitive Non-Motorized (SPNM)	predominantly natural or natural appearing environment of moderate to large size motorized use is not permitted	interaction between users is low	often evidence of other users
Semi-Primitive (SP)	predominantly natural or natural appearing environment of moderate to large size motorized use is permitted	concentration of users is low	often evidence of other users
Roaded Natural (RN)	predominantly natural appearing environments with evidence of the sights and sounds of man conventional motorized use is provided for in construction standards and facility design	interaction between users is low	evidence of other users prevalent
Rural (R)	substantially modified natural environment facilities for intensified motorized use and parking are available	interaction between users is moderate to high	sights and sounds of humans is readily evident
Urban (U)	substantially urbanized environment facilities for intensified motorized use and parking are available with forms of mass transit often available to carry people throughout the site	large number of users	sights and sounds of human on sight are predominant

Source: Recreation Opportunity Spectrum Userguide Published by US Department of Agriculture and US Forest Service

http://myfwc.com/media/304827/BRP_RMP_final.pdf

Burnt Store Area Plan

The area studied includes land bordered on the south by the Charlotte/Lee County line, on the east by US 41 and on the north by Tuckers Grade.

Transportation

The top priority expressed by the majority of stakeholders was improvements to Burnt Store Road and East/west connector roads. Residents and community leaders voiced concerns about safety, and they strongly encouraged the county to four-lane Burnt Store Road as soon as possible for improved safety, hurricane evacuation, economic development and quality of life. The county is planning to complete the following improvements within the next year: safety improvements to Burnt Store Road, the paving of Zemel Road and the installation of a traffic signal at Tuckers Grade. According to the county's current plans, the four-laning of Burnt Store Road is not planned until 2015.

Infrastructure

The Area Plan proposes the siting of commercial nodes within the corridor to eliminate the need for residents to travel long distances to Punta Gorda or Cape Coral to access general commercial services.

Water Management

Residents also expressed concern about flooding problems and the current drainage system. The general consensus was that new development should restore natural systems and alleviate flooding problems. The Area Plan identified the lack of existing data on the stormwater systems throughout the corridor. The Plan recommends a complete inventory of existing facilities and the creation of a maintenance program. This watershed study will recommend specific improvements, identify potential storage sites and develop a system to treat run-off to Outstanding Florida Waters standards.

It is recommended that restoration projects to improve the quality of existing run-off from the subdivisions east of Burnt Store Road be undertaken. Such projects include exotic vegetation removal and filling in existing ditches that were dug through wetlands on the west side of Burnt Store Road. It is recommended that Municipal Services Benefit Units (MSBU) be created or, in cases of existing MSBUs, be expanded, to cover the cost of design and implementation to convert the existing conveyance drainage systems of the existing subdivisions to stormwater management systems that would provide attenuation and treatment of run-off prior to discharge from the development. The designed systems would not only improve the quality and quantity of discharge downstream to Charlotte Harbor, but also would improve the drainage and reduce flooding within the subdivisions. The system would be designed to meet the level of service standards established in the Comprehensive Plan. Other sources of monies that may be available include the state, through SWFWMD and the SWIM Program.

Environmental

A significant portion of the Study Area is under public ownership. The Area Plan recommends that these areas be linked by a wildlife corridor – Clark's Canal – designed for specific wildlife species. In addition, green spaces are recommended to offer opportunities for enhanced public enjoyment of the corridor.

A potential current obstacle to the proposed alignments is that portions of them exist on private property. Public acquisition and/or cooperation from current owners would be necessary to implement the flow way,

greenway/corridor, and wildlife corridor. If a large mammal corridor is desired for the proposed wildlife corridor alignment, public land acquisition funding to develop the large mammal wildlife corridor should be given the top priority out of all of the corridors. Opportunities for mitigation of projects in the Burnt Store Area Plan should include purchase of land for preservation along proposed corridors, funding for wildlife crossings under Burnt Store Road, and funding for the management and maintenance of the corridors. Other issues to consider would be to determine if there are any prohibitions on land uses or potential land uses that may be permitted adjacent to the alignments that would prevent them from functioning as a flow way, greenway/corridor, and wildlife corridor. This must be determined through site-specific studies conducted for the corridors.

Land Use

This study proposes amendments to the Charlotte County Comprehensive Plan. Several new policies are added to the Future Land Use Element and changes are proposed to the county's Future Land Use Map that would provide form and structure to future development as well as ensure that services become available for the existing development as well as future development.

Policies

Policy 2.5.17 Charlotte County shall encourage, through incentives that may include impact fee credits, the provision of water storage and/or water quality capacity in the internal water management systems of new developments fronting Burnt Store Road for storm water run-off from Burnt Store Road. The intent is to assist Charlotte County in making the necessary improvements to Burnt Store Road in an economical and efficient manner by minimizing the amount of right-of-way necessary for widening Burnt Store Road.

Policy 2.5.18 Prior to 2008, Charlotte County will coordinate with the Southwest Florida Water Management District to conduct a Watershed Flood Study to quantify water quality discharges, conveyance systems capacity and adequacy, identify existing LOS, recommend improvements over and above those requirements specified in Policy 2.5.17, and specify the LOS after improvements.

Policy 2.5.19 Based on input and recommendations from the Florida Fish and Wildlife Commission and the National Estuaries Program, the county shall coordinate with property owners to the following natural resource connections as shown on the Future Land Use Map:

- a. Blueway –To assist in alleviating stormwater drainage concerns, Charlotte County will require, through the Planned Development process, a restored or created flow way. The proposed flow way could connect surface water management lakes and on-site wetlands. Littoral shelves should be planted along the proposed flow way to provide water quality treatment and foraging areas for wading birds. Road crossings may be constructed where the flow way is proposed, so long as the hydrological integrity of the flow way is maintained through drainage crossings.
- b. Greenway – Charlotte County will work with private property owners to preserve property along the greenway to link up with the proposed “Wildlife Utilization Areas” in the Tern Bay DRI. The intent is to provide for a visual link of narrower width than the wildlife corridor, ranging from a minimum of 20 feet to 75 feet depending on existing vegetation and wildlife habitat. The greenway should include the preservation or enhancement of natural habitats. Enhancement activities can include plantings of native vegetation and removal of exotic and nuisance vegetation. Recreational open space may be incorporated in to the greenway. Development along a greenway is encouraged to provide for public use of the greenway by providing sidewalks and pedestrian connections to adjacent properties. Where greenways

are required for public use, the developer shall be granted credits toward park impact fees in an amount to be determined through the Planned Development process.

- c. Wildlife Corridor – Charlotte County, as an incentive to preserve land within and along wildlife corridors, will allow the transfer of density from such lands to other developable lands. Charlotte County will also coordinate with appropriate environmental agencies, and will consider using funding that may include Land Acquisition Trust Fund monies, to acquire properties along the wildlife corridor for preservation. Charlotte County will incorporate into the widening of Burnt Store Road, a wildlife crossing to be constructed of a sufficient size to accommodate small to medium size animals. The width of the corridor should be a minimum average width of 100 feet, where possible, to accommodate small to medium size mammals. The corridor should include the preservation and/or enhancement of natural habitats. Enhancement activities can include plantings of native vegetation and removal of exotic and nuisance vegetation. The corridor should provide sufficient cover to encourage use by wildlife through compliance with the following provisions:
 - a. A 25-foot buffer will be established between the corridor and proposed development activities. The buffer will consist of native habitats where these native habitats currently exist. In areas where native vegetation does not currently exist, native vegetation plantings will be conducted within the 25-foot buffer.

Policy 2.5.23 In order to create an interconnected and integrated community within the Burnt Store Planning Area, all new development must provide pedestrian and bicycle facilities from within the development to exterior pedestrian and bicycle corridors.

Charlotte County will work with property owners within the Burnt Store Planning Overlay to acquire the approximately 90 acres of land needed for active recreational uses. Methods of acquisition may include the granting of density bonuses, TDU bonuses, impact fee credits or property acquisition.

Parks and Recreation Needs Analysis

This analysis assumes there will be an average of 2.05 people per dwelling unit. This is a very conservative approach as seasonal and occasional use units will generally generate a significantly smaller population than year around residents.

The new demand generated for facilities such as pools, tennis courts and club facilities are likely to be provided on-site within private or semi private developments. However, there is now and will likely need to be additional facilities for active recreation including soccer fields, baseball fields and similar activities that are common in public parks, but not typically found within planned communities.

To offset some of the passive and active recreational, and cultural needs of future residents, the Department of Parks, Recreation and cultural Resources has suggested policies to the Overlay which would provide for certain types of recreational activities. These policies encourage the provision of neighborhood parks, private or public, within residential areas, the construction of bike lanes on new major roadway corridors, more emphasis on public passive recreational use of the greenway corridors and the establishment of an area wide trail system that links up with the conservation lands within the Study Area. A requirement to conduct a study for archeological sites has also been added, as archeological sites have been found in the area.

<http://www.charlottefl.com/outreach/pzdocs/BurntStore/BurntStoreAreaPlan110705.pdf>

Fred C. Babcock – Cecil M. Webb Wildlife Management Area

Fred C. Babcock – Cecil M. Webb Wildlife Management Area (BWWMA) is located five miles southeast of Punta Gorda in Charlotte County. The FWC is the designated lead managing agency by the DEP's DSL, with the Division of Forestry (DOF) a designated cooperating agency on lands for which the trustees hold title. Prior to its purchase by the commission, BWWMA was used primarily for its range and timber resources. The majority of land within BWWMA was acquired in 1941 for wildlife management and public hunting under the auspices of Federal Aid in Wildlife Restoration Act. The acreage referred to as the Yucca Pens Unit was purchased by the state through the P-2000 Program...according to the 1997 CARL Annual Report, the Yucca Pens portion of the BWWMA will be "designated for use as a wildlife management area. Public uses will include hiking, environmental education, and hunting". FWC manages the area for public resource-based outdoor recreation including, but not limited to, hunting, fishing, and wildlife viewing. All uses are consistent with the types of activities encouraged by the Conceptual State Lands Management Plan.

The multi-use potential of the BWWMA includes:

1. Hunting
2. Fishing
3. Wildlife observation
4. Hiking
5. Bicycling
6. Horseback Riding
7. Target Shooting
8. Camping
9. Linear Facilities
10. Off-Road Vehicle Use
11. Environmental Education
12. Preservation of archeological and historic sites

Potential additions and inholding within BWWMA, Charlotte County Florida

Landowner	Acres
Larry Boyette	3Total
McWilliams and Smith	21
Bud Cole Estate	41
Gary Ennis	66
Ansin	622
Zemel	3636
Various Subdivided parcels	6466
Total	10855

2002 Florida Forever Project	Remaining Acres
Hall Ranch	8520
Babcock Ranch	91361
Charlotte Harbor Flatwoods	5838

Natural and Cultural Resource

Topography

The drainage of the area is through interconnecting sloughs that eventually lead to the perimeter of the area.

Soils

The BWWMA is composed of sedimentary deposits composed principally of limestone, marls, and calcareous sandstones. Soil disturbing activities will be confined to areas that have the least likelihood of experiencing erosion problems.

Fish and Wildlife

The FWC is currently conducting a contracted population dynamics study of the Northern bobwhite of BWWMA to determine effects of varying harvest rates. Results of this study will be used to develop management strategies to assist in the reestablishment of Northern bobwhite populations to historical levels.

Forest Resources

Florida Statute requires that plans for 1000+ acre parcels contain an analysis of multiple-use potential, to include a professional forester's assessment of the resource conservation and revenue-producing potentials of the tract's forest.

Scenic Resources

Scenic resources include an extensive example of a relatively large and pristine South Florida flatwoods ecosystem. This ecosystem comprises a pine flatwoods and wetlands complex, including wet prairie and marsh areas, as well as cypress sloughs and domes.

Water Resources

Consist primarily of seasonal ponds, marches and depressions, excavated ponds and Webb Lake.

Cultural, Archeological and Historic Resources

Management activities on the area will be planned to minimize any disturbance to sites with a potential for archeological site presence. Procedures outlined by DHR will be followed to preserve such sites. The FWC will continue to consult with the previous landowner and DHR in an attempt to locate other features on the area, and will contact professionals from DHR for assistance prior to any ground-disturbing activity on the area.

Resource Management Goals and Objectives

1. Manage for healthy and productive wildlife
 - a. Maintain game populations which are self-sustaining and harvested on an optimum sustainable yield basis.
 - b. Protect, maintain, and increase, where feasible, threatened and endangered species.
 - c. Maintain at present levels and increase nongame wildlife populations.
 - d. Manage plant communities to increase their carrying capacity for wildlife.
 - e. Eradicate and prevent the reintroduction and spread of exotic plants.
 - f. Identify activities that can disrupt wildlife and destroy natural resources
 - g. Close unneeded roads and trails and allow to revegetate

- h. Identify a central location for ingress and egress
 - i. Manage all resources using sound management techniques
 2. Manage all natural resources in an efficient, productive manner which is compatible with wildlife management practices
 - a. Manage the timber resources for optimum benefit to wildlife
 3. Restore natural hydrology and the connection with Charlotte Harbor
 - a. Coordinate with the Florida DOT to maintain the watershed's connection with the Harbor
 4. Identify and protect archaeological, historical, and cultural resources.
 - a. Keep the location of undisturbed sites as proprietary information.
 5. Develop facilities and infrastructure to facilitate the management of the area.
 6. Provide for revenue generating activities other than hunting and fishing
 - a. Continue to collect a day-use fee for area utilization

Recreation

The BWWMA is intended to be an area available for a variety of nature-based recreational opportunities. These include, but are not limited to, fishing, hunting, camping, bird watching, horseback riding, hiking, target shooting, and nature study. Inasmuch as possible, these activities are managed to provide uncrowded, quality outdoor experience. Recreational uses are limited to those activities that are consistent with the goals of environmental conservation and user balance. FWC intends to develop a self-guided interpretive driving tour of BWWMA.

Florida Game and Freshwater Fish Commission – Goals

1. Increase participation and satisfaction levels for participants in fishing, hunting, and wildlife viewing.
2. Increase outdoor recreational opportunities
3. Protect and conserve natural habitats and fish wildlife populations
4. Improve public safety in the outdoor environment
5. Reduce regulation violations and other careless and abusive acts

http://myfwc.com/media/132225/CMP_Babcock_Webb_2003_2008.pdf

APPENDIX D: FEDERAL AGENCIES

Information regarding the responsibilities of federal agencies was found in the Florida DEP SCORP.

<http://www.dep.state.fl.us/parks/outdoor/scorp.htm>

U.S. Department of the Interior

National Park Service

Conserve the scenery and natural resources of national parks and provide a wide variety of outdoor recreation opportunities.

- Responsibilities:
 - Partnering with other federal agencies as well as state and local government programs designed to achieve national goals such as clean air, protection of wilderness areas, clean water and access to waterways and coastal areas under the National Wild and Scenic Rivers Act and the Water Resources Development Act.
 - Providing matching grants through the Historic Preservation Grants-in-Aid Program, an expansion of the National Historic Preservation Act of 1966, to government, private groups and individuals for historic preservation surveys, planning activities and community education. These programs are administered in Florida by the Division of Historic Resources (DHR) within DOS.
 - Administering the Federal Lands-to-Parks Program, which enables states and local governments to establish park and recreation areas on federal properties which are no longer needed for military or civilian uses by conveying lands for that purpose.
 - Coordinating the Rivers and Trails Conservation Assistance Program by providing planning assistance to communities for projects that are designed to protect rivers, trails and greenways on lands outside of the federal domain.
- National Park Service Activities in Charlotte County:
 - National Register of Historic Places:
 - Clarence L. Babcock House, February 25, 2009, Punta Gorda
 - Big Mound Key-Bogges Ridge Archeological District, December 3, 1990, Placida
 - Charlotte High School, December 12, 1990 Punta Gorda
 - El Jobean Hotel, September 29, 1999, El Jobean
 - El Jobean Post Office and General Store
 - El Jobean Post Office and General Store, August 27, 1999, El Jobean
 - A. C. Freeman House, January 7, 1987, Punta Gorda
 - Icing Station at Bull Bay, April 11, 1991, Off Bull Key in Bull Bay, Placida
 - Mott Willis Store, May 30, 1997, Charlotte Harbor Demolished in 1998
 - Old First National Bank of Punta Gorda, March 14, 1991, Punta Gorda
 - Punta Gorda Atlantic Coast Line Depot, December 12, 1990, Punta Gorda
 - Punta Gorda Ice Plant, December 12, 1990, Punta Gorda
 - Punta Gorda Residential District, January 7, 1991, Punta Gorda
 - Punta Gorda Woman's Club, April 5, 1991, Punta Gorda
 - H. W. Smith Building, July 25, 1991, Punta Gorda
 - Villa Bianca, November 28, 1990, Punta Gorda

- West Coast Fish Company Residential Cabin at Bull Bay, April 11, 1991, Placida
 - Willis Fish Cabin at Bull Bay, April 11, 1991, Placida
- Retrieved from: <http://www.nps.gov/state/fl/index.htm?program=parks>

National Trail System

The National Trail System Act of 1968 (Public Law 90-543), authorized creation of a national trail system comprised of National Recreation Trails, National Scenic Trails and National Historic Trails.

- In order to be certified as a National Scenic Trail, a trail must contain outstanding recreation opportunities and encompass more than 100 miles of a continuous, primarily non-motorized trail.
- No current National Trails in Charlotte County:
<http://www.nps.gov/nts/maps/National%20Trails%20map.pdf>

U.S. Fish and Wildlife Service

Enforcing federal wildlife laws, protecting endangered species, managing migratory birds, restoring nationally significant fisheries and conserving and restoring wildlife habitat including wetlands

Administration of federal aid programs, including Federal Aid in Sport Fish Restoration (commonly referred to as the Dingell-Johnson Act and Wallop-Breaux Act), Federal Aid in Wildlife Restoration (commonly referred to as the Pittman-Robertson Act) and Wildlife Partnership Act (conservation of non-game species). These grant programs are managed in Florida by the Florida Fish and Wildlife Conservation Commission. Grants to Florida under the Clean Vessel Act (clean boating programs) are managed by the Clean Marina Program in the Florida Department of Environmental Protection's Office of External Affairs.

- National Wildlife Refuges in Charlotte County:
 - Island Bay
 - Managed as a natural area. Periodic biological and wildlife population surveys are conducted by staff to assess wildlife communities utilizing the area. Law enforcement patrols are routinely conducted for the protection of wildlife species and Calusa Indian artifact sites located on the island. Occasionally, the refuge staff chemically treats Brazilian Pepper, an invasive exotic plant that threatens the overall plant community.
 - Closed to the Public
 - Education and Recreation Opportunities:
 - Environmental Education
 - Fishing
 - Hunting
 - Interpretation
 - Photography
 - Wildlife Observation

Retrieved from: <http://www.fws.gov/refuges/refugeLocatorMaps/Florida.html>

U.S. Department of Agriculture

U.S. Forest Service

The responsibility of USFS in the field of outdoor recreation is to fully develop the recreational potential of national forests and protect landscape aesthetics. USFS also cooperates with other federal, state and local agencies in planning and developing recreational resources on other federal, state, local and private lands. The U.S. Forest Service (USFS) provides leadership in the management, protection and use of the nation's forests and rangelands. The agency is dedicated to multiple-use management of these lands for sustained yields of renewable resources such as wood, water, forage, wildlife and recreation to meet the diverse needs of people.

There are no National Forests in Charlotte County.

<http://www.fs.fed.us/recreation/>

U.S. Army Corps of Engineers

Along with its primary responsibilities for navigation, flood risk management, environmental restoration and beach renourishment, the U.S. Army Corps of Engineers (USACE) has made considerable efforts to provide recreational facilities. It is the policy of USACE to plan for and provide outdoor recreation resources and facilities at all of its water resources projects. USACE's general authority for recreational development stems from the Flood Control Act of 1944, which was later expanded by the Federal Water Project Recreation Act of 1965. The U.S. Army Corps of Engineers acts in coordination with SFWMD and is the lead agency for the Southwest Florida Comprehensive Watershed Plan.

<http://www.usace.army.mil/>

Florida National Scenic Trail

USFS is the federal administering agency for the Florida National Scenic Trail. The Florida National Scenic Trail, designated by Congress in 1983, extends from the Big Cypress National Preserve north to the Gulf Islands National Seashore in the Florida Panhandle. Along the way, the Florida Trail passes through lands managed by more than two dozen public land managing agencies in more than 40 separate management units. USFS acts as a partner with state and management agencies and private landowners to obtain through-trail access for the project. The non-profit Florida Trail Association, Inc., through its volunteer membership of hiker-volunteers, provides nearly 70,000 hours of manpower each year to build and maintain the Florida National Scenic Trail and other hiking trails throughout Florida.

U.S. Department of Transportation

The Federal Highway Administration (FHWA) within the U.S. Department of Transportation provides grants to state and local governments for various recreational trail projects.

Recreational Trails Program

https://www.fhwa.dot.gov/environment/recreational_trails/

Provides funds to the states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized trail uses.

FL DEP Office of Greenways and Trails acts as managing agency.

National Scenic Byways Program

Recognizes roads having outstanding scenic, historic, cultural, natural, recreational and archaeological qualities by designating them as National Scenic Byways, All-American Roads, America's Byways or State Scenic Byways.

Grant Opportunities: http://www.fhwa.dot.gov/hep/scenic_byways/grants/

No byways in or near Charlotte County:

<http://www.fhwa.dot.gov/byways/byways/nearby?q=charlotte+county>

U.S. Department of Commerce

National Oceanic and Atmospheric Administration

The National Ocean Service provides assistance to Florida in observing, understanding and managing coastal and marine resources.

<http://www.legislative.noaa.gov/NIYS/>

National Estuarine Research Reserves

The National Estuarine Research Reserve System is a network of estuarine areas across the nation established for long-term stewardship, research and education. Each reserve has developed an organized ecological research program containing extensive teacher training, education, research and monitoring. Findings are communicated to coastal managers and other decision makers, as well as local citizens. Florida contains three of these reserves: Apalachicola, Guana Tolomato Matanzas and Rookery Bay. None of these are located in Charlotte County.

<http://www.nerrs.noaa.gov/ReservesMap.aspx>

National Marine Sanctuaries

The National Marine Sanctuary Program designates and manages areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational or aesthetic qualities. The Florida Keys National Marine Sanctuary is the only sanctuary in Florida; there are none in Charlotte County.

<http://sanctuaries.noaa.gov/>

National Coastal Zone Management Program

In 2002, the National Coastal Zone program initiated the Coastal and Estuarine Land Conservation Program. The program is aimed at protecting important coastal and estuarine areas that have significant conservation, recreation, ecological, historical or aesthetic values and that are threatened by conversion from their natural or recreational state to other uses. The Florida Coastal Management Program manages this grant program, which provides up to \$3 million for each eligible project.

<http://coastalmanagement.noaa.gov/programs/czm.html>

<http://coastalmanagement.noaa.gov/initiatives/welcome.html>

<http://coastalmanagement.noaa.gov/funding/welcome.html>

APPENDIX E: REGIONAL AGENCIES

Charlotte County School District

As in many communities, the County's schools are a strong hub of activity regarding outdoor and indoor sports and athletics. The County shall maintain an inter-local agreement with the Charlotte County School Board to provide for mutually beneficial utilization of resources and provision of recreational, educational and extracurricular opportunities. Charlotte County has an Interlocal Agreement with the Charlotte County School Board allowing for public access to school recreational facilities on a case-by-case basis. The School District would benefit from joint use of parks adjacent to or in the vicinity of public schools. This includes the shifting of recreational facilities to adjacent parks to reduce maintenance costs or the amount of property needed to accommodate the new school. There are several opportunities for joint use of existing facilities and proposed school sites. Potential sites for future schools have not been yet been determined by the School District beyond the twenty-year planning period.

<http://webapps.dep.state.fl.us/DrpOrpcr/UpdateInventoryView.do?submitTo=UpdateInventoryPark&selectedSite=CHARLOTTE+COUNTY+SCHOOL+BOARD>

South Florida Water Management District

Charlotte Harbor Plan and Comprehensive Everglades Restoration Plan (CERP)

The primary goal of the CERP is to restore, preserve and protect the South Florida ecosystem through improved water management while providing for other water related needs of the region such as flood protection and water supply.

The Comprehensive Everglades Restoration Plan provides a framework and guide to restore, protect, and preserve the water resources of central and southern Florida, including the Everglades. It covers 16 counties over an 18,000-square-mile area, and centers on an update of the Central & Southern Florida (C&SF) Project. The current C&SF Project includes 1,000 miles of canals, 720 miles of levees, and several hundred water control structures. The C&SF Project provides water supply, flood protection, water management and other benefits to south Florida. Since 1948, the C&SF Project has performed its authorized functions well. However, the project has had unintended adverse effects on the unique and diverse environment that constitutes south Florida ecosystems, including the Everglades and Florida Bay.

The Water Resources Development Acts in 1992 and 1996 provided the U.S. Army Corps of Engineers with the authority to re-evaluate the performance and impacts of the C&SF Project and to recommend improvements and or modifications to the project in order to restore the south Florida ecosystem and to provide for other water resource needs. The resulting Comprehensive Plan is designed to capture, store and redistribute fresh water previously lost to tide and to regulate the quality, quantity, timing and distribution of water flows.

The Plan was approved in the Water Resources Development Act of 2000. It includes more than 60 elements, was estimated to take at least 30 years to complete and originally estimated to cost \$7.8 billion in October 1999 dollars (or at 1999 price levels).

The major Plan components are:

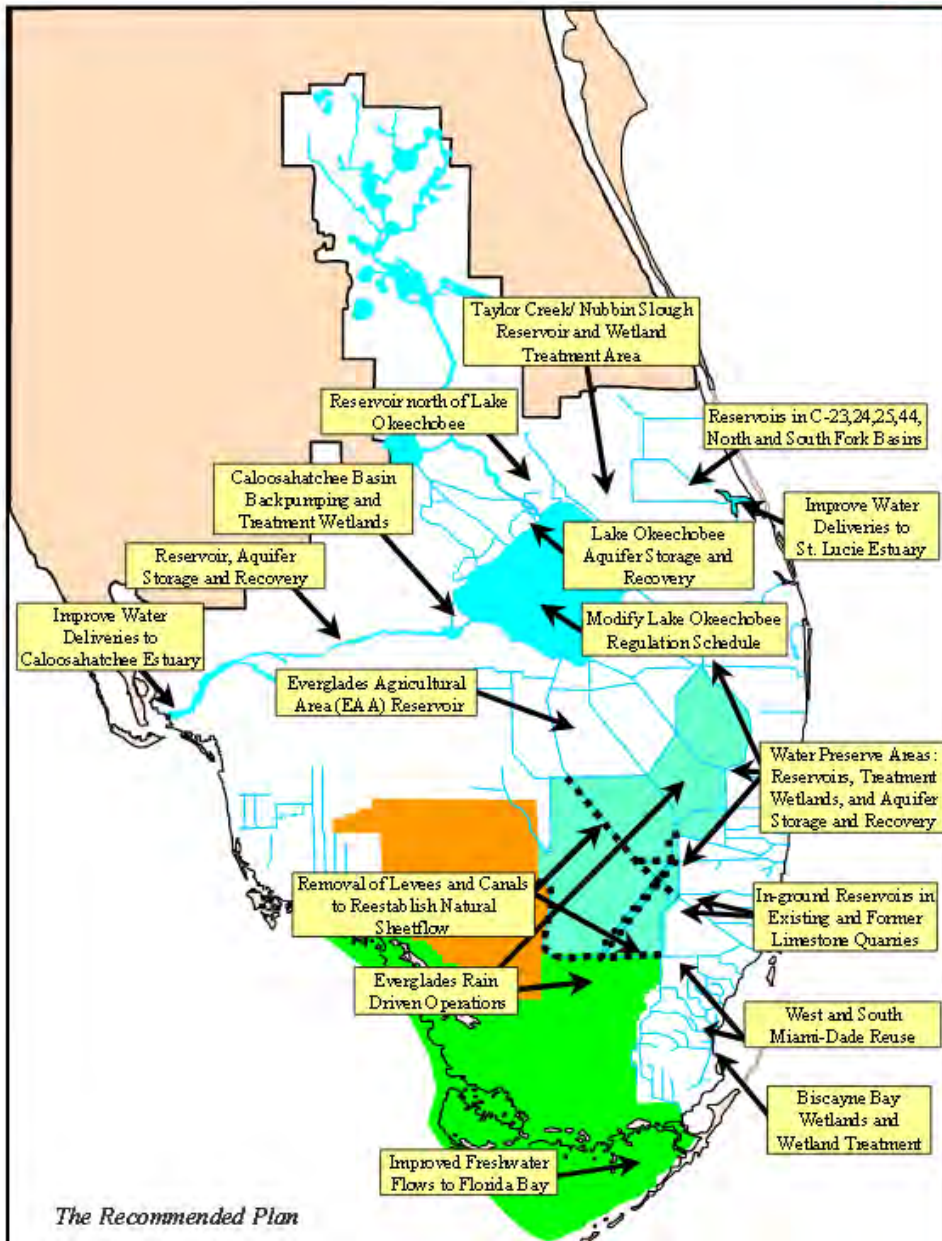
1. Surface Water Storage Reservoirs

2. Water Preserve Areas
3. Management of Lake Okeechobee as an Ecological Resource
4. Improved Water Deliveries to the Estuaries
5. Underground Water Storage
6. Treatment Wetlands
7. Improved Water Deliveries to the Everglades
8. Removal of Barriers to Sheetflow
9. Storage of Water in Existing Quarries
10. Reuse of Wastewater
11. Pilot Projects
12. Improved Water Conservation
13. Additional Feasibility Studies

Projects already underway or scheduled:

- Modifications to the Corps' Central and Southern Florida Project, including:
 - Kissimmee River Restoration
 - C-111 Project
 - Modified Water Deliveries to Everglades National Park
 - C-51 Project
 - Manatee Protection
 - Critical Restoration Projects
- Everglades Construction Project
- South Florida Water Management District Interim Plan for Lower East Coast Regional Water Supply
- Northwest Dade County Lake Belt
- State of Florida Save Our Rivers Program
- Miami-Dade County Environmentally Endangered Lands Program

RECOMMENDED PLAN



<http://www.evergladesplan.org/>

http://www.evergladesplan.org/docs/the_plan_restudy_overview_30_pages.pdf

Master Recreation Plan (MRP)

The primary goal of the CERP MRP is to develop a comprehensive plan for addressing recreational needs within the C&SF Project consistent with the project's authorized purpose. The plan has the following objectives:

- Provide the best possible combination of responses to regional needs, resource capabilities, and suitability, and expressed public interests and desires consistent with authorized purposes.
- Contribute towards providing restoration compatible recreational opportunities, public access, activities and diversity within CERP projects.
- Emphasize the particular quantity, quality, character and potential of each of the nine CERP regions when developing recreational, educational, and public access opportunities.
- To the extent possible, minimize impacts to existing recreational uses.
- Seek consistency and compatibility with national, state and regional programs, goals, and objectives.
- Identify public, private, and intergovernmental partnerships to enhance and promote recreational, educational, and public access opportunities.
- Develop and implement guidelines for recreation planning, needs and impact assessments, on a regional basis for integration into the CERP Project Implementation Report (PIR), Pilot Project Design Report (PPDR), and feasibility study (FS) processes for each specific project.
- Develop measures to assess change in recreational opportunities and types of uses as it relates to CERP

The Federal Water Project Recreation Act of 1965, requires that full consideration be given to opportunities for recreation and fish and wildlife enhancement; that recreation planning be based on coordination of use with existing and planned Federal, State, and local recreation; and the non-Federal, administration of recreation and enhancement areas be encouraged. It further states that, without a cost-sharing sponsor, facilities may not be provided for recreation and fish and wildlife enhancement except those justified to serve other project purposes or as needed for public health and safety.

Land Allocation and Classification

All lands will be allocated in accordance with the authorized purposes for which they were or are to be acquired. A program map delineating land according to land allocation will be provided. Land will be allocated into one of the following categories:

1. Operations. Lands acquired in accordance with the authorizing documents for operation of the program, i.e., restoration, flood control, hydropower, navigation, water supply, etc.
2. Recreation. Separable lands acquired in accordance with authorizing documents for public recreation/access.
3. Fish and Wildlife. Separable land acquired in accordance with authorizing documents for fish and wildlife management.

Land shall be classified into one of the following categories:

Program Operations. In many cases, the majority of lands (rim lands etc.) will be allocated to program operations. This classification category should include those lands required for the structure, operations enter, office, maintenance and other areas that are used solely for program operations.

Recreation. Land developed for intensive recreational activities by the visiting public, including developed recreation areas and areas for concession, resort, and quasi-public development. At new projects, recreation areas planned for initial development will be included in this classification. Future areas will be classified as multiple resource management until initiation of the development.

Environmental Sensitive Areas. All lands will be evaluated for scientific, ecological, cultural, and aesthetical features of merit. Compatibility analyses may be conducted to determine compatible public uses and/or potential impacts from public uses on such features in these areas. Normally limited or no development of public use is contemplated on land in this classification. No agricultural or grazing uses are permitted on this land.

Multiple Resource Management. Lands managed for one or more, but not limited to, these activities to the extent that they are compatible with the primary allocation(s). The activities should be fully explained in the narrative portion of the MRP.

- Recreation– Low-Density. Low-density recreation activities such as hiking, primitive camping, wildlife observation, hunting, or similar low-density recreational activities.
- Wildlife Management General. Fish and wildlife management activities. Lands in this sub-category shall be evaluated for consideration for lease or license to other federal, state or local managing agencies.
- Vegetative Management. Management activities for the protection and development of forest and vegetative cover.
- Inactive and/or Future Recreation Areas. Recreation areas planned for the future or that have been temporarily closed. These lands will be classified as multiple resource management in the interim.
- Easement lands. All lands for which the Corps or the SFWMD holds an easement interest but not fee title. Planned use and management of easement lands will be in strict accordance with the terms and conditions of the easement estate acquired for the project

Conceptual Development

Conceptual development plans will be designed where needs and opportunities for public access and recreation opportunities have been identified. The purpose of the Conceptual Development Plan is to outline a general description of the proposed area, complete a site analysis, develop design objectives, outline proposed public access and recreation facilities, and develop a cost estimate at the feasibility level. Additionally, funding and partnering opportunities may be identified. CERP Projects will be prioritized into three phases and addressed based on the CERP implementation schedule.

http://www.evergladesplan.org/pm/pm_docs/master_rec_plan/111204_pmp_master_rec_mainbody.pdf

Lower Charlotte Harbor Surface Water Improvement and Management Plan

The SFWMD defines Lower Charlotte Harbor (LCH) as the basins of Pine Island Sound, Matlacha Pass, East and West Caloosahatchee, Estero Bay, and the southern portion of Lower Charlotte Harbor. Please note that the Department of Environmental Protection (FDEP) represents these Basins as one whole FDEP Basin (Caloosahatchee) and portions of two other FDEP basins (Charlotte Harbor and Everglades West Coast).

2000 Land Use by Basin:

BASIN Area, in acres	Urban and Built-Up Land	Agriculture, including Pasture	Range and Upland Forest	Wetlands	Open Water	Total

Lower Charlotte Harbor	64,502	11,215	51,066	57,014	176,759	360,556
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2025 Estimated Land Use:

BASIN Area, in acres	Urban and Built-Up Land	Agriculture, including Pasture	Range and Upland Forest	Wetlands	Open Water	Total
Lower Charlotte Harbor	78,344	9,255	41,814	54,384	176,759	360,556

On June 1, 2003, Charlotte County submitted an application to obtain an NPDES permit. The City of Punta Gorda is a co-permittee with Charlotte County for the NPDES program.

Goals:

5. Protect and improve surface water quality
6. Preserve and restore, where appropriate, native ecosystems along with their water resource related functions
7. Maintain the integrity and functions of water resources and related natural systems
8. Improve degraded water resources and related natural systems to a more natural functionality

Initiatives:

1. Water Quality
 - a. Utilize the Existing Water Quality Monitoring Network to Assess the Origin and Fate of Pollutants
 - b. Hydrologic and Hydrodynamic Water Quality Modeling
 - c. Enhancement and Maintenance of Surface Waters
2. Stormwater Quantity
 - a. Improve the Timing of Freshwater Flows into Lower Charlotte Harbor
 - b. Regulatory Assessment
3. Watershed Master Planning and Implementation
 - a. Evaluate Existing Watershed Master Plans
 - b. Assist in the Development and Endorsement of Local Master Stormwater Plans and Implementation Schedules
 - c. Partner with Local Governments to Implement Existing Plans
4. Habitat Assessment, Protection and Restoration
 - a. Habitat Mapping and Resource Assessment
 - b. Habitat Protection and Management
 - c. Provide Habitat Enhancement and Restoration
5. Outreach
 - a. Provide Public Education and Outreach
 - b. Provide Regulatory Outreach
6. Funding

a. Funding Development

http://my.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/lower_charlotte_harbor_s_wim.pdf

Charlotte Harbor Flatwoods Initiative

Includes 5 watershed totaling 90 square miles in both Lee and Charlotte County.:

1. Yucca Pen Creek
2. Durden Creek
3. Greenwell Branch
4. Longview Run
5. Gator Slough

Project Objectives:

- Sheet flow restoration
- Restoring more natural flows to Charlotte Harbor
- Water Quality Improvement
- Ground Water Recharge
- Enhancement of fish and wildlife habitats

Recommendations:

- Re-establish sheet flow east of US 41
- Water storage and treatment west of US 41
- Enhance sheet flow across Yucca Pens
- Restore flow across Burnt Store Road
- Implement monitoring network

2010 Feasibility study that started the initiative:

<http://dev.chnep.wateratlas.usf.edu/upload/documents/Yucca-Pens-Hydrologic-Restoration-Plan-2010-web.pdf>

Southwest Florida Comprehensive Watershed Plan

http://www.saj.usace.army.mil/Portals/44/docs/Planning/ReviewPlans/South%20West%20Florida%20Comprehensive%20Watershed%20Plan_508.pdf.

The SWFCWP primarily addresses ecosystem restoration, although it also recommends seven flood risk management studies to investigate water resources problems and opportunities in all or parts of Lee, Collier, Hendry, Glades, Charlotte, and Monroe counties, Florida.

Regional problem descriptions developed by the project delivery team (PDT) with extensive public involvement include:

- Loss of natural ecosystems and landscape connectivity/degradation of critically endangered wildlife habitat

- Altered, unnatural freshwater flows to wetlands and estuaries (Altered Surface Water Hydrology);
- Water quality degradation in surface waters;
- Saltwater intrusion into aquifers and surface waters; and
- Flooding and/or drought in various locations within the study area.

Objectives:

1. By the year 2050, establish total freshwater flows discharging into coastal estuaries within the project area from point discharges in channels, overland sheet flow, and groundwater seepage, to be within 10 percent of the pre-development natural system flow quantity conditions.
2. By the year 2050, increase habitat connectivity for large mammals (such as the Florida panther and black bear) throughout the project area by 20 percent above 2050 without project.
3. By the year 2050, establish freshwater flows to the coastal estuaries in the study area to maintain an annual average salinity of 10 -25 parts per thousand (ppt) in the Caloosahatchee Estuary; 15 -25 ppt in Estero Bay; 20 -30 ppt in Rookery Bay, Blackwater Bay, Buttonwood Bay, and Pumpkin Bay; 10 - 30 ppt in Faka Union Bay; 20 -30 ppt in Fakahatchee Bay; and 16 -30 ppt in the Ten Thousand Islands and Barron River Estuary.
4. By the year 2050, establish an annual average Total Nitrogen load reduction of 5.7 Million lbs/yr in the freshwater Caloosahatchee watershed, 12.0 Million lbs/yr in the tidal Caloosahatchee watershed, 753 Thousand lbs/yr in the Estero Bay watershed, and 3.5 Million lbs/yr in the Big Cypress Basin watershed.

Figure 1. SWFCWP Study Area



Southwest Florida Water Management District

The SWFWMD has jurisdiction over approximately 46,609 acres of preserved land within Charlotte County, in joint management with either the State or the County. The two regions under their management are the Charlotte Harbor Preserve State Park and the Prairie/Shell Creek Preserve.

Recreation Evaluation 2013

The SWFWMD created and conducted a recreation evaluation for all of the recreational lands under their jurisdiction. The evaluation provides a preliminary inventory of available resource-based recreation opportunities, levels of service for each recreation use, and information on current and projected recreation trends and demands. The table below illustrates the LOS recommendations provided by SWFWMD.

Amenity	LOS Recommended per 1,000 Participants
Unpaved Biking	1.3 miles of trail
Equestrian Camping	1.6 sites
Tent Camping	.8 sites
Hiking	1 mile of trail
Horseback Riding	2 miles of trail
Hunting	628 hunting acres

As the second phase of the evaluation continues, it will be important to periodically check whether or not Charlotte County managed parks are meeting SWFWMD recommendations.

http://www.swfwmd.state.fl.us/recreation/evaluation/files/Recreation_Evaluation_Findings.pdf

Florida Forever Work Plan

The District's approach to the Florida Forever Work Plan is to provide a discussion of those eligible projects that the District could fund through the Florida Forever program over a five-year period and may receive future Florida Forever funding under the Florida Forever Act. The Florida Forever Act provides for the issuance of up to \$3 billion in bonds through 2020 to be used for land acquisition (including less-than-fee purchases), water resource development, storm water management, water body restoration, recreational facility construction, public access improvements, invasive plant control and related projects. Over the life of the program, at least 50 percent of the funds allocated to the water management districts must be spent on land acquisition. Currently, there are no land acquisition or development needs in Charlotte County areas.

https://www.swfwmd.state.fl.us/documents/plans/FFworkplan_2013Final.pdf

Strategic Plan 2014-2018

The Strategic Initiatives section provides information on each of the Initiatives, including goals and strategies. While the Strategic Initiatives identify activities implemented throughout the District, the water resource needs vary from one planning region to another. The top water resource priorities for each region, along with measurable objectives, are identified in the Regional Priorities section of this document.

- **Regional Water Supply Planning**
 - Strategies
 - Develop accurate and reliable demand projections
 - Identify sufficient regional water supply sources to meet projected demands
 - Encourage the development and use of regional water supply authorities to plan and coordinate water supply solutions
 - Incorporate adaptive management processes in water supply planning
 - Coordinate with other water management districts on water supply and regulation approaches
 - Proactively coordinate with water supply utilities
 - Demonstrate the District's financial commitment to assist in the development of regional water supply needs
- **Alternative Water Supplies**

- Strategies
 - Develop surface water capture, desalination and brackish groundwater systems
 - Partner with the agricultural community to provide alternative water supplies
 - Continue to leverage District funds to facilitate the development of alternative water supplies
 - Continue to support research into aquifer storage and recovery viability
 - Promote conjunctive use approaches through regulation and funding incentives
- **Reclaimed Water**
 - Strategies
 - Increase availability by increasing storage capacity
 - Increase availability by promoting interconnects
 - Leverage District funds to maximize efficient and beneficial use of reclaimed water
 - Improve efficiency through measures such as metering and volume-based pricing
 - Continue to support reclaimed water research, monitoring and public education
 - Augment reclaimed water with traditional sources when appropriate
 - Provide regulatory incentives to increase beneficial use and offsets
 - Increase benefits by promoting recharge and environmental enhancement projects
- **Conservation**
 - Strategies
 - Promote water conservation through public engagement programs
 - Support research and implementation of conservation techniques and practices
 - Promote water-conserving rate structures
 - Utilize financial incentives to further encourage effective conservation practices
 - Utilize regulatory program to establish effective conservation practices
- **Water Quality Assessment and Planning**
 - Strategies
 - Continue to develop and maintain long-term water quality monitoring networks to collect, analyze and distribute accurate water quality information
 - Continue to support the District's internal data governance process
 - Continue to promote partnerships through District water quality programs
- **Water Quality Maintenance and Improvement**
 - Strategies
 - Use cooperative funding to support local government efforts in development and implementation of basin management action plans (BMAPS)
 - Continue to monitor the USEPA Numeric Nutrient Criteria process
 - Promote Florida-Friendly Landscaping™ principles and other behaviors that help protect water quality
- **Minimum Flows and Levels Establishment and Recovery**
 - Strategies
 - Continue to incorporate MFLs in District water use permit application review processes and compliance monitoring
 - Monitor and report hydrologic conditions to ensure compliance with MFLs
 - Continue to review and refine scientific methodologies used in establishing MFLs
- **Natural Systems Conservation and Restoration**
 - Strategies

- Evaluate acquisition opportunities, placing priority on ecological value, inholdings, additions, core conservation areas, realistic landowner expectations, and leveraging partnership dollars
 - Innovative restoration projects and partnerships
 - Promote conservation of land through recreation and education opportunities
 - Regulate to avoid impacts or minimize and mitigate unavoidable impacts
 - Partner to continue wetland, lake and river monitoring and analysis
 - Provide technical assistance to state, regional and local governments for linking land and water
 - Utilize management tools to enhance maintenance of conservation lands
- **Southern Region Priorities and Objectives**
 - *Charlotte Harbor Preserve State Park.* Charlotte Harbor is Florida’s second largest open water estuary at 270 square miles. Challenges to the 4,400-square-mile Charlotte Harbor watershed include alteration and loss of wetlands, an increase in nonnative and plant species, and water quality degradation from point and non-point source pollutants. The District is working with other government agencies on a comprehensive conservation and management plan, implementation of water quality improvement projects, and restoration of the balance between coastal upland, wetland and intertidal habitats. The District and its cooperators have completed 13 natural systems projects which have restored 1,083 acres of coastal habitats for Charlotte Harbor.
 - *Prairie/Shell Creek.* The Shell, Prairie and Joshua Creek (SPJC) watersheds are located in the southern region of the Peace River Basin. Combined, the SPJC watersheds comprise a surface area of 487 square miles, or approximately 20 percent of the Peace River Basin. The City of Punta Gorda obtains its potable water supply from the Shell Creek in-stream reservoir. Prairie and Shell Creeks (and their associated tributaries) are designated as Class I waters, which means they are designated for use as potable water supplies. These creeks converge at, and sustain, the City’s reservoir. The Shell Creek and Prairie Creek Watersheds Management Plan was adopted in 2004 to improve water quality degraded by increased salinity in the watersheds to achieve Class I surface water standards throughout the Shell Creek and Prairie Creek watersheds. The signatories of the Plan agreed to assess sources of salinity to Shell Creek, Prairie Creek and Joshua Creek to optimize reductions in concentrations to waters of these watersheds emphasizing voluntary, incentive-based programs for protecting the environment and public health. Water quality issues in the Shell, Prairie and Joshua Creeks watersheds developed from various inputs over an extended period of time.

<https://www.swfwmd.state.fl.us/about/strategic-plan/assets/StrategicPlan.pdf>

Consolidated Annual Report

Active Water Supply and Resource Development Projects

The Water Supply and Resource Development (WSRD) projects receive funding from the Governing Board, multiple Basins, and local cooperators. Depending upon the size and scope of the project, some WSRD projects may also involve additional state and federal funding. The table below shows current active projects within Charlotte County.

Project	Local Cooperator	Total Cost	District Contribution	Water Provided (MgD)
Charlotte County Regional Reclaimed Water Expansion Phase 2 (H085)	Charlotte County	\$2,800,000	\$1,485,400	TBD

Water Protection and Sustainability Trust Fund Projects

The state did not allocate any WPSTF-related funds in FY2014. The District anticipates that, should the state resume funding, projects will be identified through the District's ongoing cooperative funding programs, which have been funding alternative water supply development for two decades. Additional projects, developed in cooperation with regional water supply authorities and their member governments, are also anticipated to be identified in the future to be eligible to receive funds. The table below identifies the list of all FY2006-FY2009 WPSTF projects, including District funding, cooperator funding, funding from other sources as well as the amount of water provided.

Project	Local Cooperator	State WPSTF Contribution & Fiscal Year (\$ & FY)	District Contribution	Local Cooperator Contribution	Total Project Cost	Water Provided (MgD)
Charlotte County Regional Reclaimed Water (H027)	Charlotte County	\$400,000 FY2006 \$680,010 FY2008	\$3,084,995	\$3,084,995	\$7,250,000	1.27
Charlotte Co. East/West Connection (H085)	Charlotte County	\$90,900 FY2006 \$80,000 FY2008	\$1,314,550	\$1,314,550	\$2,800,000	TBD

Projects funded with FY2014 Funds

- Charlotte County Reclaimed Water Expansion (H027)
 - Type of Alternative Supply: Wastewater Reuse
 - Cooperator: Charlotte County
 - District: Governing Board; Peace River Basin
 - Locale: Charlotte County
 - Project Description: Design, permitting and construction of reclaimed water transmission mains from the Charlotte County East Port Wastewater Treatment Facility (WWTF), west through Port Charlotte. The project will also include the design and construction of two 500,000-gallon storage tanks and associated pumping systems.
- PRMRWSA Regional Loop System-PRMRWSA Facility to Charlotte to Punta Gorda (H069)
 - Type of Alternative Supply: Surface Water
 - Cooperator: PRMRWSA
 - District: Governing Board; Peace River, Manasota Basins
 - Locale: Desoto and Charlotte County
 - Project Description: The project consists of approximately 12 miles of a 24-inch diameter line interconnecting Punta Gorda's Shell Creek facility with the Authority's Peace River facility. Components include a 1.3 mile sub-aqueous crossing of the lower Peace River, a pumping station with chemical feeds and 0.5 mg storage, and multiple tie-ins to Charlotte County's distribution system. The project has a bilateral transmission capacity of 6 mgd.
- Charlotte County Regional Reclaimed Water Expansion Phase 2(H085)
 - Type of Alternative Supply: Wastewater Reuse
 - Cooperator: Charlotte County
 - District: Governing Board; Peace River Basin
 - Locale: Charlotte County

- Project Description: Design, permitting and construction of a reclaimed water pipeline, and also using existing and abandoned pipeline, to interconnect the east and west service areas of Charlotte County's reclaimed water system

https://www.swfwmd.state.fl.us/documents/reports/2014_CAR.pdf

Charlotte Harbor Preserve State Park- Unit Management Plan

- Goals:
 - Continue to provide quality resource based outdoor recreational and interpretive programs and facilities at the state park.
 - Seek funding to expand recreational and interpretive opportunities through the improvement of programs and the development of new use areas and facilities, as outlined in this management plan.
 - Pursue release of a portion of preserve lands for Charlotte County to develop, maintain and operate a boat ramp at Cattle Dock Point.
 - Coordinate with local governments and other entities to evaluate the potential for additional canoe/kayak access within the preserve.
 - Establish day use areas for picnicking, fishing, paddling and hiking at Cape Haze, Rotonda Boulevard South, Sam Knight Creek and Allen's Creek.
 - Implement improvements necessary to provide limited day use access to the Garrod Lakes area for fishing and wildlife observation.
 - Coordinate with local governments and other entities to provide additional, improved or expanded hiking opportunities in the preserve.
 - Provide additional boardwalks, viewing platforms or other structures and trim vegetation where needed to enhance landscape, open water or wildlife viewing areas.
 - Create and develop brochures and field guides for use on staff-led field trips and self-guided walks for informational, orientation and interpretive purposes.
 - Evaluate existing interpretive signage, kiosks, and update and/ or install additional ones in accordance with current and future needs.
 - Provide well-designed and well-maintained public facilities.
 - Conduct regular inspections of use areas and facilities and correct deficiencies when necessary.
 - Provide clear, consistent identification and informational signage at primary public access points.
 - Provide universal access to new facilities consistent with current federal standards.
 - Collect and compile data on visitor attendance, use patterns and preferences to assist in evaluating existing facilities and recreational opportunities and make informed decisions on future access needs.
 - Design structures and signage to minimize impacts to the visual landscape.
 - Promote community support and bolster preserve staff and funding resources through education, training and partnership opportunities.
 - Provide staff and volunteers with ongoing training opportunities in visitor services, resource management, preserve operations, general maintenance and interpretation.

- Recruit and maintain a cadre of volunteers to assist with management and interpretation of the preserve.
 - Pursue funding alternatives to the legislative budget appropriation process.
 - Actively educate the public and local governments about the natural resources, management activities, needs and problems and recreational opportunities of the preserve.
 - Establish measures to protect the preserve's integrity restrict unauthorized access, use and damage to public resources and maintain public health and safety.
 - Evaluate the existing network of designated public access points and, if necessary, make adjustments that provide a variety of visitor experiences yet maintain effective visitor capacity.
 - Construct up to two additional staff residences within the preserve.
 - Construct and maintain boundary fencing where necessary and feasible to delineate preserve property.
 - Continue to work in cooperation with Florida Park Patrol, Lee and Charlotte County Sheriffs Offices and other law enforcement agencies (FFWCC, USFWS, etc.) to bolster law enforcement on park lands.
 - Support land use planning policies, regulations and acquisition initiatives that serve to enhance management and protection of preserve resources.
 - Network with other land and water management and regulatory entities to coordinate and enhance regional resource management and protection efforts.
 - Continue to coordinate resource management activities with Charlotte Harbor Aquatic Preserves, Gasparilla Island Administration, SWFWMD, SFWMD, Lee County, Charlotte County and other appropriate entities.
 - Monitor proposed land use changes in the vicinity that may impact resource integrity, and engage in the land use planning process, when necessary, to advance the long-term interests of the preserve.
 - Pursue acquisition of areas deemed important to be managed as part of the preserve.
- The Division coordinates management activity with the SWFWMD on lands the District shares 50/50 title interest with the Trustees. SWFWMD also provides grant funding through the Surface Water Improvement Program (SWIM) for water quality improvement projects and habitat restoration that addresses water quality and quantity concerns. South Florida Water Management District (SFWMD) has also been instrumental in funding wetlands enhancement programs in the south Cape Coral unit. At the local level, the park interacts, and where mutually beneficial, cooperates with county (Lee and Charlotte, primarily) and city (Punta Gorda and Cape Coral) governments. The preserve manager is a member of the governing board of CHEC, Inc. The CHEC provides trail access to the preserve and preserve staff coordinates education and outreach functions for the local community and schools through the Center. Management coordination is also vital with the county Mosquito Control Districts to protect public health and environmental resources. Permits and agreements with several institutions advance the knowledge regarding the species and management needs of resources in the park, such as, Audubon, Archbold Biological Station, Selby Gardens, and the Lake Wales Ridge Work Group.
- Growth pressure in this region indicate that existing developable lands will eventually be converted to residential and/or commercial uses, including areas designated Agriculture. Future uses are likely to mirror existing land use patterns of primarily low to medium density residential

uses. Anticipated changes along the Burnt Store Road corridor have the potential to directly impact preserve lands. While much of this corridor is currently comprised of open land or low-density development, significant changes are anticipated from the Lee County line north to Highway 41. According to likely development scenarios identified in the Burnt Store Area Plan (2005), a public private planning initiative, an additional 7,138 dwelling units and 445,000 square feet of commercial space may be located in this area. Of particular note is the Tern Bay project (formerly Caliente DRI) with 1,800 proposed units and 170,000 square feet of commercial space located on the southern boundary of the PGMA. In addition, proposed transportation improvements include the four-laning of Burnt Store Road. This road project is included in the Charlotte County 2015 Cost-Feasible Plan and the Lee County 2020 Financially-Feasible Plan. As vacant or under-developed lands are converted to uses that are more intensive, additional resource and visitor management challenges could occur. Development adjacent to the preserve can exacerbate exotic species control, limit opportunities for using prescribed fire and alter existing patterns of hydrology. In addition, as preserve boundaries become more populated incidents of unauthorized access, illegal uses and encroachments onto preserve lands may increase. Increased urban activity adjacent to the preserve has the potential to impact the visitor experience through increased noise, light pollution and a more visible built environment. The Division will monitor land use changes adjacent to the preserve and provide feedback on proposed development plans to local planning officials to ensure the protection of preserve resources.

- Proposed Additional Development:
 - The Coral Creek Day Use Area is proposed on a borrow pit surrounded by scrubby flatwoods off Rotonda Boulevard South. Existing walk-throughs at gates 2 and 3 provide public access to the area with parking in the road right of way. Proposed improvements include a fishing platform, picnic facilities (one small and one medium shelter, scattered picnic tables and grills), parking area for up to 15 vehicles and a small restroom. A marked trail system through flatwoods and adjacent to the west branch of Coral Creek is recommended to provide up to 2.5 miles of designated hiking trail.
 - The Catfish Creek Trail is recommended to be expanded to a double-loop system that would provide over two miles of hiking opportunity. The proposed southern loop would meander through hydric hammock and would be a limited access trail passable during the dry season.
 - The Sargassum Scrub Day Use Area is proposed on a borrow pit surrounded by mesic flatwoods and ruderal areas off Rotonda Trace. Access to the area is currently provided by a walk-through at Gate 3 with parking in the road right of way. Proposed improvements include a shoreline canoe/kayak launch, picnic facilities (one small and one medium shelter, scattered tables and grills), access drive and parking area for up to 25 vehicles and a small restroom. A marked hiking trail circling the borrow pit and providing access to adjacent flatwoods communities is recommended to provide up to 1.5 miles of hiking opportunity.
 - Improvements are recommended to provide access to Sam Knight Creek. A canoe/kayak launch, scenic overlook, access drive and parking for up to 15 vehicles are proposed within the flatwoods between two branches of the Creek. Access would be from Highway 776, a 4-lane divided highway, and may require roadway improvements to provide safe ingress/egress. The proposed overlook would entail constructing a boardwalk through tidal wetlands that culminates in an observation platform to provide views down the creek

toward Tippecanoe Bay. The proposed use area location coincides with FMSF site CHOO463, a single artifact or isolated find.

- A primitive group camp is proposed among oaks and cabbage palms within a ruderal area approximately 1,000 feet east of Burnt Store Road and 2,000 feet south of the CHEC, Inc. The facility would provide opportunities for overnight stays for organized groups and include a restroom with outside showers, campfire circle and medium picnic shelter. Access would be from Burnt Store Road.
- The Garrod Lakes are manmade features west of the preserve office complex that provide excellent fishing and wildlife observation opportunities. A stabilized road and parking area for up to 10 vehicles at the edge of existing pasture are recommended to get visitors within hiking distance of the lakes. A short hiking trail from the parking area is proposed that would provide access to the water. Fishing platforms and wildlife overlooks/blinds should be developed at a minimum of two locations to control visitor access and minimize environmental disturbance.
- The existing Datsun Trailhead parking lot is recommended to be expanded to accommodate up to 15 vehicles. A second staff residence and additional shop facilities are proposed within the vicinity of the existing shop and maintenance compound.

<https://www.swfwmd.state.fl.us/documents/plans/landusemgmt/files/CharlotteHarborPreservestatePark.pdf>

Shell Creek and Prairie Creek Watersheds Management Plan

- Goals:
 - Implement water quality measures to the greatest extent practicable throughout the Shell Creek and Prairie Creek watersheds to achieve Class I surface water standards.
 - Avoid duplication and maximize the efficient coordination of agency resources and programs, including consolidated and coordinated funding of projects.
 - Use a comprehensive water management approach to address Class I surface water quality standards and encourage implementation within the watersheds
 - Seek reasonable, incentive based solutions that can be embraced by leaders and stakeholders at all levels of government and the community.
 - Achieve results that satisfy regulatory requirements.
 - Ensure water quality monitoring to measure the effectiveness of implemented water quality improvement measures.
- Proposed Management Activities:
 - Shell, Prairie, and Joshua Creek (SPJC) Well Back Plugging Program
 - Wells that exhibit poor water quality can be reduced in depth or "back-plugged" to improve water quality.
 - Back plug 40 wells per year beginning 2003
 - District Resource Regulation
 - Well Construction Permitting
 - Water Use Permitting
 - The District will re-evaluate 89% of the water use permits during the next 10 years (2014) with the addition of water quality improvement conditions applied as needed. This equates to approximately 98% of the permitted quantities within the Shell, Prairie, and Joshua Creek Basins.

- Facilitating Agricultural Resource Management Systems (FARMS) projects
 - FARMS is a voluntary public/private partnership designed to provide financial assistance for BMP projects that provide water quality improvement, and/or reductions in upper Floridan withdrawals, and/or conservation, restoration, or augmentation of an area's water resources and ecology. Project cost-share rates are generally capped at 50% for water quality or water quantity BMPs, and at 75% for projects that incorporate both water quality and quantity. Participants are required to enter into a contractual agreement with the District, from five-to-twenty years in duration.
 - Initiate 5 projects per year beginning 2003 and increase to 20 projects per year beginning 2005.
- Federal Environmental Quality Incentives Program (EQIP)
 - The Environmental Quality Incentives Program (EQIP) is a voluntary program that provides financial and technical assistance to farmers and ranchers who face threats to soil, water, air and related natural resources on their land.
 - However, the Shell and Prairie Creek watersheds are a priority for project implementations as evidenced by funding increases in Charlotte County and specific funding that has been allocated for this region to address water quality concerns.
- Best Management Practices Manuals
 - BMPs for Peace River Valley / Manasota Basin Area Citrus Groves
 - Water Quality BMPs for Cow/Calf Operations
 - Water Quality/Quantity BMPs for Florida Vegetable and Agronomic Crops
- Regional Water Supply Plan (RWSP) and Southern Water Use Caution Area (SWUCA) Recovery Strategy
 - Sufficient sources of water are available within the SWUCA to meet the projected needs if other potential sources of water are developed as an alternative to Upper Floridan aquifer ground water withdrawals. These sources include: 1) surface water and storm water, 2) reclaimed water, 3) agricultural water conservation, 4) non-agricultural water conservation 5) brackish round water and, 6) seawater desalination. An estimated 41mgd could be saved through agricultural conservation using the most water-conserving irrigation system technologies with all applicable BMPs.
- Quality of Water Improvement Program (QWIP)
 - This program attempts to prevent inter-aquifer exchange of varying water quality types. As of October 1, 2003, the QWIP has inspected 5,721 wells and plugged 3,349 wells throughout the District's southern ground water basin. Specifically, in Charlotte County a total of 252 wells have been plugged.
 - Plug 10 wells per year beginning 2003
- Land Acquisition Programs
- Mobile Irrigation Labs
 - Approximately 30-40 properties will be evaluated using the MIL each year
- Education and Outreach Activities
- Research Activities

https://www.swfwmd.state.fl.us/files/database/site_file_sets/2477/spjc_wmp.pdf

Charlotte Harbor Surface Water Improvement and Management (SWIM) Plan

- The Surface Water Improvement and Management (SWIM) Act of 1987, directed the State's water management districts to "design and implement plans and programs for the improvement and management of surface water" and under the SWIM Act, water management districts prioritize water bodies based on their need for protection and/or restoration.
- Concentrations of phosphorus in the Peace River and Charlotte Harbor are considerably higher than the median value for Florida estuaries. Also, nitrogen concentrations and chlorophyll a values from the Peace River and Charlotte Harbor can be higher than median values for both Florida's streams and estuaries.
- Goals of the Charlotte Harbor SWIM Plan:
 - Improve the environmental integrity of the Charlotte Harbor study area.
 - Preserve, restore and enhance seagrass beds, coastal wetlands, barrier beaches, and functionally related uplands.
 - Reduce point and non-point sources of pollution to attain desired used of the estuary
 - Provide the proper fresh water inflow to the estuary to ensure a balanced and productive ecosystem
 - Develop and implement a strategy for public participation and education
 - Develop and implement a formal Charlotte Harbor management plan with a specified structure and process for achieving goals for the estuary
- One way that the District achieves wetlands protection is through regulatory programs. Wetlands protection is addressed under Chapters 40D-2, 40D-3, 40D-4, 40D-40 and 40D-45, F.A.C. Land acquisition at the District is currently guided and funded by two major statewide initiatives: The Water Management Lands Trust Fund (a.k.a. Save our Rivers Program or SOR), and Preservation 2000 (P-2000). In 2000, the P-2000 Program for land acquisition will "sunset." Funds for land acquisition and management will be available through Save our Rivers through 2000, however, the SOR funds may not be used for land acquisition after 2001. The Florida Forever Act, passed by the Florida Legislature in 1999, will make funds available, beginning in 2001, to the water management districts for both land acquisition and restoration, including funding for SWIM projects
- Priority Projects:
 - Minimum flows and levels priority list and schedule
 - Ongoing efforts to restore the hydrogeology of the Flatford Swamp and upper Myakka River
 - Assessment of the Hydrologic Restoration of Cow Pen Slough
 - Develop a water and nutrient budget for Lake Hancock for water quality Improvement
 - Develop a linked nutrient budget and water quality model for Lemon Bay
 - Potential development of a resource based pollutant load reduction goal for Charlotte Harbor "Proper"
 - Continuation of existing water quality monitoring program
 - Continuation of existing seagrass mapping program
 - Various additional technical tasks identified by the Charlotte Harbor National Estuary Program
 - Implementation of the restoration plan for Alligator Creek addition to the Charlotte Harbor Buffer Preserve

Florida Sea Grant

Recreational Boating Characterization for the Greater Charlotte Harbor

This project's goal is to characterize the preferences, activities, and water-use patterns of boaters on the basis of trip departure type. The Greater Charlotte Harbor study region extends approximately 70 miles from Englewood (Lemon Bay) in the north to Bonita Springs (Estero Bay) in the south, in Charlotte, and Lee counties. An estimated 61,540 pleasure boats are currently registered in the study region according to the Florida Department of Highway Safety and Motor Vehicles. The results of the study will help determine level of service needs and demands.

- The average number of months per year that respondents reside in Florida is approximately 10.5 based on information gathered from 1,441 of the 1,449 survey respondents
- Survey respondents were, on average, 58 years of age
 - Respondents that departed from marinas and private docks were slightly older than the average survey respondent
 - Public boat ramp users tended to be markedly younger than respondents associated with other departure categories
- Survey respondents that departed from marinas traveled, on average, 33 minutes from home to the marina from where their trips started
- The average drive time to boaters first-choice launch location/ramp is approximately 42 minutes based on 432 responses
- Responses suggest a year-round boating season in the study region, with a peak-use period running roughly from March through June and an off-peak period from December through January. The peak use month is April.
- The average respondent reported taking about 52 boating trips per year
- Based on the ranked average response, survey respondents preferred departure sites that (a) had adequate and safe parking; (b) were proximate to their favorite boating spots/destinations; (c) were close/proximate to their home; and (d) where boat launch and retrieval was easy

Table 33. Boating Needs by Primary Category.

Primary Need Category	Response Number	Percent of Total	Rank
Infrastructure Improvements	289	20.6	1
Increased Access	279	19.9	2
Less Regulation	245	17.5	3
More Regulation/Enforcement	202	14.4	4
Boater Education	197	14.1	5
Environmental Protection	127	9.1	
Information	30	2.1	
No Needs	33	2.4	
TOTALS	1,402	100.1	

- Dredging of channels and passes was identified as the leading “Infrastructure Improvement” need with 29.1% of category responses (fifth leading sub-category overall), followed closely by better channel marks with 24.9%. The sub-categories comprising full service marina needs (i.e., marinas offering fuel docks, pump out stations, etc.) and better ramp facilities (e.g., ramps with restrooms or better security) together account for approximately 28% of category responses and 5.8% of total responses. The need for improved waterway signs made up just fewer than 2% of total responses (8.7% of category), followed closely by the need for waterway destination provision, specifically waterside restaurants.
- “Increased Access,” the second highest primary category under “needs,” is dominated by responses citing the need for ramps and ramp parking, in turn the second highest sub-category overall (12.3% of total responses). Whereas ramps and ramp parking were considered separately in the detractor analysis, they were more often linked in the responses to Question 27 and so were made a single sub-category. Water access via marinas and slips was a principal need expressed in 14.3% of category responses. More public and transient dockage together with more anchorages and public moorings were identified as needs in 52 responses, or 3.7% of the total overall. Generating less than 1% of the total responses was the conveyed need for more access to dry storage facilities and public beaches
- Regulation issues were fairly split between responses indicating a need for less regulation and those indicating a need for more (Tables 36 and 37). Manatee zones figured only in the former category, with 93 responses (third highest sub-category overall) indicating a need for less, more reasonable, or more science-based manatee protection. Less regulation of speed zones and no wake zones together comprise 7.8% of total response, approximately twice the need expressed for more regulation/enforcement in the same areas in Table 37. By contrast, a need for more boating regulation in general was indicated in 3.4% of all responses, almost twice the incidence of responses comprising “less governmental boating regulation.” Required boat operator licensure was cited as a principal need in a significant percentage of responses under “more regulation,” as was a greater presence of water patrols (2.4% of the total, as compared to just 0.5% conveying the need for a lesser presence). In addition, PWCs were targeted for more regulation in 1.4% of total responses to Question 27. Finally, additional regulations governing no wake zones, crab traps and alcohol consumption while boating were cited.
- The need for boater education, principally in the form of required courses such as offered by the USCG, and independent of the above operator licensure sub-category, is the fifth leading primary category. All aspects of boater education, from matters of etiquette to boat handling to existing law, were considered together in this single largest sub-category under “needs” (13.6% of total responses). The latter ranking conforms to the number one detractor sub- category, the “lack of boater courtesy and seamanship.”
- Improved water quality and no red tide account for approximately 40% of all responses tallied under “environmental needs”, followed by more fish, with 27.6% of category responses. Combining “more fish” with “less prop scarring” (comparable to the combined detractor consideration of lack of fish and destruction of grass flats) boosts this aspect of boating experience needs to 34.7% of the category total. The fewer boaters sub-category might have been omitted as a response with little recourse, as with “better weather,” but was retained with the sense of less boater impact. Finally, a small group of 30 responses indicated a need for information led by the expressed need for current detailed charts.

Table 41. Top-10 Needs by Sub-Category.

Need Sub-Category	Response Number	Overall Percentage	Rank
Boater Education in Etiquette/Skills	190	13.6	1
More Ramps and Ramp Parking	173	12.3	2
Less Manatee Zone Regulation	93	6.6	3
Less Speed Zone Regulation	87	6.2	4
Channel and Pass Dredging	84	6.0	5
Channel Marks Improvement	72	5.1	6
More Boating Regulation in General	48	3.4	7
More Access to Marinas/Slips	40	2.9	8
Operator Licensure	37	2.6	9
Improved Water Quality	36	2.6	10 tie
More Public, Transient Dockage	36	2.6	10 tie

<http://nsgl.gso.uri.edu/flsgp/flsgps05004.pdf>

The Future of Recreational Boating Access to Charlotte County Waterways

The regional trend in the projected number of pleasure boats registered in Charlotte County differs somewhat from the state-wide trend. The forecast shows a leveling off in the number of pleasure boats from 2011 through 2020, a modest increase in the number from 2020 to 2035, followed by another leveling off from 2035 to 2050. The growth rate of pleasure boats registered in Charlotte County from 2010 through 2030 is expected to be approximately 17.8%, a rate that is significantly less than the expected 22.5% growth of pleasure boats state-wide. Note, however, that the number of pleasure boats per 1,000 of the population in Charlotte County is roughly two-and-a-half-to-three times higher than the figure for the state as a whole; with figures that range from a low of 122.6 vessels per 1,000 population (projected) in 2020 to an observed high of 142.9 in 2005. The projected number of pleasure boats registered in Charlotte County in the year 2050 is 28,125, representing an expected increase of approximately 38% over the 20,355 pleasure boats observed in 2010. This represents an increase of 7,770 boats over a 40-year period, with an average expected increase of approximately 194 boats per year from 2010-2050. Over time, Charlotte County is expected to maintain a fairly stable percentage of the state's pleasure boats (with projected percentages ranging between a low of 2.0% in 2025 and a high of 2.3% in 2015).

To calculate a demand estimate for 2010 and projections for 2020, 2030, 2040 and 2050, the assumption was made that this same proportion of boat use remains constant for the duration of the planning horizon.

The share of county residents who keep their boats at a marina located in Charlotte County likely is somewhat less than 73 percent

Thus, of the total estimated resident demand in 2010, the number of those slips that were demanded within Charlotte County ranged from 1,378 to 1,766. The projected resident demand in 2030 for marina slips located in Charlotte County ranges from 1,717 to 2,201, and from 1,827 to 2,342 in 2050.

Approximately 51% of occupied marina wet and dry slips in Charlotte County are used by county residents and 49% by non-residents. Thus, given an estimated resident demand ranging from 1,378 to 1,766 in 2010, the corresponding non-resident demand ranged from 1,343 to 1,721. The projected non-resident demand for marina slips in Charlotte County ranges from 1,672 to 2,144 in 2030 and 1,780 to 2,282 in 2050.

Given an average launch/retrieval time of 20 minutes, the Upper Lemon Bay region (1 lane currently) is estimated to need a second lane to meet current demand and is projected to need a third lane by 2030. The Stump Pass/Gasparilla region (3 lanes currently) needs a fourth lane to meet current demand and would need a total of five lanes by 2020 and six by 2040. The Myakka River region (1 lane currently) is projected to not need a second lane until 2050. The Lower Peace River region (7 lanes currently) is projected to need an eighth lane by 2020 and a ninth lane by 2050. Finally, the Upper Peace River region (3 lanes currently) appears to have a surplus of two ramp lanes that are projected to more than satisfy demand through 2050. Given an average launch/retrieval time of 40 minutes, the Upper Lemon Bay region (1 lane currently) is estimated to need three additional lanes to meet current demand and is projected to need a fifth lane by 2030. The Stump Pass/Gasparilla region (3 lanes currently) needs five additional lanes to meet current demand, and would need a total of ten lanes by 2020 and eleven by 2040. The Myakka River region (1 lane currently) needs an additional lane to meet current demand and would need a third lane by 2050. The Lower Peace River region (7 lanes currently) is estimated to need six additional lanes to meet current demand and is projected to need a total of fifteen lanes by 2020, sixteen by 2030, and seventeen by 2050.

Given that a majority of on-the-water destinations are in south Charlotte County waters and 80% of ramp users live in Central and East Charlotte County, future demand might be better met by placement of new ramps in South Charlotte County, particularly in the south portion of East Charlotte County where none currently exist.

Demand for saltwater accessible docks in Charlotte County for the year 2010 was estimated at 10,614 (Table 4-21). Between 2010 and 2030, the demand for docks is projected to increase by 25% to 13,223, and between 2010 and 2050, by 33% to 14,074. Overall, the estimated demand for private boat docks in 2010 represents approximately 67% of the current supply of non-vacant residential parcels that are saltwater accessible. In addition, there are 9,947 vacant (developable) residential parcels in Charlotte County that are saltwater accessible. Taking only these vacant residential parcels into account, by the year 2030 the projected demand is estimated at approximately 26% of the capacity of vacant saltwater accessible parcels within the county and, in 2050, at 35 percent.

The Charlotte County parcel layer was reviewed and 9,696 saltwater accessible parcels were identified that have the potential to serve as locations for future ramps and/or marinas. Parcels (NOT associated with existing saltwater boating facilities) greater than or equal to 1 acre, within 50 feet of water and sewer service and 100 feet of a road (major, arterial, dirt, or private), having dredged water access (or unknown) greater than or equal to 3 feet MLLW (or unknown), and not adjacent to an aquatic preserve were evaluated to assess their relative potential for siting new saltwater ramps. Thirty-three parcels out of a potential 9,695 met these criteria. Parcels eligible for consideration as a potential marina site had to meet the same criteria, except that they had to be within 100 feet of a major road or an arterial road: 32 of the 33 parcels met these criteria.

https://www.flseagrant.org/wp-content/uploads/tp186_charlotte_marine_access_study1.pdf

Blueway Trail System

Charlotte County currently has 57 blueway trails. There is no master plan designated to the blueway trail system in Charlotte County, but details can be found at

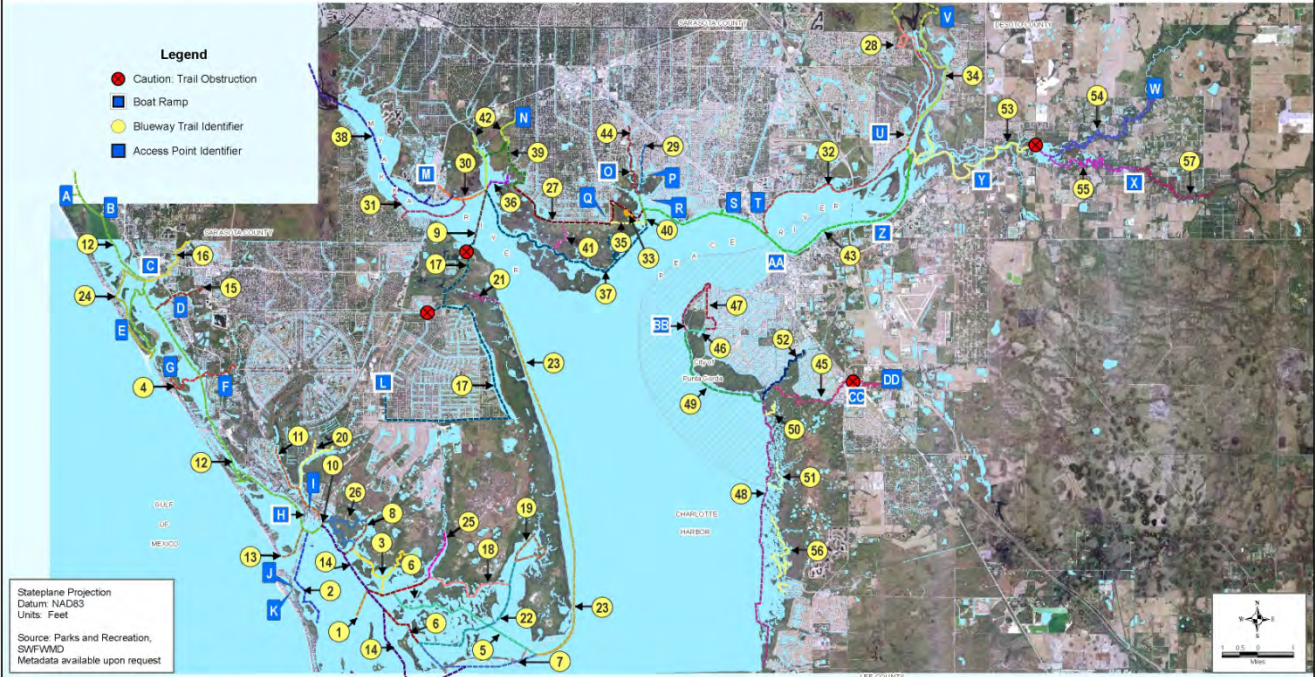
<http://charlottecountyfl.com/communityservices/CalendarsRecreation/BWTbrochure.pdf>.

A detailed map of blueway trails in Charlotte County is replicated below and can be found at:

<http://www.charlottecountyfl.com/communityservices/CalendarsRecreation/BWTmap.pdf>.



CHARLOTTE COUNTY Blueway Trails



Charlotte County Blueway Trail System Trailhead Access Points

ID	Facility	Access Type	Condition	Food	Water	Restrooms	Parking Fee	Launch Fee
A	Middle Beach (Sarasota County) Manasota Key Dr., Englewood	Ramp	Good	No	No	Yes	No	No
B	Indian Mound Park (Sarasota County) 210 Winsor Ave., Englewood	Beach	Good	No	No	Yes	No	No
C	Ainger Creek Park 2025 Placida Rd., Englewood	Ramp	Good	No	No	Yes	Yes	No
D	Oyster Creek Environmental Park 2333 Placida Rd., Englewood	Sand	Good	No	No	No	No	No
E	Stump Pass State Park Manasota Key Rd., Englewood	Beach	Good	No	No	Yes	Yes	No
F	Dr Willard "Bill" Coy Preserve on Buck Creek* Placida Rd.; Englewood 5350	Sand	Good	No	No	No	No	No
G	Thorton Key Preserve Thorton Key; Englewood	Sand	Good	No	No	No	No	No
H	Placida Park 5499 Gasparilla Rd., Placida	Ramp	Good	No	No	Yes	Yes	No
I	Grande Tours 12575 Placida Rd., Placida	Ramp	Good	No	Yes	Yes	-	Yes
J	Uncle Henry's Marina (941.964.0154) 5800 Gasparilla Rd., Boca Grande	Ramp	Fair	No	Yes	Yes	-	Yes
K	Boca Grande Fishing Pier Gasparilla Rd., Placida 5810	Sand	Fair	No	No	Yes	No	No
L	South Gulf Cove Park 10150 Arnicola St., Port Charlotte	Ramp	Good	No	No	Yes	Yes	No
M	El Jobean Boat Ramp 4224 El Jobean Rd., El Jobean	Ramp	Good	No	No	Yes	Yes	No
N	Tippecanoe Environmental Park 2300 El Jobean Rd., Port Charlotte	Grass	Good	No	No	No	No	No
O	Spring Lake Park 3520 Lakeview Dr., Port Charlotte	Ramp	Good	No	No	Yes	Yes	No

P	Sunrise Park Edgewater Dr.; Port Charlotte 20499	Sand	Good	No	Yes	Yes	No	No
Q	Tropical Paradise B&B (941.624.4533) 19227 Moore Haven Ct.; Port Charlotte	Dock	Fair	No	Limited	Limited	No	No
R	Port Charlotte Beach Park Harbor Blvd.; Port Charlotte 4500	Beach	Good	No	Yes	Yes	Yes	No
S	Bayshore Live Oak Park Bayshore Rd.; Charlotte Harbor	Sand	Fair	No	Yes	Yes	No	No
T	Chester Roberts Park 5064 Melbourne St.; Port Charlotte	Sand	Good	No	No	No	No	No
U	Harbor Heights Park 27420 Voyageur Dr.; Harbor Heights	Ramp	Good	No	Yes	Yes	Yes	No
V	Nav-a- Gator Grill (DeSoto County) 9700 SW Riverview Ct.; Arcadis	Ramp	Good	Yes	Yes	Yes	-	Yes
W	Prairie Creek Preserve* 1900 Duncan Rd.; Punta Gorda	Sand	Good	No	No	No	No	No
X	Hathaway Park 35461 Washington Loop Rd.; Punta Gorda	Ramp	Good	No	No	Yes	Yes	No
Y	Riverside Park Riverside Dr.; Punta Gorda 8120	Ramp	Good	No	No	No	No	No
Z	Darst Park 537 Darst Ave.; Punta Gorda	Ramp	Good	No	No	No	No	No
AA	Laisely Marina Park 100 Nesbit St.; Punta Gorda	Ramp	Good	Yes	Yes	Yes	No	No
BB	Ponce de Leon Park 4000 W. Marion Ave.; Punta Gorda	Ramp	Good	No	Yes	Yes	No	No
CC	Allapatchee Shores Park 3100 Hickory Ct.; Punta Gorda	Ramp	Good	No	No	No	No	No
DD	Taylor Rd. Access Taylor Rd.; Punta Gorda	Roadside	Poor	No	No	No	No	No

*Currently under development/construction (2012)

Southwest Florida Regional Planning Council

The purposes of the Council include:

- responsibilities set forth by Chapters 163, 180 and 186 of Florida Statutes and other applicable state, federal and local law
- to serve as a regional coordinator for members, to exchange, interchange and review various programs of member jurisdictions relating to regional problems;
- to promote communication between members for the conservation and compatible development within the region; and
- to cooperate with federal, state, local and non-governmental agencies to accomplish these objectives.

Babcock Ranch Inc. : <http://www.swflregionalvision.com/BRI.html>

Strategic Regional Policy Plan

http://www.swfrpc.org/content/Regional_Planning/SRPP/EAR/SWFRPC_SRPP_EAR_Final10-20-11.pdf

“The Strategic Regional Policy Plan (SRPP) for Southwest Florida provides a long range guide for the physical, economic, and social development of the region. The overall purpose of the SRPP is to steer the region toward a more healthy and sustainable future. The SRPP is not merely a plan for the Council; it is a plan for the region and all those who are active participants in shaping its future.”

1. Public Awareness Initiative

- a. Goal: The Region’s environmental awareness educational programs will be supported and directed to as many audiences as possible.
 - i. The Southwest Florida Regional Planning Council will assist School Boards and Environmental Education Centers in the design of awareness programs
 - ii. Local, regional and state agencies should establish non-regulatory, educational, urban non listed wildlife programs, which include:
 1. The identification of wildlife living in urban areas
 2. Public education concerning the behavior and needs of urban wildlife
 3. The benefits of maintaining urban wildlife
 4. Measure to avoid conflicts between urban wildlife species and man, and the means to resolve such conflicts

2. Natural Resource Protection

- a. Goal: The diversity and extent of the Region’s protected natural systems will increase consistently. The increase will be based upon 1998 acreage of existing conservation, preservation and stewardship lands.
 - i. Provide a regional clearing house and inventory of lands included in all land acquisition programs in a regional Green Print shared at the SWFRPC website.

3. Water Resource Management

- a. Goal: The Florida Department of Environmental Protection, Water Management Districts, and local governments must have programs based on scientific modeling to protect surface water, potable wells, wellfields, and contributing areas from contamination.

- i. SWFRPC will coordinate as requested the long-term planning for potable water supplies and sources in the region as pursued by the South and Southwest Florida Water Management Districts.
- 4. Regional Cooperation
 - a. Goal: Effective resource management is maintained across the borders of sovereign public agencies
 - i. The SWFRPC will play an active role on the Management Conferences for the Charlotte Harbor and Sarasota Bay National Estuary Programs.
- 5. Livable Communities
 - a. Goal: A stable economy based on a continuing excellent quality of life.
 - i. Assist in the identification and acquisition of Potential Park and recreational sites and other resources in future growth areas.
 - ii. Participate in studies, plans, and programs for public access to beaches and other resources.
 - iii. Work in cooperation with agencies and local governments to ensure that beaches and inlets that have been damaged by human activity are replace/renourished and/or managed in order to have the system function naturally.
 - iv. Working in cooperation with agencies and local governments to ensure that new public facilities, facility expansions and additions, and transportation projects avoid designated natural resource protection areas.

Charlotte Harbor National Estuary Program

Comprehensive Conservation and Management Plan

The Comprehensive Conservation and Management Plan (CCMP) addresses four priority problems that are common throughout the CHNEP study area and that have been identified to impede the health of the watersheds and estuaries. They are water quality degradation, hydrologic alterations, fish and wildlife habitat loss and stewardship gaps. The CCMP includes a series of graphic vision maps, quantifiable objectives, priority actions and many support documents.

Priority Problems:

1. Hydrologic Alterations: Adverse changes to amounts, locations and timing of freshwater flows, the hydrologic function of floodplain systems and natural river flows.
 - a. When people modify the level of the water table, dam rivers or divert freshwater flows, the amount, timing and placement of fresh and salty water can change dramatically.
2. Water Quality Degradation: Pollution from agricultural and urban runoff, point-source discharges, septic systems and wastewater treatment systems, atmospheric deposition, ground water and other sources.
 - a. When sewage treatment plants process residential and commercial waste, they remove most of the nutrients from the water. However, water discharged from sewage treatment plants still contains some nutrients. These discharges are point sources of nutrients to the lakes, estuaries and streams where they are located, but they must meet state standards. The Southwest Florida Regional Planning Council adopted a resolution that provides guidance for improved standards for sewage treatment plants in order to reduce nutrient levels within discharges. As an extension of this resolution, the Council is working with plant managers to identify infrastructure needs for a regional funding effort.

3. Fish and Wildlife Habitat Loss: Degradation and elimination of headwater streams and other habitats, conversion of natural shorelines caused by development, cumulative impacts of docks and boats, invasion of exotic species and cumulative and future impacts.
 - a. The CHNEP study area has lost more than 43 percent of its original wetland habitat—mostly to agricultural drainage, mining and urban development. Land drained by connector ditches for farming accounts for the largest loss of freshwater wetlands. More recently, wetland conversions to farmland or open water have accelerated, especially in smaller unregulated wetlands.
4. Stewardship Gaps: Limitations in people’s knowledge of choices and management decisions that will lead to sustainability within their community. These gaps include overarching issues such as public outreach, advocacy and data management.

Myakka River

In the lower portion of the Myakka River watershed, urban development is displacing agriculture. Former grazing lands along the banks of the lower Myakka River are now being converted to urban uses, mostly homes. Construction is occurring on the vast inventory of lands that were platted in the 1960s. At that time, these plats displaced agriculture in western Port Charlotte and in the City of North Port. The Myakka River now becomes even more important to these areas, supplying their drinking water as well as habitat for fish and wildlife.

Peace River

At 2,315 square miles, the Peace River watershed is the largest and most diverse in the CHNEP study area. South of Lake Hancock, canals and tributaries combine to define the main channel of the Peace River that eventually flows more than 100 miles southwest to Charlotte Harbor. The Peace River is the largest freshwater contributor to Charlotte Harbor. It is a source of drinking water for about 90,000 people in Charlotte, DeSoto and Sarasota counties. With the effects of reduced rainfall, combined with mining, agriculture and municipal water uses, freshwater flows have declined, threatening the ecology of the river system and Charlotte Harbor.

Caloosahatchee River

Twentieth century transportation, drainage, irrigation and waste disposal have been hard on the Caloosahatchee River and its watershed. The channels have been straightened, shorelines hardened and oyster reefs dredged. Remnants of the old river course, termed “oxbows,” have been neglected. The river has been assaulted by raw sewage, stormwater runoff, great counter-seasonal freshwater releases, pesticide spills, thermal effluent and exotic nuisance species.

Dona, Roberts, and Lemon Bays

Bays, beaches, barrier islands and mangroves dominate Dona and Roberts bays to Cape Haze. The barrier islands separate the waterway running from Venice Inlet through Lemon Bay from the open waters of the Gulf of Mexico and Charlotte Harbor. Gasparilla Sound, a broad open water body, forms the exception to this pattern of lagoons. Southward, Gasparilla Sound merges into Charlotte Harbor proper. This area has some important resource management challenges:

- Restoration of historic basin boundaries and resulting freshwater flows to estuaries.
- Effects of boat traffic and dredging on the Intracoastal Waterway and other channels.
- Retention of mangrove areas and protection of seagrass.
- Large areas of undeveloped platted lots.
- Effects of septic systems and stormwater runoff from development on water quality.

- Dynamically unstable tidal inlets.
- Nuisance exotic vegetation removed

Charlotte Harbor, Myakka and Peace Estuaries

Charlotte Harbor proper lies primarily in Charlotte County and connects to the Gulf of Mexico through Boca Grande Pass. Although the Harbor has an area of about 130 square miles, much of it is very shallow. Areas of deep Harbor water extend up into the lower Myakka and Peace rivers. The Charlotte Harbor Aquatic Preserves are five contiguous aquatic preserves within the greater Charlotte Harbor estuary complex designated by the state Legislature for inclusion in the aquatic preserve system under the Florida Aquatic Preserve Act of 1975. The preserves are (from north to south): Lemon Bay Aquatic Preserve, Cape Haze Aquatic Preserve, Gasparilla Sound–Charlotte Harbor Aquatic Preserve, Matlacha Pass Aquatic Preserve and Pine Island Sound Aquatic Preserve.

Economic Activities in the Watershed

Tourism and recreational industries contribute an annual total income of \$2,196,941,059 to the CHNEP study area.

Goals and Objectives

Water Quality Degradation

1. Maintain or improve water quality from year 2000 levels. By 2018, bring all impaired water bodies into a watershed management program such as reasonable assurance or basin management action plan. By 2015, remove at least two water bodies from the impaired list by improving water quality.
2. By 2020, develop and meet water quality criteria that are protective of living resources for dissolved oxygen, nutrients, chlorophyll *a*, turbidity, salinity and other constituents.
3. By 2025, reduce severity, extent, duration and frequency of harmful algal blooms (HABs), including macroalgae, phytoplankton and periphyton, through the identification and reduction of anthropogenic influences.
4. By 2025, meet shellfish harvesting standards year round for the Myakka River conditionally restricted area and the conditionally approved areas of Lemon Bay, Gasparilla Sound, Myakka River, Pine Island Sound Western Section and Pine Island Sound Eastern Section.

Hydrologic Alterations

1. By 2020, identify, establish and maintain a more natural seasonal variation (annual hydrograph) in freshwater flows
2. By 2020, restore, enhance and improve where practical historic watershed boundaries and natural hydrology for watersheds within the CHNEP study area, with special attention to Outstanding Florida Waters and Class I water bodies
3. By 2020, enhance and improve to more natural hydrologic conditions water bodies affected by artificially created structures throughout the CHNEP study area
4. By 2020, for each watershed, identify and recommend additional reforms to improve linkages between local, water management district, state and federal government development permitting and capital programs affecting water storage, flood control and water quality

Fish and Wildlife Habitat Loss

1. Protect, enhance and restore native habitats where physically feasible and within natural variability

2. By 2020, achieve a 100 percent increase in conservation, preservation and stewardship lands within the boundaries of the CHNEP study area.
3. Encourage and support the removal and management of invasive exotic plants and exotic nuisance animals on private lands.

Stewardship Gaps

1. By 2025, a minimum of 75 percent of all residents will have recalled attending a watershed event, reading watershed material or hearing watershed/estuary information on radio or TV. A minimum of 50 percent of all residents in the CHNEP study area can recognize estuaries and watersheds. A minimum of 10 percent of all residents will be able to claim personal actions that protect the estuaries and watersheds.
2. By 2020, the CHNEP will expand its role as a recognized resource to elected officials or their agents from local, state and federal government for policy advice.
3. Though 2020, key geographic and scientific information will be presented in ways that are meaningful to the majority of people.

This link provides more details on strategies to reach these goals: <http://www.chnep.org/CCMP/CCMP2013.pdf>

APPENDIX F: STATE AGENCIES

Florida Department of Environmental Protection

South District Projects

Charlotte County Dredging

<http://publicfiles.dep.state.fl.us/SDRO/ERP/CharlotteCountyDredging/Application.pdf>

Division of Recreation and Parks

The Florida Recreation Development Assistance Program (FRDAP) is a state competitive grant program that provides financial assistance to local governments to develop and/or acquire land for public outdoor recreational purposes. Funding for the program has been awarded to approximately 1,031 projects for the last 10 fiscal year funding cycles.

This link provides a listing of all the park sites in Charlotte County:

<http://webapps.dep.state.fl.us/DrpOrpcr/UpdateInventoryView.do?submitTo=UpdateInventoryPark&selectedSite=CHARLOTTE+COUNTRY>

SCORP

Florida's outdoor recreation providers can be classified into five categories: federal government, state government, county government, municipal government and private sector providers. Both federal and state agencies are concerned with areas and facilities designed to accommodate the demand for resource-based outdoor recreation. County and municipal governments are the primary suppliers of the public facilities needed for user-oriented recreation, although some also provide areas and facilities to meet part of the need for resource-based outdoor recreation. Private recreation providers, non-profit organizations, clubs and other organizations not certified as non-profit by the Florida Department of State, such as hunt clubs, country clubs, yacht clubs and others, are a vital component of the state's outdoor recreation supply and meet a significant portion of the overall demand for both resource-based and user-oriented outdoor recreation in Florida.

2011 Florida Outdoor Recreation Participation Study

Top Reasons for Resident Participation:

- For health/physical fitness
- To be with family and friends
- For relaxation/fun/enjoyment
- To be outdoors/close to nature
- To enjoy the scenery

Top Reasons for Tourist Participation:

- For relaxation/fun/enjoyment
- To be with family and friends
- Florida has good/attractive recreation opportunities/climate

- To be outdoors/close to nature
- Beach (specifically mentioned)

Top Desired Facilities- Residents

- Community parks
- Biking paths
- Playgrounds
- Outdoor public swimming pools
- Hiking/walking trails

Top Desired Facilities- Tourists

- Improved amenities at existing recreation areas (bathrooms, etc.)
- Community Parks
- Beach Access/Parking
- Waterpark
- Saltwater Boat Access/Ramps

Goals for Recreation in Florida

1. Highlight the economic impact of outdoor recreation
 - a. DEP and relevant state agencies, in coordination with all recreation providers, should produce a report on the overall economic impact of outdoor recreation in Florida.
 - b. Local recreation providers should work with local economic development councils to promote Florida's recreation opportunities as a means to attract businesses.
 - c. Recreation providers should communicate with private developers on the connection between property values and availability of natural landscapes and recreation opportunities.
2. Emphasize outdoor recreation's impact on health and quality of life
 - a. Public recreation providers should partner with county health departments and local health care providers to promote active, healthy lifestyles through community-level health improvement initiatives.
 - b. DEP should assist DOH in implementing recreation-related objectives in the State Health Improvement Plan.
 - c. DOH and county health departments should determine ways to further incorporate outdoor recreation opportunities into community health assessments, utilizing tools such as the Florida Outdoor Recreation Inventory to determine existing opportunities and measure their impact on community health.
3. Ensure and identify future resources for programs essential to recreation
 - a. Recreation providers should seek partnerships with private sector companies that share the common vision of creating healthy, active and livable communities.
 - b. Recreation providers should work with stakeholders and the general public to advocate the provision of adequate funding for existing land and water conservation programs.
 - c. DEP should coordinate with DEO in working with local governments to identify sources of public and private grant funding to meet recreational programming and park development needs.
 - d. The Florida Recreation and Park Association, the Trust for Public Land, The Nature Conservancy and other organizations should continue to provide technical assistance to local

governments and citizen groups for identifying alternative sources of funding and enacting local land acquisition programs.

4. Maintain and manage adequate availability of resources for a growing population
 - a. Given Florida's current economic situation, public land management agencies should focus efforts on enhancing existing access points and facilities, as present resources allow.
 - b. By working with local business communities, land management agencies should work closely with local recreation suppliers and outfitters on how they can benefit from nearby public lands to stimulate local economies, create jobs and facilitate public recreational access.
 - c. Agencies should ensure that all public lands are open for appropriate public access as soon as possible after acquisition, without compromising the agencies' mission or the resources of the land.
 - d. Resource management and restoration activities on public lands should be greatly expanded. Activities such as prescribed burning, exotic species removal and hydrological restoration are vital to providing and maintaining the natural and cultural resources that support resource based recreation.
5. Coordinate recreation providers to better connect lands and opportunities
 - a. State agencies should work cooperatively with VISIT FLORIDA to create a single, coordinated data source for accessing public information about outdoor recreation opportunities on Florida's public lands.
 - b. DEP, in cooperation with other groups, should continue to strengthen state agency coordination in conjunction with SCORP planning. This will keep open lines of communication on statewide recreation issues and trends and methods of addressing them.
 - c. DEP should pursue efforts to conduct a statewide forum on outdoor recreation to enhance the coordination of efforts among public and private suppliers.
 - d. Recreation agencies should continue sharing information for the SCORP outdoor recreation inventory and periodic assessments of demand to minimize unnecessary duplication of efforts and ensure a single data source that is kept accurate and up to date.
6. Increase and improve universal accessibility
 - a. State land management agencies should partner with organizations such as the Florida Disabled Outdoors Association to establish specific programs for visitors with disabilities to be uniformly available throughout the state.
 - b. Outdoor recreation providers should develop and implement schedules for identifying and eliminating architectural barriers in existing facilities under their management.
 - c. Upon construction or renovation of trails, agencies should complete UTAP trail assessments and provide trail accessibility information to the public.
 - d. All recreation providers should stay current on information technology, following best practices for distribution of information to the public.
 - e. Outdoor recreation providers should develop and strengthen partnerships with the Agency for Persons with Disabilities and organizations such as Florida Disabled Outdoors Association to educate themselves and the public, and to provide recreation activities and programs for people of all ages and abilities.
7. Protect Florida's waters while providing adequate public access
 - a. All levels of government, working with the private sector, should identify alternative means of meeting public demand for water through developing alternative water supplies such as brackish surface and groundwater, storm water and reclaimed wastewater.

- b. DEP should continue to provide funding to support construction of public recreational facilities in springs, monitor spring water quality, and oversee other restoration activities to help ensure that springs remain available for public use.
 - c. DEO should continue to provide planning assistance to local governments protecting Florida's springs, consistent with reports "Protecting Florida's Springs: Land Use Planning Strategies and Best Management Practices" and "Protecting Florida's Springs: An Implementation Guidebook."
 - d. Funding should continue to be made available through the Florida Forever program to acquire land or conservation easements and fund capital improvements for increased public access, to conserve the state's natural and cultural heritage, including working waterfronts, and for environmental restoration, and water resource protection and supply.
 - e. Federal, state and local governments should work to reduce the amount of nutrient pollution that enters Florida's waters through programs that teach the public about where nutrients come from and what they can do to help.
 - f. Public agencies and private organizations should continue clean-up and rehabilitation efforts for specific water bodies, such as Lake Okeechobee, the St. Lucie and Caloosahatchee Rivers, the Everglades and the waters surrounding the Florida Keys.
 - g. Local governments should maximize the use of local comprehensive planning processes to increase public access to Florida's waters by preserving recreational and commercial working waterfronts and identifying sites for public and private recreation.
 - h. Public recreation providers should identify water areas under their jurisdictions where inadequate recreational access exists or where existing water access can be improved, and give priority to making the needed improvements.
8. Improve urban recreation opportunities
- a. Municipal planning and recreation departments, along with FDOT, should continue to incorporate walking and biking into transportation plans, with a focus on safe and connected opportunities.
 - b. Public recreation providers should continue and strengthen all federal, state and local initiatives which support the creation, enhancement and expansion of urban parks and open spaces.
 - c. Cities should create central, cornerstone parks to revitalize their communities and facilitate active, healthy living.
 - d. Communities should attempt to restore abandoned commercial developments, particularly sites of environmental concern, back to their natural state.
9. Connect all people to the outdoors
- a. All public recreation providers should encourage family-centered programming that appeals to both youth and adults. This multi-generational approach will join all ages in a shared appreciation for natural resources.
 - b. Public schools in Florida, in partnerships with Department of Education, should continue to integrate environmental education throughout their curricula to increase awareness of the benefits of and threats to Florida's natural systems. Schools should seek funding through grants, partnerships and sponsorships with public and private entities to fund environmental education based activities such modeled after best practices identified by the Learning in Florida's Environment (LIFE) Program.
 - c. Agencies should establish and promote packaged interest programs, which harness interest in natural and cultural resource based recreational, interpretive or educational activities to stimulate interest and lead participants to greater participation in the outdoors.

- d. Recreation providers should adapt recreation programs and facilities to meet the needs of a changing population, particularly the needs of Hispanics and seniors.
10. Facilitate participation through accessible information
- a. DEP should continue to develop and enhance the Florida Outdoor Recreation Inventory website centralizing comprehensive information about outdoor recreation opportunities in Florida.
 - b. Recreation providers should continue to incorporate technological advancements as means to facilitate and encourage outdoor recreation participation, such as smartphone applications and interactive maps online.
 - c. Recreation providers should offer technology-driven programs and events, blending technology with traditional
11. Encourage volunteerism, stewardship, and advocacy
- a. All park and recreation agencies should maximize the use of volunteers and citizen based support organizations to supplement their existing resources and personnel. Agencies should develop new, innovative and enjoyable volunteer opportunities that engage all generations and retain volunteers for future projects.
 - b. Agencies should coordinate the distribution of information regarding volunteer opportunities to potential volunteer groups.
 - c. Recreation providers should work with organizations such as FRPA, the Trust for Public Land, and other recreation groups and businesses to educate the public about the benefits of volunteerism on public lands and encourage expanded opportunities for the public to participate in volunteer programs.

<http://www.dep.state.fl.us/parks/outdoor/scorp.htm>

Office of Greenways and Trails

OGT coordinates with and provides technical assistance regarding the acquisition, development, designation and management of greenways and trails projects that fulfill the FGTS plan and vision. OGT administers the Recreational Trails Program (RTP), a federally funded competitive grant program that provides financial assistance to local communities for the development of trails

Florida Greenways and Trails System (FGTS) Plan 2013-2017

Goal and Objectives:

- Identify and prioritize trails and greenways to facilitate completion of the FGTS
 - Land Trails Opportunity Map (Page 11 Charlotte County):
http://www.dep.state.fl.us/gwt/FGTS_Plan/PDF/LANDTRAILS_MapBook.pdf
 - Paddling Trails Opportunity Map:
http://www.dep.state.fl.us/gwt/FGTS_Plan/PDF/PADDLING_TRAILS_Mapbook.pdf
 - Priority Map Southwest:
http://www.dep.state.fl.us/gwt/FGTS_Plan/PDF/Gap%20Maps/Top%20Tier%20Maps/PrioritySouthwestRegion_top_tier_FINAL.pdf
 - The Priority Trails Map encompasses the most important corridors and connections within the FGTS Land Trails Opportunity Map and Paddling Trails Opportunity Map

- Ecological Greenways Opportunity Map:
http://www.dep.state.fl.us/gwt/FGTS_Plan/PDF/New_FEGN_Priorities_Map_Adopted12-2013_byFGTC.pdf
 - Represents the areas necessary to protect a statewide network of conservation land and connecting wildlife corridors designed to maintain large landscape- scale ecological functions.
- Direct resources and programs to establish and connect the FGTS
 - OGT will provide greenways and trails assistance and resources to communities, organizations and individuals, with emphasis on assisting projects and plans that advance and complete FGTS priorities
 - Encourage local, state and federal programs that provide funding for greenways and trails to advance the FGTS with emphasis on completing priorities.
 - Identify and maintain, on FloridaGreenwaysAndTrails.com, a database of funding sources that facilitate the acquisition, development, management and promotion of the FGTS.
 - Pursue public/private partnerships to take advantage of public and private sources of funding and in-kind contributions to support implementation of the FGTS
 - December 2013, OGT will coordinate and complete the revision of Chapter 62S-1, FAC, to focus the Greenways and Trails Acquisition Program to closing gaps and completing corridors on the FGTS Priority Trails Map.
 - Ensure that state conservation and recreation land acquisition programs, such as Florida Forever, consider FGTS priorities during project analysis and selection.
 - Encourage all public conservation and recreation land acquisition programs to consider FGTS priorities and opportunities during project analysis and selection.
 - Encourage the use of transportation and other linear infrastructure rights of way that coincide with FGTS priorities and opportunities to include trails.
- Promote and communicate information about greenways and trails to advance the FGTS.
- Link and support complementary programs, planning and partnership efforts to coordinate the FGTS
 - Coordinate the FGTS to enhance public access to and provide connections between Florida's diverse recreational opportunities.
 - Advance the SCORP by coordinating the FGTS plan to connect and increase access to public recreational opportunities.
 - Promote the FGTS Plan and SCORP as companion efforts for state level outdoor recreation planning.
 - Coordinate with the Florida Outdoor Recreation Coalition, the Florida Recreation and Parks Association and other related non-profits regarding recreational efforts and initiatives that advance and are supported by the FGTS.

Bureau of Natural and Cultural Resources

Goals:

- Providing system-wide review and assistance regarding management, restoration and protection of natural systems, listed species, coastal systems, archaeological sites, historic structures, collections and archival materials.

- Ensuring that natural and cultural resource protection is inherent in the planning, design, construction and maintenance of park facilities.
- Providing management and interagency coordination for planning and implementing coastal restoration and erosion control projects.
- Developing and updating standards for resource management, operational procedures, policy guidelines and directives.
- Developing and conducting training for FPS staff on resource management methods and procedures, including organizing and/or contributing to professional meetings, workshops, conferences and publications to maintain and improve resource management skills.
- Tracking and analyzing resource management activities, preparing reports to document trends and disseminating that information throughout the division.
- Issuing statewide Scientific Research and Collecting Permits, in addition to reviewing and coordinating other natural and cultural resource permits.
- Managing the Florida Park Service Archives, including historic records, plans and photographs, which are open to the public for research.
- Coordinating with other agencies and organizations on natural and cultural resource issues.

Here is a link to the Resource Management Annual Report:

http://www.dep.state.fl.us/parks/bncr/forms/12-13_res_mgt_annual_report.pdf

Land Management Brochure: <http://www.dep.state.fl.us/parks/bncr/landmanagement.pdf>

Division of State Lands

The Division of State Lands (DSL) administers land acquisition programs on behalf of the Board of Trustees of the Internal Improvement Trust Fund and DEP. DSL also provides administrative oversight for approximately 11 million acres of state owned lands, including 700 freshwater springs, 4,510 islands of ten acres or more and 7,000 lakes.

<http://www.dep.state.fl.us/lands/>

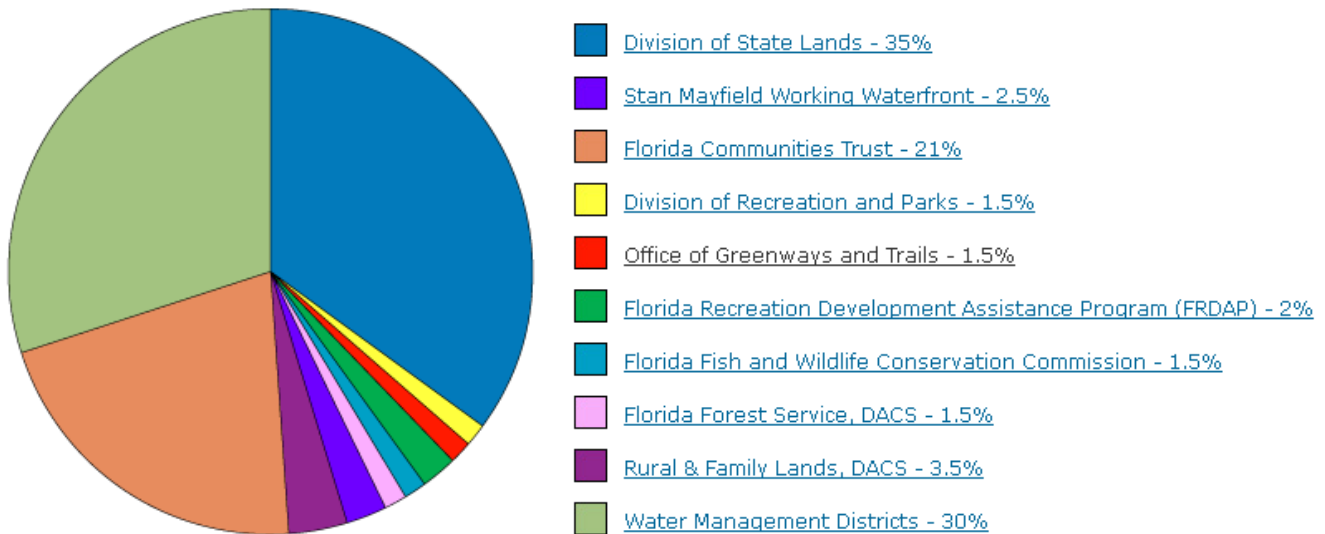
Florida Forever

DSL administers the Florida Forever program, which was created by the 1999 Florida Legislature as the successor program to the Florida Preservation 2000 program established in 1990. Florida Forever supports a variety of land acquisition purposes, including the preservation of environmental, conservation, and water management lands and to provide grants to local governments.

Florida Forever Funding Distribution

When *Florida Forever* funding is appropriated by the legislature it is distributed by the Florida Department of Environmental Protection to a number of state agencies and programs to purchase public lands in the form of parks, trails, forests, wildlife management areas and more. All of these lands are held in trust for the citizens of Florida.

Pursuant to 259.105(3) F.S. the breakdown to agencies is:



Link to this page: http://www.dep.state.fl.us/lands/fl_forever.htm

Florida Forever Projects- Charlotte County:

Charlotte Harbor Estuary

- The Myakka Estuary project will protect the largest natural area left around northern Charlotte Harbor
 - The DRP will manage that portion of the project west of SR 775. Florida Forest Service/FFS (aka Division of Forestry/DOF), Department of Agriculture and Consumer Services will manage the western portion of the Myakka Estuary portion of the project, with the DRP managing the east side.
- The primary goals of management of the Charlotte Estuary project are to conserve and protect significant habitat for native species or endangered and threatened species; to conserve, protect, manage, or restore important ecosystems, landscapes, and forests, in order to enhance or protect significant surface water, coastal, recreational, timber, fish, or wildlife resources which local or state regulatory programs cannot adequately protect; to provide areas, including recreational trails, for natural-resource-based recreation; and to preserve significant archaeological or historical sites
- After the core of the Myakka River forests are acquired, the FFS and DRP will provide public access for low-intensity, non-facilities-related outdoor recreation. Initial activities will include securing the sites, providing public and fire management access, inventorying resources, removing trash, and eradicating exotic plants.

Charlotte Harbor Flatwoods

- Northwest of Fort Myers lies the largest and highest-quality slash-pine flatwoods left in southwest Florida.
- Managed by Florida Fish and Wildlife Conservation Commission (FWC)
- The project is designated as a wildlife management area, with such uses as hiking, environmental education and hunting.
- The primary goals of management of the Charlotte Harbor Flatwoods project are: to conserve and protect significant habitat for native species or endangered and threatened species; to conserve, protect, manage, or restore important ecosystems, landscapes, and forests, in order to enhance or protect significant surface water, coastal, recreational, timber, fish or wildlife resources which local or state regulatory programs can adequately protect; and to provide areas, including recreational trails, for natural-resource-based recreation
- The first year of management activity will entail controlling public access with gates and/or fencing, and controlling the littering and dumping problems. Additional emphasis will be placed on planning and on establishing an adequate and appropriate fire regime. Subsequent years should result in this project becoming an integral part of the management scheme for Babcock-Webb WMA

Hall Ranch

- The Hall Ranch project will help preserve a corridor of natural land—slash pine flatwoods, marshes, and cypress swamps—from Charlotte Harbor to Telegraph Swamp.
- This project qualifies as a wildlife management area, with uses such as hunting, various sorts of trails, camping, and picnicking, among other activities.
- This project consists of one major owner—the Hall Ranch Corporation. The essential parcel is the Hall ownership south of State Road 74. There are multiple small ownerships scattered throughout the Hall ownership north of SR 74.
- Managers should limit the number and size of recreational facilities, ensure that they avoid the most sensitive resources, and site them in already disturbed areas when possible. The project includes much of the undeveloped land between the Babcock-Webb Wildlife Management Area and Telegraph Swamp and consequently has the size and location to achieve its primary objective.
- The FWCC is recommended as Manager

Florida Communities Trust

The Florida Communities Trust (FCT), established in 1989 to help local governments preserve parks, open space, beaches and natural areas, has created more livable communities throughout Florida. The source of funding for Florida Communities Trust comes from *Florida Forever* proceeds.

FL Communities Trust Annual Report:

http://www.dep.state.fl.us/lands/FL_Communities_Trust/parksandopenspace/AnnualReport2012_2013.pdf

Florida Communities Trust Act:

http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&URL=0300-0399/0380/0380PartIIIContentsIndex.html&StatuteYear=2010&Title=-%3E2010-%3EChapter%20380-%3EPart%20III

Bureau of Land Acquisition

Negotiation Section:

- Appraisal Map: completed through the Bureau of Survey and Mapping,
- Appraisal Report: completed through the Bureau of Appraisal,
- Negotiate Offer and Contract Terms: based on appraised value of highest and best use of the property. Conservation easements and other less-than-fee transactions may take longer to negotiate agreeable terms, and
- Board of Trustees' Approval: an approximate six-week process wherein the acquisition is presented to the Board of Trustees (Governor and Cabinet) for approval.

Closing Section:

- Prepares the transaction for conveyance to state ownership. The agents utilize contractors to perform some aspects of the closing process, such as title searches, title insurance, closing services and environmental site assessments. The statewide contracts for these services are managed within the Division's Bureau of Land Acquisition Closing Section for accuracy and compliance with Florida Statutes and DEP's policies and procedures. The closing component of the acquisition process includes the steps necessary to close the transaction and acquire title to the subject property.

Land Acquisition Process:

1. Due Diligence: Through the use of private contractors, title work, an environmental site assessment and a survey are obtained to aid in the identification of any issues which may impact the title, boundary, value, manageability and long-term ownership of the property.
2. Issue Resolution: Staff reviews the due diligence products to identify and evaluate any issues. The seller must resolve those issues prior to closing. Staff may assist in the resolution of issues.
3. Closing: This phase of the closing process consists of execution of all legal documents between the parties and the delivery of monies necessary to complete the transaction on the terms and conditions of the contract. Title is transferred to the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (Governor and Cabinet).

Stewardship of State Lands: <http://www.dep.state.fl.us/lands/stewardship.htm>

Office of Coastal and Aquatic Managed Areas

The Office of Coastal and Aquatic Managed Areas (CAMA) is the principal manager of submerged lands and their associated marine and aquatic resources in Florida. The Florida Aquatic Preserve Act of 1975 (Chapter 258, Part II, Florida Statutes), authorizes the Board of Trustees of the Internal Improvement Trust Fund to maintain state owned submerged lands with exceptional biological, aesthetic and scientific value as aquatic preserves. These areas offer prime opportunities for fishing, boating, swimming, paddling, snorkeling, diving and other water-related types of recreation. CAMA manages Florida's 41 aquatic preserves, including 37 saltwater and four freshwater sites, encompassing more than two million acres of sovereign submerged lands of the state.

Cape Haze Aquatic Preserve: <http://www.dep.state.fl.us/coastal/sites/capehaze/info.htm>

Gasparilla Sound – Charlotte Harbor Aquatic Preserve:
<http://www.dep.state.fl.us/coastal/sites/gasparilla/info.htm>

Division of Water Resource Management

<http://www.dep.state.fl.us/water/>

The Division of Water Resource Management (DWRM) is responsible for protecting the quality of Florida's drinking water as well as its rivers, lakes and wetlands, and for reclaiming lands after they have been mined for phosphate and other minerals. Its programs establish the technical basis for setting the state's surface water and ground water quality standards, which are critical to maintaining the viability of water resources for public outdoor recreational use.

Florida Beaches Habitat Conservation Plan

<http://www.flbeacheshcp.com/>

<http://www.flbeacheshcp.com/docs/FLBHCP%20Primer.pdf>

The mission of this project is to aid the Florida Department of Environmental Protection's (FDEP) Bureau of Beaches and Coastal Systems in obtaining an Incidental Take Permit from the U.S. Fish and Wildlife Service. This will be accomplished by developing a Habitat Conservation Plan (HCP) that will minimize and mitigate the take of federally listed species resulting from activities permitted through FDEP's Coastal Construction Control Line Program. The HCP will enable FDEP to fulfill its statutory responsibilities under Florida law and the Federal Endangered Species Act.

The Biological Goal of the Florida Beaches HCP is to implement a statewide conservation strategy that sustains the basic life history traits and ecology of all covered species within the Plan Area and supports the conservation goals of Federal recovery plans and state management plans for those species.

Four primary biological objectives extend from this goal. They are as follows:

1. Maintain and, where possible, improve the quality, quantity and function of habitat for all covered species within the Plan Area.
2. Minimize impacts resulting from CCCL-permitted activities.
3. Adequately mitigate impacts resulting from CCCL-permitted activities to ensure a net conservation benefit for all covered species.
4. Ensure the long-term persistence of covered species within the Plan Area in consideration of large-scale environmental changes, such as sea level rise

Bureau of Mine Reclamation

Mine Reclamation Rules and Regulations: <http://www.dep.state.fl.us/water/rulesprog.htm#mines>

Office of Sustainable Initiatives

Clean Marina Program

The Florida *Clean Marina* Program is a voluntary designation program with a proactive approach to environmental stewardship. Participants receive assistance in implementing Best Management Practices through on-site and distance technical assistance, mentoring by other *Clean Marinas* and continuing education. To become designated as a *Clean Marina*, facilities must implement a set of environmental Best Management Practices (BMP) designed to protect Florida's waterways. These BMP's address critical environmental issues such as sensitive habitat, waste management, storm water control, spill prevention and

emergency preparedness. Designated facilities and those facilities seeking designation receive ongoing technical support from the Florida *Clean Marina* Program and the *Clean Boating* Partnership.

<http://www.dep.state.fl.us/cleanmarina/marina/default.htm>

A list of Clean Marina Resources, including a Guidebook and an Action Plan:

<http://www.dep.state.fl.us/cleanmarina/resources.htm>

Currently, there are no designated Clean Marinas in Charlotte County:

<http://www.dep.state.fl.us/cleanmarina/marinas.htm#sw>

Florida Department of Agriculture and Consumer Services

The mission of the Florida Department of Agriculture and Consumer Services is conserving and protecting the state's agricultural and natural resources by reducing wildfires, promoting environmentally safe agricultural practices, and managing public lands.

Florida Forest Service

“Outdoor recreational opportunities on Florida's State Forests are as diverse as the resources themselves. Most recreational opportunities in Florida's State Forests are passive in nature. Utilizing old roadbeds and fire lanes as trails, people can physically brush up against Florida's natural and untamed resources. Whether it's by bicycle, horse, or foot, visitors to State Forests in Florida can experience first-hand the same outdoor elements that early settlers and inhabitants once experienced. In addition to providing outdoor recreation, state forest trails serve as outdoor classrooms for people of all ages to explore and learn. State Forests are open to public access. Some forest roads may require a State Forest Use Authorization for vehicle access. In addition, any group activity requires a State Forest Use Authorization and possibly a fee. These authorizations may be obtained in advance by contacting the state forest you plan to visit.”

Closest State Forest: Myakka State Forest is located in the south western portion of Sarasota County within the city limits of North Port. The forest was purchased in 1995 as part of the Myakka Estuary Conservation and Recreation Lands (CARL) project using Preservation 2000 and Save Our Rivers funds.

- Recreation available at this location includes:
 - Camping, hiking, off-road bicycling, horseback riding, wildlife viewing and small game hunting.
 - The streams on the forest provide a source for fishing, boating, canoeing and kayaking.

Wetland Restoration on State Forests

- Much of the land now managed by the Florida Forest Service has been impacted to varying degrees by previous human activities. Many wetlands found today on State Forests had been drained, while others had been impounded or filled for varying land use purposes in the past.
- In 2007 the Florida Forest Service began conducting a Wetland Restoration Needs Assessment on all State Forests with impaired wetlands. This information is made available to the public through postings on the Department of Environmental Protection's Florida Ecological Restoration Database (FERI) as the information becomes available.

<http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/State-Forests/Myakka-State-Forest>

Florida Department of State

Division of Historical Resources

List of Historic Resources in Charlotte County:

<http://www.flheritage.com/facts/reports/places/index.cfm?fuseaction=ListAreas&county=Charlotte>

A list of regulations and guidelines in the preservation of historic resources:

<http://www.flheritage.com/preservation/compliance/guidelines.cfm>

Compliance Review module: <http://www.flheritage.com/preservation/compliance/docs/Module2.pdf>

Florida's Comprehensive Historic Preservation Plan

http://archive.org/stream/62683_FDS_84Pg_Publication#page/n0/mode/2up

The State Comprehensive Plan (Section 187.201, Florida Statutes) includes goals that directly relate to historic preservation. For URBAN DOWNTOWN REVITALIZATION, the goal is:

- In recognition of the importance of Florida's vital urban centers and the need to develop and redevelop downtowns to the state's ability to use existing infrastructure and to accommodate growth in an orderly, efficient, and environmentally acceptable manner, Florida shall encourage the centralization of commercial, governmental, retail, residential, and cultural activities within downtown areas.

Many of the objectives under this goal utilize the concepts embodied in the Florida Main Street Program.

Concerning CULTURAL AND HISTORICAL RESOURCES:

- Florida shall increase access to its historical and cultural resources and programs and encourage the development of cultural programs of national excellence.

Objectives related to HISTORIC PRESERVATION under this goal include:

- Promote and provide access throughout the state to performing arts, visual arts, and historic preservation and appreciation programs at a level commensurate with the state's economic development;
- Ensure the identification, evaluation, and protection of archaeological folk heritage and historic resources properties of the state's diverse ethnic population;
- Stimulate increased private sector participation and support for historical and cultural programs;
- Encourage the rehabilitation and sensitive, adaptive use of historic properties through technical assistance and economic incentive programs; and
- Ensure that historic resources are taken into consideration in planning of all capital programs and projects at all levels of government and that such programs and projects are carried out in a manner which recognizes the preservation of historic resources.

The Architectural Preservation Services staff also administers a program of state grants for the rehabilitation, restoration, and acquisition of historic buildings, the survey of historical resources, the excavation of archaeological sites, and the funding of preservation education and museum exhibit programs.

The 11-member Acquisition and Restoration Council (ARC) makes recommendations about acquisition, management and disposal of state-owned lands. This advisory group includes private citizen members with backgrounds in scientific disciplines of land, water, or environmental sciences as well as wildlife management, forestry management, and outdoor recreation, in addition to five state agency representatives, including the Department of State.

More efforts, such as the 2011 listing of the Parrot Jungle in the National Register of Historic Places, need to be focused on such historic tourism resources. Other types of recreational resources should also be identified, such as historic golf courses, jai-alai frontons, lawn bowling clubs, and racing facilities.

The comprehensive plan provides a ranking of seven topics that are considered the most important ones facing Florida:

1. Development
2. Economics of Historic Preservation
3. Downtown Districts
4. Property Rights
5. Perception that Florida has no Historical Resources
6. Heritage Tourism
7. Historic Preservation Education

Goals and Objectives:

1. Increase and widen awareness of Florida history and engagement in historic preservation activities
 - a. Place more historic preservation information in local and statewide media
 - b. Increase outreach through the Internet, webinars and other web-based media
 - c. Support community based programs such as Florida Main Street
 - d. Increase technical and grant assistance for developing educational and promotional products such as brochures, interpretive signage, pamphlets, and school curricula
 - e. Integrate local history into local school curricula
 - f. Develop a statewide Young Preservationists Program (e.g., youth summits and service-learning opportunities)
 - g. Establish Historic Preservation Girl Scout and Boy Scout badges
 - h. Establish a Historic Preservation prize in the Florida History Fair
 - i. Interface with university/college history and historic preservation programs (e.g., develop internship program)
 - j. Continue to work with "Geocaching Society" to develop local history geocaching trails
 - k. Increase capacity of the Mission San Luis summer camp program
 - l. Provide Mission San Luis summer camp opportunities for underprivileged children through scholarships
2. Increase technical knowledge of historic preservation among those in a position to impact archaeological and historical resources

- a. Further develop and publicize the educational resources available from the Florida Trust for Historic Preservation
 - b. Develop local policies and programs that encourage and provide incentives for redevelopment that incorporates historic preservation
 - c. Develop more education programs and materials for developers and real estate professionals
 - d. Provide training and online resources for project managers and developers on how to identify and report archaeological issues
 - e. Create instructional materials to enhance understanding of the archaeological and historic preservation compliance and review process
 - f. Hold community workshops for home and business owners on economic development and historic preservation topics, such as repair/maintenance, appropriate restoration, architectural styles, and easements
 - g. Create 5-10 minute training presentations on key topics to educate property owners on preservation issues such as property rights, benefits of historic preservation, and best practices
 - h. Promote rehabilitation and reuse of existing facilities, structures, and buildings as an alternative to new construction
3. Improve historic preservation advocacy beginning at the grassroots level
 - a. Develop economic, cultural, and lifestyle impact measures for Florida historic preservation activities, using the Florida Main Street Program's model for collecting data from across the state, and provide training on how to use the system.
 4. Increase the diversity of historic preservation funding sources
 5. Improve networking among Florida's preservation partners

Florida Department of Economic Opportunity

Rural Land Stewardship Area Program

<http://www.floridajobs.org/community-planning-and-development/programs/technical-assistance/planning-initiatives/rural-planning/rural-land-stewardship-area-program>

Chapter 2011-139, Laws of Florida, substantially amended the Rural Land Stewardship Area program. Now at Section 163.3248, Florida Statutes, the law provides that one or more landowners may request that the local government designate their lands as a rural land stewardship area. Upon receipt of such a request, the local government may adopt a future land use overlay to designate all or portions of the lands as a rural land stewardship area if the properties currently are classified as predominantly agricultural, rural, open, open-rural, or a substantively equivalent land use. Rural Land Stewardship Areas are areas within which planning and economic incentives are applied to encourage the implementation of innovative and flexible planning and development strategies and the use of creative land use planning techniques to support a diverse economic and employment base.

A rural land stewardship area must be at least 10,000 acres, must be located outside of municipalities and established urban service areas, and must be designated by a plan amendment by each local government with jurisdiction over the rural land stewardship area. Development within a designated rural land stewardship area is exempt from the development of regional impact program.

There are no designated Rural Land Stewardship Areas in Charlotte County.

Florida Department of Transportation

Pedestrian and Bicycle Program

<http://www.dot.state.fl.us/safety/4-Reports/Bike-Ped/CBBphase1%20Report062907.pdf>

The purposes of the Conserve by Bicycle Program are to:

- Save energy by increasing the number of miles ridden on bicycles, thereby reducing the usage of petroleum-based fuels.
- Increase efficiency of cycling as a transportation mode by improving interconnectivity of roadways, transit and bicycle facilities.
- Reduce traffic congestion on existing roads.
- Provide recreational opportunities for Florida's residents and visitors.
- Provide healthy transportation and recreation alternatives to help reduce the trend toward obesity and reduce long-term health costs.
- Provide safe ways for children to travel from their homes to their schools by supporting the Safe Paths to Schools Program

The 1998 FDOT Project Development and Environment Manual also includes the requirement to provide bike lanes for all new and reconstructed roadways. FDOT's Design Standards was revised to include examples of how to stripe bike lanes through intersections. Since 1995, several research projects have substantiated bike lanes as safe facilities for cyclists who ride as prescribed by the traffic laws. In addition to providing design criteria for bike facilities, and guiding their inclusion on projects, FDOT has developed tools for local governments to use in planning and evaluating their transportation networks for bicyclists.

Two purposes of the Conserve by Bicycle Program are to:

- Provide recreational opportunities for Florida's residents and visitors, and
- Provide healthy transportation and recreation alternatives to help reduce the trend toward obesity and reduce long-term health costs.

The provision of bicycle lanes and shared use paths will increase perceived safety and comfort on the part of the bicyclists, and more bicyclists will engage in recreational bicycling on those facilities.

The following characteristics of bicycle facilities influence decisions to make recreational bicycle trips:

- Facility length
 - The length of a facility is likely to impact the number of recreational bicyclists, as they have longer preferred riding lengths. Few recreational bicyclists will want to ride on a very short facility (below some minimum length) because it will not be worth the effort to get ready and to access the facility.
- Intersections/interruptions
- Amenities/points of interest
- # of other trail users
- Crime

- Scenery/aesthetics
- Density-weighted population
- Bicycle LOS

Concluding Recommendations include:

1. Public agencies accommodate bicycling on all roadways in Florida
2. Require Recreational Infrastructure in New Developments
3. Build New Multi-Use Paths, Especially in Scenic Areas and Near Population Centers
4. Establish Minimum Standards for Bicycle Accommodation on Roadways
5. Retrofit the Existing Roadway and Street System
6. Relax Motor Vehicle Level of Service Standards and Increase Bicycle Level of Service Standards in Areas with Mixed Land Use, Especially where Employment and Residential Population Are Dense
7. Adopt Land Use Policies that Encourage Mixing of Higher-Density Residential and Employment Uses
8. Continue Research Regarding Provision of End-of-Trip Facilities for Bicyclists
9. Implement Education and Marketing Programs to Promote Bicycle Commuting
10. Study and Implement Education and Marketing Programs that Promote Recreational Bicycling

Florida Fish and Wildlife Conservation Commission

<http://myfwc.com/about/overview/strategic-plan/>

Division of Habitat and Species Conservation

The core mission of the Division of Habitat and Species Conservation is to ensure healthy populations of all native species and their habitats on a statewide basis. The division integrates scientific data with applied habitat management for the purpose of maintaining stable or increasing populations of fish and wildlife. Integration efforts focus on the ecosystem or landscape scale to provide the greatest benefits to the widest possible array of fish and wildlife species. Accomplishing this mission requires extensive collaboration and partnering with local, state and federal agencies to maintain diverse and healthy fish and wildlife populations for the benefit of all Floridians and visitors. Direct benefits include ecological, economic, aesthetic, scientific and recreational benefits. This program provides:

- aquatic habitat management for marine, estuarine and freshwater systems;
- habitat management for terrestrial systems including public lands management;
- land acquisition;
- scientific support and assistance for habitat-related issues to private and public sector landowners and local, state and federal governments;
- species management and recovery plan development and implementation;
- exotic species coordination focused on prevention and control programs;
- manatee, Florida black bear, Florida panther and sea turtle population recovery;
- invasive plant management on public lakes, rivers and conservation lands.

Wildlife and Habitat Management

Florida has one of the nation's largest systems of state-managed wildlife lands. The Wildlife Management Area program includes 5.8 million acres. Wildlife and Habitat Management is the FWC's lead manager on 1.4 million acres and coordinates management on another 4.4 million acres. This section's activities benefit plant and animal populations as it acquires land, develops site-specific land-management plans, guides managers in sound land-management practices and supports quality, wildlife-based public use, including a variety of hunting opportunities on managed lands. Additionally, the Wildlife and Habitat Management section restores degraded plant and wildlife communities and acquires new land that provides vital additions and linkages or conserves imperiled wildlife.

Habitat management programs use prescribed burns on fire-dependent plant communities, and chemical and mechanical vegetation treatments to control exotic or invasive plant infestations. These treatments restore ground cover and hydrologic conditions on altered landscapes to conserve wildlife and enhance critical habitat. The section develops and tests techniques to recover high-risk populations. It monitors programs to detect trends in the status and populations of imperiled species.

Aquatic Habitat Conservation and Restoration

This section uses a multidisciplinary approach to develop and implement comprehensive management programs to improve the ecological health of freshwater, estuarine and marine habitats. Its primary focus is identifying high-priority water bodies and implementing a variety of management treatments to maintain quality habitat for wetland-dependent fish and wildlife. Working with other agencies and user groups, this section builds cooperative relationships to address various issues affecting aquatic resources, including nutrient enrichment, water-use policy, and protection of rare and imperiled fish and wildlife.

Conservation Planning Services

Working with private and public sector landowners, this section develops and helps implement comprehensive, habitat-based management plans and incentive programs for landowners. Conservation Planning Services also provides managers of publicly owned lands with technical assistance to implement land-use plans that reduce negative impacts on fish and wildlife. This section uses scientific data to review and comment on FWC-regulated activities that may affect wildlife habitat.

Species Conservation Planning

Conserving Florida's native wildlife diversity is the mission of this section. It develops and implements high-priority conservation activities for native wildlife, with an emphasis on threatened species. Partnerships with other governmental agencies (local, state and federal), nongovernmental organizations and individuals help achieve conservation goals for wildlife. This section manages most of the state's threatened species and coordinates activities relating to Florida's listing process and permitting of human activities that may affect listed species. Examples of these efforts included creating a rule for wildlife and airport safety, working with stakeholders to finalize revised rules for managing threatened species, and revising guidelines for gopher tortoise permitting. In addition, this section continues development of the Coastal Wildlife Conservation Initiative and a shorebird partnership network called the Florida Shorebird Alliance.

Imperiled Species Management

This section is responsible for conservation of manatees, sea turtles, panthers and black bears through implementation of federal recovery plans and state management plans. Key tasks include development of rules and regulations that provide needed protections, providing technical assistance to local governments

and other state agencies for planning purposes and permit reviews, and addressing human-wildlife conflicts. The section coordinates with the Fish and Wildlife Research Institute's researchers to identify information needs that will assist in making management decisions. The section also provides answers to numerous public questions and requests and conducts a variety of outreach activities to encourage the public to become watchful stewards over Florida's threatened species.

Exotic Species Coordination

This section works with the FWC's Division of Law Enforcement's Captive Wildlife staff to prevent nonnative species from harming native fish, wildlife and marine plants. Together, they develop science-based regulations to prevent the release and establishment of nonnative species. Partnerships with other local, state and federal groups seek to promote responsible pet ownership and increase awareness of the problems of introduced species, while also managing nonnative species present in Florida. This section's database has 10,000 records of observations of nonnative species, primarily introduced birds. New programs and regulations were introduced to combat the invasion of the Burmese python in south Florida.

Invasive Plant Management

This section is responsible for directing, coordinating and funding two statewide programs controlling invasive upland plants on public conservation lands and invasive aquatic plants in public waterways. This section regulates, through a permitting program, projects for control of aquatic plants that do not meet the eligibility requirements for state funding. The FWC protects Florida's native plant and wildlife diversity with controls to manage invasive plants on public lands and waterways, dissemination of information, public education efforts, contractual research, and surveillance of plant communities on public lands and waterways. This section's goal is to protect native fish and wildlife habitat by reducing existing populations of invasive plants and preventing new invasive plant populations from becoming established.

<http://myfwc.com/about/overview/programs/hsc/>

Division of Freshwater Fisheries Management

Fisheries Management

The Fisheries Management section ensures the best freshwater fishing opportunities in Florida's lakes, rivers and streams through stocking desirable sport fish, regulating harvest, enhancing habitats and maintaining fish management areas. Fisheries Management coordinates with stakeholders and federal, state and local entities to protect and conserve freshwater resources and maintain fishing quality. Fisheries management information and a strong aquatic stewardship, ethics and ecology message are communicated through publications, electronic media, fishing camps, seminars and events.

Hatchery Operations and Stocking

The state has two freshwater hatcheries: the Florida Bass Conservation Center at Richloam Hatchery and the Blackwater Fisheries Research and Development Center. They produce a dependable quantity of size-specific, high-quality freshwater fish, which are stocked annually in more than 200 Florida lakes, rivers and community-managed waters.

<http://myfwc.com/about/overview/programs/ffm/>

Division of Marine Fisheries Management

The Division of Marine Fisheries Management (MFM) works with many agencies and groups to accomplish its mission to sustain the long-term health and abundance of Florida's marine fisheries. Fishery management requires coordination with federal agencies and other states, including the Gulf of Mexico Fishery Management Council, the South Atlantic Fishery Management Council, the Atlantic States Marine Fisheries Commission and the Gulf States Marine Fisheries Commission. Other activities include issuance of special activity licenses, recovery of lost or abandoned lobster and crab traps, coordination of federal programs to provide disaster relief assistance to commercial fishers, and review and comment on proposed development projects that may affect marine resources. This division also conducts wholesale-dealer audits.

Analysis and Rulemaking

This section compiles fishery data, coordinates with other governmental agencies and research institutions, and solicits information from the public regarding fishery management strategies for state saltwater fisheries regulations. Section employees use this information to develop management and rule-making recommendations for Commission consideration.

Federal Fisheries

This section serves as liaison between the FWC Commissioners and the councils that have been created to assist in providing input into the management of federal marine fish species, such as snapper and grouper. The Section staff members serve on these regional fishery councils and coordinate with stakeholders on federal fisheries issues.

Services

This section works as a liaison between the marine fishing community and the FWC, promoting responsible recreational and commercial fishing activities. The Marine Fisheries Services section also works to resolve issues related to proposed regulations, commercial license applications and wholesale-dealer compliance; coordinates with the industry to document fisheries disasters, seeks fisheries disaster-relief financial assistance and distributes funding; operates a trap-retrieval program; administers the statewide artificial reef programs; and comments on environmental projects

<http://myfwc.com/about/overview/programs/mfm/>

Division of Law Enforcement

The Division bases its patrol efforts on its core missions:

Resource Protection

This includes educating the public and enforcing state and federal fisheries and wildlife laws; protecting threatened and endangered species and habitats; managing captive and nonnative wildlife; investigating fish and wildlife crimes; and participating in youth projects to develop the next generation that cares about conservation.

Environmental Protection

This includes educating the public and enforcing state and federal environmental laws; protecting and preserving cultural and natural resources; protecting state lands and water quality; investigating environmental crimes; and participation in education and outreach programs about environmental protection and enjoying state resources.

Boating and Waterways

This includes enforcing boating rules and regulations, coordinating boating safety campaigns and education; managing public waters and access to them; conducting boating accident investigations; identifying and removing derelict vessels; and investigating vessel theft and title fraud.

Public Safety

FWC officers respond to natural and manmade disasters and search and rescue missions. Specialized response units are equipped to operate by air, land and sea. The Division is a partner in Florida's Mutual Aid Plan, administered by the Florida Division of Emergency Management. The FWC works with other law enforcement agencies to provide intelligence and security support, general law enforcement services and critical incident investigations.

<http://myfwc.com/about/overview/programs/le/>

Division of Hunting and Game Management

The Division of Hunting and Game Management provides for the safe and responsible use of wildlife species that are hunted. Specifically, they:

- offer scientific expertise on game wildlife such as alligators, deer, small game, waterfowl and wild turkeys;
- develop science-based management strategies for game wildlife, including hunting regulations;
- provide hunter safety training and certification to citizens through volunteer instructors. This training includes:
 - instruction in safe and lawful use of firearms;
 - principles of wildlife conservation;
 - outdoor ethics.
- develop and manage public shooting ranges;
- develop regulations and brochures for wildlife management areas, wildlife and environmental areas, and other public hunting areas throughout the state.

<http://myfwc.com/about/overview/programs/hgm/>

Office of Public Access

The Office of Public Access and Wildlife Viewing Services (OPAWVS) provides opportunities for Floridians and visitors to view wildlife and experience the expanses of Florida's wildlife management area system. OPAWVS works with agency biologists to develop wildlife-viewing sites and recreational trails. They also develop recreation guides and interpretive products to increase visitors' enjoyment and understanding of wildlife and wildlife habitat and how the FWC works to sustain them.

OPAWVS staff develop statewide wildlife-viewing projects such as the Great Florida Birding and Wildlife Trail and provide technical assistance to local governments and other agencies to help them develop wildlife-viewing sites and programs that conserve wildlife habitat while creating economic benefits in their communities. Hundreds of volunteers help develop recreational trails, offer interpretive programs and conduct conservation work through the volunteer projects coordinated by this office.

<http://myfwc.com/about/overview/programs/pawvs/>

APPENDIX G: DRAFT CHARLOTTE COUNTY PARK DISTRICT REGULATIONS

Section 6. Parks and Recreation (PKR)

- (a) *Intent*: The purpose and intent of this district is to provide land for recreational opportunities, as well as to protect and preserve submerged lands in the County extending seaward from the mean high-water line or bulkhead line. Canals, manmade lakes, ponds, and water impoundment areas are specifically excluded from the operation of this section.
- (b) *Permitted Uses and Structures (P)*:
- (1) The following uses and structures shall only apply to uplands:
 - a. Public building.
 - b. Cemetery, mausoleum.
 - c. Outdoor educational facility.
 - d. Park, public or not-for-profit.
 - e. Golf course.
 - f. Recreation, indoor.
 - g. Recreation, outdoor.
 - (2) The following uses and structures shall only apply to submerged lands:
 - a. Uses such as boating, swimming, fishing, diving, water skiing, surfboarding, wading and similar activities.
 - b. Boat docks, boat lifts, and piers.
 - c. Seawalls, bulkheads, riprap and similar structures.
 - d. Navigational markers and signal devices.
 - e. Public utility lines.
- (c) *Permitted Accessory Uses and Structures*: and structures which are customarily accessory and clearly incidental to permitted and conditional uses and structures are permitted in this district .
- (1) Fences or walls may be permitted prior to the principal uses and structures.
- (d) *Conditional Uses and Structures (C)*: (For rules and regulations for any use designated as a Conditional Use or Structure, see Article 3.3. Conditional Uses and Structures)
- (1) Livestock breeding, training, and boarding.
 - (2) Telecommunications facility, 50 feet or less in height. (see Division 3.7.5. Communication Towers)
 - (3) Campground.
 - (4) Leisure vehicle rental, motorized and non-motorized.
- (e) *Prohibited Uses and Structures*: Any use or structure not expressly or by reasonable implication permitted herein or permitted by special exception shall be unlawful in this district.
- (f) *Special Exceptions (S)*: (For procedure see Division 1.1.5. Special Exceptions)
- The following uses shall only apply to uplands:
- (1) Animal sanctuary, zoo.

LAND DEVELOPMENT REGULATIONS
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 Article 4. Conventional Zoning Districts
 Division 9. Open Space & Rural

Section 6. PKR

- (2) Community garden. (see Division 3.7.4. Community Garden)
- (3) Amphitheater.
- (4) Auditorium, convention center, performing arts center.
- (5) Clubhouse, community center.
- (6) Place of worship. (see Division 3.7.4. Place of Worship)
- (7) Motor sports track, venue.
- (8) Outdoor market or exhibition space. (see Division 3.6.2. Special Use Standards)
- (9) Marina.
- (10) Telecommunications facility, greater than 50 feet in height. (see Division 3.7.5. Communication Towers)

The following uses shall only apply to submerged lands:

- (1) Structures and uses which relate directly and immediately to permitted uses in upland zoning classifications abutting a PKR district.
- (2) Covered boat slips and boat houses.
- (3) Houseboats and boats used for living purposes in accordance with Division 3.8.3. Houseboats; Boats Used for Living Purposes.
- (4) Mooring fields.

Such other uses in uplands and submerged lands as determined by the Zoning Official or his/her designee to be:

- a. Appropriate by reasonable implication and intent of the district.
- b. Similar to another use either explicitly permitted in that district or allowed by Special Exception.
- c. Not specifically prohibited in that district.

The BZA shall review a favorable determination of the Zoning Official under this provision at the time the Special Exception application is presented to it. An unfavorable determination of the Zoning Official or his/her designee shall be appealable pursuant to Division 1.1.1. BZA.

All uses within this district are subject to all regulations and permitting procedures of all agencies having jurisdiction over County waters.

(g) *Development Standards:*

	PKR
Lot (min.)	
Area (sq. ft.)	5,000
Width (ft.)	25
Setbacks (min. ft.)	
Front	10
Side	10
Rear	10
Abutting water	20
Bulk (max.)	

LAND DEVELOPMENT REGULATIONS
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Lot Coverage for All Buildings (active park)	40%
Lot Coverage for All Buildings (passive park)	10%
Height (ft.)	38
Density (units/acre)	0

See Division 3.8.1. Boat Docks; Boat Houses; Boat Lifts.

Where properties lie anywhere on a barrier island or within one thousand two hundred (1,200) feet of the water of Charlotte Harbor, the Gulf of Mexico, Lemon Bay, Gasparilla Sound, Placida Harbor, Red Fish Cove, the Myakka River, the Peace River, or Coral Creek, structures must also be constructed in accordance with Article 4.12. Waterfront Property.

- (h) *Off-street parking.* Off-street parking shall be in accordance with Article 4.9. Parking Standards.
- (i) *Signs.* Signs for uplands should be in accordance with Article 4.10. Sign Code. All signs for submerged lands are prohibited except signs for navigation, warning, trespassing and caution.

APPENDIX H: PARK TYPOLOGIES AND LOS

		Charlotte County Comprehensive Plan	National Recreation and Parks Association (1995 definitions)	Florida Department of Environmental Protection
Mini-park	Core Function	Within walking or short biking distance (.5) miles.	Used to address limited, isolated or unique recreational needs	
	Potential Facilities	Typically includes a playground, benches, picnic tables, and open space with few or no parking spaces.		
	Size	1-3 acres	Between 2500 sq. ft. and one acre in size	
	Access LOS	serves approx. 2,500 residents within a .5 mile	Less 1/4 mile distance in residential setting	
Neighborhood Park	Core Function	Primarily for walking or bicycle access, but may have limited parking	Neighborhood park remains the basic unit of the park system and serves as the recreational and social focus of the neighborhood. Focus is on informal activity and passive recreation.	A park which serves the population of a neighborhood and is generally accessible by bicycle or pedestrian walkways.
	Potential Facilities	Typically includes play equipment, informal sports fields, paved courts, existing vegetation, picnicking, shelter and walking paths		
	Size	3-20 acres	5 acres is considered minimum size. 5 to 10 acres is optimal	
	Access LOS	serve 5,000 residents within a 1 mile radius	1/4 mile to 1/2 mile distance and uninterrupted by non-residential roads and other physical barriers	

		Charlotte County Comprehensive Plan	National Recreation and Parks Association (1995 definitions)	Florida Department of Environmental Protection
Community Park	Core Function	Community Parks are ideally located on a street classification of collector or higher with adequate parking. Adequate plantings/buffers and some passive recreational area should be provided.	Serves broader purpose than neighborhood park. Focus is on meeting community-based recreation needs, as well as preserving unique landscapes and open spaces; Determined by the quality and suitability of the site.	A park located near major roadways and designed to serve the needs of more than one neighborhood.
	Potential Facilities	Typically included are the same types of facilities as a neighborhood park, as well as both lighted and unlighted sports fields and courts, group pavilion(s), restrooms, bicycle and walking paths, recreation center and other active and passive recreation areas to meet specialized needs	N/A	
	Size	20-80 acres	Usually between 30 and 50 acres	
	Access LOS	serve 25,000 within a 3 mile radius	Typically serves two or more neighborhoods within a 1/2 to 3 mile distance	
Regional Park	Core Function	Typically, significant passive recreational, as well as special purpose facilities are included. 80+ acres serving 50,000+ within a 10-mile radius or 30 minute drive	Large Urban parks serve a broader purpose than community parks and are used when community and neighborhood parks are not adequate to serve the needs of the community. Focus is on meeting community-based recreational needs as well as preserving unique landscapes and open spaces; Determined by the quality and suitability of the site.	

		Charlotte County Comprehensive Plan	National Recreation and Parks Association (1995 definitions)	Florida Department of Environmental Protection
	Potential Facilities	Facilities may include the same type of facilities as neighborhood and community parks except in greater quantities and level of development (i.e. lighting, range of sizes and level of detail). Sophisticated parking and circulation, stormwater management and infrastructure systems are typically involved. Trail systems allow for hiking/biking and interpretive use.	N/A	
	Size	80+ acres	Usually a minimum of 50 acres with 75 or more acres being optimal	
	Access LOS	serving 50,000+ within a 10-mile radius or 30 minute drive	Usually serves the entire community. As needed to accommodate desired uses.	
Environmental Park	Core Function	Intended to preserve unique ecosystems, landscapes and/or open space while affording limited, passive recreational use. Environmental Parks may have some sensitive environmental habitats that are less important to the guiding influence of management. Management will focus on both environmental preservation and the management of the natural resources from a human dimension.	Lands set aside for preservation of significant natural resources, remnant landscapes, open space and visual aesthetics or buffering.	
	Potential Facilities	Facilities may include nature trails, picnicking, horseback riding, biking, group pavilions, fishing, boating, and limited group camping.	Varies	
	Size	Varies	Varies	

		Charlotte County Comprehensive Plan	National Recreation and Parks Association (1995 definitions)	Florida Department of Environmental Protection
	Access LOS	serve 50,000+ residents within a 20-mile radius or a 30-60 minute drive	Varies	
Special Purpose Facility	Core Function	may include elements such as a historically or archaeologically significant feature or site	Covers a broad range of parks and recreation facilities oriented toward single-purpose use	
	Potential Facilities	may include biking, hiking or multimodal trails; linear parks; fishing piers; boat ramps and canoe/kayak launches; areas of rare or endangered flora or fauna; event/conference facility; stadium; or beach or water access	N/A	
	Size	Varies	N/A	
	Access LOS	Varies	N/A	
Greenway	Core Function	A linear land route along either a natural corridor, such as a slough or shoreline; or, designated open space such as railroad right-of-way converted to recreational use, a scenic roadway, utility easement, or conservation corridors. Greenway trails are intended primarily for pedestrian or bicycle use rather than motorized vehicles, but in some cases may accommodate equestrian use. Connectivity among parks, preserves and points of interest is a key purpose for greenway trails.	Effectively tie the park system components together to form a continuous park environment.	

		Charlotte County Comprehensive Plan	National Recreation and Parks Association (1995 definitions)	Florida Department of Environmental Protection
	Potential Facilities	Surfacing may range from in-place materials to paving or boardwalks. Support facilities are typically minimal and may include parking, resting points and interpretive signage.	Varies	
	Size	Varies	Varies	
	Access LOS	Varies	Varies	
Blueway	Core Function	An identified route along a body of water intended primarily for small, human-powered watercraft such as canoes and kayaks.	N/A	
	Potential Facilities	Blueway trails and support facilities may be identified by navigational markers and signage bearing an identification logo. Landside support facilities may be either public or private and may provide rental watercraft, parking, improved launch/landing points, intermediate stopping points and supplies.	N/A	
	Size	Blueway trails will vary in length, type of water body, aquatic environment, points of origin, exposure, and difficulty.	N/A	
	Access LOS	N/A	N/A	

APPENDIX I: INTERVIEWS

Interview with Charlotte County Natural Resources

Andy Stevens and Tina Powell

May 6, 2014

Overview

The interview with the Natural Resources staff was a result of the intent to better understand the Fish and Wildlife involvement with Charlotte County with respect to parks and park development.

Findings

Florida Scrub Jay HCP

Staff communicated that one of the more significant initiatives was the Habitat Conservation Plan that is under development for the Florida Scrub Jay. The HCP is under review from the U.S. FWS, with whom the original plan was developed in partnership. Currently, it is approximately four months from completion and upon approval will include a 30-year permit from the U.S. FWS. The HCP will accomplish the following:

- Acquire additional 1,300 acres of preservation lands
- Acquire and Manage land in perpetuity
 - o Currently, 14,000 platted lots will be affected
 - o The initiative will connect major parcels with smaller parcels, which is beneficial since currently there is not much recreational access on smaller parcels
 - o Major parcels will have passive recreation access- trail, equestrian, kayak and Canoe
- Contiguous lands offer opportunities for acquisition
- Establish general development standards in which platted lots will have future land use as parks

Park Development

Additional park development information gathered from the interview included that the Director is requesting a zoning district for parks and recreation that will allow for flexibility in park design and permitting. Inga William 743-1242 Principal Planner in Community Development is a good contact for the LDRs and the Charlotte 2050 Comprehensive Plan.

Bicycle Pedestrian and BlueWay Planning

Additional items relevant to the development of the parks master plan relate to bicycle/pedestrian planning. Bike/Ped planning is important for connectivity and meeting the recreational needs of residents. The Metropolitan Planning Organization for Charlotte County contact is Venkat Vattikuti at 941-575-3676. Further, Punta Gorda has bike/ped in their existing plans.

Natural Resources staff is looking into permitting for designated markers for the BlueWay system. There are challenges to the south side for water access. Where there used to be kayak access before community reactions changed the rules. There is a desire to want to find a way to incorporate access.

Other Agencies

When asked about other agencies that we should talk to, the staff recommended:

- Lemon Bay Conservancy
 - o Nonprofit owned private park with some public access
 - o Used for “environmental education”
- Stephanie Green at SWFWMD
- Mike Kemmer at FWC Contact

Funding

Staff also discussed future funding initiatives with potential development through an upcoming sales tax initiative. The current sales tax ends at the end of the year. The sales tax committee reviewed funding. 25 parks projects were submitted and only 2 didn't get recommendation for funding. The staff has gotten good success in board approval - \$3 million bicycle/pedestrian trails to connect parks

Interview with Florida Department of Environmental Protection

John Aspiolea

May 16, 2014

Overview

The interview was set up to have a broad discussion of opportunities for collaboration and any/or plans to develop parks that might be of interest to Charlotte County. John described the general location and map of the state park within Charlotte County as well as its mitigation area. The state had put a hold on its acquisition program. However, a potential list of acquisitions is still available.

Newer requests in the area of recreation management in the state parks include

- Pickleball
- Converted tennis courts
- Geocaching – state parks have started providing opportunities. There are now 150 geocaches in the state park

Opportunities for collaboration with Charlotte County Parks:

- Blueways- marking blueway trails
- Suitable kayak launches in state park
- Nature Trail along Sunrise Park – there are existing state leases and managed areas on south of sunrise park – would like to provide some fishing, nature trail, kayak launches
- Charlotte Sports park – Tippecanoe Park active recreational area
- Sam Knight Creek, State had planned access and launch
- “Tippe East” – nature trail collaboration. Interest in a lollipop or ‘loop’ trail
- L. Jobean or Tippe West – potential to develop “traditional state park” where there might be access to a drive-in-trail or camping opportunities.
- Settlement around boat lock – opportunity to remove the boat lock – agreed to put in sewer and moved forward. State is going to be doing restoration in that area.
- Cape Haze Management Area- Rotunda Area. Would like to collaborate on Cattedock Pt. Boat Ramp. County
- Cape Haze Mound Area – area is part of a restoration. State would welcome in lieu of constructing boat ramp – would love to get parking and public access to the primitive trail – would create access to Mayakka at that point.
- South of Robin Road there is an active mine that will be nearing end of permit. (Area is to the east of Widden Creek). The area to the east is the largest contiguous area to park. Currently, there is no public access. As the mine is nearing end of permit, there may be an opportunity for the county to acquire land for parking state would manage land from the mine. The state might be interested in building a road along the northern edge of the mine. Lots of opportunities to Looking to sell waterfront sites- could affect area – maybe develop cabins. Opportunities could

be suitable for ATV or off-road biking, equestrian trails (and concessions for equestrian facilities). The developer gave county waterway to manage. Would help state to avoid taking mine to court. SWFWMD might partner with property to acquire the areas around the mine. Area can provide access to Widden, Coral, and Catfish Creeks. Further, the WMD has had water quality issue in the neighborhood North of the mining area. Could maybe restore flows. Public Works staff might be available to provide context (Chuck or Joanne Vernon with County Public Works). 5-6 years ago Weiler Engineering offered to talk about flow ways options.

- There may be trail opportunities along 771. There are current no trails in the area.
- Opportunity for bike trails between parks. There are several places for suitable access points – would be happy to open to maintain biking and/or trail opportunities. Examples include directly South of Rotunda area where there may be access to the park from the bike trail. Could use county park areas – parking already there, just need marking of areas of access.
- GC Herring Park. Would like to transfer lease to county where Charlotte County could provide active recreation
 - Amber Jack slough and Rotunda Community Park in close Proximity – both perfect for active recreation Linx Lane – off of Cape Haze. Will be in state management plan for 2017. Opportunities for fishing, kayak, canoe launch. Part of resolution for developer who dumped raw sewage into lake and filled area on Coral Creek (north of dam). State may consider working with concessionaire for kayak trips as it is a rare freshwater in natural area. State plans to offer more upland trails in area.
 - State may also consider some concessions at Don Pedro Park and Gasparilla for kayak launches/tours as well as work to see if a ferry service to Don Pedro Island from Amber Jack Slough makes sense. Could go through all of area as one contiguous conservation corridor.
 - Stump Pass- limited opportunities – not a whole lot of things changing.
 - Opportunities to collaborate with CHEC - active nonprofit in natural resources education. John is on CHEC Board of Directors. Interest in collaborating with Charlotte Parks and Recreation for funding education programs, especially for bus funding.
 - Tern Bay and West of Tern Bay. Already in conservation. There may be an opportunity to collaboration on conservation funding.

Discussion of Volunteer Programs

John described the volunteer program that helps to maintain state park lands. Considerable man hours (approximately 1-2.5 million hours) to maintain park campgrounds state-wide. Funding for the parks program is up to approximately 65-70% self-sufficiency (statewide). The state system is moving toward developing a volunteer campground at (CR 771) where volunteers provide 20 hours/ week volunteer and are allowed to stay for 6 weeks. Volunteers staff visitor centers, take admission fees, clean up trash, do trail maintenance; tractors mowing and are park of park burn teams.

Interview with Judy Ott
Charlotte Harbor National Estuary Program
5/14/14

The interview was conducted with Judy Ott due to Lisa Beever's schedule conflicts. The questions posed related to what Charlotte County would need to know regarding future parks development.

The program does not do any direct restoration projects, but provides grants to help larger projects seek funding. Every Fall Judy is required to provide to the EPA a comprehensive list of projects with a brief paragraph (called the NEPORT). This data includes the lead restoration implementer and the associated restoration and acquisition programs.

The CHNEP also provides some conservation GIS maps of projects. The program also prepares a summary report of the 7-county watershed.

Judy reported that a lot of efforts have gone from acquisition to restoration and hydraulic restoration.

Judy suggested additional contacts including:

- SWFWMD's Stephanie Powers for their projects in Coral Creek, fishery restoration, and potentially DEP-owned property.
- Lemon Bay Conservancy
- Julie Morris with Wildlands conservation with private non-profit with private land to create conservation in private ownership - July has connection with conservation projects in cattle-owned connections.
- Charlotte Harbor Buffer Preserve's John Aspoleia to discuss the E/W/N acquisition and restoration projects.

Interview with South Florida Water Management District

Phil Flood

May 9, 2014

Overview

The interview with the SFWMD was a result of the intent to better understand the role of the water management district and its regulatory effects on park and recreation development and management, as well as to identify collaboration opportunities.

Role and Capacity

With management over only an isolation portion of Charlotte County, the SFWMD has very little involvement in Charlotte County. Staff indicated that most of their involvement exists in collaboration and management of the Babcock Ranch Preserve and Fred C. Babcock/Cecil M. Webb Wildlife Management Area. A major initiative of the SFWMD is their Everglades Restoration Project, which minimally, if at all, affects recreational development in Charlotte County.

Flood Control

A major function of the SFWMD is regulatory flood control at a regional level. Staff identified that there is regional flooding in Charlotte County because the flatlands of Babcock Ranch has drainage issues due to highway and electric development on the Eastern inlands. SFWMD anticipates the following actions:

- Reestablishing flows back into Charlotte Harbor
- Acquiring a few parcels inland to create passageways for water to drain
- Purchasing a parcel along I-75 that will be a regional facility likely to be turned over to wildlife management

Stormwater Management

As it relates to their relationship with Charlotte County, the SFWMD conducts smaller stormwater projects as well. Recently, local governments are being required to treat their own stormwater which entails the creation of filter marshes and/or reservoirs; this presents the opportunity to create passive recreation amenities. For example, the Fort Myers County Club is improving the golf course through utilization of stormwater facilities while still maintaining an aspect of recreational development. Staff identified opportunities in Charlotte County to tie in recreation with stormwater development similar to that of Lee County opportunities.

Collaboration and Development Opportunities

Staff at SFWMD strongly suggested that there are many collaboration and development opportunities. Several of those include:

- A parcel of land that is currently a private ranch along I-75 & 41 would be a perfect acquisition to establish a conveyance.
- Instituting the Charlotte Harbor Flatwoods Initiative

- Charlotte County recreation expansion and new development along the coast
- SFWMD works with DOT, which provides another avenue for collaboration at a statewide level.

Interview SWFWMD
May 13, 2014

FGCU met with SWFWMD's Stephanie Green and Manny Lopez regarding their plans in Charlotte County.

Information Available

SWFWMD has shape files of district lands and boundaries for their acquired and proposed projects. Maps are available at: <http://www.swfwmd.state.fl.us/data/gis/>

SWFWMD deals with areas of concern and potable water supply. They prioritize projects that help with water quality and Charlotte Harbor.

Projects

- Prairie Shell Creek doesn't have any land management plan because it was considered open access property and gets basic treatment.
- Deep Creek Preserve does have a land management plan for Deep Creek - Sheryl Hill and Steve Blaschka can provide. The LMP has a resource evaluation attached to it that might be useful.

Permitting Rules

SWFWMD likes to do preliminary design and/or pre-app meeting. They can help guide which rules and mitigation requirements will apply. Anything with pavement will have some need for SWFWMD review. Setbacks from wetlands will also apply. If there is a breach into the wetlands, there is a need for mitigation.

Funding

If county has plan for development, SWFWMD can assist with some co-funding, especially with restoring wetlands and stormwater. The link to co-funding ventures can be found at: <http://www.swfwmd.state.fl.us/business/>

SWFWMD is always looking for projects to do wetland restoration where partners can help with implementation.

Other agencies

Other agencies that have open space are as follows:

- CHEC (Charlotte Harbor Environmental Center) that is adjacent to the Charlotte Harbor State Park.
- Trail connection for Mayakka and Peace River in Sarasota County.
- Game Commission at Cecil Webb - Jennifer Turner
- Bill Wilcox at Edison State College - used to be involved in Babcock Ranch and wrote the Conceptual Management Plan.
- Ed flowers Babcock Ranch and Forestry
- Mayakka State Forest in Charlotte County
- Audubon local chapter: Involvement in Peace River

- Fish and Wildlife: has gaming coordinator who may have some information on Florida Birding Trails. They also have panther team has maps for panther mitigation and bear habitat. Corridors might be opportunity for open space.

APPENDIX J: PARK INVENTORY

PARKS	Acreage	CLASS	Reduced LOS	Shuffleboard/Bocci/ Horseshoes/Valleyball	Single Picnic Shelter	Nature Trail/Walking Trail (unpaved) (1000 lf)	Dock/Boardwalk/ Fishing Pier (1000 sf)	Sports Lighting (Court)/ Walkway Lighting	Remote Control Car Track/Boat Basin	Inline Hockey Rink/ Skatepark	Multi-purpose Trail (paved) (1000 lf)	Historical/Environmental Interpretive Feature	Specialty Garden	Group Pavilion/ Amphitheater	Sports Lighting (Ballfield)	Paw Park	Canoe/Kayak (nonmotorized only)	Basketball/Tennis Court	Playground/Fitness Trail/Disc Golf Course	Horse Arena	Restroom	Concession Building	Meeting Room	Football Fields/ Soccer Fields	Baseball/Softball Fields	Boat Ramp (lane)	Environmental/ Historical Center	Swimming Pool (with Locker/Restroom)	Gymnasium/Recreation / Fitness Center	Special Event Venue	
Ainger Creek Park	1.98470	Special Purpose	No				0.5																			1					
Allapatchee Shores Park	0.32220	Neighborhood	No				0.5										1														
Ann Dever Mem. Reg. Park @ Oyster Creek*	50.00000	Regional	No																												
Ann Dever Mem. Reg. Park @ Oyster Creek*	128.15000	Environmental	No																												
Amberjack Environmental Park	223.33000	Environmental	No		1	29.3	4.1					1																			
Anger Fishing Pier Park	0.14440	Special Purpose	No				4.2																								
Audubon-Pennington Nature Park	11.11100	Special Purpose	No			1.3																									
Bay Heights Park	2.68140	Special Purpose	No																												
Bayshore Live Oak Park	10.38000	Special Purpose	No				7.4				2.7	1		3			1					2						1			
Bissett Park	19.10800	Neighborhood	No	1										1					2	1		1									
Boca Grande Fishing Pier Park	10.02700	Special Purpose	No				1.6																			1					
Butterford Waterway Park	6.87610	Special Purpose	No				0.5																			1					
Cape Haze Pioneer Trail Park	87.71800	Special Purpose	No		2						29	2										1									
Carmalita Park	56.00300	Community	No							1					7				1	1	2	1	1	2.5	5						
Cedar Point Environmental Park	136.09000	Environmental	No			13.7	0.3					1	1	1			1		1		1							1			
Charlotte Flatwoods Environmental Park	487.36000	Environmental	No			37.0						1																			
Charlotte Harbor Event & Conference Center	7.82000	Special Purpose	No								0.7																			1	
Charlotte Sports Park	80.30600	Special Purpose	No						1					1	1							1			6				1	1	
Chester Roberts Park	0.30220	Special Purpose	No									1					1														
Clark Park**	0.52620	Neighborhood	Yes																												
Coral Creek Fishing Pier	3.01340	Special Purpose	No				2																								
Darst Park	0.56030	Special Purpose	No																							1					
Deep Creek Park	6.09890	Neighborhood	No		3														3	1		1									
Dr. Willard "Bill" Coy Preserve on Buck Creek**	79.03800	Environmental	No			3.7																									
Edgewater Park	3.88150	Neighborhood	No		1											1					1										
El Jobean Boat Ramp	1.25380	Special Purpose	No																							1					
El Jobean Fishing Pier Park	10.51200	Special Purpose	No				7.8																								
Englewood Beach / Chadwick Park	12.67000	Special Purpose	No	4			13.9							12					0.5	1		1									
Englewood East Park	1.99340	Neighborhood	No	2															1	1		1									
Franz Ross Park	30.85300	Community	No		1			4			0.7			1	3				4	1		1	1	2.5							
G. C. Herring Park	19.31700	Neighborhood	Yes						1										2	1		1									
Gulfstream Park**	3.17190	Neighborhood	Yes																												
Harbour Heights Park	8.20790	Neighborhood	No	5			2.3	2						1					3	1		1				1					
Harold Avenue Park	41.27300	Community	No					6							7				6	1		2	2		7				1		
Hathaway Park	28.99900	Special Purpose	No		1	4.4	1.4							2			1					1				1					
Hickory Bluff Park	11.24800	Special Purpose	No																												
Higgs Park	4.86250	Neighborhood	No	26										1					1	1		1									
Kiwanis Park	31.68700	Neighborhood	No		1	5.0	6.6							4								1									
Lake Betty Park	3.37210	Neighborhood	No				0.2							2					1	1											
Lincoln Park**	1.83130	Neighborhood	Yes																												
Lister Park**	1.44940	Neighborhood	Yes																												
Learning Garden	1.54370	Neighborhood	No										1																		
Maracaibo Park/Kidspace	11.55700	Neighborhood	No																			1	1		3						
McGuire Park	4.96200	Neighborhood	No	8				4											5	1		1		1							
Midway Park	3.49060	Neighborhood	No																2												
Myakka Park**	134.32000	Environmental	No																												
North Charlotte Regional Park	103.30000	Regional											1		9							2	2	4	5						

Ollie's Pond Park	41.18500	Neighborhood	No			5.4	1.4																									
Ott Circle Park	1.31110	Neighborhood	Yes																													
Oyster Creek Regional Park	137.42000	Environmental	No	1	19.8			1	3.4	1			3	1		4			2	1	2	4				1						
Peace River Preserve**	420.39000	Environmental	No		3.54																											
Placida Fishing Pier	0.88280	Special Purpose	No				6.7																									
Placida Park	19.82700	Special Purpose	No				0.8																			3						
Port Charlotte Beach Park	16.07600	Special Purpose	No	5	4		14			1	3			1	2	1		2						2		1	1					
Prarie Creek Preserve**	1645.50000	Environmental	No			9.0																										
Price Circle Park**	0.41430	Neighborhood	Yes																													
Randy Spence Park (El Jobean Park)	1.40480	Neighborhood	No								2				1	1																
Riverside Park	0.70740	Special Purpose	No																						1							
Rotonda Park	32.13200	Community	No					1.77		1					2	1		1														
Salyers Park**	3.01480	Neighborhood	Yes																													
Scott Park**	0.94150	Neighborhood	Yes															1														
Severin Park**	1.68300	Neighborhood	Yes																													
Sharon Circle Park**	1.14130	Neighborhood	Yes																													
Shell Creek Preserve**	366.56000	Environmental	No			13.2																										
Shirley Park	7.67820	Neighborhood	Yes																													
South County Regional Park	84.34300	Regional	No	2				4	2					8		4	1		2	1		4	5			1	2					
South Gulf Cove Park	4.80020	Neighborhood	No									1					1		1						1							
South Punta Gorda Heights Park**	3.73690	Neighborhood	Yes								1				2	1		1														
Spring Lake Park	6.04580	Special Purpose	No	1	1.0	5.8								1				1							2							
St. Paul Linear Park	8.33380	Special Purpose	No		4.0					1																						
Sunrise Park	40.26300	Community	No	1		0.2			1.1					1	2			1														
Thorton Key Preserve	35.03900	Environmental	No		0.0										1																	
Tippecanoe Environmental Park	354.13000	Environmental	No		36.9	3.6				2				1																		
Tippecanoe II Mitigation Area	190.18000	Environmental	No		9.0																											
Tringali Park	10.17200	Community	No	2	1			4		1					4	1															3	
Total	5320.01980			55	18	196.2496	85.8	24	3	3	39.37	10	4	36	29	2	10	47.5	21	1	31	7	4	13	26	15	2	3	8	2		

Park Type	Count	Acreage
Environmental	13	4337.507
Special Purpose	24	339.4801
Regional	3	237.643
Mini-Park****	0	0
Community	6	210.696
Neighborhood	29	194.6937
Total Park Count*	74	5320.0198
Total for Active / Multi-Purpose Parks	62	

Reduced LOS Parks	Points-Based Acreage
Audubon-Pennington Nature Park	Environmental 4337.507
Clark Park	Active*** 936.296
G. C. Herring Park	Total 5273.803
Gulfstream Park	
Lincoln Park	
Lister Park	
Ott Circle Park	
Price Circle Park	
Salyers Park	
Scott Park	
Severin Park	
Sharon Circle Park	
	W/Reduced LOS 982.513

Shirley Park
South Punta Gorda Heights Park

Notes

Bayshore Fishing Pier and Bayshore Live Oak Park Combined

Chadwick Park Combined as Englewood Beach/Chadwick Park

Ann Dever Memorial Park @ Oyster Creek separated into two parks: 50 acres regional & 128.15 Environmental

Ann Dever Memorial Park amenities incorporated as Oyster Creek

S. Punta Gorda Heights Civic Association not included. County-owned but not Parks & Rec building - no programming

Tippecanoe Environmental Park & Tippecanoe II Mitigation Area total combined trails are 8.7 miles

*Park count is -1 due to Ann Dever listed as 2 parks

**Verify amenities as part of master plan process

***Active excludes reduced LOS Parks

****Mini Parks designated as neighborhood parks re: M.Koenig

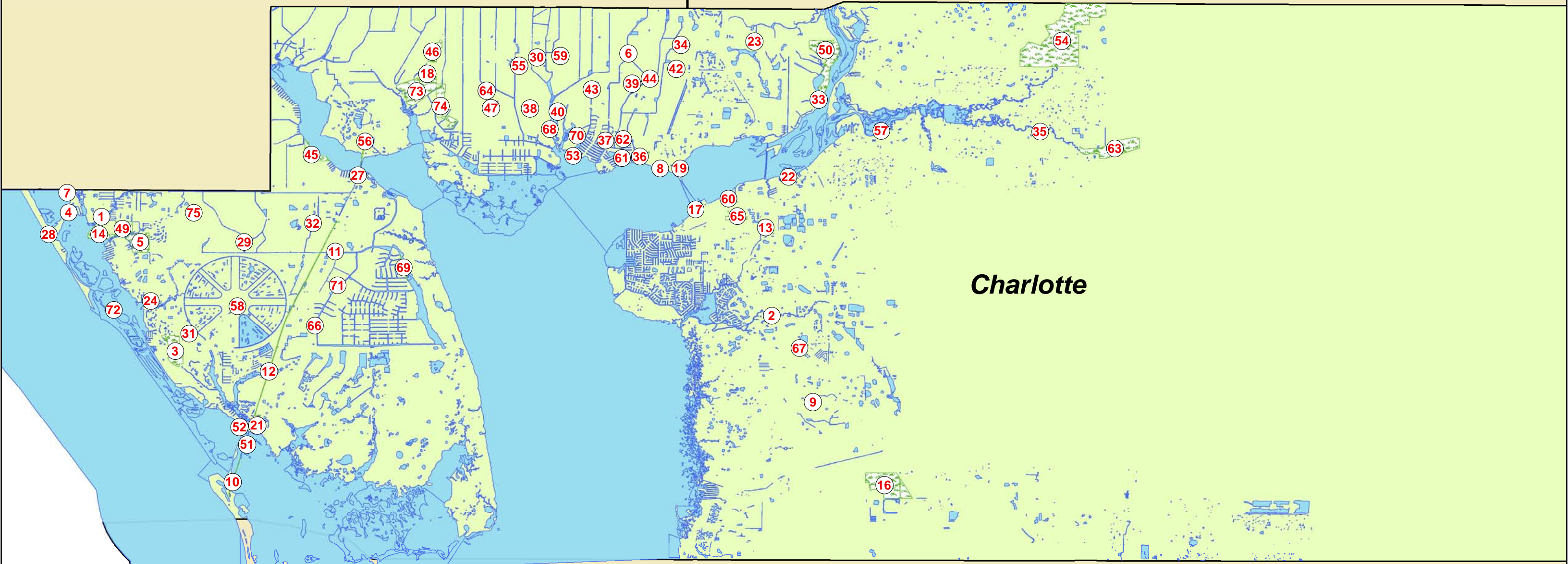
APPENDIX K: SPATIAL ANALYSIS MAPS



Charlotte County Developed Parks

Sarasota County

DeSoto County

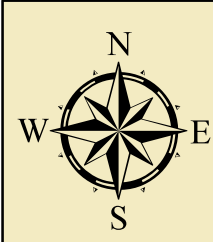


Charlotte

Lee County

- | | | | | |
|--|---|-----------------------------|-------------------------------|------------------------------------|
| 1) Ainger Creek Park | 16) Charlotte Flatwoods Enviromental Park | 31) G.C. Herring Park | 46) North Charlotte Regional | 61) Severin Park |
| 2) Allapatchee Shores Park | 17) Charlotte Harbor Event & Conference Center | 32) Gulfstream Park | 47) Ollie's Pond Park | 62) Sharon Circle Park |
| 3) Amberjack Environmental | 18) Charlotte Sports Park | 33) Harbour Heights Park | 48) Ott Circle Park | 63) Shell Creek Preserve |
| 4) Anger Fishing Pier Park | 19) Chester Roberts Park | 34) Harold Avenue Park | 49) Oyster Creek Regional | 64) Shirley Park |
| 5) Ann Dever Memorial Reional Park at Oyster Creek | 20) Clark Park | 35) Hathaway Park | 50) Peace River Preserve | 65) South County Regional Park |
| 6) Audubon-Pennington Nature Park | 21) Coral Creek Fishing Pier/Centennial Park | 36) Hickory Bluff Park | 51) Placida Fishing Pier | 66) South Gulf Cove Park |
| 7) Bay Heights Park | 22) Darst Park | 37) Higgs Park | 52) Placida Park | 67) South Punta Gorda Heights Park |
| 8) Bayshore Live Oak Park | 23) Deep Creek Park | 38) Kiwanis Park | 53) Port Charlotte Beach Park | 68) Spring Lake Park |
| 9) Bissett Park | 24) Dr. Willard "Bill" Coy Preserve on Buck Creek | 39) Lake Betty Park | 54) Prairie Creek Preserve | 69) St. Paul Linear Park |
| 10) Boca Grande Fishing Pier | 25) Edgewater Park | 40) Lincoln Park | 55) Price Circle Park | 70) Sunrise Park |
| 11) Butterford Waterway Park | 26) El Jobean Boat Ramp | 41) Lister Park | 56) Randy Spence Park | 71) The Learning Garden |
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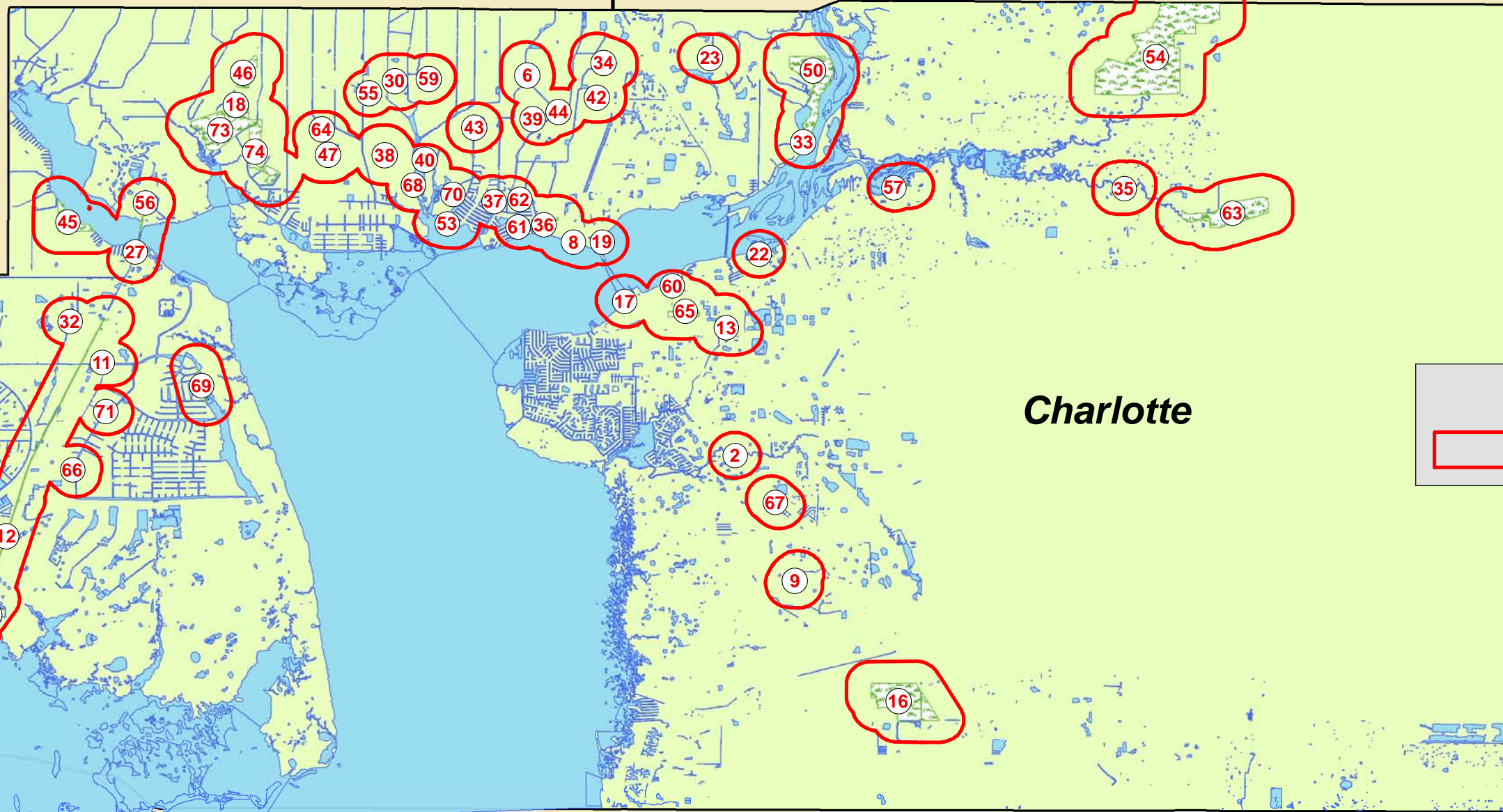
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Charlotte County Developed Parks with Half-Mile Distance Buffers

Sarasota County

DeSoto County



Charlotte

Legend

 Half-Mile Buffer

Lee County

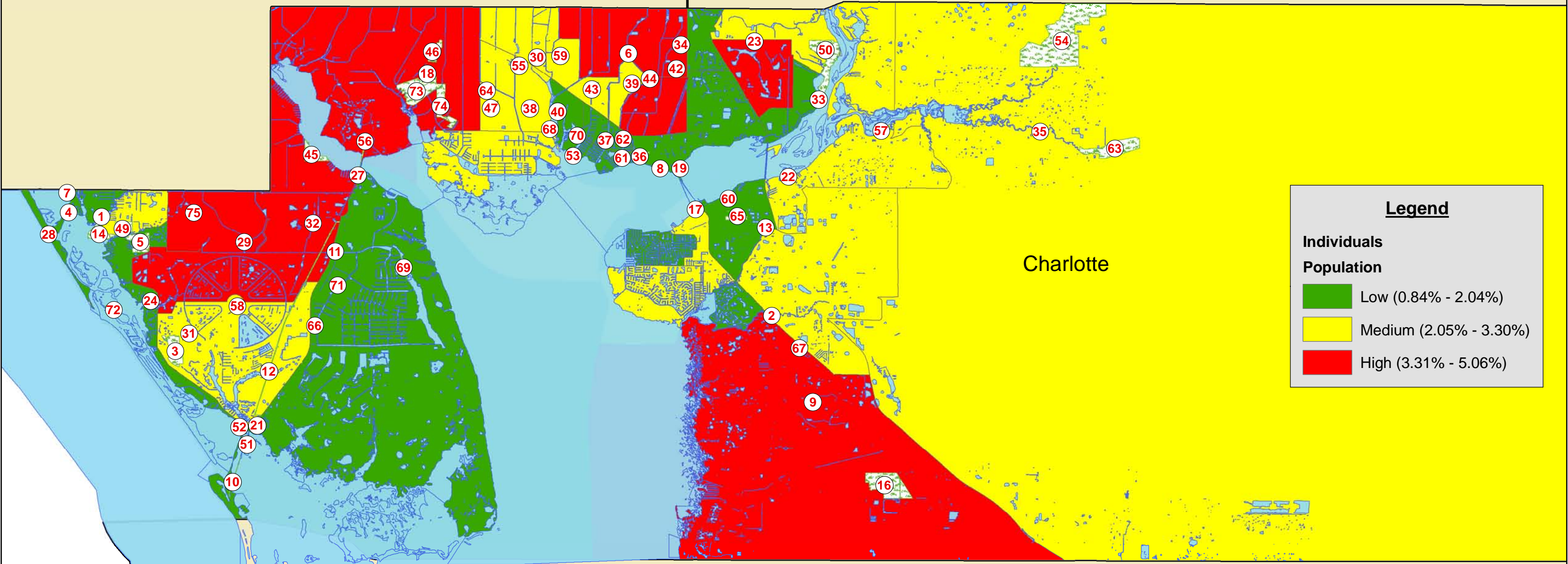
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Charlotte County Total Tract Population (Percent of Total County Population)

Sarasota County

DeSoto County



Legend

Individuals Population

- Low (0.84% - 2.04%)
- Medium (2.05% - 3.30%)
- High (3.31% - 5.06%)

Lee County

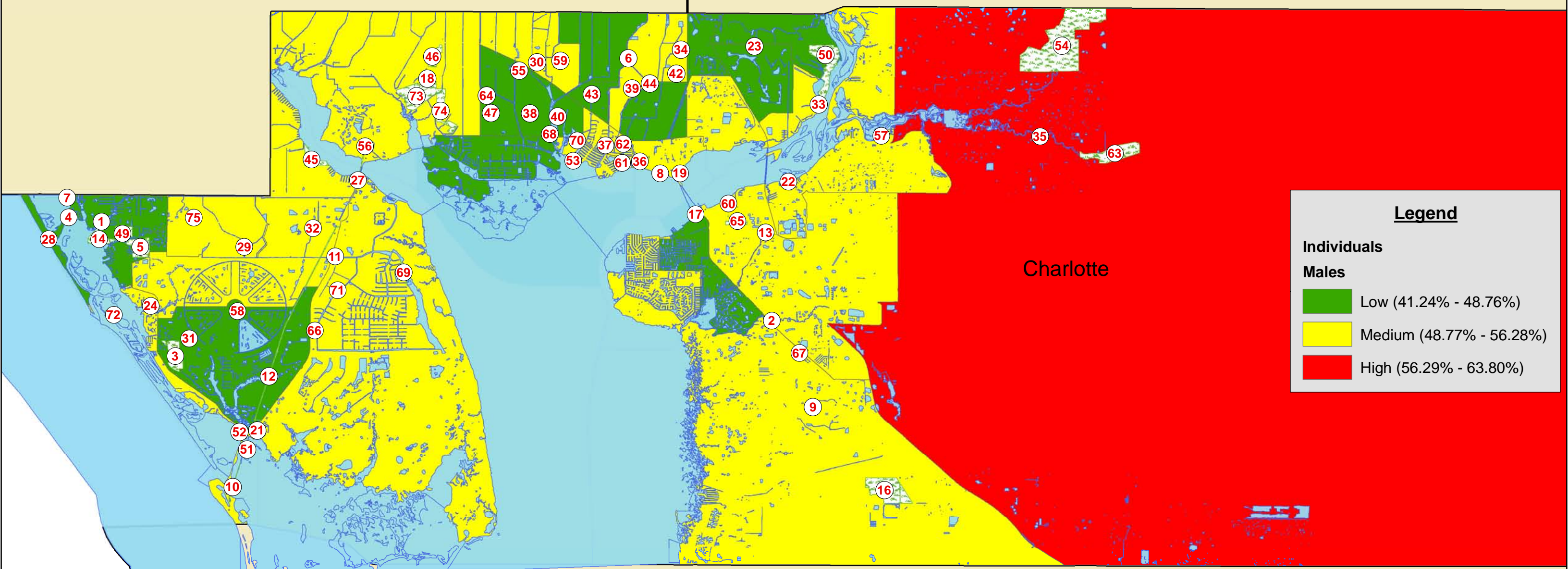
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Charlotte County Male Population (Percent of Total Tract Population)

Sarasota County

DeSoto County



Legend

Individuals
Males

- Low (41.24% - 48.76%)
- Medium (48.77% - 56.28%)
- High (56.29% - 63.80%)

Lee County

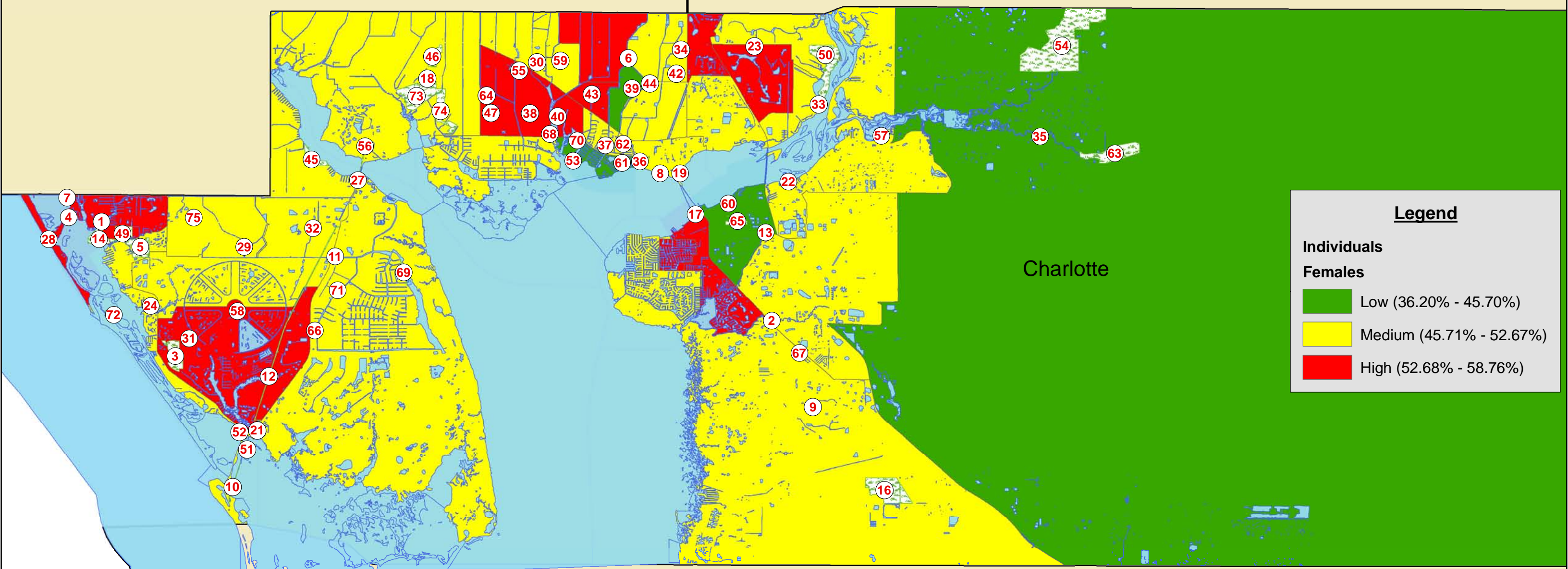
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Charlotte County Female Population (Percent of Total Tract Population)

Sarasota County

DeSoto County



Legend

Individuals
Females

- Low (36.20% - 45.70%)
- Medium (45.71% - 52.67%)
- High (52.68% - 58.76%)

Lee County

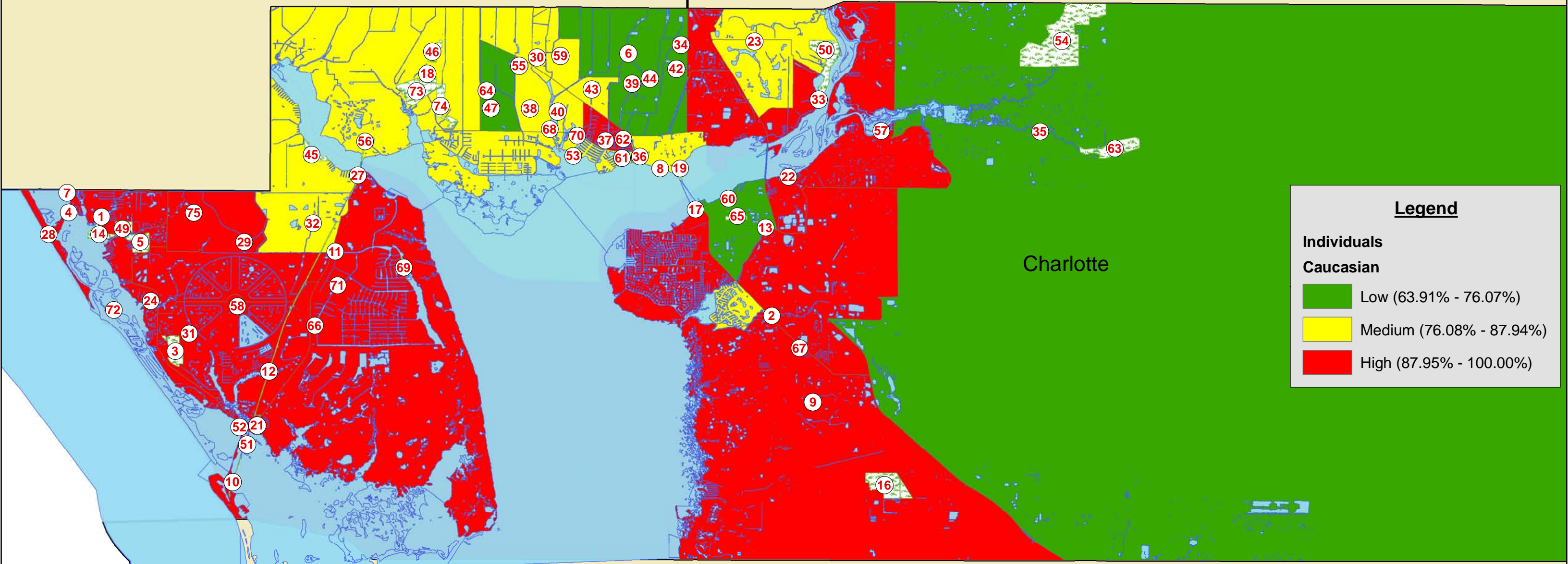
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Charlotte County Individuals Identifying as Caucasian (Percent of Total Tract Population)

Sarasota County

DeSoto County



Legend

**Individuals
Caucasian**

- Low (63.91% - 76.07%)
- Medium (76.08% - 87.94%)
- High (87.95% - 100.00%)

Lee County

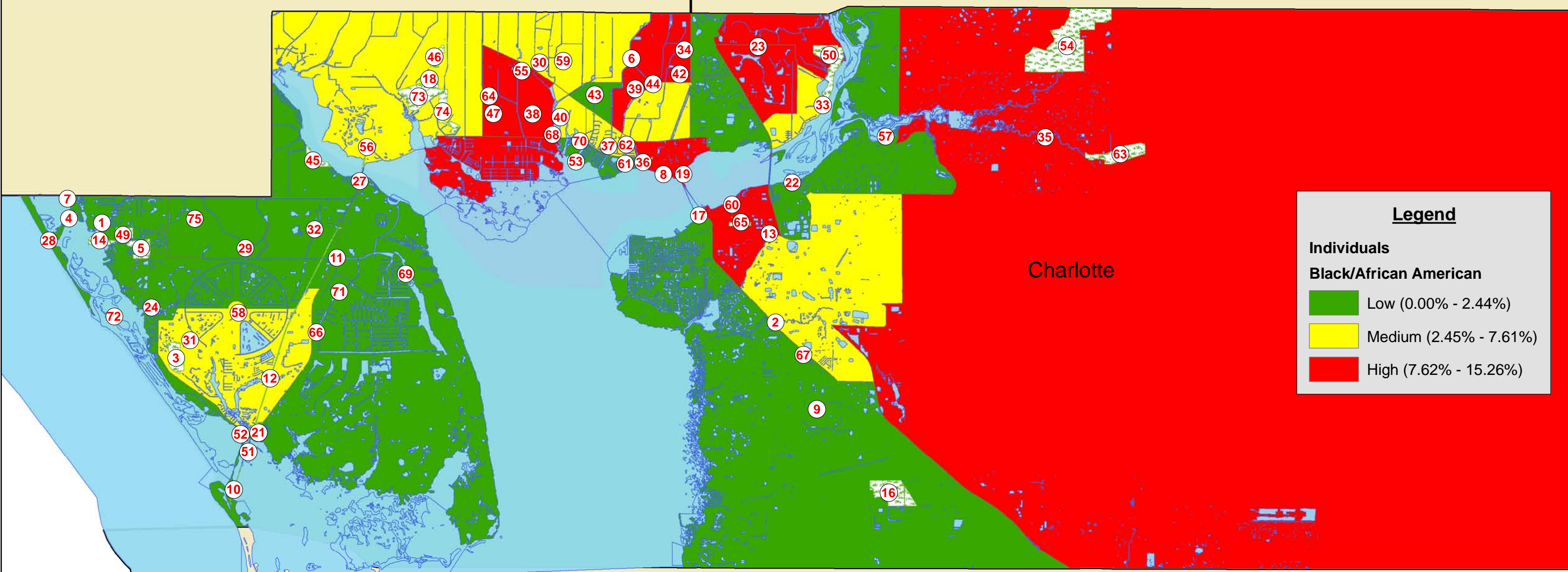
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Charlotte County Individuals Identifying as Black/African American (Percent of Total Tract Population)

Sarasota County

DeSoto County



Legend

Individuals Black/African American

- Low (0.00% - 2.44%)
- Medium (2.45% - 7.61%)
- High (7.62% - 15.26%)

Lee County

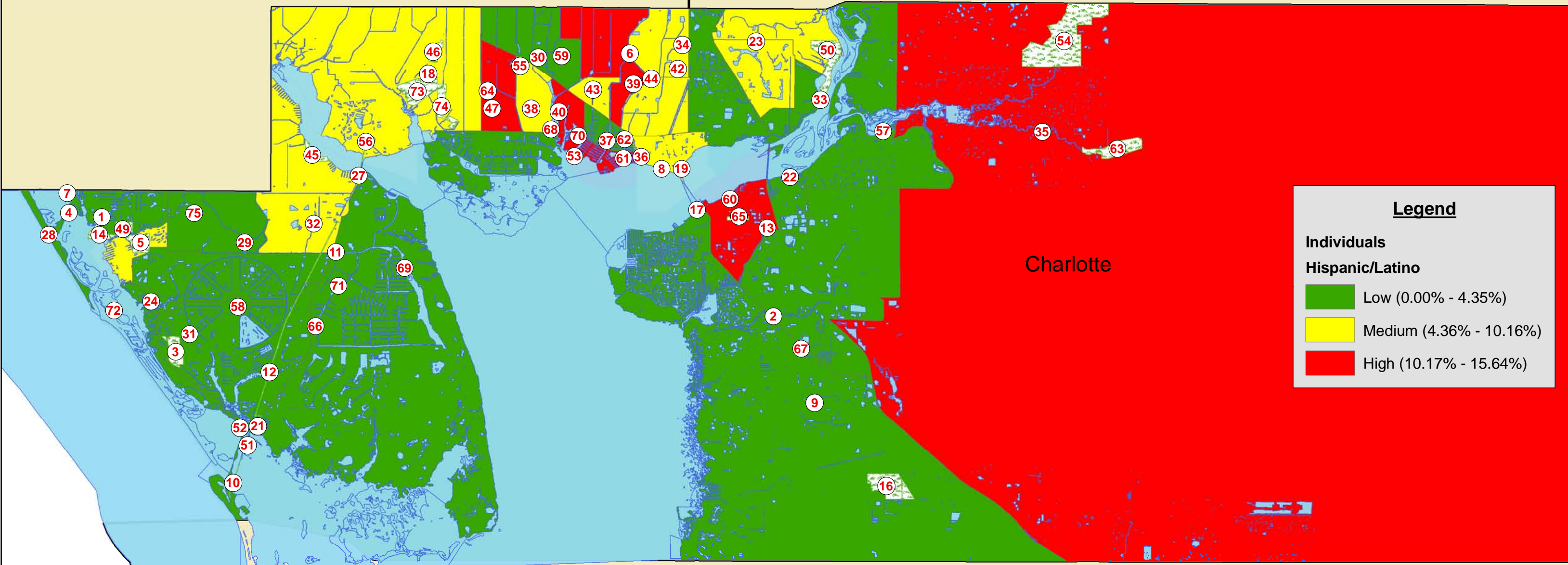
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Charlotte County Individuals Identifying as Hispanic/Latino (Percent of Total Tract Population)

Sarasota County

DeSoto County



Legend

**Individuals
Hispanic/Latino**

- Low (0.00% - 4.35%)
- Medium (4.36% - 10.16%)
- High (10.17% - 15.64%)

Lee County

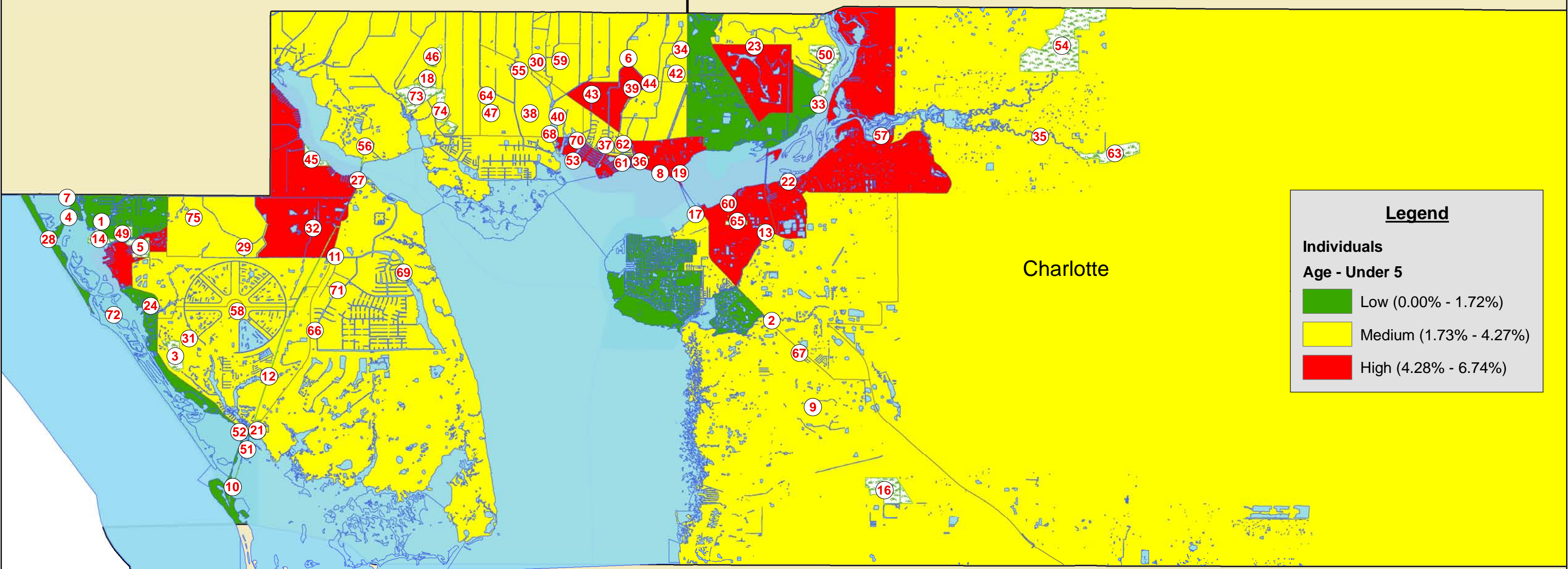
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Charlotte County Population Under 5 Years Old (Percent of Total Tract Population)

Sarasota County

DeSoto County



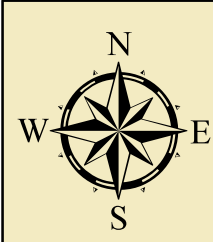
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**Individuals
Age - Under 5**

- Low (0.00% - 1.72%)
- Medium (1.73% - 4.27%)
- High (4.28% - 6.74%)

Lee County

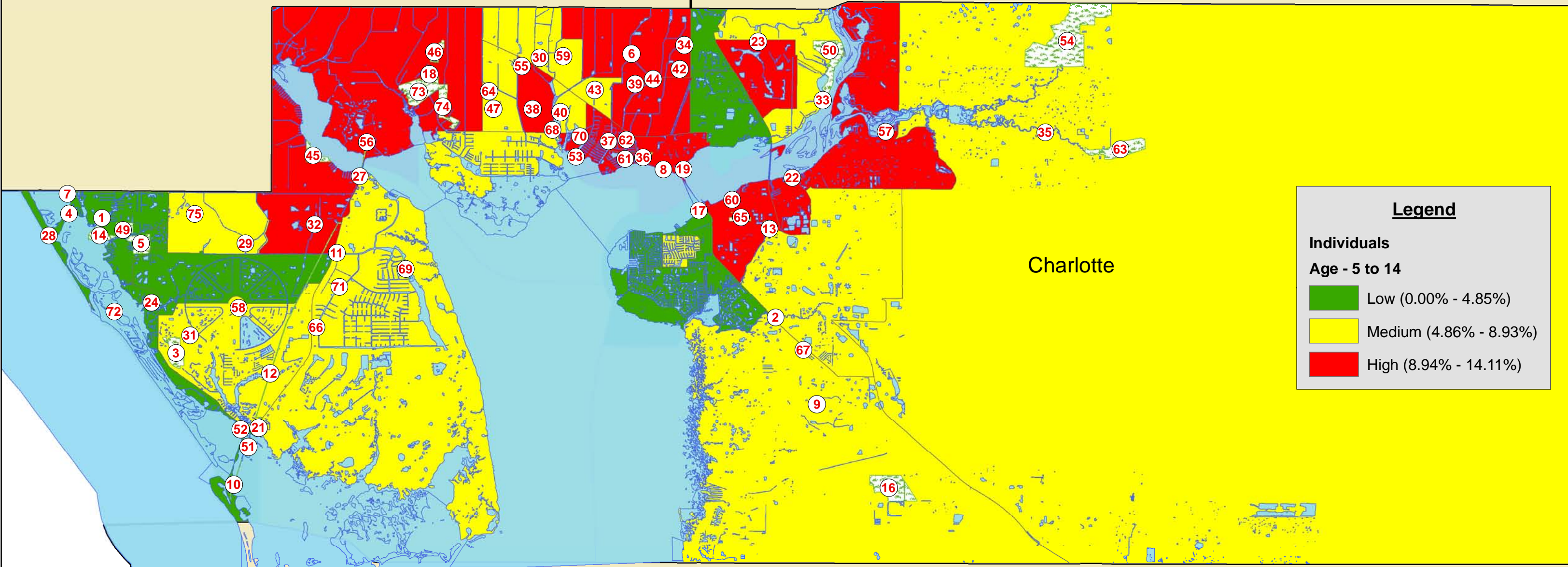
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Charlotte County Population 5 to 14 Years Old (Percent of Total Tract Population)

Sarasota County

DeSoto County



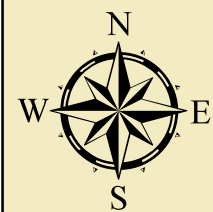
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**Individuals
Age - 5 to 14**

- Low (0.00% - 4.85%)
- Medium (4.86% - 8.93%)
- High (8.94% - 14.11%)

Lee County

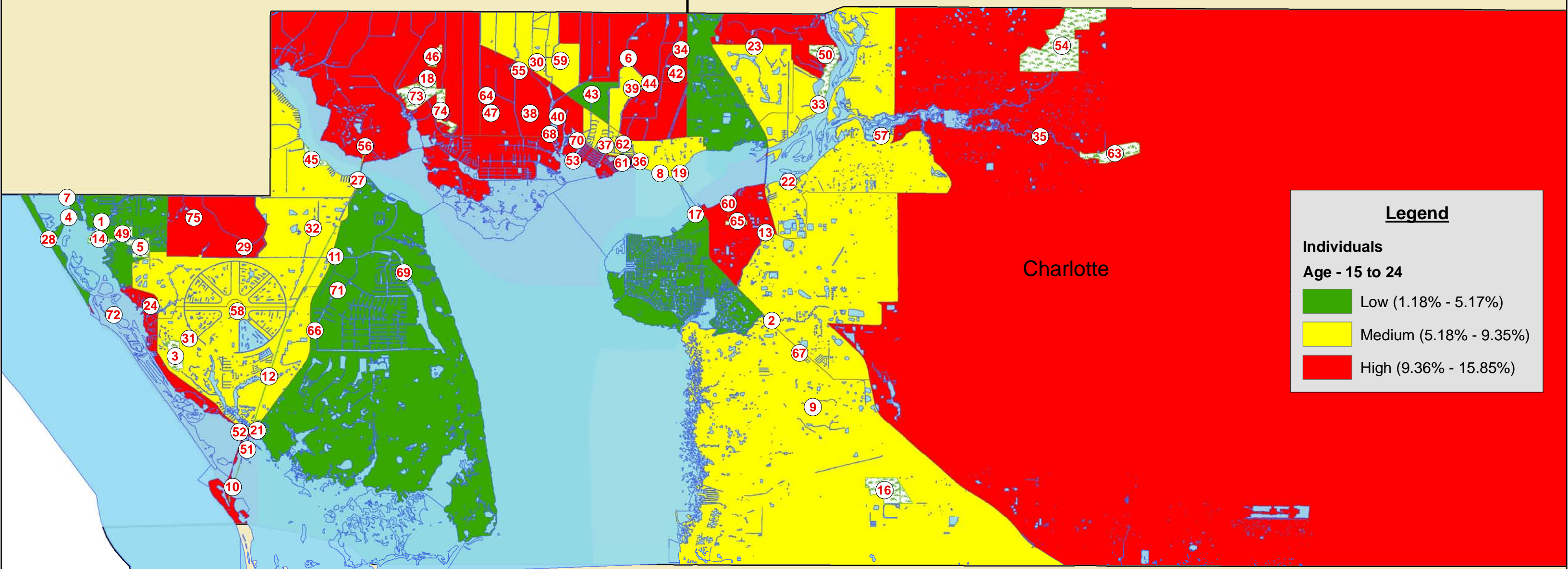
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Charlotte County Population 15 to 24 Years Old (Percent of Total Tract Population)

Sarasota County

DeSoto County



Legend

**Individuals
Age - 15 to 24**

- Low (1.18% - 5.17%)
- Medium (5.18% - 9.35%)
- High (9.36% - 15.85%)

Lee County

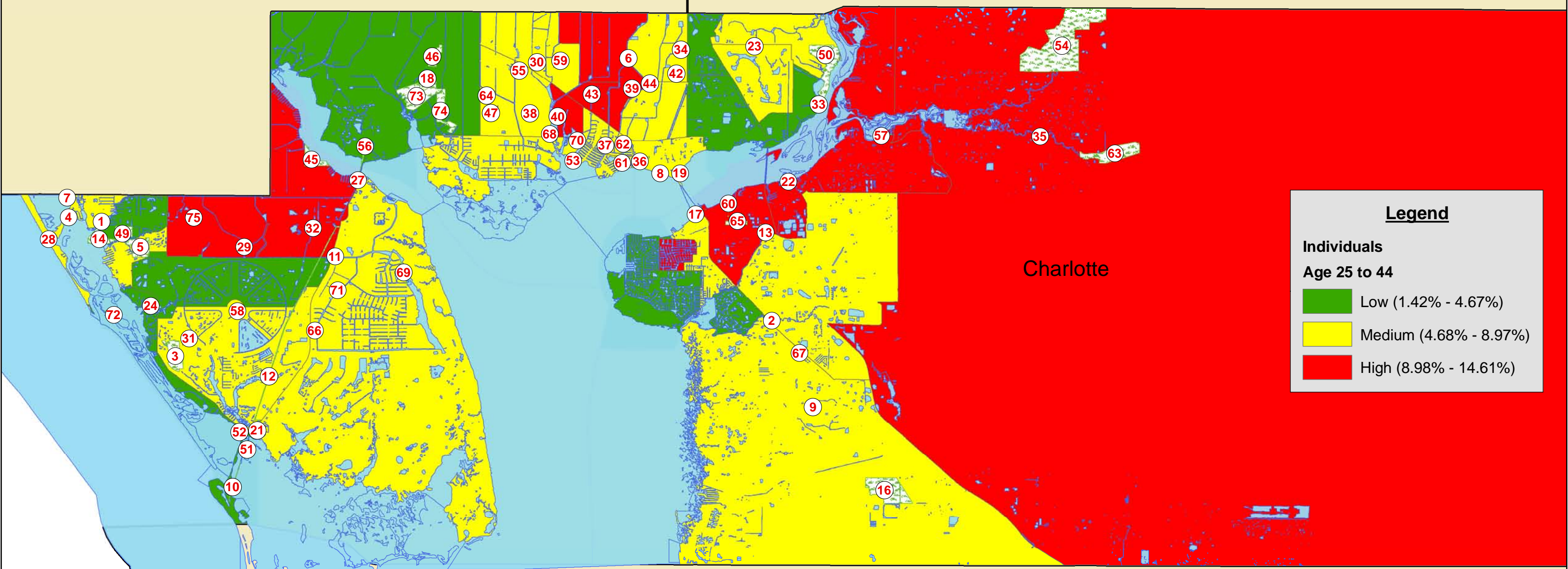
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| 15) Chadwick Park at Englewood Beach | 30) Franz Ross Park | 45) Myakka Park | 60) Scott Park | 75) Tringali Park |



Charlotte County Population 25 to 44 Years Old (Percent of Total Tract Population)

Sarasota County

DeSoto County



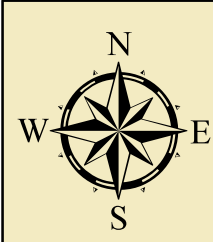
Legend

**Individuals
Age 25 to 44**

- Low (1.42% - 4.67%)
- Medium (4.68% - 8.97%)
- High (8.98% - 14.61%)

Lee County

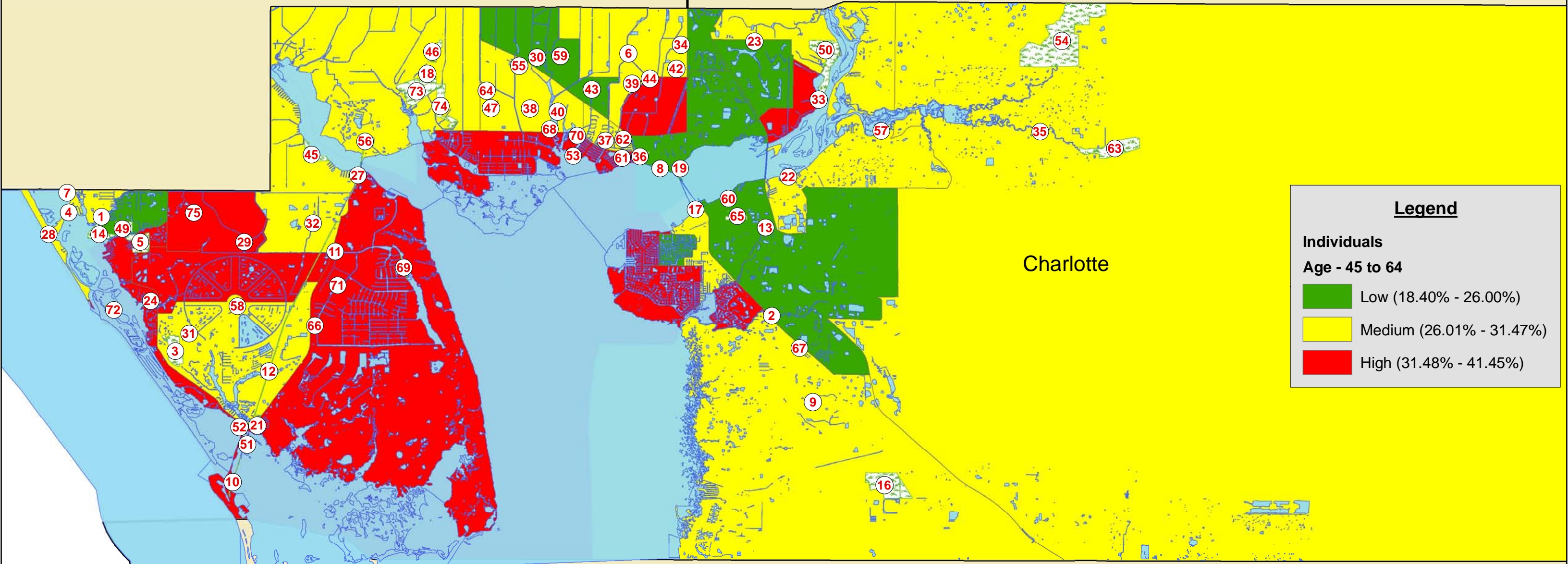
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Charlotte County Population 45 to 64 Years Old (Percent of Total Tract Population)

Sarasota County

DeSoto County



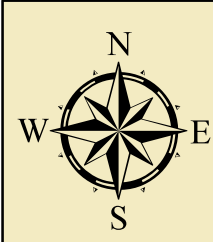
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Individuals
Age - 45 to 64

- Low (18.40% - 26.00%)
- Medium (26.01% - 31.47%)
- High (31.48% - 41.45%)

Lee County

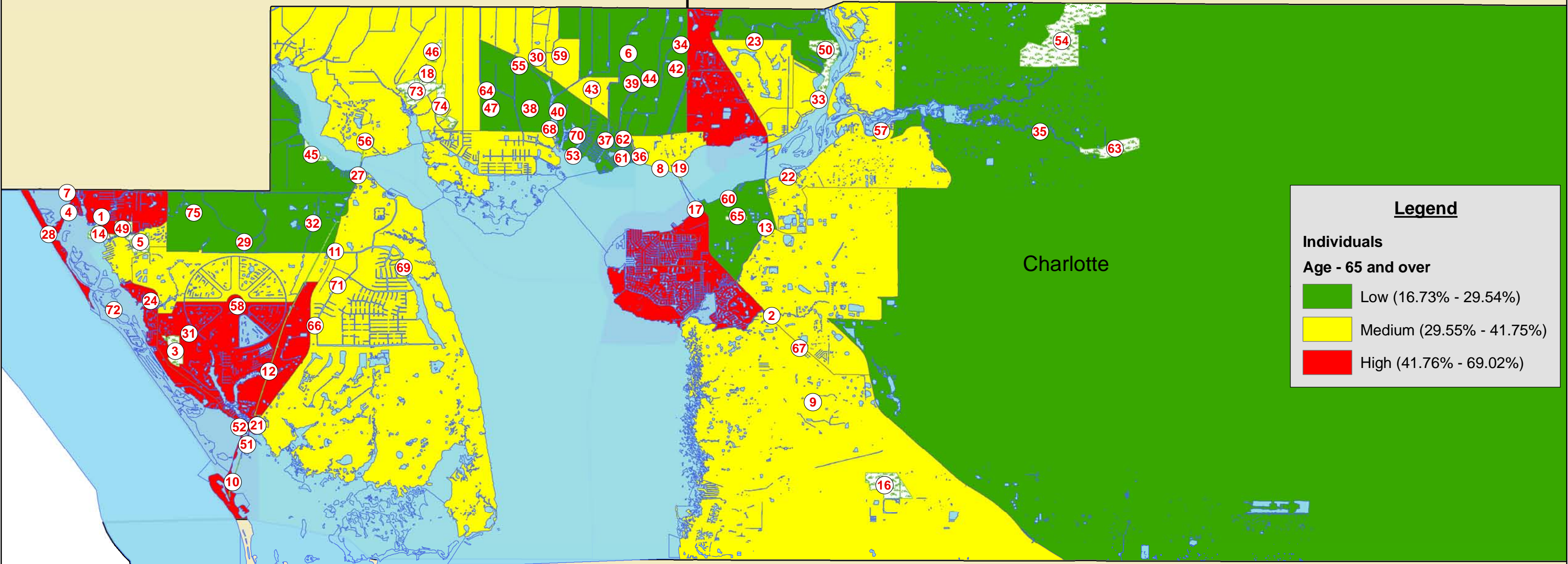
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Charlotte County Population 65 Years and Over (Percent of Total Tract Population)

Sarasota County

DeSoto County



Legend

Individuals
Age - 65 and over

- Low (16.73% - 29.54%)
- Medium (29.55% - 41.75%)
- High (41.76% - 69.02%)

Lee County

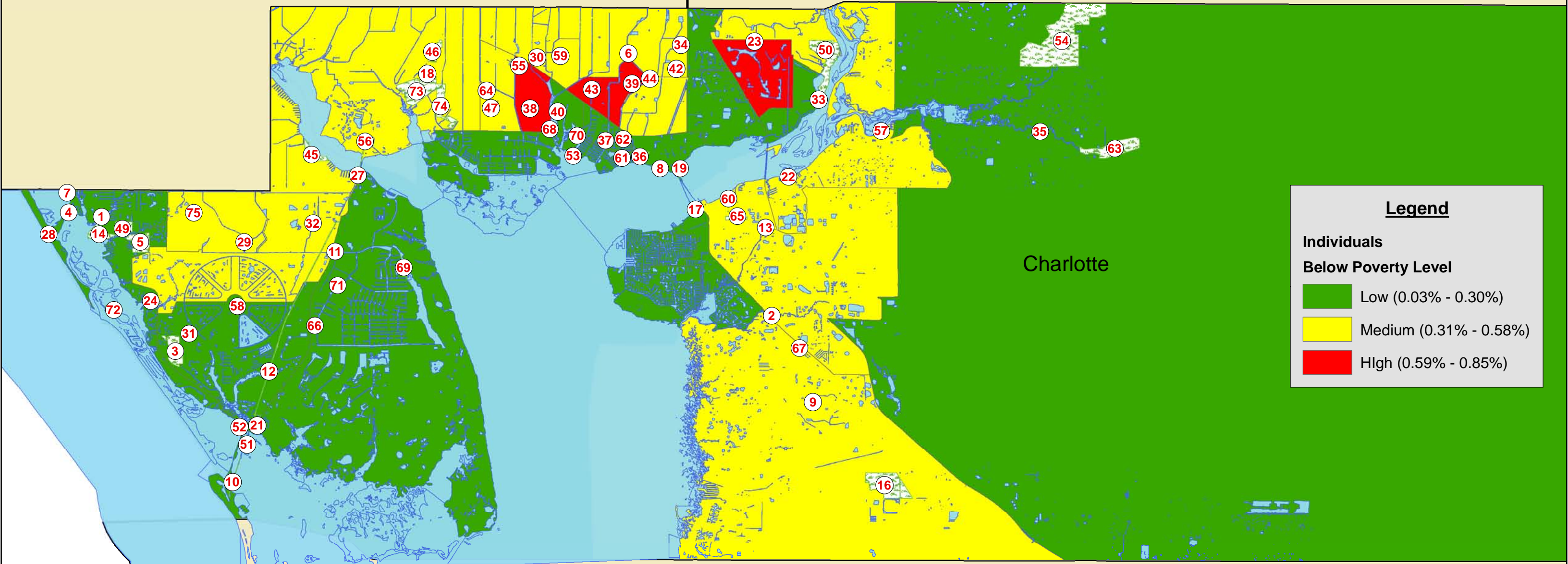
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Charlotte County Individuals Living Below Poverty Level (Percent of Total County Population)

Sarasota County

DeSoto County



Legend

Individuals Below Poverty Level

- Low (0.03% - 0.30%)
- Medium (0.31% - 0.58%)
- High (0.59% - 0.85%)

Lee County

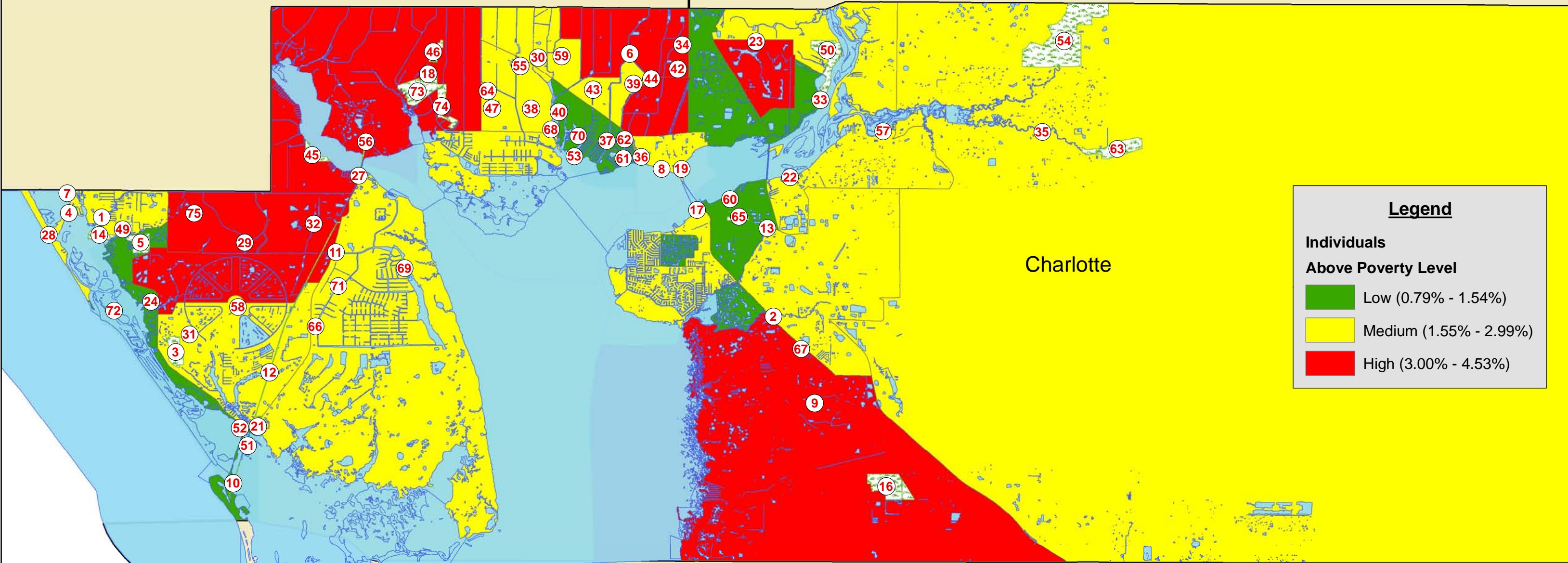
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Charlotte County Individuals Living Above Poverty Level (Percent of Total County Population)

Sarasota County

DeSoto County



Legend

Individuals Above Poverty Level

- Low (0.79% - 1.54%)
- Medium (1.55% - 2.99%)
- High (3.00% - 4.53%)

Lee County

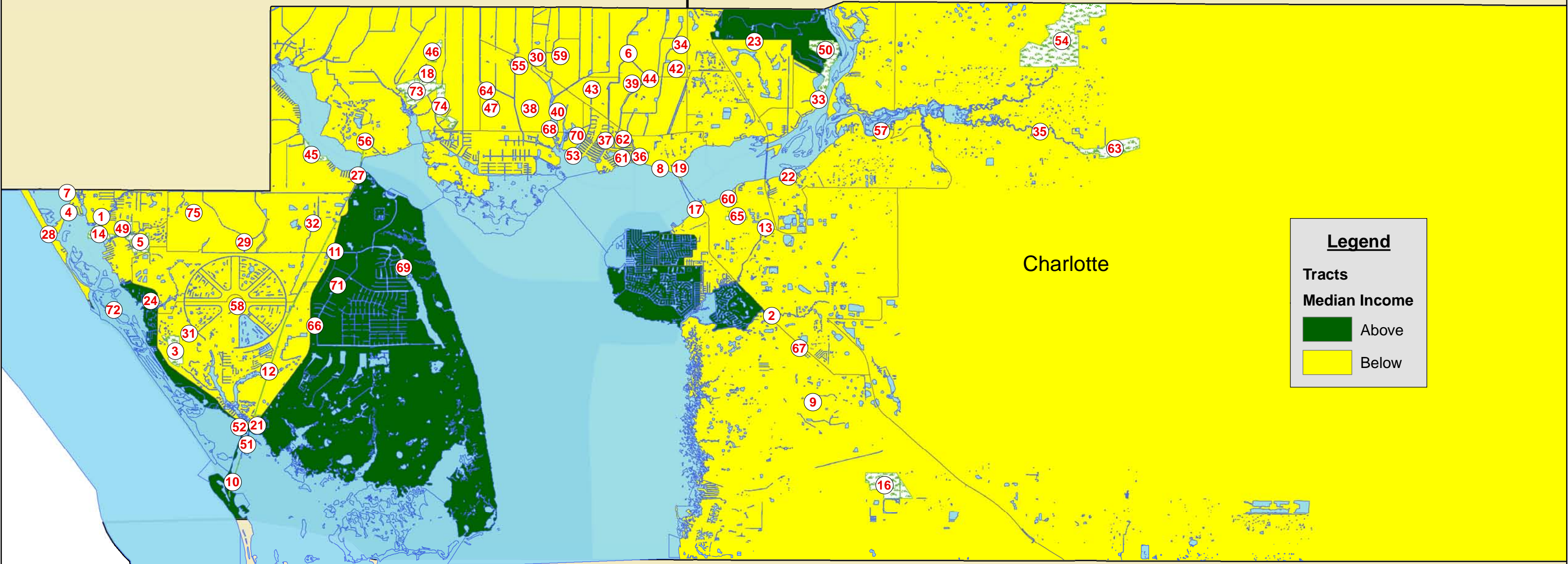
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Charlotte County Median Income of Tracts Compared to County Median Income

Sarasota County

DeSoto County



Legend

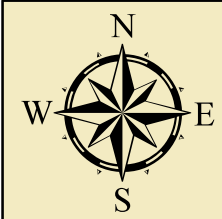
Tracts

Median Income

- Above
- Below

Lee County

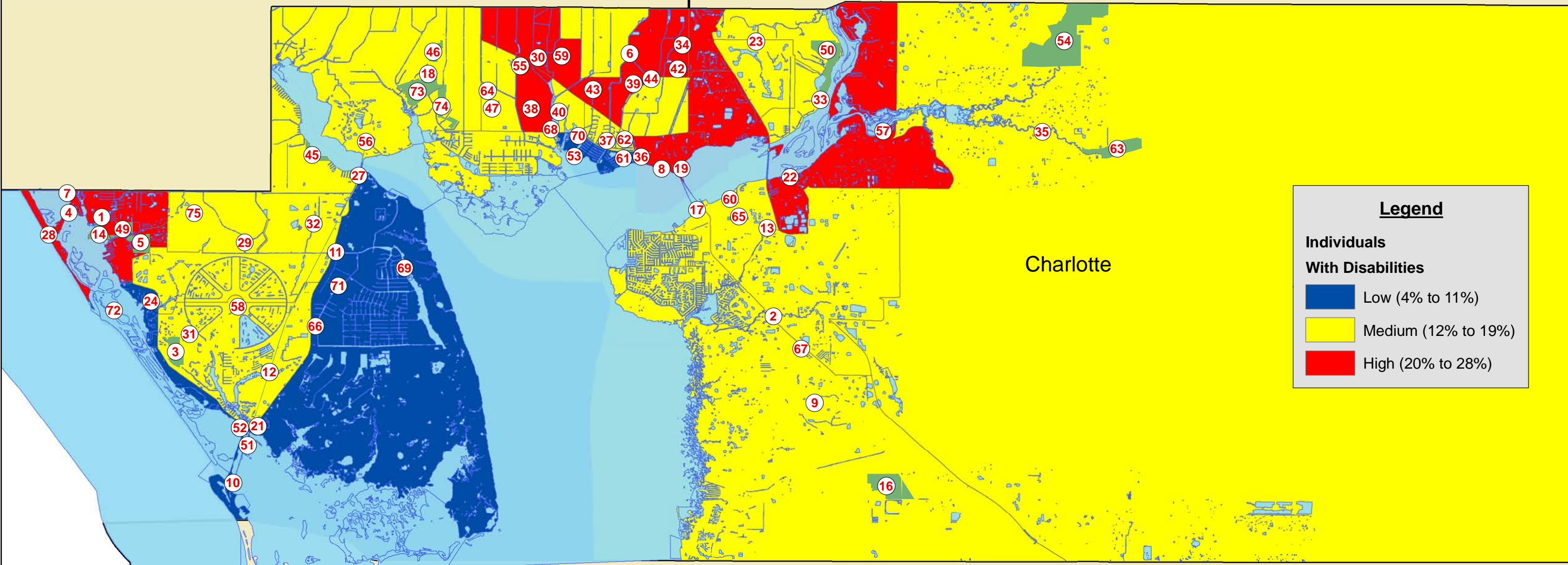
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Charlotte County Individuals with Disabilities (Percent of Tract Population)

Sarasota County

DeSoto County



Legend

Individuals With Disabilities

- Low (4% to 11%)
- Medium (12% to 19%)
- High (20% to 28%)

Lee County

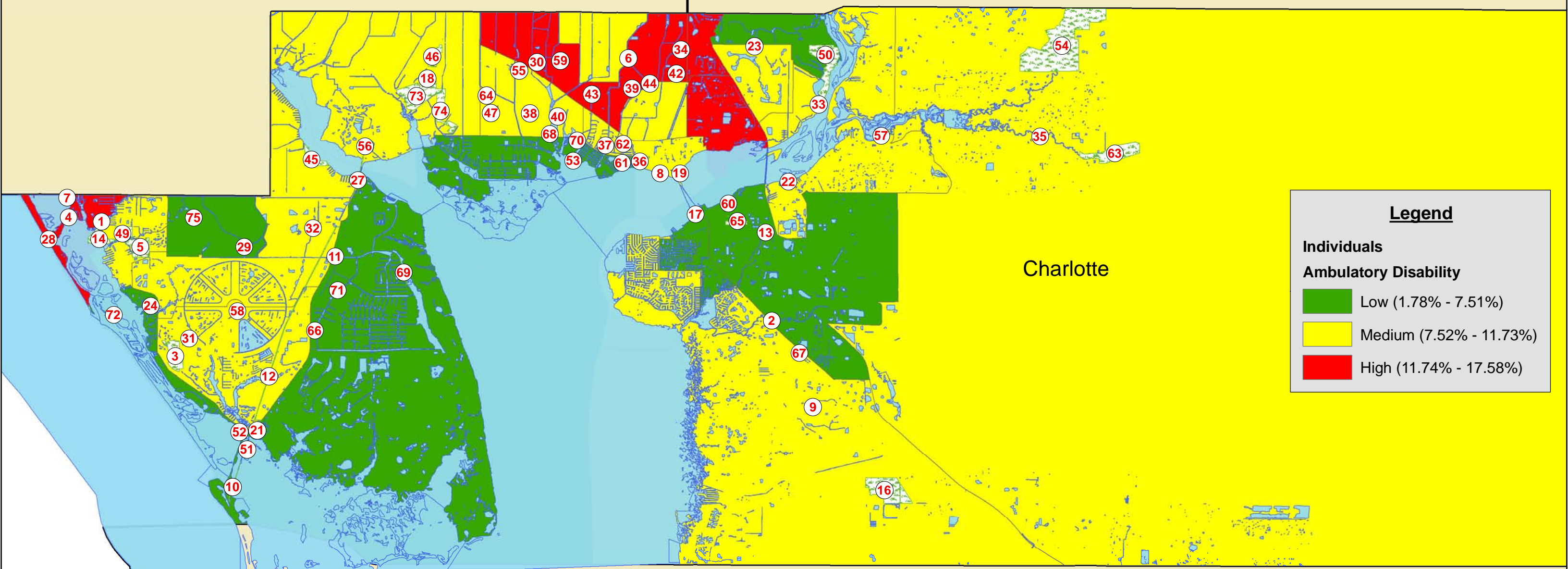
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Charlotte County Individuals with an Ambulatory Disability (Percent of Total Tract Population)

Sarasota County

DeSoto County



Legend

**Individuals
Ambulatory Disability**

- Low (1.78% - 7.51%)
- Medium (7.52% - 11.73%)
- High (11.74% - 17.58%)

Lee County

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|--|---|-----------------------------|-------------------------------|------------------------------------|
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Appendix B

Metro Forecasting Models Parks & Recreation Analysis

CHARLOTTE COUNTY

Parks & Recreation Analysis

August 2024



Purpose

Charlotte County is in a period of unprecedented growth. The purpose of this analysis is to locate where Future Community (FC) and Future Regional (FR) parks will be needed based on the growth from future development, as forecasted by the Interactive Growth Model. Charlotte County currently has sixty-four developed parks. This analysis is limited to the existing community and regional parks. Neighborhood parks were excluded as the County plans to only operate and maintain community and regional parks.

Data Gathering

The Charlotte County Parks & Recreation Master Plan Update 2015-2050 was reviewed to gather key information for the analysis. Parcel data was gathered from the Charlotte County Property Appraiser to create a vacant land database for this park analysis. Metro Forecasting Models (MFM) also requested the most up to date GIS shapefiles for existing parks and vacant land that is currently owned by the Parks and Recreations Department. In Figure 1 below, there are a total of thirteen existing community parks and four existing regional parks.

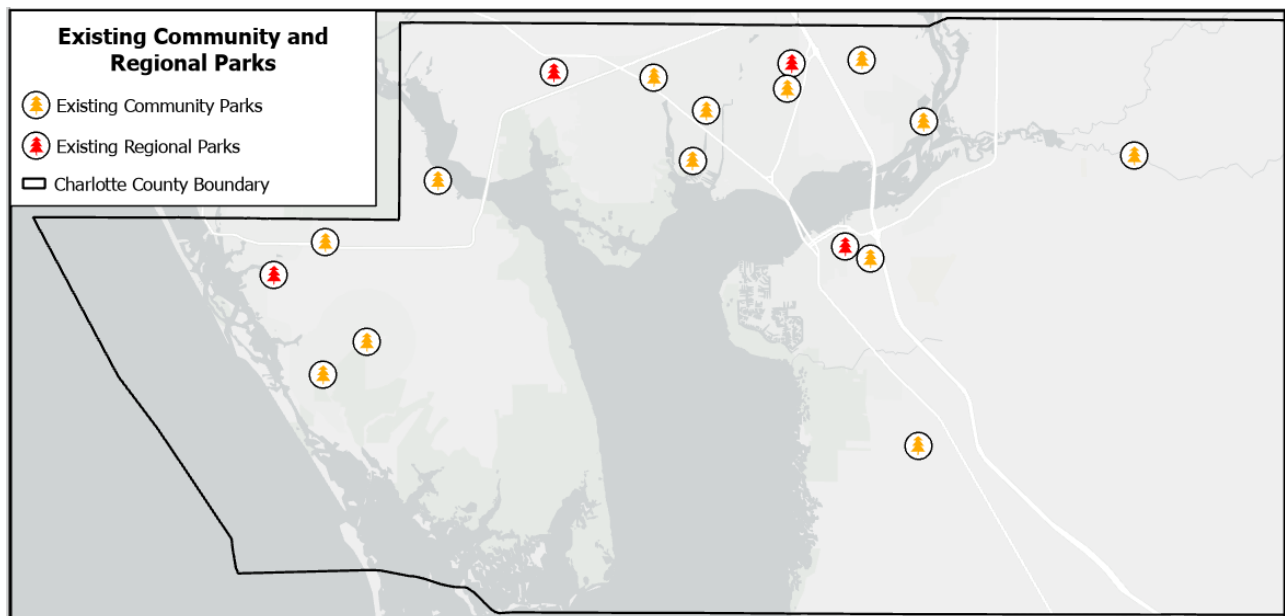


Figure 1: Existing Community and Regional Parks.

Population Growth

In 2023, Charlotte County retained MFM to develop the Charlotte Interactive Growth Model (CIGM). The purpose of developing the CIGM is to identify micro and macro development trends that are taking place in the County. The CIGM incorporated the very best available data including spatial demographics from the 2020 Census. The CIGM spatially models the County's land use changes over time. The purpose of studying the County's land uses is to measure the area's realistic growth potential and provide data for prioritizing capital improvements, transportation planning, future County facilities, and conducting long-range planning.

Table 1 below is the CIGM Population Forecast and shows the population growth in 5-year increments through 2050 and buildout (9995). By 2050, the population will have grown by nearly 125,000 residents.

Population Forecast								
	2024	2025	2030	2035	2040	2045	2050	9995
Charlotte County	212,424	219,571	251,879	283,184	308,337	327,309	341,086	493,020

Table 1: CIGM Population Forecast

The population to be served by Charlotte County consists of permanent residents and seasonal residents. Transient visitors were excluded from the population analysis. Seasonal residents are those who live in privately owned housing units for less than 180 days per year. Housing units for seasonal residents are derived from the 2020 Census block group data. The various park service radius was overlaid on the CIGM population data to estimate existing and future populations for each future park.

Methodology

This study relies upon the existing service radii for community and regional parks as described in the 2015-2050 Charlotte County Parks and Recreation Master Plan Update (p.40). To identify the served and underserved areas for community and regional parks, MFM analyzed populated areas adjacent to the existing service radius for both park classifications.

The service radius for community parks differs depending on the park’s acreage. Community parks that have an acreage of less than 25 acres have a service radius of 1.5-miles. If the park is greater than 25 acres, the service radius is 3-miles. Regional parks that have an acreage size greater than 100 acres have a 10-mile service radius. If the park has fewer than 100 acres, then there is a 5-mile service radius.

According to the Parks and Recreation Master Plan, in 2014 the measured Level of Service (LOS) was 1.57 acres per 1,000 residents. To simplify the analysis, future community parks are assumed to be 25 acres with a service radius of 1.5-miles. The community park service population is calculated as follows:

$$25 \text{ acres} / 1.57 \text{ acres} \times 1,000 \text{ people} = 15,924 \text{ people}$$

Future regional parks are assumed to be 80 or 100 acres with a service radius of 5 and 10-miles respectively. The regional park service populations are calculated as follows:

$$80 \text{ acres} / 1.57 \text{ acres} \times 1,000 \text{ people} = 50,955 \text{ people}$$

$$100 \text{ acres} / 1.57 \text{ acres} \times 1,000 \text{ people} = 63,694 \text{ people}$$

MFM examined parcels in the vacant land database to identify potential locations/parcels where future park facilities can be developed.

Analysis

Existing parks and their service radii were mapped. Then future community and regional parks were modeled in the underserved developing areas adjacent to the existing parks. Circles were created to represent the service areas for future parks.

Future community and regional park centroids were then placed on parcels found in the vacant land database. Permanent and seasonal population values for the years 2024, 2035, 2045, and buildout from the CIGM were aggregated and evaluated against the service area population thresholds. The future parks were then ranked in terms of priority according to the current and future population within their service areas.

Community Parks

Charlotte County's goal is to prioritize their existing and future community parks. In Figure 2 below, a map of the existing community parks and their coverage areas are shown. Community parks that have a size of less than 25 acres are indicated by a dark cyan coverage area. While community parks with a size greater than 25 acres are indicated by a green coverage area.

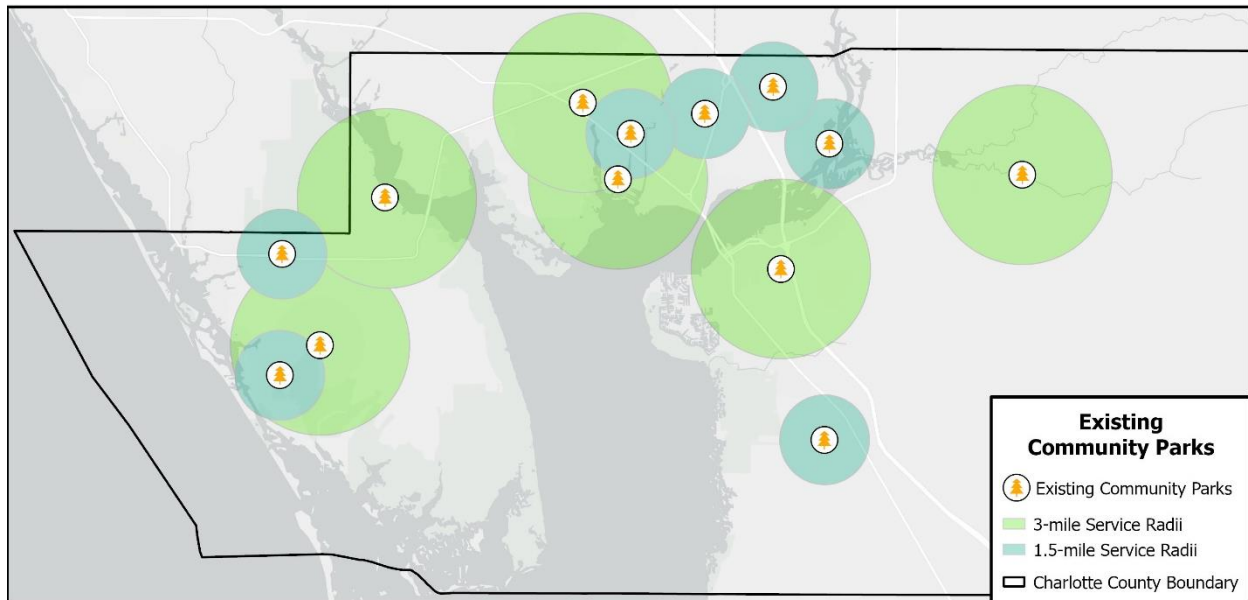


Figure 2: Existing Community Park Service Radii.

To locate potential Future Community (FC) parks, developing areas were evaluated by placing circles with a 1.5-mile radius on vacant parcels. In Figure 3 below future parks, indicated in blue, were placed outside of the existing community coverage areas (shown in dashed circles). FC parks are named using letters from A-L.

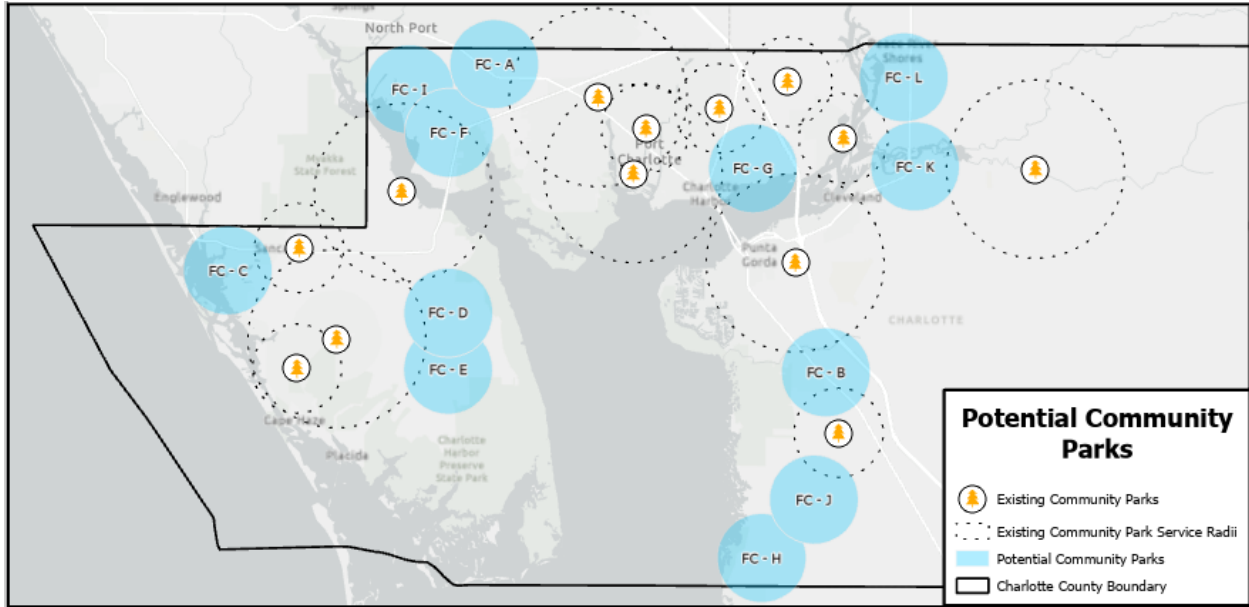


Figure 3: Potential Community Parks with Existing Park Service Radii.

The methodology for this study uses an idealized service population of 15,924 people for future community parks with a service radius of 1.5-miles. The permanent and seasonal populations for the years 2024, 2035, 2045, and buildout were used to evaluate each potential FC against the idealized service population.

In Table 2 below, the potential FC parks are ranked based on the existing and future populations of their respective service areas. The population of each service area for a given year is divided by the idealized service population to estimate the demand/need for a future community park. Each potential park is then ranked based on the population within the service area.

Potential Community Park	2024 Permanent & Seasonal Population	CP Demand 2024	2035 Permanent & Seasonal Population	CP Demand 2035	2045 Permanent & Seasonal Population	CP Demand 2045	Buildout Permanent & Seasonal Population	CP Demand Buildout	MFM Rank	Service Year Forecast
FC - A	6,272	39%	11,560	73%	13,661	86%	19,200	121%	1	2030
FC - B	8,300	52%	12,309	77%	14,407	90%	17,002	107%	2	2030
FC - C	9,906	62%	11,307	71%	12,150	76%	13,488	85%	3	2035
FC - D	4,491	28%	6,133	39%	7,517	47%	11,543	72%	4	2040
FC - E	4,806	30%	6,442	40%	8,118	51%	25,944	163%	5	2045
FC - F	5,590	35%	6,742	42%	8,162	51%	16,892	106%	6	2045
FC - G	6,030	38%	6,909	43%	7,391	46%	9,770	61%	7	2045
FC - H	2,798	18%	4,844	30%	6,517	41%	10,357	65%	8	2045
FC - I	2,415	15%	3,371	21%	4,468	28%	17,513	110%	9	Future
FC - J	2,854	18%	5,478	34%	7,204	45%	7,593	48%	10	Future
FC - K	5,061	32%	5,779	36%	6,283	39%	7,604	48%	11	Future
FC - L	1,724	11%	2,099	13%	2,472	16%	5,631	35%	12	Future

Table 2: Potential Community Park Ranking.

The ranking process began with reviewing the 2024, 2035, 2045, and buildout demands for Community Parks (CP). Note some of the potential future parks will have less than half of the service population within their service areas at buildout (e.g. FC – L has only 36% of the service population at buildout and is therefore a low priority). Ultimately the FC parks were ranked in priority from one through twelve. The top eight ranked parks should be prioritized since these parks have a faster population growth rate over time.

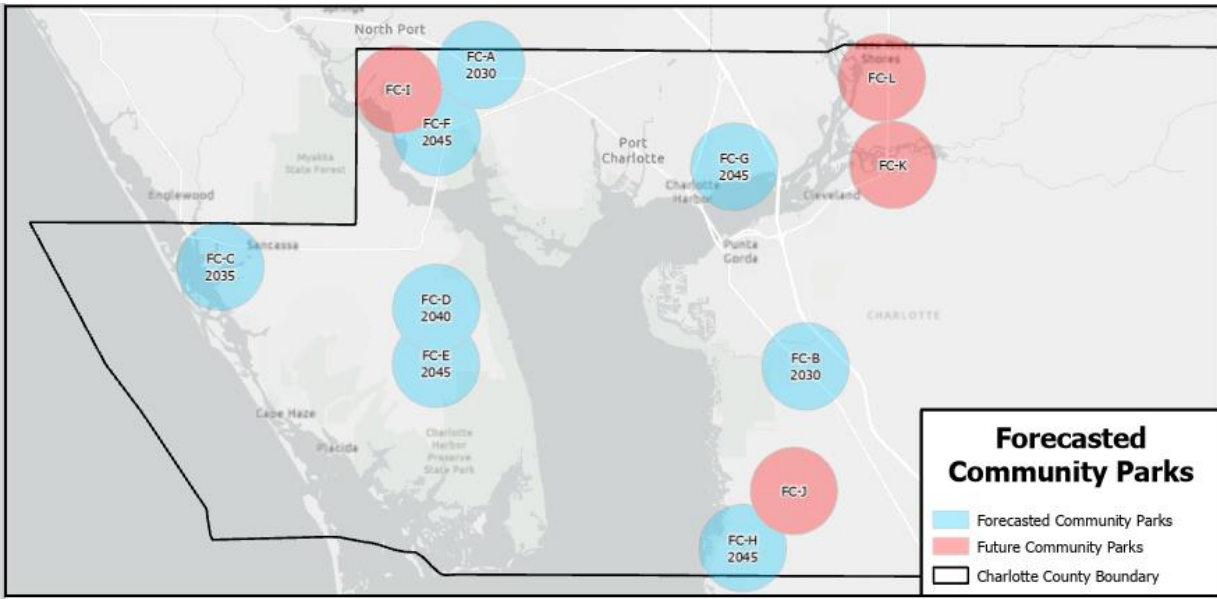


Figure 4: MFM Forecasted and Future Community Park.

Figure 4 above is a map of the Service Year Forecast from Table 2 above. FC parks with a blue circle are considered a top priority and have their respective service year under the park name. Parks with a red circle are low priority. In Figure 5 below we see the eight priority parks and their relationship with the existing community parks.

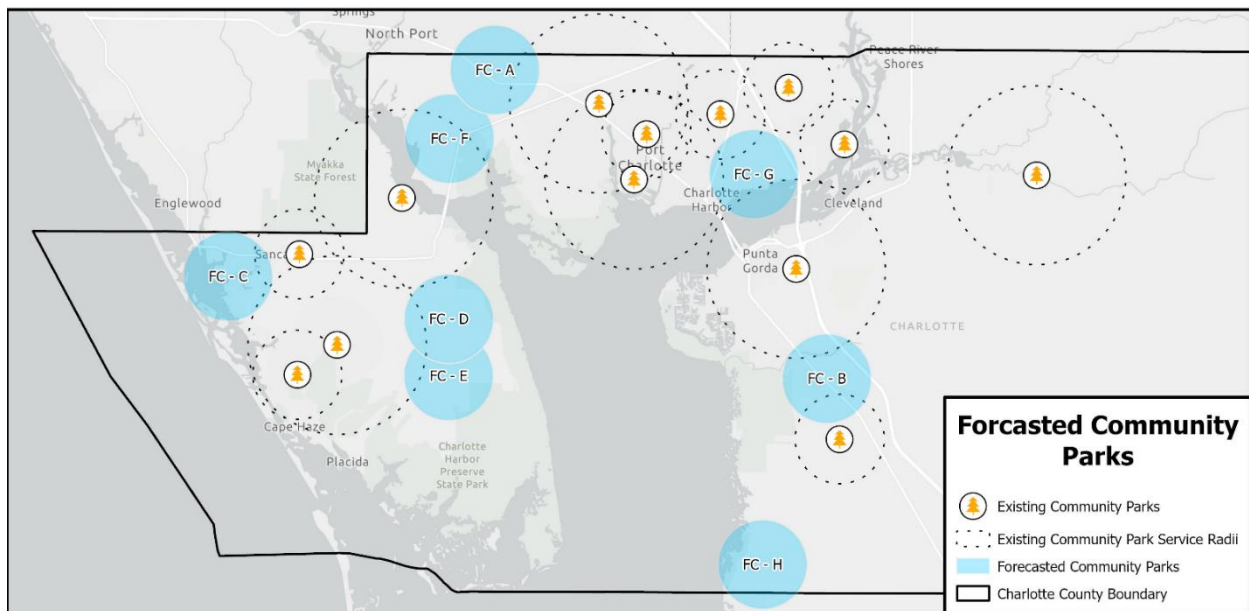


Figure 5: The Forecasted Community Parks through 2050 with the Existing Park Coverage Area.

Regional Parks

Charlotte County’s goal for regional parks is to serve the remainder of underserved areas that the existing and future community parks could not cover. In Figure 6 below, a map of the existing regional parks and their coverage areas are shown. Regional parks with an acreage greater than 100 acres are indicated in magenta. If the regional parks have fewer than 100 acres, then the park is indicated in purple.

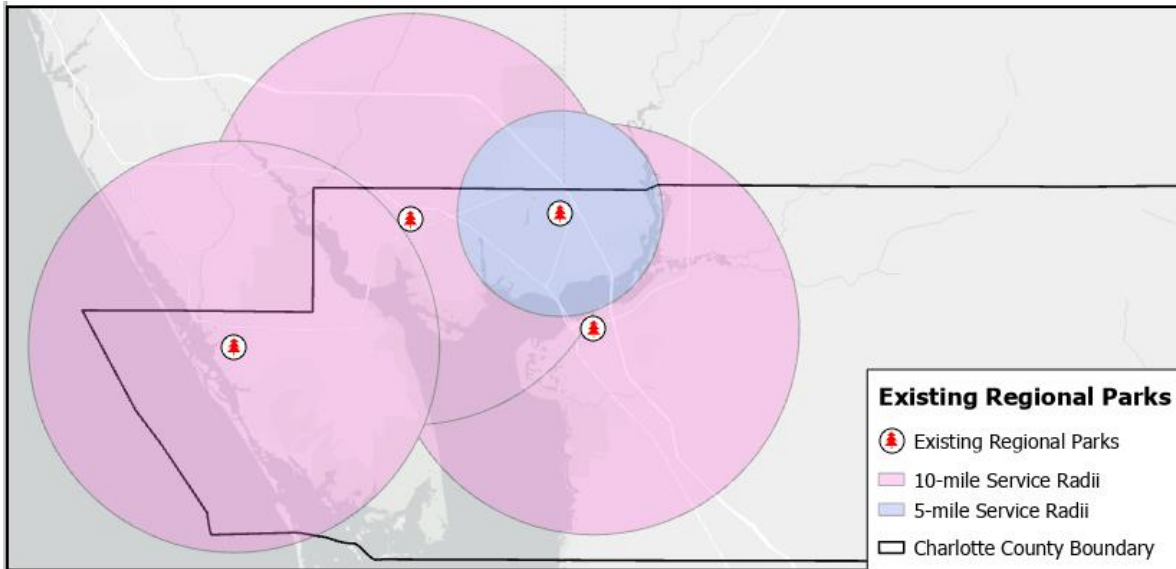


Figure 6: Existing Regional Park Service Radii.

To locate Future Regional (FR) parks, developing areas were evaluated by placing circles with a 5-mile radius on vacant parcels that have an acreage of 80 acres or a 10-mile radius on vacant parcels that have an acreage of 100 acres or more. In Figure 7 below, FR - A has a 5-mile coverage area while FR - B has a 10-mile coverage area. Both future regional parks are on vacant parcels that are privately owned and are indicated by a yellow circle.

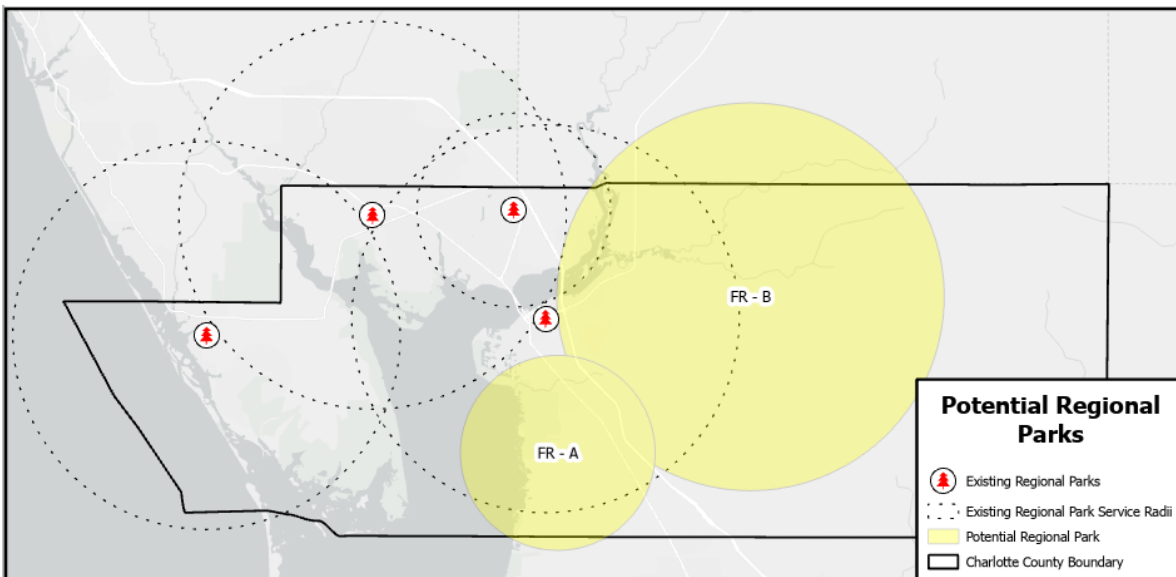


Figure 7: Potential Regional Parks with Existing Park Service Radii.

In the methodology for this study, regional parks use two different idealized service populations. Future regional parks less than 100 acres, the service population is 50,955 people with a service radius of 5-miles. Future parks 100 acres or larger have a service population of 63,694 people with a service radius of 10-miles. The permanent and seasonal populations for the years 2024, 2035, 2045, and buildout were used to evaluate each potential FR against the idealized service population.

In Table 3 below, potential FR parks were also ranked based on the existing and future populations of their respective service areas. Using the same method to estimate the demand for a future community park, each potential regional park was then ranked on the population within the service areas. Future Regional Park A (FR - A) is clearly the highest priority based on existing and buildout populations.

Potential Regional Park	2024 Permanent & Seasonal Population	CP Demand 2024	2035 Permanent & Seasonal Population	CP Demand 2035	2045 Permanent & Seasonal Population	CP Demand 2045	Buildout Permanent & Seasonal Population	CP Demand Buildout	MFM Rank	Forecasted Service Year
FR - A (80 acres)	21,601	42%	34,441	68%	44,943	88%	67,949	133%	1	2030
FR - B (100 acres)	17,726	28%	22,152	35%	26,529	42%	44,266	69%	2	Future

Table 3: MFM Potential Regional Park Ranking.

Findings

This study is based on a Parks and Recreation Level of Service (LOS) of 1.57 acres per 1,000 residents. Charlotte County’s LOS goals in the 2015-2050 Parks and Recreation Master Plan Update should be reassessed based on available park lands and the County’s ability to operate and maintain existing and future parks.

Charlotte County’s population is anticipated to grow by 125,000 new residents by 2050. Based on the 1.57 acres per 1,000 residents, approximately 196 acres of new park land will be needed to maintain the LOS in 2050. By 2050, eight new community parks and one new regional park are recommended to serve Charlotte County residents and visitors. These nine new parks will improve the existing Level of Service.

Charlotte County Parks and Recreation owns very few parcels that can accommodate a future community (+/- 25 acres) or regional park (+/- 100 acres). County-owned parcels that are large enough for future community parks may not be ideally located to maximize the service population. Of the nine forecasted new parks, only one of them (FC – F) is recommended on a parcel dedicated for Parks and Recreation. The Charlotte County School Board owns vacant parcels for future schools. There may be an opportunity to co-locate and incorporate future community parks on some of these sites. However, it is a near certainty that most future community and regional parks will be developed on parcels that are currently privately owned.

Recommendations

- Identify vacant parcels where future parks are needed and purchase the land.
- Consider trading or selling county-owned vacant parcels to offset acquisition costs of more suitable locations for future parks. Some county-owned parcels may be suitable for development as multifamily projects and could be sold to developers at a premium to enhance funding for future parks.
- Plan and budget for increased operations and maintenance (O&M) costs as new parks are developed and opened.
- Reassess the Parks and Recreation LOS acres and population standards and update the master plan.

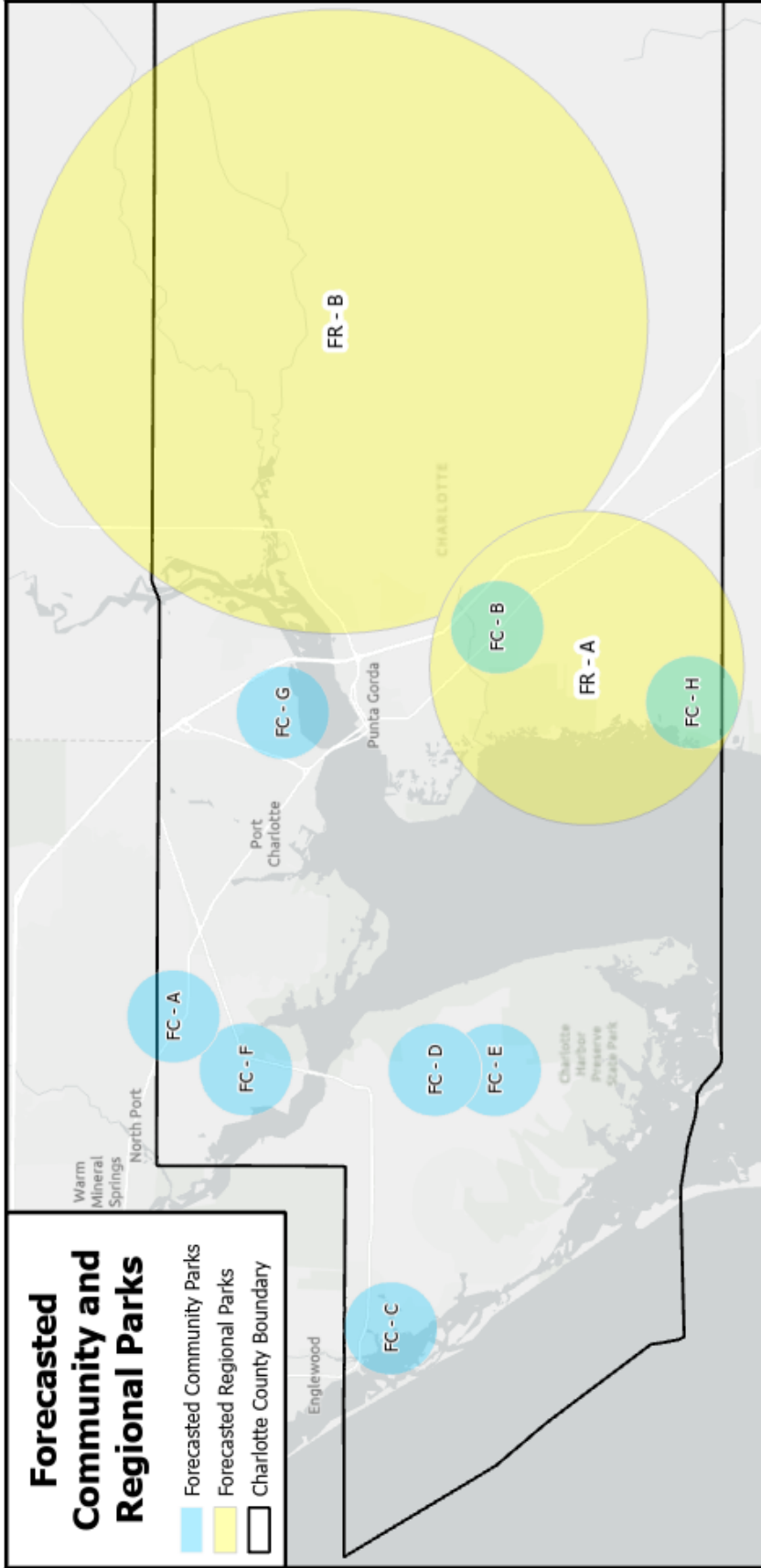


Figure 8: Forecasted Community and Regional Parks.

Service Year	Forecast Community Park (FC)	FC Acres	Forecast Regional Park (FR)	FR Acres
2030	FC - A	25	FR - A	80
2030	FC - B	25		
2035	FC - C	25		
2040	FC - D	25		
2045	FC - E	25		
2045	FC - F	25		
2045	FC - G	25		
2045	FC - H	25		
Total		200		80

Table 4: Forecasted Community and Regional Park Service Years and Acreage Requirements.

Appendix C

Benefits of Charlotte County Parks & Natural Resources

BENEFITS OF CHARLOTTE COUNTY PARKS & NATURAL RESOURCES



CHARLOTTE COUNTY

FLORIDA



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Executive Summary

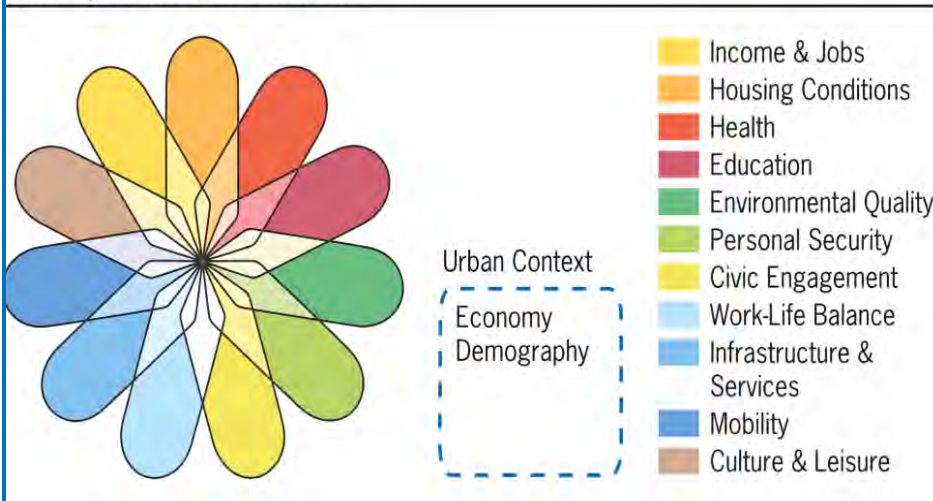
Charlotte County Parks and Natural Resources has many assets available that improve the comfort and diverse lifestyles of its residents and provides substantial economic benefits to the County. The County boasts over **5,100 acres** of waterfront and environmentally protected property available for beachfront park activities, boating, kayaking, paddle boarding, bird watching, fishing, and other environmental activities. Parks and preserves also offer a variety of opportunities for people of all ages, income levels, race, religion, gender, and physical abilities to interact, learn, and grow, contributing to a community that is stronger, safer, and more successful. Charlotte County Community Services Parks and Natural Resources Division provide some of the following benefits:

- ◆ Charlotte County Parks and Natural Resources Division encourage a healthy, active lifestyle. Parks and preserves provide the opportunity for citizens to control their weight, strengthen their bones and muscles, and reduce their risk of cancers, cardiovascular diseases, and type-2 diabetes, as well as numerous other health benefits.
- ◆ Parks and preserves improve mental health and mood. Studies have shown that participating in outdoor recreational activities and being outdoors in nature can reduce anxiety and depression. Being in nature can also increase your sense of balance, self-esteem, and connection to your community.
- ◆ Green spaces in Charlotte County improve water quality, reduce the cost of stormwater management, prevent flooding, and help reduce nuisance pest activities such as mosquitoes. The 5,100 acres that make up Charlotte County parks and preserves mitigate approximately **727,952,591** gallons of stormwater annually, which saves Charlotte County **\$3,892,524**.
- ◆ Trees and shrubs at Charlotte County facilities remove air pollutants that endanger human and environmental health, and damage structures. They also serve to mitigate climate changes that include modified temperatures, wind, rain, and air quality patterns.
- ◆ Charlotte County staff helps to protect both state and federally listed species. Some of the ways that Charlotte County protects these species is by acquiring conservation lands, managing natural habitats, species monitoring, coordination with other conservation programs, and ensuring state and federal permitting requirements are met.
- ◆ Parks and preserves increase the value of nearby residential properties because parks provide many desirable assets such as playgrounds and large open grassy spaces, prime biking, walking and nature watching locations, and increased socialization opportunities. Homes within 2,000 feet from Charlotte County parks and preserves can have an increased home value of **\$7,000-\$8,000**.
- ◆ Charlotte County set a monthly record with **\$468,992** of tourism development tax collections in May 2021, which is an increase from May 2019 and May 2020 of 102% and 195%, respectfully. From January to May of 2021, collections are up 25.5% versus 2019 and 30.6% over 2020.
- ◆ During the 2021 fiscal year, 863,000 individuals visited Charlotte County. Visitor spending in Charlotte County generated a total economic impact of **\$844,435,500**. This economic impact supported 10,752 local jobs and generated **\$248,251,200** in local wages and salaries. Additionally, each household in Charlotte County saved **\$875** in taxes as a result of tourism.

Introduction

It is impossible to imagine what Charlotte County would be like without the positive environmental, economic, and social impacts Charlotte County Community Services provide with their parks and preserves. Over 5,100 acres of facilities are available for visitors to engage in a variety of free and low-cost activities. Charlotte County Parks and Natural Resources Division follows the Four Pillars of the Florida Recreation and Parks Association (FRPA) and the Three Pillars of the National Recreation and Parks Association (NRPA). The Florida Recreation and Parks Association has adopted a unique strategic plan to be implemented over the next 2 to 5 years that encompasses the Four Pillars of Health, Community, Economy, and Environment. The pillar associated with health highlights the relationships between sound body and minds to healthy active lifestyles which are promoted through the development of parks. The Community pillar highlights the connections we are able to make with each other, the environment, and our place in the world through a

Quality of life dimensions



commonplace such as a park. Florida's parks have become an essential part of the economy. The pillar for Economy demonstrates the direct influence that the development of parks has on tourism rates. Parks increases the value of housing and commercial real estate and therefore provides the infrastructure needed to accommodate revenue generating events to benefit the local and state economy. The final pillar is

Environment. This pillar evokes the emotional responsibility to protect our natural resources through appreciation for its beauty. Parks provide a safe and fun way for the public to enjoy their area and engage with natural and historic treasures. The National Recreation and Parks Association present Three Pillars of values that make parks and recreation essential services to the community, which include Health and Wellness, Equity at the Center, and Conservation. Health and Wellness is achieved in parks by creating holistic and people-centered community wellness hubs. These hubs provides outlets, programs, and breaks down systemic barriers to healthy lifestyles. Equity at the Center strives to ensure that all people have equal access to parks which can be life saving and life altering programs and resources they provide. Conservation addressed one of the most pressing environmental challenges by creating protected spaces for environmental programs and sustainable practices.

Parks and preserves enhance the quality of life in Charlotte County, which is an essential building block of the strategy for economic development and community growth. There are many dimensions that factor into quality of life, such as health, environmental quality, culture and leisure, and others that can be seen in the figure. Charlotte County Community Services Parks and Natural Resources Division provides access to resources including parks and environmental lands that will improve residents and visitors' quality of life.

Parks and preserves enhance the quality of life in Charlotte County, which is an essential building block of the strategy for economic development and community growth. There are many dimensions that factor into quality of life, such as health, environmental quality, culture and leisure, and others that can be seen in the figure. Charlotte County Community Services Parks and Natural Resources Division provides access to resources including parks and environmental lands that will improve residents and visitors' quality of life.

Evidence is showing that people are putting more emphasis than ever before on the importance of lifestyle enhancing opportunities, than the job itself, when choosing where to live. Families and skilled workers are attracted to places with parks and preserves that offer diverse opportunities for outdoor recreation, clean air and water, and a safe and social community, all of which are offered in Charlotte County.

By providing access to an array of free and low-cost activities, such as boating, fishing, biking, exercising, exploring nature, hiking, picnicking, swimming, tennis, pickleball, walking, and wildlife viewing, parks and preserves in Charlotte County generate numerous benefits. Parks and preserves increase social capital, enhance social skills, provide recreational opportunities, improve human health, provide natural goods and services including stormwater management, filtering air pollutants, and pest control. They also attract visitors, support local jobs, boost spending at local businesses, create local tax revenue, and increase property values of surrounding areas. The remainder of this report quantifies the benefits that Charlotte County Community Services Parks and Natural Resources Division provides. This report is divided into numerous sections that cover how Charlotte County Parks and Natural Resources Division is linked to each of the Four Pillars of the FRPA and the Three Pillars of the NRPA.

CHARLOTTE COUNTY

Full Service County Owned Parks

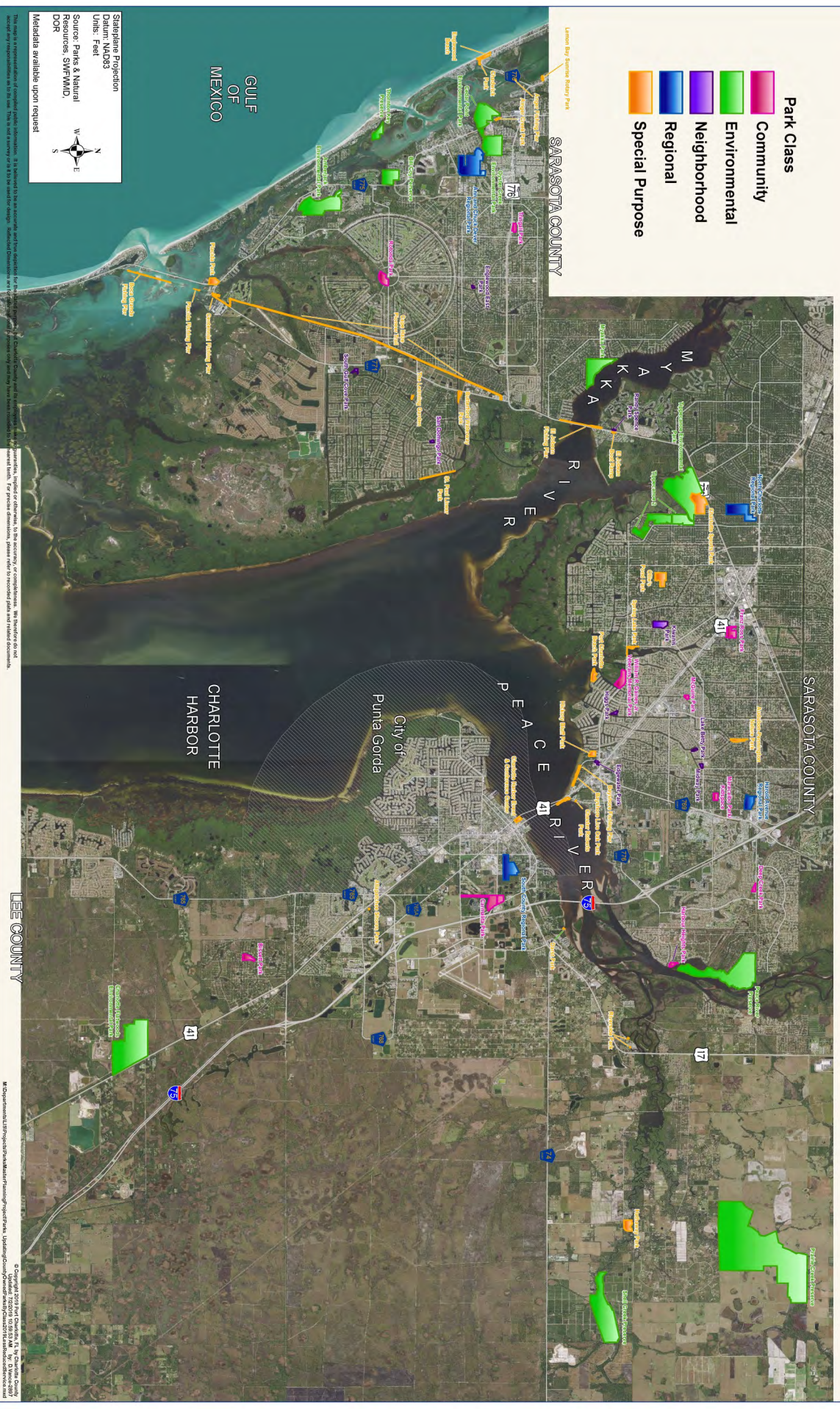
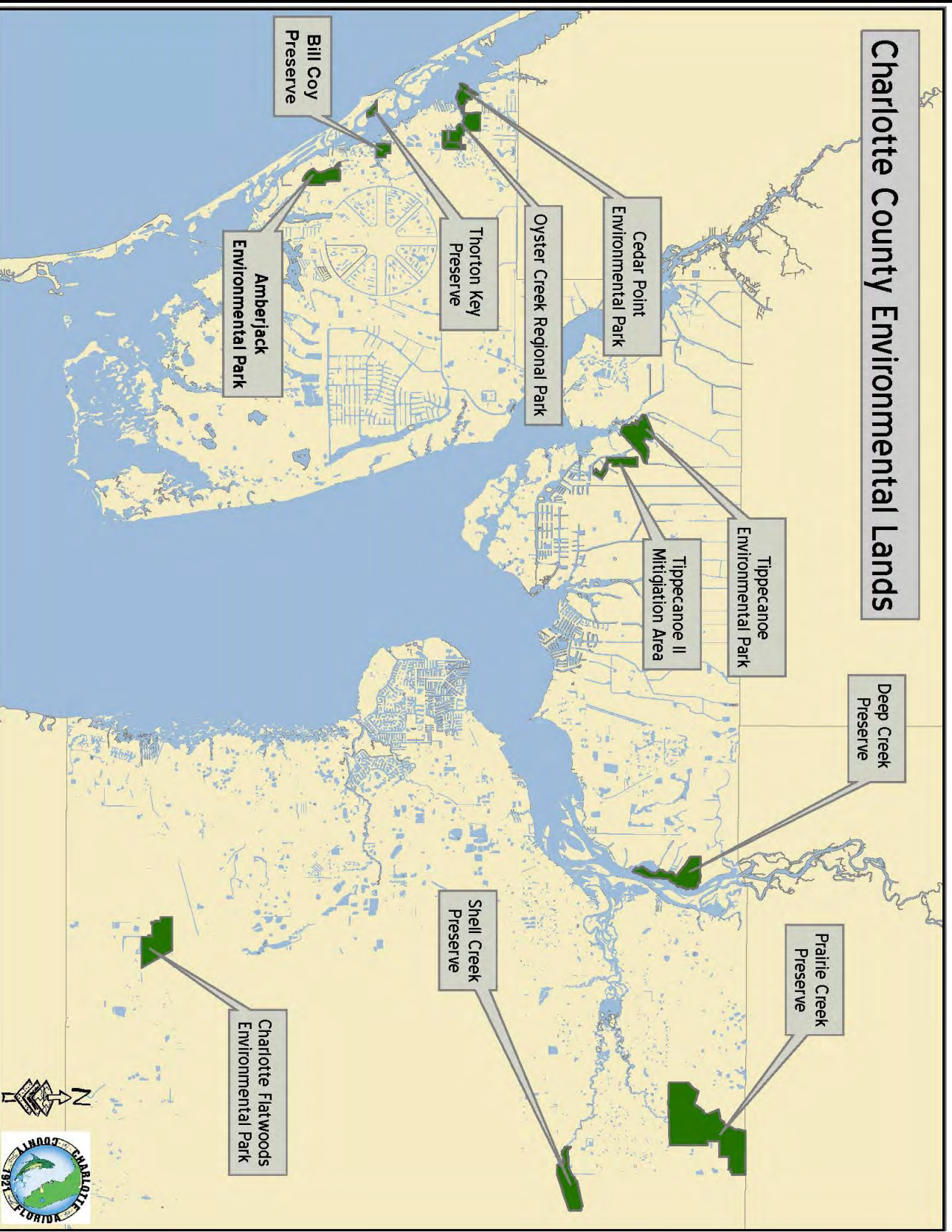


Figure 1: Location of all Charlotte County Parks (tree symbol represents the park location)

Charlotte County Environmental Lands



Parks and Natural Resources Facilities

Charlotte County Community Services has many assets available that provide numerous benefits to our community. There are a total of 62 facilities spread throughout the County totaling over 5,100 acres of land. 29 of these facilities meet Americans with Disabilities Act (ADA) guidelines and are ADA accessible parks. 6 of these facilities are equipped with ADA friendly kayak launches and 6 include trails that meet ADA guidelines. Charlotte County Parks and Natural Resources continue to maintain, create, and modify the parks and preserves to better meet the needs of the community by developing more programs for the community based on public input and needs, adding more ADA accessible features and accesses, and directing funds where necessary. Charlotte County Parks and Natural Resources offers a variety of opportunities for people of all ages, income levels, race, religion, gender, and physical abilities to interact, learn, and grow. Below is a list of Charlotte County parks and preserves:

- ◆ **Ainger Creek Park**
- ◆ **Allapatchee Shores Park**
- ◆ **Amberjack Environmental Park**
- ◆ **Anger Fishing Pier**
- ◆ **Ann & Chuck Dever Regional Park**
- ◆ **Audubon-Pennington Nature Park**
- ◆ **Bayshore Live Oak Park**
- ◆ **Bill Coy Preserve**
- ◆ **Bissett Park**
- ◆ **Boca Grande Fishing Pier**
- ◆ **Butterford Waterway Park**
- ◆ **Cape Haze Pioneer Trail Park**
- ◆ **Carmalita Park**
- ◆ **Cedar Point Environmental Park**
- ◆ **Centennial Fishing Pier**
- ◆ **Centennial Park**
- ◆ **Charlotte Flatwoods Environmental Park**
- ◆ **Charlotte Harbor Event & Conference Center**
- ◆ **Charlotte Sports Park**
- ◆ **Chester Roberts Park**
- ◆ **Darst Park**
- ◆ **Deep Creek Park**
- ◆ **El Jobean Boat Ramp**
- ◆ **El Jobean Fishing Pier**
- ◆ **Englewood Beach at Chadwick Park**
- ◆ **Englewood East Park**
- ◆ **Franz Ross Park**
- ◆ **G. C. Herring Park**
- ◆ **Harbour Heights Park**
- ◆ **Harold Avenue Regional Park**
- ◆ **Hathaway Park**
- ◆ **Higgs Park**
- ◆ **Katherine Ariens Dog Park**
- ◆ **Lake Betty Park**
- ◆ **Larry Taylor Kiwanis Park**
- ◆ **Lemon Bay Sunrise Rotary Park**
- ◆ **Live Oak Point**
- ◆ **Maracaibo Kidspace Park**
- ◆ **McGuire Park**
- ◆ **Midway Park**
- ◆ **Ollie's Pond Park**
- ◆ **Oyster Creek Environmental Park**
- ◆ **Peace River Preserve**
- ◆ **Placida Fishing Pier**
- ◆ **Placida Park**
- ◆ **Port Charlotte Beach Park**
- ◆ **Prairie Creek Preserve**
- ◆ **Randy Spence Park**
- ◆ **Riverside Park**
- ◆ **Rotonda Community Park**
- ◆ **San Domingo Park**
- ◆ **Shell Creek Preserve**
- ◆ **South County Regional Park**
- ◆ **South Gulf Cove Park**
- ◆ **Spring Lake Park**
- ◆ **St. Paul Linear Park**
- ◆ **The Learning Garden**
- ◆ **Thornton Key Preserve**
- ◆ **Tippecanoe Environmental Park**
- ◆ **Tippecanoe II**
- ◆ **Tringali Park**
- ◆ **William R. Gaines Jr. Veterans Memorial Park**



Social and Community Cohesion

Social capital is defined by the Organization for Economic Cooperation and Development as “networks together with shared norms, values and understandings that facilitate cooperation within or among groups”. Parks and Natural Resources facilities are essential to building cohesive communities, increasing social capital, and improving quality of life. Numerous studies have shown that these facilities can make a community stronger, safer, and more successful.



Building a Sense of Community

Charlotte County Parks and Natural Resources Facilities are one of our counties most effective assets to change the character and improve the image of our community. Parks and preserves provide areas for people to meet and play in a safe open space, specifically designed for their enjoyment and safety. Playground equipment gives kids and parents the opportunity to socialize, build connections with each other, and create positive memories with the parks in the community. Positive memories associated with Charlotte County Parks and Natural Resources Facilities are vital in

creating new and continued involvement from the community. Community involvement that has a direct impact on increasing the social capital of Charlotte County include volunteer and charity events, such as food drives, park clean ups, and run-a-thons. These events benefit the communities interaction with each other, the parks and natural resources facilities, and those who are being assisted by these events.

Encouraging Social Skills in Kids

Schools offer recess every school day and are typically 10 to 30 minutes long. This is not a lot of time for kids to socialize outside of the classroom during school periods. Charlotte County parks and natural resources facilities that are located throughout the county offer children safe spaces to meet outside of the school and learn to interact with each other. Visiting these facilities also presents the chance for kids to socialize with kids from other schools who they otherwise would not get the opportunities to play with.

Environmental Connection to Improve the Community

With technology continuing to become a bigger part of our lives, especially children's, we are more connected than ever, but sometimes not in ways that are positive. It has become common for individuals to just interact online, which is good; however, we lose the personal connection to each other and the environment this way. Nature trails and green spaces in Charlotte County allow residents to interact with the gorgeous natural habitat that attracts visitors from all around the world. Charlotte County Parks and Natural Resources Division also fosters environmental connection through implementation of environmental stewardship and community outreach programs. Such programs stimulate academic and social growth while promoting appreciation of the natural environment. Being out in nature increases the likelihood that visitors will work to conserve our valuable natural resources that make up our community for current and future generations.

Safe Space for Everyone

Charlotte County Community Services Parks and Natural Resources facilities offer numerous amenities available for people of all ages, income levels, race, religion, gender, and physical ability. A list of Charlotte County Parks and Natural Resources amenities can be found below in Table #1. Many of these amenities meet Americans with Disabilities Act (ADA) guidelines and include ADA friendly kayak launches and trails. Charlotte County Parks and Natural Resources Division works diligently to maintain facilities to ensure the safety of all visitors and continues to implement new safety measures as new developments are made.

Table #1. Charlotte County Parks and Natural Resources Amenities

Amphitheatre	Drinking Fountains	Pickleball Courts
Baseball Fields	Environmental Center	Picnic Shelters
Basketball Courts	Fishing Piers	Picnic Tables
BBQ Grills	Fitness Trails	Playground and Table Shade
Beach	Football Fields	Playgrounds
Bike Repair Stations	Historic Features	Remote Control Race Car Track
Bike Trails	Horse Arena	Restrooms
Bird Watching	Horse Shoes	Running Track
Boardwalks	Horse Trails	Shuffleboard
Boat Ramps	In line Hockey	Skate Park
Bocce Courts	Kayak Launches	Soccer Fields
Community Gardens	Lighted Sport Fields	Softball Fields
Concession Stands	Little League Fields	Splash Pads
Disc Golf	Multi Purpose Fields	Tennis Courts
Docks	Open Green Space	Unpaved Nature Trails
Dog Friendly	Outdoor Classrooms	Volleyball Courts
Dog Parks	Paved Walking Paths	Wildlife Observation Platforms



Effect on Crime Rate

According to research done by numerous researchers such as Cornell University, the presence of green spaces generally reduces crime rates in the surrounding areas. The well-maintained parks and preserves in Charlotte County provide numerous opportunities for people of all ages to invest their time in more productive, fun, and community building activities. Without the facilities offered by Charlotte County Parks and Natural Resources Division, there are fewer positive opportunities for the community to spend their time on, which can lead to an increase in the crime rate. Additionally, crime rate can be increased if facilities are not well maintained, so Charlotte County Parks and Natural Resources invest numerous resources and funds in keeping our facilities beautiful and up to date.

Despite efforts to eliminate all criminal activities within parks and natural resource facilities, crime can still happen. Crime often occurs at areas where vehicles are left unattended for extended periods of time and where groups of people gather. During 2021, a total of 5,278 arrests were made by the Charlotte County Sheriff's Office (CCSO) for various offenses in Charlotte County. Of the 5,278 arrests, only 62 arrests were made at Charlotte County Parks and Natural Resources facilities. Analyzing Charlotte County crime data from the Crime Mapping Interactive Map found on the CCSO website, conclusions support the theory that properly maintained green spaces generally reduces crime rates in the surrounding areas. CCSO regularly patrols Charlotte County Parks and Natural Resources facilities to make their presence known to would be criminals and to reduce response times for facility visitors who are in need of assistance.



In addition to regular patrols from CCSO and staff, Charlotte County Community Services is implementing recommendations of a multi-disciplinary approach for crime prevention called Crime Prevention Through Environmental Design (CPTED). CPTED uses urban and architectural design and the management of built and natural environments to reduce victimization, deter offender decisions that precede criminal acts, and build a sense of community among inhabitants so they can gain territorial control of areas, reduce crime, and minimize fear of crime. CPTED is composed of four principles, which include Natural Surveillance, Natural Access Control, Territorial Reinforcement, and Maintenance and Management. The primary goal of Natural Surveillance is to keep intruders under observation. Criminals typically do not want to be seen when committing crimes so increasing the potential for witnesses may deter intruders in addition to keeping them under observation. Natural Surveillance is achieved by adding lighting, removing obstructions to increase sight lines from within buildings, and channeling visitor activity towards potential crime areas. Directing the flow of activities towards potential crime areas increase the number of potential witnesses to crime and should deter criminals. Natural Access Control is obtained by properly placing entrances, exits, fencing, landscaping and lighting to subtly direct foot and vehicular traffic in ways that decreases criminal opportunities. Territorial Reinforcement relies on creating a sense of community by using physical elements such as fences, pavement treatment, art, signs, good maintenance, and landscaping to define a boundary between public and private areas. This clear boundary increases the chances of identifying intruders because of users' familiarity with each other and the surround area. Maintenance and Management mirrors numerous studies that conclude crime rate can be increased if facilities are not well maintained. The more dilapidated an area, the more likely it is to attract crime and other unwanted activities. This principle emphasizes the need to consider maintenance and management during the design stage as materials and finish will require maintenance that must be sustained overtime in order to reduce crime. An example includes limiting plant materials that will result in sight line obstructions.



Promotion of Health and Wellness

Benefits on Physical Health and Performance

The Centers for Disease Control and Prevention recommends that children and adolescents perform a minimum of 60 minutes of physical activity each day and that adults perform a minimum of 150 minutes of aerobic activity each week. According to the data from the World Health Organization, globally, 1 in 4 adults and more than 80 percent of adolescents do not meet the recommended levels of physical activity. People who do not meet recommended physical activity minimums have a 20 to 30 percent increased risk of death compared to people who are sufficiently active. Parks and preserves provide the opportunity for citizens to control their weight, strengthen their bones and muscles, and reduce their risk of cancers, cardiovascular diseases, and type-2 diabetes, as well as numerous other health benefits.

Having safe access to areas designed for physical activity, encourages community residents and visitors to participate in physical activity. Charlotte County Parks and Natural Resources Division encourages a healthy and active lifestyle by providing access to parks and trails throughout the geographical area of Charlotte County. Access and repeated use of facilities is encouraged by having parks and preserves within a short distance of homes and ensuring routes to facilities are safe. Charlotte County Parks and Natural Resources Division build, maintain, and update multi-use paths, playgrounds, walking trails, open green spaces, and all other components that make up our beautiful facilities to encourage repeated use for physical activity and satisfaction from all visitors.



Benefits on Mental Health and Performance

Parks and preserves improve the mental health and mood of visitors. Participating in physical activities and being outdoors in nature has been shown to help individuals fight against and reduce mental health issues such as stress, anxiety, and depression. Being in nature can also increase your sense of balance, self-esteem, and connection to your community.

Multiple logistic regression analyses have been performed to investigate the association between distance between green space and self-perceived stress. Results show that residents living more than a half mile away from a green space have nearly 50 percent higher odds of experiencing stress than those living less than 1,000 feet from a green space. Test respondents who did not report stress had more than 50 percent higher odds of visiting a green space at least a few days a week than those reporting stress. Results from the analysis also showed that the more often respondents visited green spaces, the less stress they experienced.

Charlotte County Community Services has a total of 62 facilities spread throughout the County totaling over 5,100 acres of land. The majority of these facilities are located within residential communities, so residents in have access to stress reducing green spaces throughout the County.

For developing kids, playing outside instead of indoors has risen to such high levels of importance that doctors prescribe time outdoors, as outdoor activity has positive effects on their test scores, cognitive function, behavior, self-discipline, and reduces signs of ADHD. Although schools offer essential learning opportunities to children, not every child learns as efficiently in that setting. Charlotte County Community Services offer hands-on learning opportunities outside of the classroom for kids to learn while having fun. Learning in and outside of the classroom can create a large bubble of education for children to learn and develop in a way that helps them reach their potential.



Economic Boost

Charlotte County is seeing record tourism numbers, according to the latest data from state and tourism partners. Charlotte County set a monthly record with **\$468,992** of tourism development tax collections in May 2021, which is an increase from May 2019 and May 2020 of 102% and 195%, respectfully. From January to May of 2021, collections are up 25.5% versus 2019 and 30.6% over 2020.

Charlotte County Parks and Natural Resources Division provides safe spaces for the community to host revenue generating events and boost tourism which benefit the local and state economy. Charlotte County Community Services assets include a large amount of waterfront and environmentally protected properties available for boating, kayaking/canoeing, bird watching, fishing, hiking, sunset/sunrise watching, beach fun, and other environmental activities. These activities greatly attract both local and non-local visitors.

Enhanced Property Values

Distance from parks and preserves is known to influence property values. Nationwide research shows that the premium for proximity to these spaces can affect market values up to 2,000 feet by 8% to 20%. Parks and natural resource areas can also lead to proportionately higher property tax revenues for local governments. The real estate market consistently demonstrates that people are willing to pay more for a house close to a park due to the many desirable assets that parks and preserves provide. These desirable assets include an improved view from homes, proximity to playgrounds and large open grassy spaces, proximity to prime biking, walking, and nature watching locations, and increased socialization opportunities.

The Florida Parks and Recreation Association Impact Calculator was used to calculate the increased value of nearby homes based on the proximity affect. The number and market value of homes within 2,000 feet from Charlotte County parks and preserves was collected and a conservative 3.3% proximity effect value was used for final calculations. This value was calculated by looking at the impacts of parks on home prices within 2,000 feet of the parks and the prices of homes outside of this range and was determined to be less than Dr. John Crompton's proximity principle estimate of 5%. The result of this calculation concluded that homes within 2,000 feet from Charlotte County parks and preserves can have an increase home value of **\$7,000-\$8,000 each**.



Funding from Visitors

Although most of Charlotte County parks and preserves have free admission or a minimal parking fee, they play a significant role in the tourism economy. Visitors attracted to Charlotte County by their facilities often end up spending considerable amounts of money on food, entertainment, fuel, gifts, lodging, and other local assets.

During the 2021 fiscal year, 863,000 individuals visited Charlotte County. Visitor spending in Charlotte County generated a total economic impact of \$844,435,500. This economic impact supported 10,752 local jobs and generated \$248,251,200 in local wages and salaries. Additionally, each household in Charlotte County saved \$875 in taxes as a result of tourism.

Charlotte County Community Services offers numerous opportunities for visitors to participate in a wide variety of activities. A list of upcoming events and the estimated economic impact of each can be found below in Table #2.

Table #2. Estimated Economic Impact of Sporting Events at County Facilities During Fiscal Year 2021-2022

Tournament	Location	Number of Participants	Estimated Economic Impact
SWFL Hoops- Fall Showcase	CP/HA/SC	276	\$132,482
Florida Half Century Softball - The Duel(50+)	CP	455	\$348,954
USA Softball Florida - Fall Bash (CXL)	CP		
USSA ProStyle Baseball - Victory in Pink	CBMX	1026	\$611,708
PCHS - Class 2A Region 4 HS Swim Meet	CP	210	\$80,329
USSSA Prostyle Baseball-Sunshine Classic	CSP/SC	806	\$745,828
Englewood Beach WaterFest	Eng Bch	483	\$5,100,000
Horizon Gymnastics- Riverfront Classic	EC	350	\$522,236
SWFL Hoops - Florida Aces Showcase	CP, HA	231	\$196,927
Milligan University	CP	40	\$140,133
George Fox University	AD	35	\$89,749
New Jersey Race Club - Swim Team Training	CP	45	\$125,269
Hope College- Dive & Swim Team Training	CP	70	\$266,396
SUBTOTALS		4,450	\$8,360,011

AD - Ann & Chuck Dever Regional Park
 CBMX - Charlotte BMX Park
 CP - Centennial Park
 CSP - Charlotte Sports Park

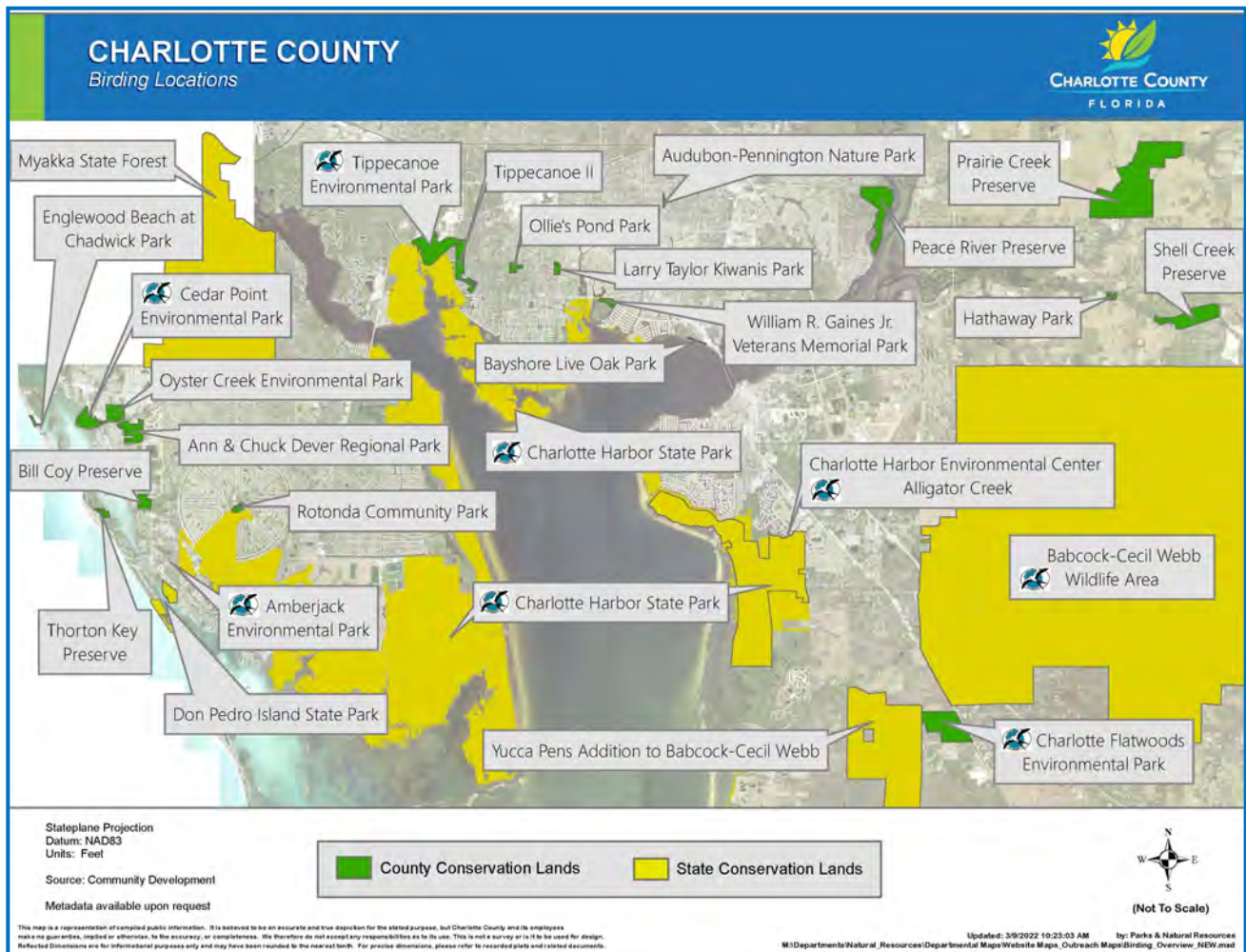
EC - Charlotte Harbor Event and Conference Center
 Eng Bch - Englewood Beach
 HA - Harold Avenue Regional Park
 SC - South County Regional Park

Ecotourism

Ecotourism as defined by The International Ecotourism Society is responsible travel to natural areas that conserve the environment, sustains the well-being of the local people, and involves interpretation and education. Charlotte County has numerous environmental resources available that attract visitors who travel to the County with the purpose of environmental exploration, conservation, and education. Three of the most popular ecotourism activities in Charlotte County include birding, visiting the artificial reefs, and padding along the Blueway Trail system.

Birding

Charlotte County's Environmental Parks and Preserves provides habitat for a diverse assortment of bird species. Many of the parks and preserves are along the Great Florida Birding Trail which is a network of 510 premier wildlife viewing sites across the state. The County's diverse population of birds includes the Northern Bobwhite, Sandhill Crane, Bald Eagle, Reddish Egret, Purple Gallinule, Red-shouldered Hawk, Green Heron, Florida Scrub-Jay, Belted Kingfisher, Swallow-tailed Kite, Yellow-crowned Night-heron, Burrowing Owl, American Oystercatcher, White Pelican, Snowy Plover, Yellow-bellied Sapsucker, Black Skimmer, Bachman's Sparrow, Roseate Spoonbill, Black-necked Stilt, Wood Stork, Royal Tern, White-eyed Vireo, Pine Warbler, Pileated Woodpecker, Red-cockaded Woodpecker, Red-headed Woodpecker. Birding is a hobby that is enjoyed by both novice and experienced birders, and only requires binoculars and a bird field guide for bird identification.





Artificial Reefs

Charlotte County’s eight artificial reefs are famous for the massive number of diverse aquatic life that inhabit them. The wrecks and artificial reefs are covered with many soft and hard corals that attract small and large species such as snappers, goliath and gag grouper. These resources also attract divers year-round as the weather and water visibility provide consistently great diving conditions. In addition to current aquatic life, our reefs are rich with evidence of past life. Shark teeth, including the teeth of the extinct Megalodon shark, can be found when diving at Charlotte County’s reefs.

Charlotte County Blueway Trail System



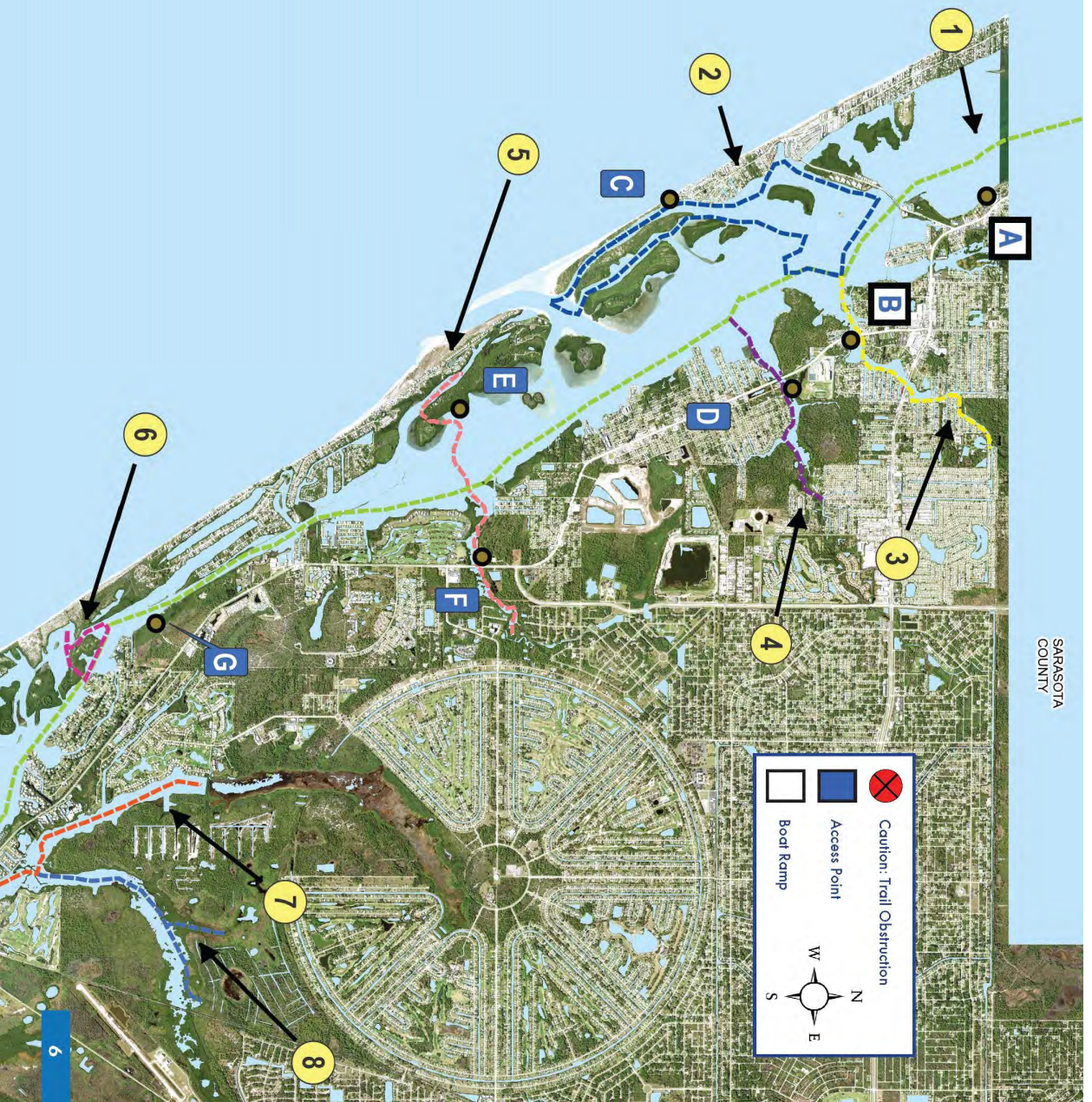
Visitors escape the fast pace of day-to-day life by paddling through the state recognized Charlotte County Blueway Trails system. The trail system runs approximately 219 miles and includes waterways that allow beginner, intermediate, and experienced paddlers to safely enjoy the coastal habitats. The coastal habitats include Seagrasses, Salt Marshes, Mangrove Forests, and Riverine communities. The waterways can be accessed at any of the 30 access points available in Charlotte County, most of which have no parking and launching fees. Like Charlotte County’s artificial reefs, the Charlotte County Blueway Trail System attracts visitors year-round due to an average annual temperature of 74.8 degrees Fahrenheit and natural barriers that create typically calm water conditions for paddling.



WEST COUNTY TRAILS

- 1 Inter Coastal Trail (BEG)
- 2 Stump Pass Trail (BEG)
- 3 Rocky Creek Trail (INT)
- 4 Oyster Creek Trail (BEG)
- 5 Buck Creek Trail (BEG)
- 6 Rambler Hole Trail (BEG)
- 7 Grande Tour Trail (BEG)
- 8 Coral Creek East Trail (BEG)

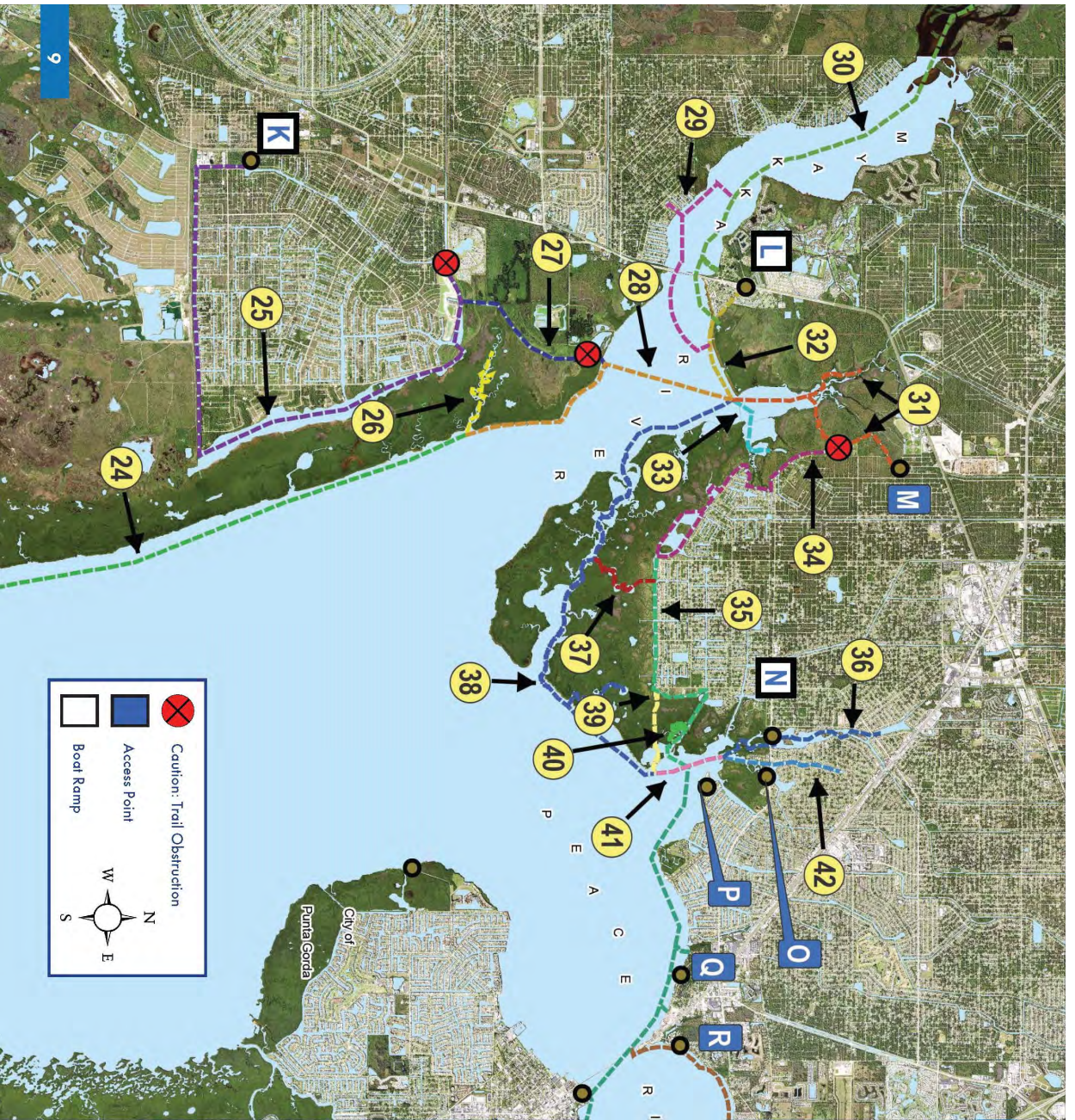
- A Lemon Bay Sunrise Rotary
1000 S McCall Road, Englewood Ramp
- B Ainger Creek Park
2011 Placida Road, Englewood Ramp
- C Stump Pass Beach State Park
900 Gulf Blvd., Englewood Beach
- D Oyster Creek Environmental Park
2333 Placida Road, Englewood Sand
- E Thornton Key Preserve
8 Thornton Key Preserve, Englewood Sand
- F Bill Coy Preserve
5350 Placida Road, Englewood Geoweb
- G Don Pedro State Park
8450 Placida Road, Placida Sand





WEST COUNTY TRAILS

- 9 Woolverton Trails (BEE)
- 10 Catfish Creek Trail (BEE)
- 11 Boguess Hole Trail (BEE)
- 12 M Cantelas Trail (BEE)
- 13 Little Gasparilla Trail (BEE)
- 14 Boca Grande Trail (BEE)
- 15 Bird Key Trail (BEE)
- 16 Bull Bay Trail (BEE)
- 17 Bull Bay Bypass (BEE)
- 18 Shallow Water Trail (BEE)
- 19 Widden Creek Trail (BEE)
- 20 Sister Ponds Trail (BEE)
- 21 Turtle Bay Trail (BEE)
- 22 Turtle Bay Bypass (BEE)
- 23 Cantelas Trail (BEE)



MID-COUNTY TRAILS

- | | |
|--|-------------------------------------|
| 24 West Wall Trail (EXP) | 33 Muddy Cove Trail (BEG) |
| 25 Santa Fe Trail (BEG) | 34 Chara Trail (BEG) |
| 26 Trout Creek Trail (INT) | 35 Arapahoe Trail (BEG) |
| 27 Cattle Dock Trail (BEG) | 36 W Spring Lake Trail (BEG) |
| 28 Upper West Wall Trail (INT) | 37 Three Lakes Trail (BEG) |
| 29 Gulf Cove Trail (INT) | 38 Myakka Cur Off (INT) |
| 30 Myakka River Trail (INT) | 39 Muddy Cove Cur (BEG) |
| 31 Tippecanoe Trail (BEG) | 40 Lewis Creek Trail (BEG) |
| 32 Ghost Point Trail (BEG) | 41 Alligator Bay Trail (BEG) |
| 33 Muddy Cove Trail (BEG) | 42 E Spring Lake Trail (BEG) |
| K South Gulf Cove Park
10150 Amicola St., Port Charlotte | Ramp |
| L El Jobean Boat Ramp
4224 El Jobean Road, Port Charlotte | Ramp |
| M Tippecanoe Environmental Park
2400 El Jobean Road, Port Charlotte | Sand |
| N Spring Lake Park
3520 Lake View Blvd., Port Charlotte | Ramp |
| O William R. Gaines Veterans Jr. Memorial Park
20499 Edgewater Drive, Port Charlotte | Sand |
| P Port Charlotte Beach Park
4500 Harbor Blvd., Port Charlotte | Beach |
| Q Bayshore Live Oak Park
23157 Bayshore Road, Port Charlotte | Sand |
| R Chester Roberts Park
5084 Melbourne St., Punta Gorda | Sand |

MID-COUNTY TRAILS

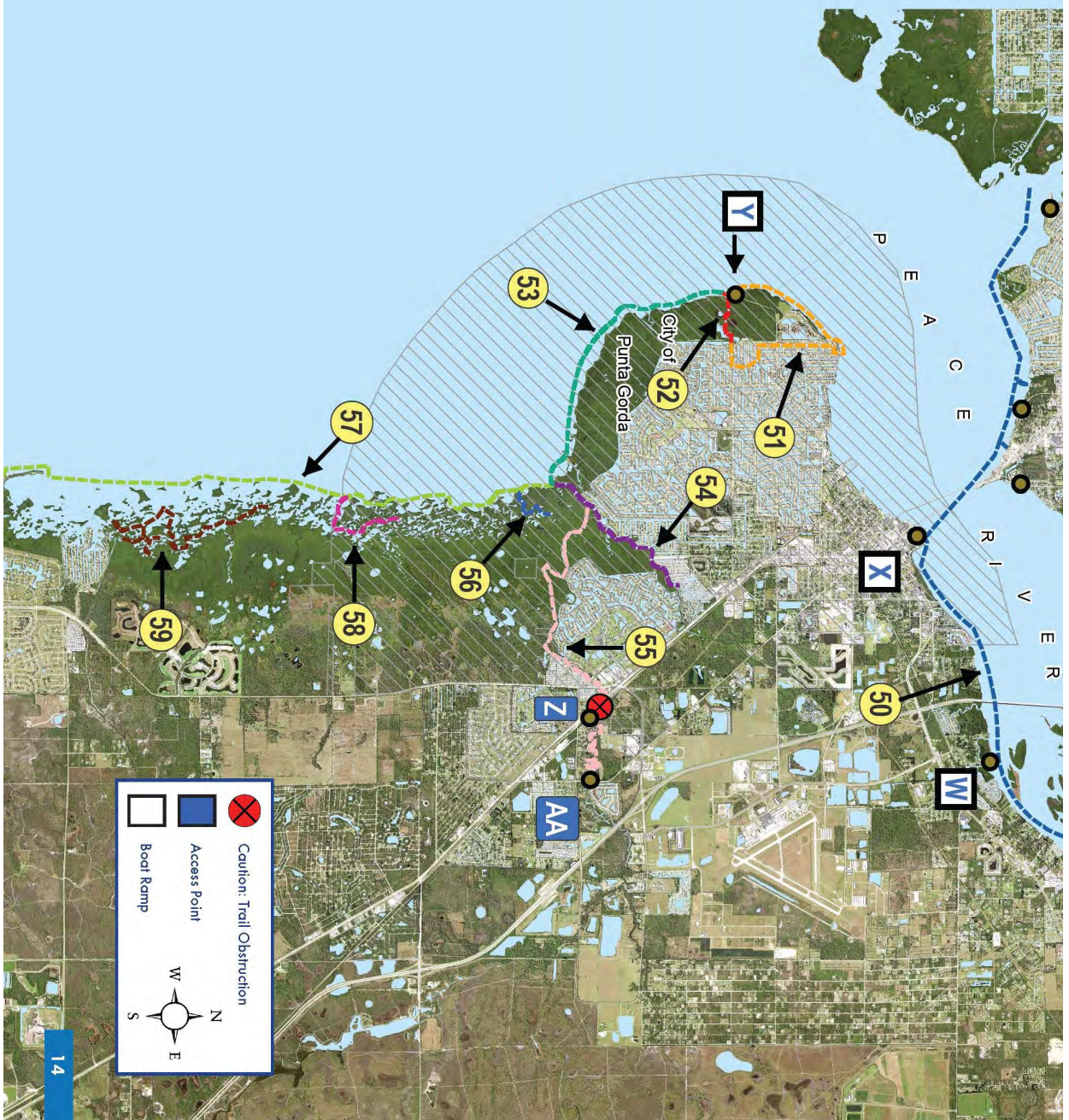
- 43 Harbour Heights Trail (BEG)
- 44 Long Lake Trail (BEG)
- 45 South Long Lake Trail (BEG)
- 46 Outer Shell Creek Trail (BEG)
- 47 Prairie Creek Trail (BEG)
- 48 Upper Shell Creek Trail (INT)
- 49 Shell Creek Trail (INT)
- 50 Tranquility Island Trail (BEG)

- | | | | |
|--|------|---|------|
| Q Bayshore Live Oak Park | Sand | U Hathaway Park | Ramp |
| 23157 Bayshore Road, Port Charlotte | | 35461 Washington Loop Road, Punta Gorda | |
| R Chester Roberts Park | Sand | V Riverside Park | Ramp |
| 5084 Melbourne St., Punta Gorda | | 8120 Riverside Drive, Punta Gorda | |
| S Harbor Heights Park | Ramp | W Darst Park | Ramp |
| 77420 Voyageur Drive, Punta Gorda | | 537 Darst Ave., Punta Gorda | |
| T Prairie Creek Preserve Access | ROW | X Lashley Park Municipal Marina | Ramp |
| 1900 Duncan Road, Punta Gorda | | 120 Lashley Ct., Punta Gorda | |



SOUTH COUNTY TRAILS

- 50** Tranquility Island Trail (BEG)
- 51** Dead Lake Trail (INT)
- 52** Barge Canal Trail (INT)
- 53** Explorer Trail (INT)
- 54** North Fork Trail (BEG)
- 55** Alligator Creek Trail (BEG)
- 56** Gaspar Trail (INT)
- 57** East Wall Trail (EXP)
- 58** Mosquito Trail (INT)
- 59** Spider Trail (INT)
- W** Darst Park
537 Darst Ave., Punta Gorda Ramp
- X** Laisley Park Municipal Marina
120 Laisley Ct., Punta Gorda Ramp
- Y** Ponce de Leon Park
3400 Ponce de Leon Plwy, Punta Gorda Ramp
- Z** Allapichée Shores Park
3100 Hickory Ct., Punta Gorda Ramp
- AA** Taylor Rd. Access
Taylor Road, Punta Gorda Roadside



Charlotte County Blueway Trail System Trailhead Access Points

ID	Facility	Access Type	Condition	Food	Water	Restrooms	Parking Fee	Launch Fee
A	Middle Beach Manasota Key Dr., Englewood	Ramp	Good	No	No	Yes	No	No
B	Indian Mound Park 210 Winson Ave., Englewood	Beach	Good	No	No	Yes	No	No
C	Lemon Bay Sunrise Rotary Park 1000 S McCall Rd., Englewood	Ramp	Good	No	No	Yes	Yes	No
D	Ainger Creek Park 2025 Placida Rd., Englewood	Ramp	Good	No	No	Yes	Yes	No
E	Oyster Creek Environmental Park 2333 Placida Rd., Englewood	Sand	Good	No	No	No	No	No
F	Stump Pass State Park Manasota Key Rd., Englewood	Beach	Good	No	No	Yes	Yes	No
G	Bill Coy Preserve 5400 Placida Rd., Englewood	Muck	Fair	No	No	No	No	No
H	Thorton Key Englewood	Sand	Good	No	No	No	No	No
I	Placida Park 6499 Gasparilla Rd., Placida	Ramp	Good	No	No	Yes	Yes	No
J	Uncle Henry's Marina 5800 Gasparilla Rd., Boca Grande	Ramp	Fair	No	Yes	Yes	No	Yes
K	Boca Grande Fishing Pier 5810 Gasparilla Rd., Placida	Sand	Fair	No	No	Yes	No	No
L	South Gulf Cove Park 10150 Amicola St., Port Charlotte	Ramp	Good	No	No	Yes	Yes	No
M	El Jobean Boat Ramp 4224 El Jobean Rd., El Jobean	Ramp	Good	No	No	Yes	Yes	No
N	Tippecanoe Environmental Park 2300 El Jobean Rd., Port Charlotte	Grass	Good	No	No	No	No	No
O	Spring Lake Park 20080 Edgewater Dr., Port Charlotte	Ramp	Good	No	No	Yes	Yes	No
P	Sunrise Park 20499 Edgewater Dr., Port Charlotte	Sand	Good	No	Yes	Yes	No	No
Q	Port Charlotte Beach Park 4500 Harbor Blvd., Port Charlotte	Beach	Good	No	Yes	Yes	Yes	No
R	Bayshore Live Oak Park 22976 Bayshore Rd., Charlotte Harbor	Sand	Fair	No	Yes	Yes	No	No
S	Chester Roberts Park 5084 Melbourne St., Port Charlotte	Sand	Good	No	No	No	No	No
T	Harbor Heights Park 27420 Voyageur Dr., Harbor Heights	Ramp	Good	No	Yes	Yes	Yes	No
U	Nav-a- Gator Grill 9700 SW Riverview Ct., Arcadia	Ramp	Good	Yes	Yes	Yes	-	Yes
V	Prairie Creek Preserve East of U.S.17 North of Washington Loop Rd., Punta Gorda	Sand	Good	No	No	No	No	No
W	Hathaway Park 35461 Washington Loop Rd., Punta Gorda	Ramp	Good	No	No	Yes	Yes	No
X	Riverside Park 8320 Riverside Dr., Punta Gorda	Ramp	Good	No	No	No	No	No
Y	Darst Park 537 Darst Ave., Punta Gorda	Ramp	Good	No	No	No	No	No
Z	Laishely Park 100 Nesbit St., Punta Gorda	Ramp	Good	Yes	Yes	Yes	No	No
AA	Ponce de Leon Park 4000 W. Marion Ave., Punta Gorda	Ramp	Good	No	Yes	Yes	No	No
BB	Allapatchee Shores Park 3100 Hickory Ct., Punta Gorda	Ramp	Good	No	No	No	No	No
CC	Taylor Rd. Access Taylor Rd., Punta Gorda	Roadside	Poor	No	No	No	No	No
DD	Don Pedro State Park 8450 Placida Rd., Cape Haze	Sand	Good	No	No	No	Yes	No

Charlotte County Blueway Trails

Numb	Trail Name	Region	Length	Difficulty	Access	Scenic	Overall Rating
1	Bird Key Trail	West County	.8 miles	Novice	Good 7	Wild 9	8
2	Boca Grande Trail	West County	3 miles	Novice	Good 7	Wild/Dev 8	7
3	Boguess Hole Trail	West County	3.4 miles	Novice	Good 8	Wild 8	9
4	Buck Creek Trail	West County	2 miles	Novice	Good 8	Wild 8	9
5	Bull Bay Bypass	West County	4.9 miles	Novice	Good 8	Wild 9	9
6	Bull Bay Trail	West County	3.3 miles	Novice	Good 8	Wild 9	9
7	Gallagher Trail	West County	3.6 miles	Novice	Good 6	Wild 9	7
8	Catfish Creek Trail	West County	1.6 miles	Beginner	Good 8	Wild 8	8
9	Cattle Dock Trail	West County	1.3 miles	Intermediate	Good 6	Open 7	6
10	Grande Tour Trail	West County	2.8 miles	Beginner	Very Good 9	Dev 6	7
11	Coral Creek Trail	West County	1.6 miles	Beginner	Very Good 9	Dev 6	8
12	Inter Coastal Trail	West County	18.3 miles	Novice	Fair 4	Open/Dev 6	6
13	Little Gasparilla Trail	West County	1.1 miles	Novice	Good 7	Dev 6	7
14	Cayo Palau Trail	West County	7 miles	Novice	Good 7	Wild/Dev 7	7
15	Oyster Creek Trail	West County	1.7 miles	Beginner	Fair 4	Wild/Dev 6	5
16	Rock Creek Trail	West County	1.3 miles	Beginner	Good 6	Wild/Dev 5	5
17	Santa Fe Trail	West County	11 miles	Beginner	Poor 5	Wild/Dev 7	6
18	Shallow Water Trail	West County	2.9 miles	Novice	Good 8	Wild 9	9
19	Sister Ponds Trail	West County	2.7 miles	Novice	Good 8	Wild 9	9
20	Tour Trail	West County	2.2 miles	Beginner	Very Good 8	Very Good 8	8
21	Trout Creek Trail	West County	1.7 miles	Intermediate	Good 8	Wild 8	7
22	Turtle Bay Trail	West County	4.5 miles	Novice	Very Good 9	Very Good 9	9
23	West Wall Trail	West County	12.7 miles	Expert	Good 6	Wild 9	8
24	Whidden Trail	West County	3.9 miles	Novice	Good 7	Wild/Dev 8	9
25	Widden Creek Trail	West County	3.9 miles	Novice	Good 8	Wild 9	9
26	Woolverton Trail	West County	3.2 miles	Novice	Good 8	Wild 9	9
27	Arapahoe Trail	Mid County	5.2 miles	Beginner	Good 5	Wild/Dev 8	6
28	Deep Creek Trail	Mid County	1.9 miles	Novice	Good 8	Wild 9	9
29	East Spring Lake Trail	Mid County	1.5 miles	Beginner	Very Good 9	Wild/Dev 8	8
30	Ghost Point Trail	Mid County	1.6 miles	Novice	Good 6	Dev 9	7
31	Gulf Cove Trail	Mid County	3 miles	Intermediate	Good 7	Open/Dev 6	6
32	Harbor Heights Trail	Mid County	8.7 miles	Novice	Good 8	Wild/Dev 9	8
33	Lewis Creek Trail	Mid County	.7 miles	Novice	Good 6	Wild 8	6
34	Long Lake Trail	Mid County	8.9 miles	Novice	Good 5	Wild/Dev 8	9
35	Muddy Cove Cut	Mid County	1 miles	Novice	Good 7	Wild 7	7
36	Muddy Cove Trail	Mid County	1.1 miles	Novice	Good 6	Dev 9	7
37	Myakka Cut Off	Mid County	.8 miles	Intermediate	Good 8	Wild 8	8
38	Myakka River Trail	Mid County	14.3 miles	Intermediate	Poor 5	Dev 7	6
39	Sasha's Trail	Mid County	2.7 miles	Novice	Good 6	Wild 8	8
40	Spring Lake Trail	Mid County	.9 miles	Beginner	Very Good 8	Dev 7	7
41	Three Lakes Trail	Mid County	1.2 miles	Novice	Good 8	Wild 5	8
42	Tippecanoe Trail	Mid County	2.8 miles	Novice	Fair 5	Wild 9	8
43	Tranquility Island Trail	Mid County	10.3 miles	Novice	Good 7	Wild/Dev 7	7
44	West Spring Lake Trail	Mid County	2.3 miles	Beginner	Very Good 9	Wild/Dev 8	8
45	Alligator Creek Trail	East County	4.8 miles	Novice	Fair 6	Wild/Dev 9	7
46	Barge Canal Trail	East County	.6 miles	Intermediate	Very Good 9	Wild 8	8
47	Dead Lake Trail	East County	3.1 miles	Intermediate	Very Good 9	Open/Dev 6	7
48	East Wall Trail	East County	8.3 miles	Expert	Poor 4	Wild 9	7
49	Explorer Trail	East County	2.4 miles	Intermediate	Poor 6	Wild/Dev 7	7
50	Gaspar Trail	East County	.7 miles	Intermediate	Poor 4	Wild 9	7
51	Mosquito Trail	East County	1.2 miles	Intermediate	Poor 4	Wild 9	7
52	North Fork Trail	East County	1.9 miles	Novice	Fair 5	Wild/Dev 6	7
53	Outer Shell Creek Trail	East County	7.4 miles	Novice	Good 8	Wild 8	8
54	Prairie Creek Trail	East County	6.1 miles	Novice	Good 7	Wild 9	8
55	Shell Creek Trail	East County	4.1 miles	Intermediate	Good 8	Wild 9	8
56	Spider Trail	East County	3.4 miles	Intermediate	Poor 4	Wild 9	7
57	Upper Shell Creek Trail	East County	2.2 miles	Intermediate	Good 8	Wild 9	9

Economic Benefit of the Scrub-Jay Habitat Conservation Plan

The Charlotte County Scrub-Jay Habitat Conservation Plan (HCP) was developed as part of an application for an Incidental Take Permit (ITP) to address construction and development related impacts within the County to the Florida Scrub-Jay (*Aphelocoma coerulescens*) and Eastern indigo snake (*Drymarchon corais couperi*) which are state and federally threatened species. This action was triggered by a 1991 letter to Charlotte County from USFWS which indicated that the County contained habitat that could be occupied by the Florida Scrub-Jay. The letter stated that, “As a government entity which issues permits allowing private landowners to develop their property, you are responsible for ensuring that activities authorized by the county will not be harmful to the Scrub-Jay or any other listed species.”

At the time the HCP was developed it was estimated that over 14,000 quarter acre parcels zoned for residential development existed within habitat that may be occupied by Scrub-Jays. The HCP was issued by the U.S. Fish and Wildlife Service (USFWS) in 2015 pursuant to Section 10 of the Endangered Species Act (ESA) of 1973. The Countywide HCP reduces the need, time, and cost associated with USFWS consultation under the ESA and provides timely regulatory certainty. Although project-by-project coordination is not needed under the HCP, it still provides measures to ensure Scrub-Jays continue to reside within Charlotte County. To assist in the protection of the Scrub-Jay, a “Reserve” totaling approximately 4,500 acres, was designated under the HCP to serve as compensation for loss of occupied Scrub-Jay habitat.

The economic benefit of the Countywide Scrub-Jay HCP is two-fold. The HCP creates a more streamlined and economically favorable process for private landowners in the County to develop on lots within Scrub-Jay habitat. This development increases the property value and therefore tax base for Charlotte County. The HCP also creates a mechanism for the County to collect development fees specific to these properties based on their acreage of Scrub-Jay habitat. These development fees are applied to acquisition of additional conservation lands within the HCP Reserve and allots funds for the management of these lands for Scrub-Jays.

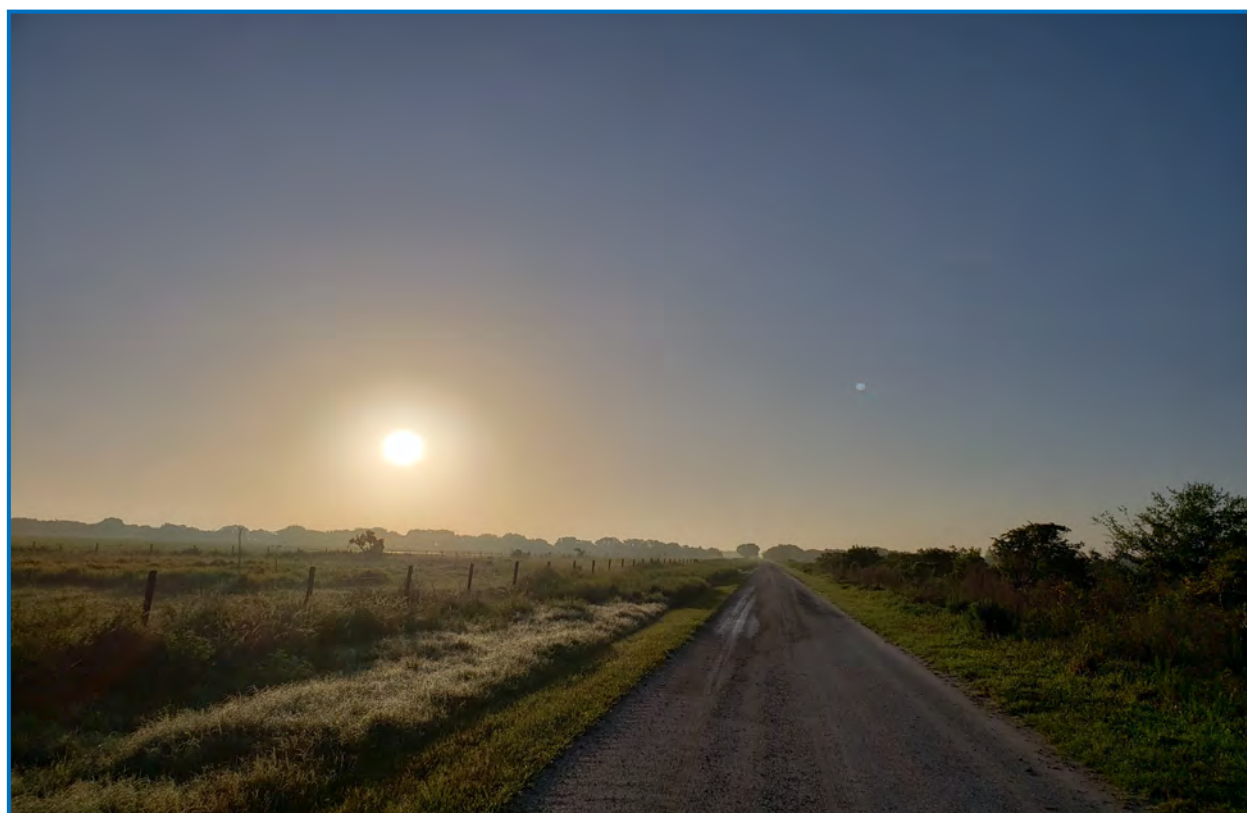
At the time of the HCPs development, Charlotte County’s 2010 Evaluation and Appraisal Report (EAR) indicated over 108,000 vacant lots within the Urban Service Area Overlay. These vacant lots included more than 102,000 residential lots. The HCP application process and fee structure for applicants within Scrub-Jay habitat minimizes the logistical and financial deterrent of building in these locations while still providing habitat compensation and protection for Scrub-Jays.



The HCP document analyzed the estimated cost to landowners within Florida Scrub-Jay areas under the previous USFWS permitting standard versus under the County’s HCP program. This analysis determined a total cost to all the landowners to be between \$431 million and \$865 million. These cost account for application fees, Scrub-Jay survey costs, consultant fees, and mitigation fees. The mitigation fees alone were estimated between \$140 million and \$350 million, and under the USFWS program this mitigation money would fund the management and acquisition of Scrub-Jay habitat outside the county. In comparison, at the inception of the program, the estimated cost to these same landowners under the County’s HCP was \$56.2 million. This results in a savings to these landowners of anywhere from \$375 million to \$809 million. It is anticipated that the savings and streamlined process of the HCP had and continues to encourage these landowners to develop their residential lots.

In fact, as of December 2020, the owners of 1,183 lots have elected to participate in the County’s HCP. A summary of the number of lots (parcels) approved at each of the County’s development fee acreage tiers is included by year in the tables below. These tables were extracted from the County’s 2020 Annual Countywide Scrub-Jay Habitat Conservation Plan Report prepared for the USFWS.

Based on the 2021 Charlotte County Tax Roll, the taxable value of undeveloped residential lots was approximately \$1.25 Billion for a total of 97,497 lots, an average of roughly \$13,000 per lot. The taxable value of single-family homes was approximately \$12 Billion for a total of 76,364 single-family homes lots, and average of about \$150,000 per lot. Therefore, providing a more favorable process for the owners of these residential lots to develop them, creates substantially more tax revenue for the County. The HCP allows the County to gain this tax base revenue without sacrificing protection measures for the Scrub-Jay. Prior to the Habitat Conservation Plan, the property appraiser lowered the taxes on Florida Scrub-Jay lots since they were hard to develop on. Since the inception of the HCP these lots are now assessed at 100%, resulting in higher tax revenue for the Charlotte County.



2015	
HCP Development Fees	# of parcels
Tier 1 (0.00 - 0.22 acres)	12
Tier 2 (0.23 - 0.49 acres)	66
Tier 3 (0.50 - 1.00 acres)	2
Tier 4 (1.01 - 3.00 acres)	1
Tier 5 (3.01 - 5.00 acres)	0
Tier 6 (5.01 - 20.00 acres)	1
Tier 7 (20.01 - 99.99 acres)	0
TOTAL	82

2016	
HCP Development Fees	# of parcels
Tier 1 (0.00 - 0.22 acres)	27
Tier 2 (0.23 - 0.49 acres)	101
Tier 3 (0.50 - 1.00 acres)	1
Tier 4 (1.01 - 3.00 acres)	3
Tier 5 (3.01 - 5.00 acres)	0
Tier 6 (5.01 - 20.00 acres)	0
Tier 7 (20.01 - 99.99 acres)	0
TOTAL	132

2017	
HCP Development Fees	# of parcels
Tier 1 (0.00 - 0.22 acres)	31
Tier 2 (0.23 - 0.49 acres)	128
Tier 3 (0.50 - 1.00 acres)	15
Tier 4 (1.01 - 3.00 acres)	3
Tier 5 (3.01 - 5.00 acres)	1
Tier 6 (5.01 - 20.00 acres)	0
Tier 7 (20.01 - 99.99 acres)	0
TOTAL	178

2018	
HCP Development Fees	# of parcels
Tier 1 (0.00 - 0.22 acres)	45
Tier 2 (0.23 - 0.49 acres)	155
Tier 3 (0.50 - 1.00 acres)	16
Tier 4 (1.01 - 3.00 acres)	2
Tier 5 (3.01 - 5.00 acres)	0
Tier 6 (5.01 - 20.00 acres)	1
Tier 7 (20.01 - 99.99 acres)	0
TOTAL	219

2019	
HCP Development Fees	# of parcels
Tier 1 (0.00 - 0.22 acres)	59
Tier 2 (0.23 - 0.49 acres)	205
Tier 3 (0.50 - 1.00 acres)	29
Tier 4 (1.01 - 3.00 acres)	4
Tier 5 (3.01 - 5.00 acres)	1
Tier 6 (5.01 - 20.00 acres)	0
Tier 7 (20.01 - 99.99 acres)	0
TOTAL	278

2020	
HCP Development Fees	# of parcels
Tier 1 (0.00 - 0.22 acres)	93
Tier 2 (0.23 - 0.49 acres)	194
Tier 3 (0.50 - 1.00 acres)	3
Tier 4 (1.01 - 3.00 acres)	4
Tier 5 (3.01 - 5.00 acres)	0
Tier 6 (5.01 - 20.00 acres)	0
Tier 7 (20.01 - 99.99 acres)	0
TOTAL	294



Charlotte County's Environmental Resources Analysis

Charlotte County is located on the east coast of Southwest Florida with Sarasota and Desoto Counties to the north, Glades County to the east, and Lee County to the south. The natural environment of Charlotte County is known to be a driving factor in the County's tourism industry and rapid population growth. One of the purposes of the Charlotte County Parks and Natural Resources Division is to provide a system of public recreation and open space sites that allow for both activity-based and resource-based recreational opportunities which allow visitors and residents to enjoy the natural environment of the County.

The Charlotte County Parks and Recreation Master Plan establishes a vision statement which says "We envision an unparalleled, attractive, connected, and sustainable parks and recreation system that focuses on regional and community-based opportunities, while preserving environmentally-sensitive resources and enticing residents and visitors to "Get Up. Get Out. Get Active".

To achieve this goal Charlotte County has acquired 64 parks and preserve lands. Preserves are generally larger parcels containing environmentally sensitive lands and habitat types. Preserves also generally contain less urban interface with limited public uses and amenity facilities and management objectives focused on environmental preservation and resources first and foremost. There are five categories of parks within the County. Environmentally Sensitive Lands is one of the five categories and can further be broken down into Preserves, Environmental Parks, Mitigation Lands, and Natural Lands. However management of these lands do not solely focus on environmental preservation, but also manage the natural resources from a human dimension and provide more opportunities for residents and visitors to interact with nature. Environmental parks are typically smaller than preserves and contain more urban interfaces and public uses and amenities.

The other four categories include Neighborhood, Community, Regional, and Special Purpose. Neighborhood, Community, and Regional parks are urban area parks that serve the recreational needs of residents. Neighborhood parks serve residents within walking distance to the park and typically are limited to 10 acres in size. Community Parks can be up to 50 acres in size and serves multiple neighborhoods. Community parks also generally offer more intense recreation facilities than neighborhood parks, such as lighted fields and courts. Regional parks are typical over 50 acres in size offer large-scale and intense recreation facilities (i.e., sports fields, gymnasiums, pools) to serve several communities. The location of these parks categories adjacent to environmental lands can provide additional benefits of shared infrastructure.

Special Purpose Parks vary in size based on the amenities provided at the site. These parks serve a unique purpose and include natural, historical, or cultural resource parks. Special purpose parks may provide a benefit to groups or organizations rather than the public at large.

In addition to the designated parks and preserves, there are also 78 parcels that have been acquired by the County that have not yet been named or designated a category. These lands have been included in this environmental resource analysis as they provide an environmental benefit regardless of their category designation.

Charlotte County Community Services accommodates a wide variety of goals and objectives with their parks and preserves, as a result the environmental resources both physical and biological in nature located within them are diverse. This section documents the physical and biological environmental resources available within Charlotte County and within the umbrella of the Charlotte County Parks and Natural Resources Division. These physical and biological resources are interdependent and their interactions shape the ecosystems found within the County. Urban areas are known to present unique challenges for the conservation of ecosystems. However numerous studies have indicated that parks and preserves within urban areas also provide some compensation for the effects of urbanization. They also transform communities into a more pleasant community by providing ecosystem services and accessibility to the natural environment.

This section also demonstrates the value of the natural resources within the County parks and preserves in both the urban area parks and environmental parks and preserves. Likewise it demonstrates how the establishment and maintenance of these parks and preserves provides an environmental benefit within Charlotte County and achieves the goals of the FRPA Environment Pillar and NRPA Conservation Pillar.

Climate Analysis

The climate in Southwest Florida is humid and sub-tropical due to influences from the Caribbean Sea and the Gulf of Mexico. The Bermuda high pressure cell prevents convective clouds from building into thunderstorms in the fall and winter months. As the Bermuda high weakens in the late spring, thunderstorms occur regularly and signals the start of the wet season, which occurs from June through October. In addition to the pattern of daily rainfall and thunderstorms, large-scale circulation systems such as tropical storms and hurricanes occur during the summer months into the fall. The official Atlantic hurricane season is June 1 through November 30. The period of greatest hurricane frequency in Southwest Florida is the three-month period from August to October, when 90 percent of all hurricanes passing through the region have historically occurred.

Weather systems (fronts) from the Northeastern United States pass over the area in the late fall, winter, and early spring. These fronts bring swings in temperature and humidity, causing the weather to shift. Temperature influences are exerted, as well with infrequent, but significant freezes occurring in December and January (FCC 2005). These freezes occasionally impact vegetation by damaging cold sensitive tropical plants. Cold fronts regularly push cool and moist weather from the Southeastern United States to Southwest Florida during the winter. Table #3 shows the average high and low temperatures for Charlotte County, Florida from 1991-2020 compiled by the National Oceanic and Atmospheric Administration’s National Centers for Environmental Information. As a result Southwest Florida’s sub-tropical climate, the region contains unique ecosystems and species, some of which are endemic to Florida.

Table #3. Average High/Low Temperatures for Charlotte County, FL (1999-2020)

Temp (°F)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
High	75.3	78.1	81.3	85.8	90.1	91.7	92.5	92.5	90.7	87.4	81.7	77.6
Low	50.5	53.0	55.7	60.5	65.6	71.8	74.1	74.5	73.4	66.9	58.8	54.1

Geology and Topography of Charlotte County

Geology and topography are recognized as important factors in shaping plant communities and ecosystems. Slight variations in topography can alter soil chemistry and hydrology. In southwest Florida, ten physiographic provinces (SWFRPC 2002) are present. These provinces are based on geographic features including terrain, rock type, geologic structure, and history. Charlotte County is located within the Gulf Coastal Lowlands the Caloosahatchee Valley, Caloosahatchee Incline, and the Desoto Plain. A description of these four physiographic provinces is included below. A map of the Charlotte County physiographic provinces is included as Appendix A.

Gulf Coastal Lowlands: The Gulf Coastal Lowlands comprise the majority of Charlotte County and is separated from the DeSoto Plain by marine terraces that developed on the south side of the Peace River Valley. The upland to shoreline transition is a gradual southwestward slope comprised of depositional sediments that are marine in origin.

Caloosahatchee Valley: The Caloosahatchee Valley is lower lying feature associated with the Caloosahatchee River. This province is located along the southern boundary of Charlotte County.

Caloosahatchee Incline: The Caloosahatchee Incline forms the southern bounding scarp of the DeSoto Plain. The crest of the incline is at 60 feet above mean sea level while the toe is at 30-35 feet above mean sea level.

DeSoto Plain: The Desoto Plain is located in the northeast portion of Charlotte County and is flat and broad. The southern portion of the plain end in a scarp which declines 30 feet in elevation over five to six miles. The plain is believed to be an emergent, submarine shoal that was formed during a time of high sea level.

Most of Charlotte County is located within the Coastal Lowlands region which forms the entire Florida coastline and reaches inland as far as 60 miles. The inner edge generally lies along the 100 foot elevation line. In recent geologic times, these lowlands were marine terraces and experiences three of more successive inundations by higher sea levels. The Coastal Lowlands is a flat region except where ancient shorelines or dune ridges occur or where the surface has been modified by stream erosion of underground solution (SWFRPC 2002). A topographic map of Charlotte County is included as Appendix B.

Soil Survey of Charlotte County

Soils play a critical role in formation of vegetative communities, as plant species have unique soil requirements. Soil characteristics such as pH, nutrient availability, hydrology, and organic matter, are driving factors in determining the types of plant species that can be supported and therefore the types of habitats formed. The Soil Survey of Charlotte County, Florida was conducted as part of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other federal agencies, state agencies, and local agencies. The soil survey was designed for a range of stakeholders from varying backgrounds to be able understand soil behavior, physical and chemical properties, land use limitations, potential impacts, and protection of the environment.

The Soil Survey of Charlotte County identifies 71 soil types within the Charlotte County Parks and Natural Resources lands. A list of these soil types and their acreages is included as Appendix C. A typical soils map is included as Appendix D and a Soil Attributes Table is included as Appendix E. Of the soil types within Charlotte County Parks and Natural Resources 2,720.57 acres or 46.2 percent are classified as hydric soils. Hydric soils are soil types that are likely to support the formation of wetland habitats.

Hydrologic Components

Hydrology is the study of the movement and distribution of water within a system. The source, direction and varying quality and quantity of water are all considered in the study of hydrology. Climate, topography, geology, soils, natural communities, and anthropogenic alterations to a landscape are all influences on the way water flows and drains.

Much of Florida is covered by water, with roughly 2.8 million acres of the state submerged (SWFRPC 2002). The natural surface hydrology of southwest Florida is a result of the interaction between the subtropical climate, topography, and geology. In Charlotte County major freshwater systems include the Peace River, Prairie Creek, Shell Creek, and Alligator Creek. Major saltwater and brackish water systems within the County include Charlotte Harbor, Gasparilla Sound, and Lemon Bay.

In 1974 the U.S Fish and Wildlife Service (USFWS) Office of Biological Services conducted an inventory of the nation's wetlands. By 1977 the National Wetlands Inventory (NWI) wetland maps were prepared by analyzing aerial imagery in conjunction with field work and other data sources. Federal agencies, state agencies, local institutions, and private industries use this data to inform management decisions, research, and policy development. The NWI maps identify 5 major systems which are riverine, palustrine, lacustrine, estuarine, and marine. Descriptions of each of these systems are included below.

Riverine systems: Riverine systems include wetlands and deep water habitats contained within a channel that contains freshwater systems. Riverine habitats are primarily open with little plant life. Palustrine and forested systems frequently are located along the edges of these systems or in islands within them.

Palustrine systems: These systems are often referred to as swamps, marshes, bogs, or fens. These are non-tidal wetland systems that typically dominated by trees, shrubs, and emergent aquatic plants. These freshwater systems may have tidal influences, but salinity will be less than 0.5 percent.

Lacustrine systems: Lacustrine systems occur in depressions or dammed rivers. These areas are typically larger than 20 acres in size and typically lack plant life. Examples of such systems are lakes and reservoirs.

Estuarine systems: Estuarine systems are defined as deep water tidal communities and adjacent tidal wetlands. These areas are tidally influenced and either have open, partially obstructed, or sporadic access to the open ocean and in which ocean water is at least occasionally diluted by freshwater runoff from the land.

Marine systems: These systems consist of the open ocean overlying the continental shelf and its associated coastline. Marine systems are highly tidally influenced and have salinities greater than 30 percent and support a wide variety of marine flora and fauna.

The USFWS NWI map identifies approximately 1,610.99 acres of wetlands and waters within Charlotte County parks and preserves. Table #4 provides the acreages of these NWI classifications within Charlotte County parks and preserves. A typical NWI map is included as Appendix F. The variations in salinity and physical features of each of the 5 systems influences the types of vegetative communities established, wildlife inhabiting them, and ecosystem functions provided.

Table #4. NWI Classification within Charlotte County Parks and Preserves

NWI Classifications	Acreage	Percent of NWI Classification
Riverine	61.19	3.80%
Palustrine	1,004.70	62.37%
Lacustrine	60.56	3.76%
Estuarine	481.87	29.91%
Marine	2.67	0.16%
Total	1,610.99	100.00%

Land Use and Vegetative Communities

As previously described, the land use and vegetative communities located within the Charlotte County parks and preserves is a function of land management, climate, geography, topography, soils, and hydrology.

The land use and vegetative communities located within the Charlotte County parks and preserves were identified using the Southwest Florida Water Management Districts (SWFWMD) 2018 Florida Land Use Cover and Forms Classification System (FLUCFCS) Mapping. This mapping was accomplished by the SWFWMD through interpretation of aerial photography. As such, this mapping is subject to some classification errors.

A total of 37 land use and vegetative community types were identified on the Charlotte County Parks and Natural Resource land. The most abundant of the land use and vegetative cover types include Pine Flatwoods (FLUCFCS Code 4110) with 1363.66± acres or 23.14 percent, Shrub and Brushland (FLUCFCS Code 3200) with 949.37± acres or 16.11 percent and Open Land (FLUCFCS Code 1900) with 645.32 ± acres or 10.95 percent.

In total, salt and freshwater wetland habitats (6000 series FLUCFCS Codes) comprise 1,271.73± acres or 21.58 percent. Another 223.51 ± acres or 3.79 percent is comprised of open water habitats (5000 series FLUCFCS Codes) and includes, streams and waterways, lakes, reservoirs, bays and estuaries.

A full list of the Charlotte County Parks and Natural Resources FLUCFCS Codes, descriptions, and acreages are included as Table #5. A typical FLUCFCS Map is provided as Appendix F and detailed descriptions of each FLUCFCS code identified in Table #6 is provided as Appendix G.



Table #5. Charlotte County Parks and Preserves FLUCFCS Codes

FLUCFCS Code	FLUCFCS Description	Acreage	Percent
1100	Residential Low Density <2 Dwelling Units Per Acre	132.46	2.25%
1200	Residential Medium Density 2 to 5 Dwelling Units Per Acre	59.85	1.02%
1300	Residential High Denisty	8.13	0.14%
1400	Commercial and Services	20.49	0.35%
1500	Industrial	7.32	0.12%
1700	Institutional	64.31	1.09%
1800	Recreational	479.64	8.14%
1820	Golf Courses	2.74	0.05%
1900	Open Land	645.32	10.95%
2100	Cropland and Pastureland	195.88	3.32%
2200	Tree Crops	3.02	0.05%
2600	Other Open Lands	9.04	0.15%
3200	Shrub and Brushland	949.37	16.11%
3300	Mixed Rangeland	67	1.14%
4110	Pine Flatwoods	1363.66	23.14%
4200	Upland Hardwood Forests-Part 1	19.26	0.33%
4340	Upland Hardwood-Coniferous Mix	357.86	6.07%
5100	Streams and Waterways	35.84	0.61%
5200	Lakes	65.54	1.11%
5300	Reservoirs	58.32	0.99%
5400	Bays and Estuaries	63.81	1.08%
5720	Gulf of Mexico	0	0.00%
6100	Wetland Hardwood Forests	1.26	0.02%
6120	Mangrove Swamps	65.61	1.11%
6150	Stream and Lake Swamps (Bottomland)	526.09	8.93%
6200	Wetland Coniferous Forests	57.61	0.98%
6300	Wetland Forested Mixed	39.53	0.67%
6400	Vegetated Non-Forested Wetlands	25.93	0.44%
6410	Freshwater Marshes	228.86	3.88%
6420	Saltwater Marshes	232.76	3.95%
6430	Wet Prairies	85.65	1.45%
6440	Emergent Aquatic Vegetation	3.68	0.06%
6530	Intermittent Ponds	2.64	0.04%
6600	Salt Flats	2.11	0.04%
7400	Disturbed	6.31	0.11%
8100	Transportation	4.87	0.08%
8300	Utilities	2.55	0.04%
Total		5894.32	100.00%

Ecosystem Function

Charlotte County's parks and preserves contain a mixture of uplands, freshwater wetlands, saltwater wetlands, and waters. These varying community types provide a wide range of ecosystem functions. A summary of some of these ecosystem functions is provided below.

Upland hardwood communities are dominated by deciduous hardwood trees. They typically have a diverse assemblage of deciduous and evergreen tree species in the canopy and sub-canopy, shade tolerant shrubs and sparse ground cover. Characteristic canopy species include live oak, laurel oak, southern magnolia, sweetgum, southern hackberry. These communities provide nesting, denning, and foraging habitat for a variety of mammals, reptiles, and amphibians.

Pine flatwoods provided foraging habitat and nesting and denning sites for a variety of birds, mammals, reptiles, and amphibians. There are a number of rare wildlife species that occur within flatwoods as well as many rare plant species, some of which are endemic species. During the wet season (June through October) pine flatwoods provide dry refuge for non-aquatic animals. During severe flooding events, these habitats serve as a water storage area to protect adjacent lands from flooding. Hydric pine flatwoods function seasonally as both wetland and upland. This transition allows for abundant diversity of plant life and as a result supports a wide range of wildlife.

Freshwater wetlands within southwest Florida are an important component of the region's natural environment. Many bird species feed in these locations, and fish and amphibians live and breed in these habitats. These habitats also improve water quality and assist in recharging aquifers. Freshwater wetlands are influenced by seasonal rainfall changes. These wetlands fill to capacity in the rainy season and fish populations begin to increase in number and in biomass. When the wet season ends, water levels recede, and fish become concentrated in shallower pools of water. This concentration of fish presents an opportunity for wading birds to forage. By feeding on the fish, the density of fish remaining decreases and the availability of dissolved oxygen increase. Wildlife who rely on these habitats have adapted to these seasonal fluctuations, often migrating from one wetland to another as they begin to dry up.

Marshes specifically are important to many species of wading birds for nesting success. White ibis (*Eudocimus albus*) select nesting sites in proximity to marshes that have appropriate drying conditions. Wood storks (*Mycteria americana*) and some species of herons require specific receding water conditions over their four-month nesting season. The faster a marsh dries out; the sooner nesting starts. If water levels begin to rise, then nesting success declines.

The seasonally fluctuations of freshwater wetlands are also important for the plant species within them. When the plants in these wetlands become completely dry, die, and decay, they release nutrients from their tissue. This release of nutrients enters the soil which in turn makes them more productive for the following wet season. In addition, many aquatic plants cannot germinate under water and require a period of drying to reproduce.

Forested freshwater wetlands (i.e., wetland hardwood forests, wetland coniferous forests, wetland forested mixed communities) provide cover and foraging habitat for woodpeckers, warblers, and other migratory songbirds. These forested systems play a critical role by storing rain and stormwater and by improving water quality by filtering nutrients and pollutants.

Charlotte County's parks and natural resources also contain an assortment of coastal plant communities. Several of which act as shoreline stabilizers to protect communities from storm damage. This protection is dependent on dense vegetation to buffer storm conditions.

Salt flats are treeless flat lands generally behind dunes on barrier islands. They may be periodically flooded and covered with sand and debris during major storms. Shorebird species are known to nest in this community type.



The beaches of Southwest Florida provide an important refuge for wintering shorebirds. Florida's most abundant wintering shorebirds include sanderlings (*Calidris alba*), least sandpiper (*Calidris minutilla*), western sandpiper (*Calidris mauri*), dunlin (*Calidris alpina*), short-billed dowitcher (*Limnodromus griseus*), semipalmated plover (*Charadrius semipalmatus*), black-bellied plover (*Pluvialis squatarola*), ruddy turnstone (*Arenaria interpres*) and willet (*Catoptophorus semipalmatus*). When mud flats and sand bars become exposed at low tide they provide an important feeding area due to their high diversity of macro invertebrates. These habitats in southwest Florida also provide a rest location for shorebird species who continue their migration further north or south. These include such species as Red knots (*Calidris canutus*), black terns (*Chlidonias niger*) and common terns (*Sterna hirundo*).

Mangrove swamps are a unique coastal community in Southwest Florida. They play a critical role as nursery grounds for most of Florida's commercially and recreationally important fish and shellfish. The prop roots of red mangroves (*Rhizophora mangle*), the aerial roots (pneumatophores) of black mangroves (*Avicennia germinans*) and the rooting of the white mangrove (*Laguncularia racemosa*) trap sediments and recycle nutrients from upland areas. This process creates islands and is a part of the process involved in land formation in South Florida. These structures are also important in protecting coastlines from erosion causing tropical storms and hurricanes. They do so by dispersing wave energy and providing stabilization for the shoreline with their root systems.

Mangrove swamps also provide breeding grounds for a substantial number of wading bird and shorebird species as well as other animals (FNAI and FDNR 1990). There are several species of wildlife that are exclusively found in mangrove swamps. This includes the mangrove salt marsh snake (*Nerodia clarkii*), the mangrove skipper (*Phocides pigmalion*) and the black mangrove buckeye (*Junonia evarete*). In addition, mangrove trees can produce up to 80 percent of the total organic material in the aquatic food web through their continuous shedding of leaves and plant components.

Charlotte County's parks and natural resources also contain a significant number of lands that have been altered to serve human uses. These areas still provide natural functions and ecosystem services. For example, American kestrel (*Falco sparverius*), crested caracara (*Caracara cheriway*), sandhill crane (*Antigone canadensis*) and Florida Scrub-Jay (*Aphelocoma coerulescens*) are known to use abandoned fields that provide open habitat. Artificial ponds, ditches, and reservoirs are also known to provide foraging habitat and a source of water for wildlife during the dry season, particularly for amphibians and wading birds.

Wildlife Species

Charlotte County's parks and natural resources provide a variety of habitat types and therefore provide habitat and support for a variety of species of wildlife. Some species are endemic to southwest Florida and/or are listed as threatened or endangered by the Florida Fish and Wildlife Conservation Commission (FWC), United States Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS). A list of the species that have the potential to occur within Charlotte County parks and natural resources is listed in Table #6 and was generated using the USFWS Information for Planning and Consultation (IPaC) tool.

Gulf Sturgeon: The gulf sturgeon is the only sturgeon species found in Florida's gulf coastal waters. Adults and subadults spend the coldest 3-4 months in the Gulf of Mexico and the rest of the year in major panhandle rivers. They are in decline due to the damming of many of north Florida's rivers that drain into the Gulf.

Smalltooth Sawfish: Smalltooth sawfish are one of five species of sawfish they get their name from their distinct long, flat snout (rostrum) which is lined with teeth that looks like a saw. They prefer shallow coastal waters and sometimes the lower limits of freshwater river systems. The species decline is attributed to habitat loss and accidental capture in fisheries. Charlotte Harbor contains an area designated as critical habitat for this species.

American Alligator: American alligators have recovered dramatically since the 1960s. There are now some populations large enough to support limited harvests. Pollution and destruction of wetlands are currently the main threat to this species. Protecting wetlands from ditching, filling and pollution are the management recommendations for this species.

American Crocodile: The American crocodile is occasionally sighted in Charlotte County. South Florida is the northernmost edge of the crocodile's range, and they were probably never very numerous in the state. However, its range has shrunk considerably due to the increase in human population. The number one cause of mortality for this species in the United States is U.S. Highway 1 in the Florida Keys.

Eastern Indigo Snake: The Eastern indigo snake is a large, iridescent black snake with a red, coral, or white throat (record length, 8.6 feet). This species is found in a large spectrum of habitats throughout Florida and southern Georgia, often associated with gopher tortoise burrows. The Eastern indigo is threatened throughout its range due to habitat loss, degradation, and fragmentation. Although it is now illegal to possess this animal without the proper permits, the pet trade is another cause for decline of this species. The most common causes of mortality are human caused, either by people afraid of snakes or accidental highway mortality. The indigo snake utilizes a home range of approximately 125-250 acres, and the males are territorial during the breeding season. The indigo snake feeds diurnally on fish, frogs, toads, lizards, snakes, small turtles, birds, and small mammals, often around the edge of wetlands. The eastern indigo snake breeds from November through April, then lays 5-10 eggs in May or June.

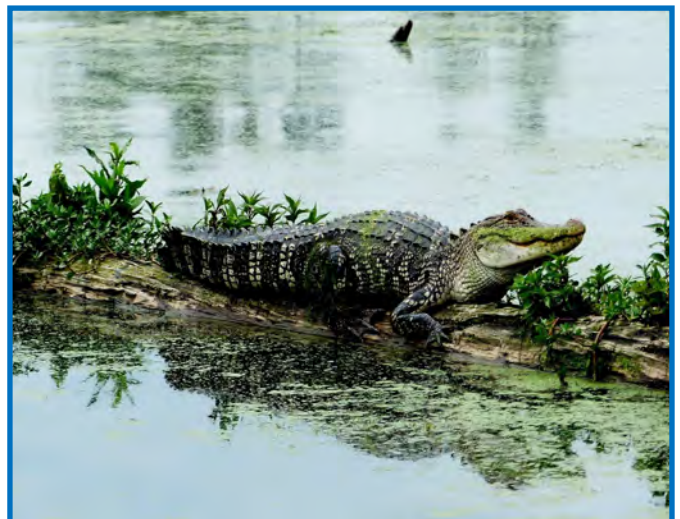


Table #6. State and Federally Listed Species with the Potential to Occur within Charlotte County Parks and Natural Resources

Common Name	Scientific Name	Listing Status	
		USFWS/ NMFS	FWCC
Fish			
Gulf Sturgeon	<i>Acipenser oxyrinchus</i>	FT	FT
Smalltooth Sawfish	<i>Pristis pectinata</i>	FE	FE
Reptiles			
American Alligator	<i>Alligator mississippiensis</i>	FT (S/A)	FT (S/A)
American Crocodile	<i>Crocodylus acutus</i>	FT	FT
Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	FT	FT
Green Sea Turtle	<i>Chelonia mydas</i>	FT	FT
Gopher Tortoise	<i>Gopherus polyphemus</i>	--	ST
Kemp's Ridley Sea Turtle	<i>Lepidochelys kempii</i>	FE	FE
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	FE	FE
Loggerhead Sea Turtle	<i>Caretta caretta</i>	FT	FT
Birds			
American Oystercatcher	<i>Haematopus palliatus</i>	--	ST
Audubon's Crested Caracara	<i>Caracara cheriway</i>	FT	FT
Bald Eagle	<i>Haliaeetus leucocephalus</i>	*	*
Black Skimmer	<i>Rynchops niger</i>	--	ST
Florida Burrowing Owl	<i>Athene cunicularia floridana</i>	--	ST
Florida Grasshopper Sparrow	<i>Ammodramus savannarum</i>	FE	FE
Florida Sandhill Crane	<i>Antigone canadensis pratensis</i>	--	ST
Florida Scrub-Jay	<i>Aphelocoma coerulescens</i>	FT	FT
Least Tern	<i>Sternula antillarum</i>	--	ST
Little Blue Heron	<i>Egretta caerulea</i>	--	ST
Piping Plover	<i>Charadius melodus</i>	FT	FT
Red Knot	<i>Calidris canutus rufa</i>	FT	FT
Red-cockaded Woodpecker	<i>Picoides borealis</i>	FE	FE
Reddish Egret	<i>Egretta rufescens</i>	--	ST
Roseate Spoonbill	<i>Platalea ajaja</i>	--	ST
Snowy Plover	<i>Charadius nivosus</i>	--	ST
Southeastern American Kestrel	<i>Falco sparverius paulus</i>	--	ST
Tricolored Heron	<i>Egretta tricolor</i>	--	ST
Wood Stork	<i>Mycteria americana</i>	FT	FT
Mammals			
Florida Bonneted Bat	<i>Eumops floridanus</i>	FE	FE
Florida Panther	<i>Puma concolor coryi</i>	FE	FE
West Indian Manatee	<i>Trichechus manatus</i>	FT	FT

FE – Federally Endangered

FT – Federally Threatened

FT(S/A) – Federally Threatened Due to Similarity of Appearance

ST – State Threatened

**Bald and Golden Eagle Protection Act

Gopher Tortoise: Gopher tortoises are in decline throughout their range due to loss and degradation of habitat. As a species dependent on dry, upland communities much of their habitat has been lost to urban and residential development, agriculture, citrus groves, mining, and pine plantations. Additional threats include a highly contagious respiratory disease and human consumption.

Exotic plant removal, pine tree thinning, brush reduction, and prescribed burning will benefit this species. Before restoration activities that utilize heavy equipment take place in areas with high burrow concentrations, staff will provide operator burrow maps, or will mark off burrows. Staff will determine if burrows will be flagged, and equipment operators will be advised to stay away from the burrows based on type of work being planned and time of year. High intensity chopping should be planned for winter months when gophers will be less active outside of the burrow.

Green, Kemp's Ridley, Leatherback, and Loggerhead Sea Turtle: Sea turtles face many challenges in Florida including coastal development, boat propellers, hatchling disorientation due to bright lights, human consumption of turtles and their eggs, pollution, shrimp trawls, long-line and gill-net fisheries, fire ants, nest depredation due to exploding raccoon populations and beach erosion.

All are present in the Gulf of Mexico. Loggerhead, and Kemp's ridley sea turtles are known to nest on Charlotte County beaches during nesting season which occurs between May 1 and October 31. Green sea turtles are usually found near shore in and around sea grass beds while leatherback sea turtles are most likely to be observed offshore where jellyfish are plentiful.

American Oystercatcher: The American oystercatcher is found on intertidal areas and adjacent beaches, particularly barrier islands. They prefer sandy and shelly beaches for nesting but will also nest in sandy spots within salt marshes. Artificial beaches and dredge spoil island are also known to attract oystercatchers. The species is declining due to loss of habitat and harassment from people and domestic animals.

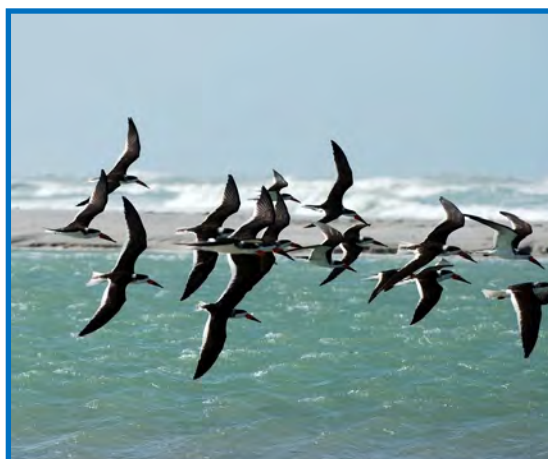
Audubon's Crested Caracara: The caracara has large habitat requirements and requires habitats with minimal canopy and understory cover. They frequently use agricultural fields for foraging. As a result, the conversion of agriculture and rural open lands to residential uses has been identified as a source of species decline.



Bald Eagle: Bald eagle population numbers have been increasing within Florida steadily since a low of 120 active nests was reported in 1973. The primary cause of decline of the species was attributed to impacts from Dichlorodiphenyltrichloroethane (DDT), an insecticide that was previously used in agriculture. Secondary poisoning from the consumption of lead shot in waterfowl was also identified as a contributing factor to the species decline, which ultimately led to a ban on lead shot for waterfowl in 1991. The bald eagle is no longer federally listed under the Endangered Species Act, but still receives protection under the Golden and Bald Eagle Protection Act.



Black Skimmer: Black skimmers live in coastal areas, typically on sandy beaches or islands. They occasionally can be found inland around large lakes. To forage they frequent areas where prey is concentrated such as, bays, estuaries, lagoons, ditches, and saltmarsh pools. The species has been affected by habitat decline, human disturbance and predation from both wild and domestic animals.



Florida Burrowing Owl: The Florida burrowing owl nests underground in burrows. They will dig their own burrow or utilize a burrow that was already created by another animal. They require sparsely vegetated areas of sandy ground, such as pasture, road right-of ways, and residential yards. As a result, they often reside close to human activities which has exposed them to collisions with vehicles, domestic animal attacks, pesticide poisoning, and human harassment.



Florida Grasshopper Sparrow: The Florida grasshopper sparrow resides exclusively in dry prairie communities. The reasons for the species decline include habitat loss and degradation, predation of nest, disease, and genetic problems.



Florida Sandhill Crane: Threats to Florida sandhill cranes include loss and degradation of wetlands, fire suppression, free ranging dogs and cats, and fencing entanglement. Unusually high-water levels during nesting season and extended droughts are also threats to reproduction of the species.

Florida Scrub-Jay: The Florida Scrub-Jay is endemic to Florida. They are dependent on oak species for a large portion of their diet and have specific habitat requirements. Optimal sub-canopy height for Scrub-Jays is 4 to 5.5 feet. Habitat loss, fire suppression, and attacks by domestic animals have all been attributed to the species decline.

Least Tern: Least Tern's nest on sandy beaches and

gravel rooftops in Florida, including Charlotte County. While population numbers for this species have been increasing since the 1970's the species is still listed as Threatened by the state of Florida. The Least Tern is known to be affected by habitat destruction, human disturbance, pollution, and predation by racoons.

Little Blue Heron, Reddish Egret, Roseate Spoonbill & Tricolored Heron: The little blue heron's and tricolored heron's decline are due to loss of freshwater wetlands and alteration of their natural hydroperiod. There is also some indication that pesticides and heavy metal contamination may affect herons. The reddish egret has also been declining throughout their ranges since the 1950's. It is believed that the cause of this decline is the loss and alteration of wetlands where they forage. Roseate spoonbills nest in mangrove areas and occasionally in willow trees within freshwater wetlands. The forage in shallow-water and their decline is attributed to disturbance of nesting colonies and alteration of foraging sites.

Piping and Snowy Plovers: The piping plover prefers sandflats or sandy mudflat habitats adjacent to inlets or passes. They are a winter resident within Florida and the primary concern for the species is harassment by people and their pets while foraging. Other concerns include inlet and shoreline stabilization, dredging of inlets, beach maintenance and renourishment, and pollution.

Like the piping plover, snowy plovers are declining due to habitat loss and harassment by humans and pets. They are typically found in sandy areas adjacent to water. This includes beaches but also shores of inland lakes. They also will use wastewater ponds, reservoir margins, spoil piles, river sand bars, and occasionally disused parking lots.

Red Knot: Red knots are present in marine habitats in Florida (i.e. beaches, salt marshes, bays and estuaries, and mangroves) during the non-breeding season. Loss of both breeding and non-breeding habitat has resulted in this species decline. The USFWS has designated critical habitat for the red knot in Charlotte County along the gulf edge of Don Pedro Island.

Red-cockaded Woodpecker: The red-cockaded woodpecker inhabits open, mature pine flatwoods that contain diverse groundcover and uneven aged stands of pines. Habitat fragmentation, fire suppression, and invasion by exotic plant species has reduced the amount of suitable habitat for the species.

Southeastern American Kestrel: The southeastern American kestrel is found in open pine habitats, woodland edge, prairies, and pastures. They typically nest in cavities of tall dead trees or within utility poles. Kestrels require open patches of grass or bare ground in flatwood settings for successful foraging. Declines in availability of suitable nesting and foraging habitat have affected population numbers for the species.

Wood Stork: Wood storks are sensitive to water levels within freshwater wetlands. They require high concentrations of fish in shallow water for foraging. Decline of this species is attributed to disturbance of nesting colonies, loss of wetlands, and alterations to hydrology of wetlands.

Florida Bonneted Bat: The Florida bonneted bat is medium in size with long ears that extend to the center of their backs. Bonneted bats roost primarily in trees and in manmade artificial structures, with roost availability indicated as an important limiting factor (USFWS 2014). Foraging habitat include areas over water such as ponds, wetlands, streams, canals, ditches, or over open ground such as forest edges, tree lines, corridors, prairies, pastures, golf courses, and croplands (Marks and Marks 2006). The greatest threats to Florida bonneted bats are loss of habitat, including the destruction of natural roost sites, and natural disasters such as hurricanes. The USFWS has proposed critical habitat designation for this species in Charlotte County along the edge of the Peace River and around the Babcock-Webb Wildlife Management Area.

Florida Panther: The Florida panther is a subspecies of cougar that is currently restricted to southwest Florida in an area less than five percent of its historic range. Habitat loss, vehicular collisions, feline leukemia, and intraspecific aggression are all factors attributed to the species decline. However, populations have been increasing in recent years. Previously it was believed that the only breeding population of panthers was located south of the Caloosahatchee River, but in 2017 female panthers with kittens were documented on trail cameras in Charlotte County demonstrating that panthers are now breeding in this area.

West Indian Manatee: The West Indian manatee is found in inland streams, canals, and rivers, as well as the Gulf of Mexico. They forage on sea grasses and travel further inland when water temperature cool and to birth their young. The species has been negatively impacted by boat collisions, loss of sea grass habitat, and entrapment in crab traps and fishing line.



Plant Species

In addition to listed wildlife species, there are also many plant species that are listed by the Florida Department of Agriculture and Consumer Services (FDACS) that have the potential to occur within the Charlotte County parks and preserves. Table #7 includes a list of those species and their FDACS listing status.

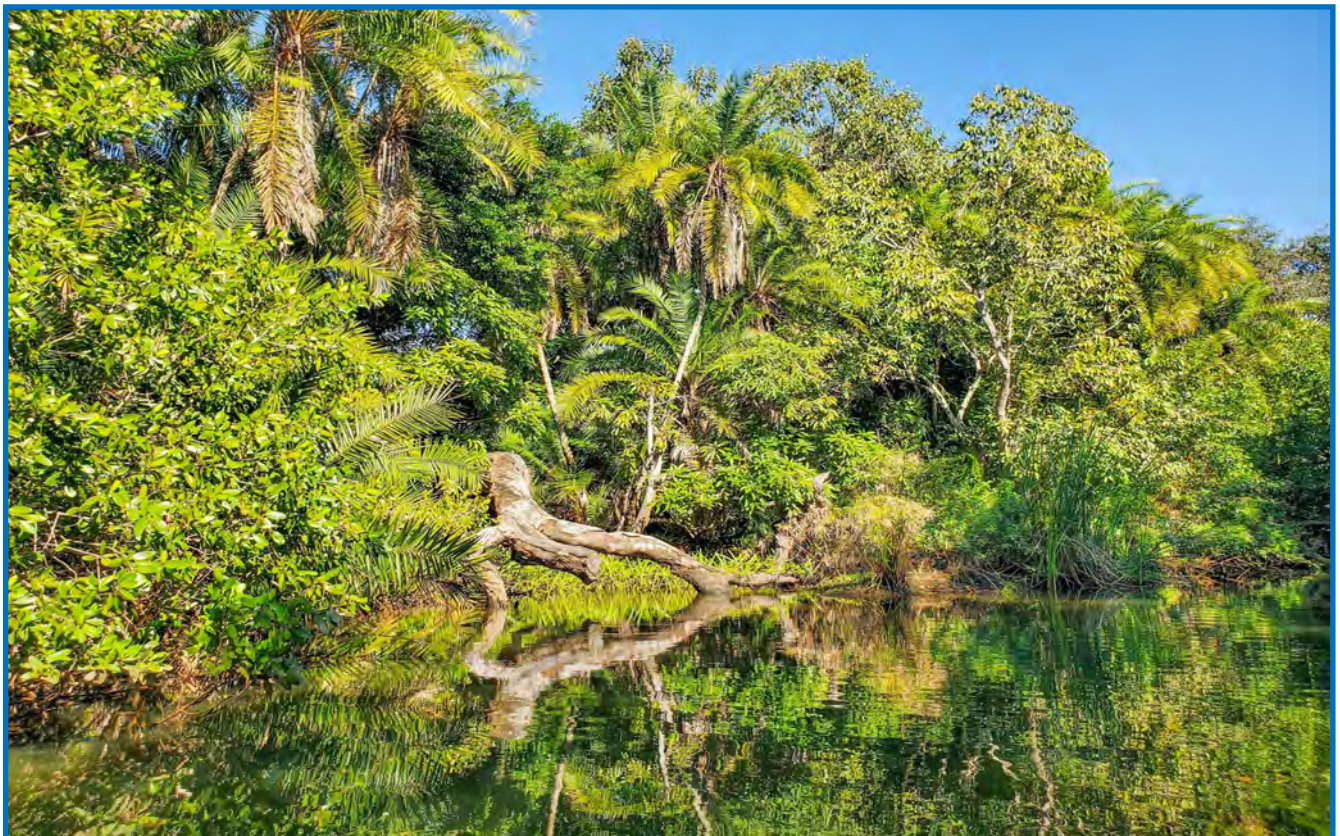
Table #7. Listed Plant Species with the Potential to Occur within Charlotte County Parks and Preserves

Common Name	Scientific Name	FDACS Status
Angularfruit Milkvine	<i>Gonolobus suberosus</i>	T
Beachberry	<i>Scaevola plumieri</i>	T
Blueflower Butterword	<i>Pinguicula caerulea</i>	T
Cardinal Airplant	<i>Tillandsia fasciculata</i>	E
Catesby's Lily	<i>Lilium catesbaei</i>	T
Drysand Pinweed	<i>Lechea divaricata</i>	E
Erect Pricklypear	<i>Opuntia stricta</i>	T
Florida beargrass	<i>Nolina atopocarpa</i>	T
Florida Loosestrife	<i>Lythrum flagellare</i>	E
Florida Mayten	<i>Tricerna phyllanthoides</i>	T
Giant Airplant	<i>Tillandsia utriculate</i>	E
Giant Orchid	<i>Orthochilus ecristatus</i>	T
Golden Leather Fern	<i>Acrostichum aureum</i>	T
Iguana Hackberry	<i>Celtis iguanaea</i>	E
Jameson's Waterlily	<i>Nymphaea jamesoniana</i>	E
Joewood	<i>Jacquinia keyensis</i>	T
Lacelip Ladiestresses	<i>Spiranthes laciniata</i>	T
Leafless Beaked Ladiestresses	<i>Sacoila lanceolata</i> var. <i>lanceolata</i>	T
Longlip Ladiestresses	<i>Spiranthes longilabris</i>	T

Northern Needleleaf	<i>Tillandsia balbisiana</i>	T
Pretty False Pawpaw	<i>Asimina pulchella</i>	E
Sanibel Island Lovegrass	<i>Eragrostis pectinacea</i> var. <i>tracyi</i>	E
Simpson's Zephyrlily	<i>Zephyranthes simpsonii</i>	T
Small's Flax	<i>Linum carteri</i> var. <i>smallii</i>	E
Snowy Orchid	<i>Platanthera nivea</i>	T
Southern Ladiestresses	<i>Spiranthes torta</i>	E
Spiny Hackberry	<i>Celtis pallida</i>	E
Tampa Mock Vervain	<i>Glandularia tampensis</i>	E
Twisted Airplant	<i>Tillandsia flexuosa</i>	T
Upland Cotton	<i>Gossypium hirstum</i>	E
Wild Century Plant	<i>Agave weberi</i>	E
Yellow Butterwort	<i>Pinguicula lutea</i>	T

E – Endangered

T – Threatened



Land Management

Charlotte County Community Services Parks and Natural Resources Division protects the County's natural resources and the community by using all their resources available and incorporating the best land management strategies developed. The divisions land management section allows for increased flood control, filtering water resources, recharging the aquifer, cleaning the air, preserving the diversity of plant and animal species, and providing open spaces and recreational opportunities. Charlotte County Parks and Natural Resources Division have developed and are involved in many programs that have a direct positive impact on our natural resources and community.

Invasive Species

Invasive species are organisms not native to an area, that are introduced, become overpopulated, and harm its new environment. Invasive species can have a devastating effect on the environment and economy. Invasive species typically do not have any natural predators, have a high number of offspring, and can out compete native species for resources. Charlotte County Parks and Natural Resources Division works diligently to reduce and prevent invasive species from harming our community and its native habitants.

Invasive Iguanas

Iguanas including the Green Iguana, Black Spiny-Tailed Iguana, and Mexican Spiny-Tailed Iguana have become an established invasive resident in Charlotte County and southwest Florida. Iguanas were introduced to Florida as a result of accidental importation on ships and the pet trade market. Florida subtropical climate provides ideal conditions for iguanas to reproduce rapidly and thrive. In Florida, iguanas have no natural predators to control their population and out-compete native species for food resources and shelter. Charlotte County Parks and Natural Resources Division contracts with USDA to humanely trap and dispose of invasive iguanas on Boca Grande in Charlotte County. In addition to trapping, they provide education to the public regarding the negative impacts iguanas are having on our community, and provide resources for those with unwanted pet iguanas as to properly find them a new home that will not have negative impacts on the community.

Invasive Feral Hogs

Feral hogs are an invasive species that was first introduced to Florida by Spanish explorers in the early 1500s. Their population has since exponentially grown, and they can now be found in all 67 counties of Florida. Feral hogs can reach weights of more than 150 pounds and measure 5 to 6 feet long. These hogs have numerous negative impacts and are responsible for millions of dollars in damages to residential property each year. They do not have many predators, and typically travel in small groups and eat a variety of plants and animals leaving a path of destruction behind. Given their large size and protective behavior, they are considered dangerous and will attack when they feel threatened. Feral hogs are also often carriers for pathogens and parasites such as Brucellosis which many native species have no defense.

The Charlotte County Parks and Natural Resources Division, the United States Department of Agriculture, and the Florida Department of Agriculture and Consumer Services all work together to offer their services that include trapping and removal of feral hogs.

Invasive Plants

There are hundreds of invasive plant species within Southwest Florida. Global assessments on biodiversity have determined the number of invasive species introduced outside of their native range has doubled over the last 50 years with approximately one fifth of the ecosystems in the world at risk of being invaded by these invasive plants. Florida is known to be particularly vulnerable to invasive plants because of its sub tropical climate, diverse ecosystems and peninsular geography. With the vast amount of threatened or endangered species within Southwest Florida and Charlotte County management of invasive plants is crucial to protecting these species and preserving biodiversity. Charlotte County Parks and Natural Resources Division actively manages environmental preserves for invasive plants. Each of Charlotte County's environmental preserves has a land management plan that includes management strategies including measures to address invasive plant species. These measures to address invasive plant species include hand removal, mechanical removal, herbicide treatment, and prescribed fires.

Prescribed Fires

Florida's plant species require periodic fire to promote growth and maintain their habitats in a healthy condition. These fires typically are started by lightning strikes, however with continuing development of Florida, these wildfires have been suppressed. When wildfires are suppressed, an accumulation of natural fuels in the ecosystem is created that puts nearby people and property at risk. More than 40 percent of lands in Charlotte County are protected through conservation/preservation and prescribed fire are critical to their health and growth. To reduce the risk of wildfires and encourage plant growth, prescribed fires are conducted to mimic the natural fire process. The Charlotte County Parks and Natural Resources Division, the Charlotte County Fire Department, the Florida Forestry Service, and the Florida Department of Environmental Protection work together to schedule and complete prescribed burns throughout Charlotte County.



Programs

Abandoned Vessel Program

A derelict vessel is any vessel that is left or abandoned upon or under the waters of the State in a wrecked, junked, or substantially dismantled condition. An abandoned vessel is any tangible vessel that does not have an identifiable owner and that has been disposed of on public property in a wrecked, inoperative or partially dismantled condition or has no apparent intrinsic value to the rightful owner.

Derelict and abandoned vessels that are stored or moored for long periods of time in one location can have many negative effects. Vessels that are not properly maintained can be a major source of pollution. Oil, gas, and sewage can all leak into the aquatic environment as the vessel deteriorates. Vessels stored or moored for long periods of time in one place contribute to the demise of benthic fauna and flora as they restrict essential lighting for growth and sustained life. In addition to environmental risks, these vessels pose health risks to boaters and swimmers. Abandoned vessels can become obstructions to other vessels by blocking navigable channels or by debris that can come from the vessel as a result of damage from storms. This debris is often hard to stop while boating, but can cause major damages to vessels and risk the lives of those involved in any collision. Derelict and abandoned vessels are unsightly and may deter visitors from the areas.

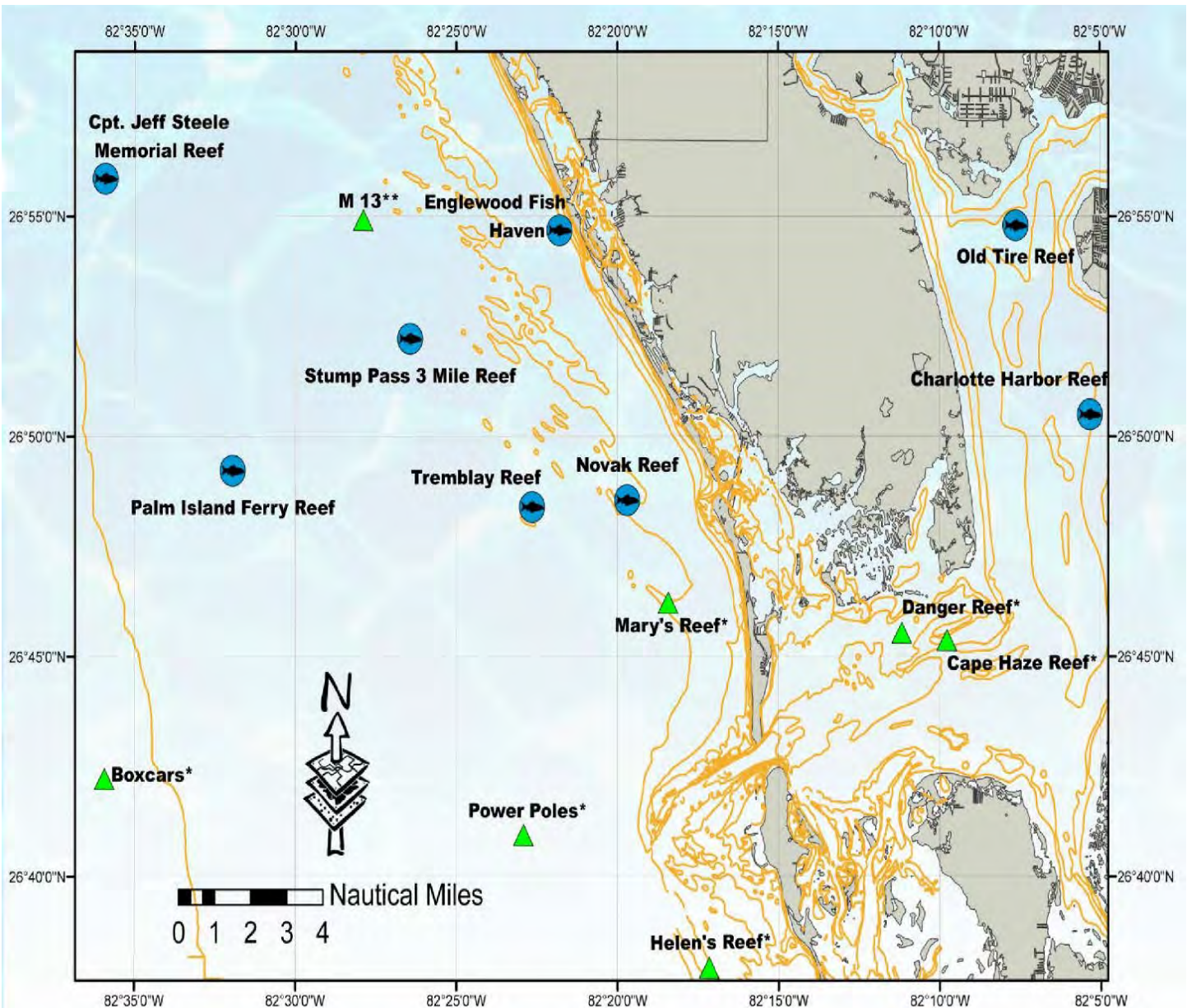
The Charlotte County Board of County Commissioners approved a Charlotte County Code change that allowed the County to assist and facilitate the removal of abandoned vessels under Florida Statute. Charlotte County with the help of Charlotte County Sheriff's Office Marine Division, Florida Fish and Wildlife Conservation Commission's Department of Law Enforcement, and the Punta Gorda Police Department's Marine Section patrols to keep Charlotte County Waterways open and clear for all to enjoy.



Artificial Reefs Program

Artificial reefs are manmade underwater structures used to promote marine life development in areas that generally do not contain underwater structures. These manmade structures provide a stable growing area for corals, and a habitat for fishes and other marine organisms. In 1960, a local fishing club in Charlotte County deployed the County's first artificial reef. This reef is located off of Englewood Beach. In 1982, Florida created the Artificial Reef Program to assist local governments in building artificial reefs. From the early 1980s to 2008, the local Sea Grant Agent assisted Charlotte County government in developing and implementing the Artificial Reef Program. In 2009, the program became the responsibility of Charlotte County's Parks and Natural Resources Division. Currently, Charlotte County has eight artificial reefs. The locations of these artificial reefs can be found on the map below.

Artificial reefs provide numerous benefits in addition to promoting marine life development. Additional benefits that artificial reefs provide to Charlotte County include enhancing recreational and diving opportunities, providing socio-economic benefits to our community, replacing damaged habitat, and offering shoreline protection and hardbottom stabilization.



Artificial reefs are deployed under general guidelines established by FWC specified within the State of Florida Artificial Reef Strategic Plan, and are approved by regulatory agencies including the U.S Army Corps of Engineers and Florida Department of Environmental Protection. The regulatory agency review insures that artificial reefs are not placed on sensitive habitat or in areas that pose a navigational hazard. The Florida Fish and Wildlife Conservation Commission assists with funding of artificial reef projects using revenue generated from the state saltwater fishing license revenue and federal sport fish restoration funding.

Coastal Construction & Shoreline Protection Program

The Coastal Construction Control Line (CCCL) Program established by the Florida Department of Environmental Protection regulates structures and activities which can cause beach erosion, destabilize dunes, damage upland properties, or interfere with public access. CCCL permits also protect sea turtles and dune plants. Proposed development within the coastal building zone, coastal barrier islands, sea turtle lighting zone and seaward of the CCCL requires additional consideration and review during the permitting process. Charlotte County code also regulates the operation of motorized vehicles on shorelines, dune walkover structures, artificial shoreline stabilization structures, and dune restoration and stabilization projects. Any proposed development must comply prior to the issuance of building permits. In addition to the coastal protections established by the state, the Charlotte County Sea Turtle Protection Ordinance provides standards and criteria for the protection of sea turtles nesting, costal development and prohibition of artificial lighting within the nesting zone during nesting season. Staff reviews applicable permits that fall within the Sea Turtle protection overlay to ensure all development complies with the ordinance.

Protection of Beach Nesting Birds

Beach nesting birds observed on Charlotte County beaches include American Oystercatcher, Black Skimmer, Least Tern, Snowy Plover, and Wilson’s Plover. With widespread coastal development and natural habitat changes, shorebirds are being forced to compete for suitable habitat to incubate and raise their young. Charlotte County staff and volunteers, work with local and regional partners to protect beach nesting birds. Each year, historically documented shorebird nesting sites at Charlotte County beaches are roped off and posted to promote successful nesting. Monitors known as “shorebird stewards” walk the beaches regularly to document nesting activity and ensure that nesting sites are properly protected. To aid in protecting shorebirds and seabirds, Charlotte County also conduct educational outreach to inform the general public about shorebird nesting activities, and what they can do to promote successful nesting while going about their recreational activities. Every year staff conducts management at the Palm Island Shorebird Mitigation site. This ±4 acre site was a requirement of the county beach renourishment permit and is required to be annually maintained for optimal shorebird nesting. Management consists of a multi-tiered approach in order to minimize vegetation re-growth throughout nesting season. The site is then roped off to keep people from entering the nesting area. Trail cams are also set up in various locations so staff can monitor the site for predators.



Environment Benefits

Charlotte County contains a wide variety of habitats, wildlife, and plant species. This diversity is reflected in the County’s parks and preserves. This diversity in habitats, fauna, and flora, means that the parks and preserves provide an assortment of environmental benefits to the county and Southwest Florida. These include stormwater mitigation, water filtration and water quality improvements, reduction of heat islands, biological diversity, reduction of nuisance pest activities, air pollution removal, and environmental education opportunities. The sections below provide details on how each of those benefits are achieved within the Charlotte County parks and preserves. and

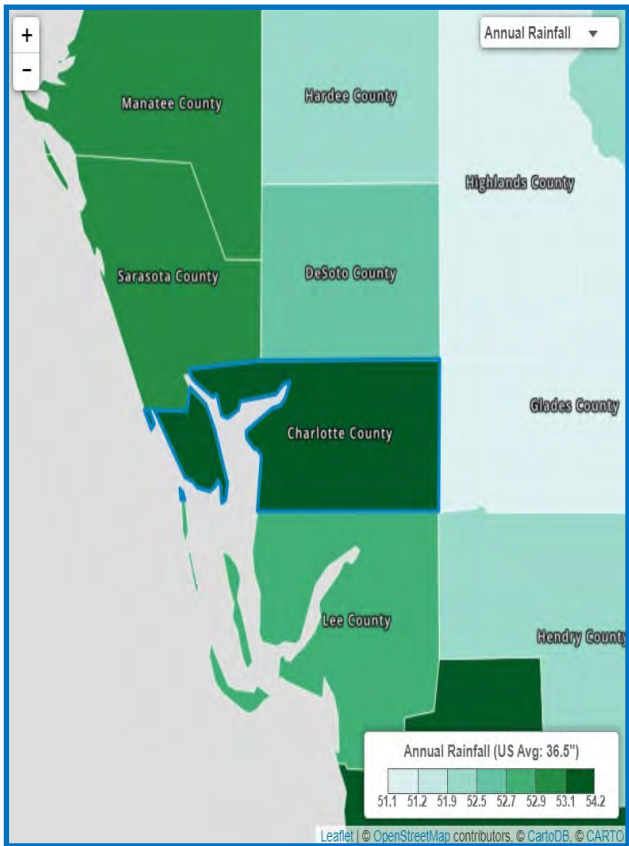
Additionally the sections below highlight how Charlotte County Parks and Natural Resources Division is meeting the objectives of the NRPAs Conservation Pillar and FRPAs Environmental Pillar. These pillars place value on creating green spaces that improve coastal resiliency and water quality, reduce flood risk, shield from extreme heat, provide cleaner air, and enhance wildlife habitat.

Stormwater Mitigation and Coastal Resiliency

Coastal ecosystems and wetlands can be very effective in reducing the risk of damage during storm events. Coastal wetlands such as salt marshes, mangrove swamps, and reefs serve as critical buffers against damage to property and infrastructure caused by hurricane surges and wave damage from storms. Both coastal and inland wetlands also help to mitigate damage from flooding by providing storage for flood waters. It is estimated that one acre of wetlands can store anywhere between 1 to 1.5 million gallons of flood water.

Mangrove swamps, also improve long-term resilience by stabilizing shorelines and protecting from erosion. This resilience aids in minimizing storm damage and provides for quicker recover following a natural disaster such as a tropical storm or flood. Depending on the severity of an event, rebuilding and recovery can typically take months or even years.

Event	Charlotte County, FL	United States
Rainfall	51.4 inches	36.5 inches
Rainfall	100.9 days	106.2 days
Sunny	266 days	205 days



Waterfront parks have been identified as a method to address the impacts of sea level rise and make coastal communities more resilient. Waterfront parks are communal recreational spaces that can be flooded with minimal damage during storm or flood events. As such these parks provide a buffer to residential and commercial areas. When wetlands are incorporated into these waterfront parks, they can be used to divert flood water to other areas if necessary.

The SWFWMD FLUCFCS mapping for the Charlotte County parks and preserves identifies approximately 300± acres of coastal wetlands habitats. These 300 acres of coastal parklands assist in shoreline stabilization and buffer adjacent residential and commercial areas from storm damage. Additionally, approximately 1,600 acres of parks and preserves are waterfront and serve as buffers to storm damage and promote coastal resiliency.

Additionally, the Charlotte County parks and preserves include over 1,600 acres of wetlands as identified by the NWI mapping. According to EPA's 2001 estimate on floodwater storage capacity in wetlands, these wetlands have the potential to store between 1.6 to 2.4 million gallons of floodwater.

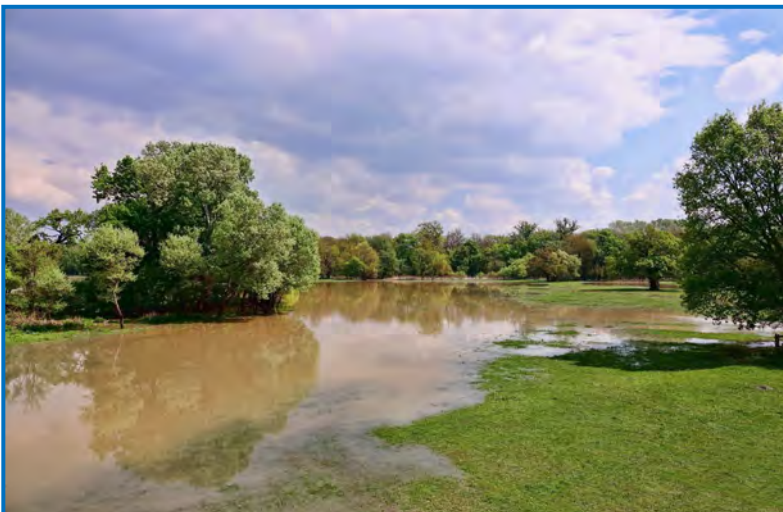
Cost Savings from Stormwater Mitigation

The Florida Parks and Recreation Association Impact Calculator was used to calculate the impact of Charlotte County green spaces on stormwater mitigation. The number of acres that encompass all of Charlotte County Parks and Natural Resources was totaled and a cost to manage stormwater of \$0.04 cost/cubic foot was used for final calculations. The result of this calculation concluded that the 5,100 acres that make up Charlotte County parks and preserves mitigate approximately **727,952,591** gallons of stormwater annually, which saves Charlotte County **\$3,892,524**.

Flood insurance can be costly for landowners, so Charlotte County looks for ways receive discounts in the Community Rating System (CRS) review process, administered by the Federal Emergency Management Agency (FEMA). The CRS review process provides flood insurance discounts to communities who take steps to reduce their flood risk by addressing the three goals of the CRS program. The three goals include, reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program (NFIP), and foster comprehensive floodplain management.

Flood insurance premium rates in Community Rating System communities are discounted in increments of 5 percent. A Class 10 community is not participating in the CRS and receives no discount. A Class 9 community

receives a 5 percent discount for all policies in its Special Flood Hazard Areas, a Class 8 community receives a 10 percent discount, all the way to a Class 1 community, which receives a 45 percent premium discount. Classifications are based on 19 creditable activities, organized in four categories, which include, Public Information, Mapping and Regulations, Flood Damage Reduction, and Warning and Response.



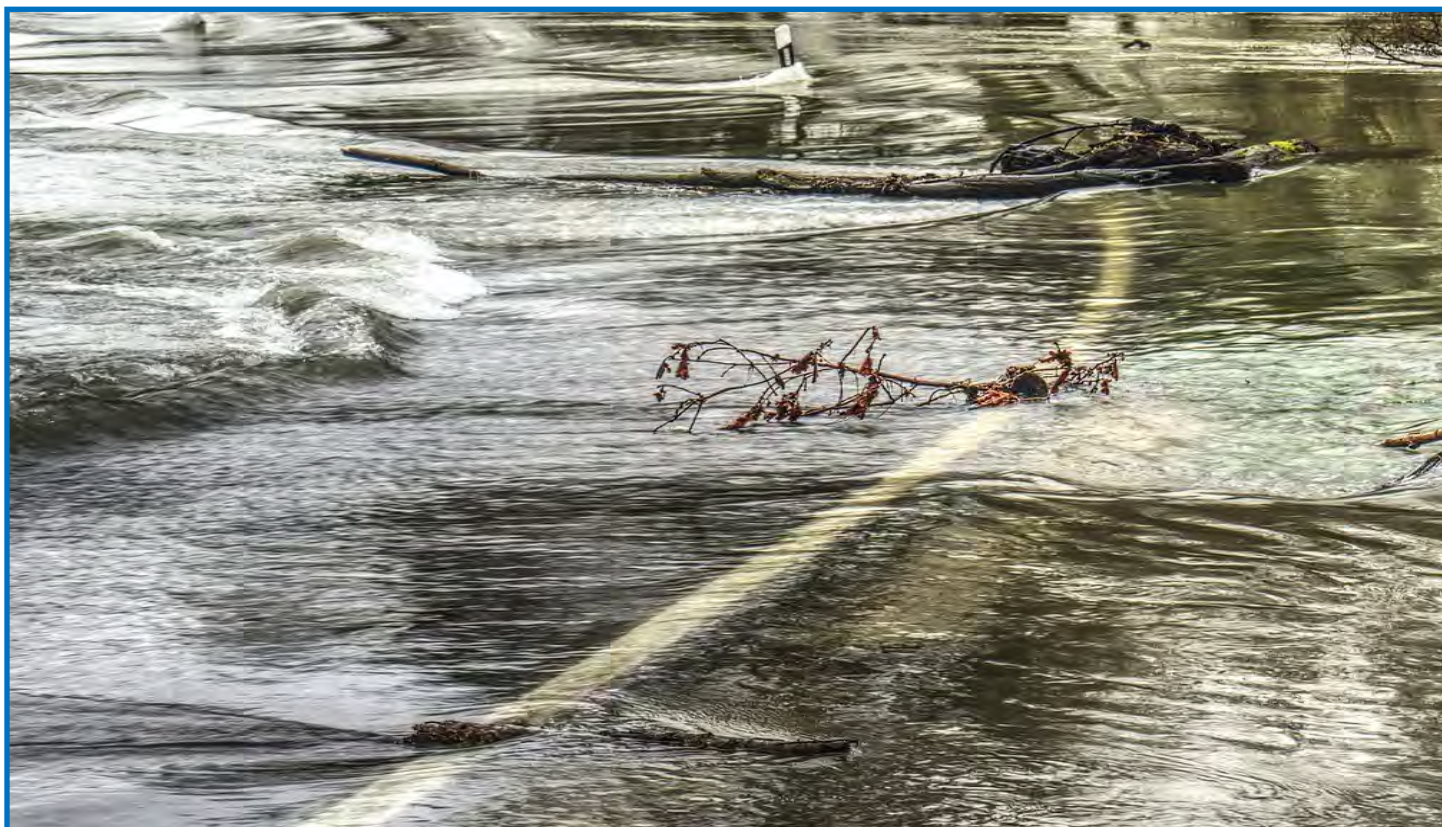
In the State of Florida, 243 communities participate in the FEMA CRS review process. Charlotte County has continued to participate in the FEMA CRS review process since 1992 and currently has a Class Rating of 6. This Class Rating means that the County receives a 20 percent premium reduction for Special Flood Hazard Areas (SFHA) and a 10 percent premium reduction for Non-SFHA. The average Class Rating of the 243 participating communities in Florida is 7.

Charlotte County Community Services Parks and Natural Resources Division has worked diligently to meet the goals of the CRS program in order to lower our CRS Class Rating and benefit our residents. In the last several years, Charlotte County has acquired approximately 2,534 acres of natural habitats and wetlands to be preserved as green spaces. County owned lands such as our parks and natural resource facilities are a vital component of the flood protection system and provide our community with great financial savings.

Water Quality/Water Filtration

Stormwater runoff picks up and carries untreated water that contain pathogens, nutrients, sediment, and heavy metals into our local waterways. Our parks and preserve facilities acquired and maintained by Charlotte County Parks and Natural Resources Division provide pervious surfaces, also known as green spaces, that retain rainwater and allow stormwater to infiltrate directly into the soil instead of running directly into our waterways. By retaining rainfall from storms, stormwater discharge volumes are decreased, which results in reduced combined sewer overflows and lower pollutant loads. These green spaces assist Charlotte County in meeting regulatory requirement by assisting in managing stormwater and reducing pollution.

Charlotte County parks and preserve facilities perform a vital role in recharging Florida’s aquifers by allowing stormwater infiltration. Florida’s aquifers supply more than 8 billion gallons of water each day and are responsible for supplying approximately 90 percent of the State’s drinking water.



Prevention of Flooding

Charlotte County is at a high risk for flooding due to its proximity to the coast and its numerous waterways. As you can see on the Charlotte County Flood Zone Map, a large portion of the county falls under flood zones VE, AE, and D. According to the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program, any building located in a V or A zone is considered to be in a Special Flood Hazard Area and is lower than the base flood elevation. Flood zone D are areas that have not been studied, but where flooding is possible. Table #9 shows some of the most devastating major flooding events to happen to Charlotte County. The seven major flood events that date from 1999 to 2017 resulted in a total of over **\$5.4 billion** in damages to County infrastructure, homes, and businesses.

The damage caused by these major flood events would have been far greater if not for Charlotte County parks and preserves facilities. Runoff from adjacent developed land that typically drain directly into piped collection systems and overrun the systems are directed towards the pervious spaces. The green spaces provide areas for stormwater to infiltrate into the ground instead of lingering in our roads, sidewalks, parking lots, and other impervious areas making it impossible to travel and costing expensive damages. Having water directed towards the parks and preserves also greatly saves irrigation cost for parks, which saves money for other facility improvements that further enhance the community as previously mentioned under “Cost Saving from Stormwater Mitigation.”

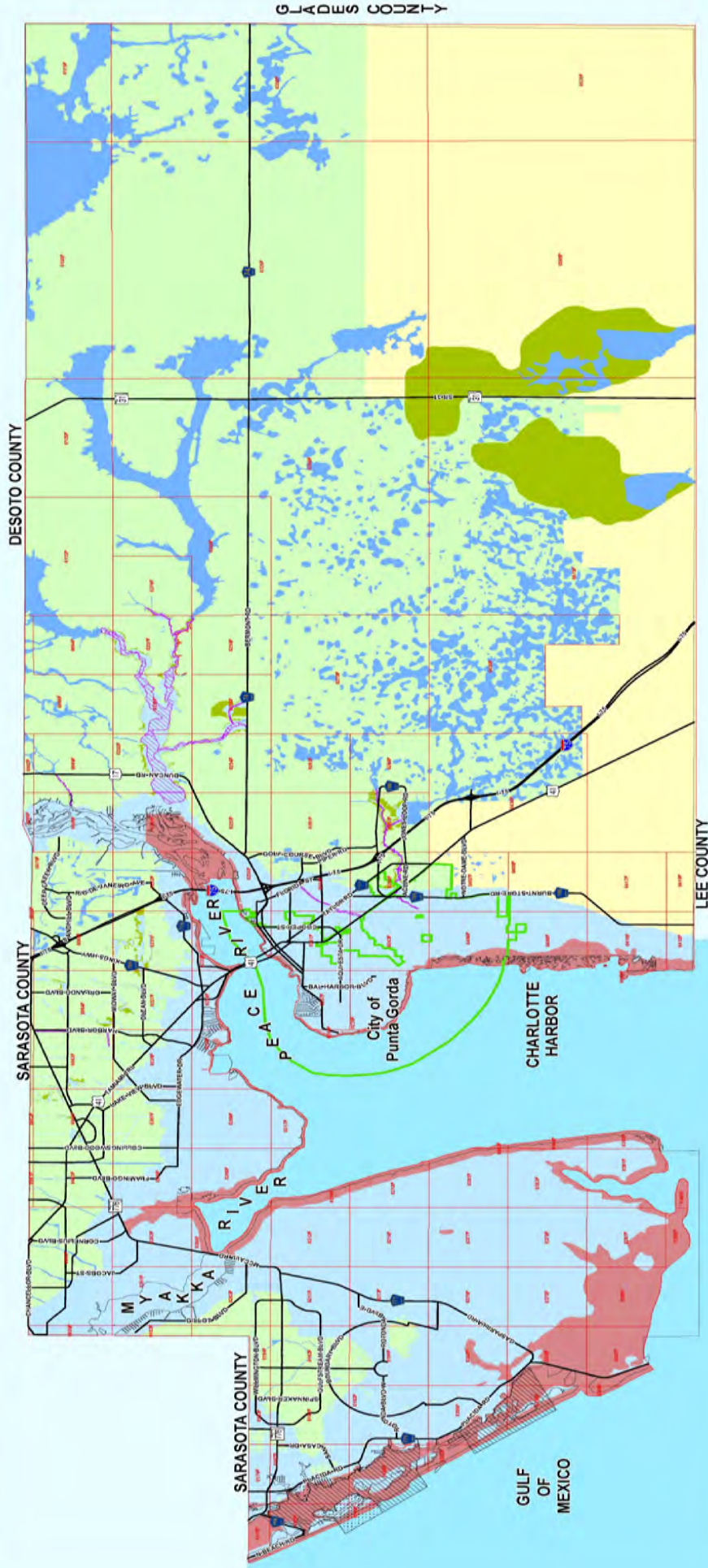
Table #9. Charlotte County Flood History

Flood Event	Description of Event
September 2017 Hurricane Irma	Estimated \$5 to \$6 million in damage to private and public resources caused by this powerful hurricane hitting Charlotte County as well as the majority of the State.
October 2005 Hurricane Wilma	Heavy rains of 4 to 8 inches caused urban street flooding and filled ditches to capacity.
August 2004 Hurricane Charley	Estimated \$5.4 billion in damage to private and public resources caused by this powerful category 4 hurricane hitting Charlotte County and proceeding up the harbor to Desoto County.
June 2003 Excessive Rainfall	Between 16” and 20” of rain fell across the county within a 24-hour period. Approximately \$4.7 million in damages occurred to public infrastructure. 41 living units were affected with an estimated \$50,000 in damage.
September 2001 Tropical Storm Gabrielle	Direct hit from tropical storm caused widespread flooding along Shoreview Drive and Gulf Blvd. Significant flooding also took place in the City of Punta Gorda. Over 300 homes were affected with minor-moderate levels of flooding. Estimated damages to infrastructure, residences, and businesses are between \$4-6 million.
September 2000 Hurricane Gordon	Passing Hurricane caused flooding in the Manasota Key area along Shoreview Drive and Gulf Blvd. Other areas included the Peace River shoreline area in Punta Gorda. Flood Insurance claims totaled over \$132,584.02.
September 1999 Tropical Storm Harvey (No Landfall)	Passing tropical storm caused flooding in the Manasota Key area along Shoreview Drive and Gulf Blvd. Minor flooding occurred in a few homes. Flood Insurance claims were totaled over \$21,592.40.



CHARLOTTE COUNTY

Flood Insurance Rate Map (FIRM)



Stateplane Projection
Datum: NAD83
Units: Feet
Source: CCGIS, FEMA
Metadata available upon request

FEMA Zones

	VE Zones		D Zones		City of Punta Gorda
	AE Zones		X Zones		FIRM Panel
	A Zones		X Zones (0.2% annual chance flood)		Coastal Barrier Resources System (CBRS) Area
					Otherwise Protected Area (OPA)
					Floodway Areas in Zone AE

(Not to Scale)

This map is a representation of available public information. It is intended to be an accurate and true depiction for the stated purpose. All Charlotte County and its employees make no guarantee, implied or otherwise, to the accuracy, or completeness, or timeliness of the information. No warranty is made by the County or its employees for any use of the information for purposes not intended by the County. © Copyright 2018 Fort Charlotte, FL by Charlotte County. License: 10000011 - 1411 PM by 12/18/2018. Map Department: 10000011141118 PM by 12/18/2018.

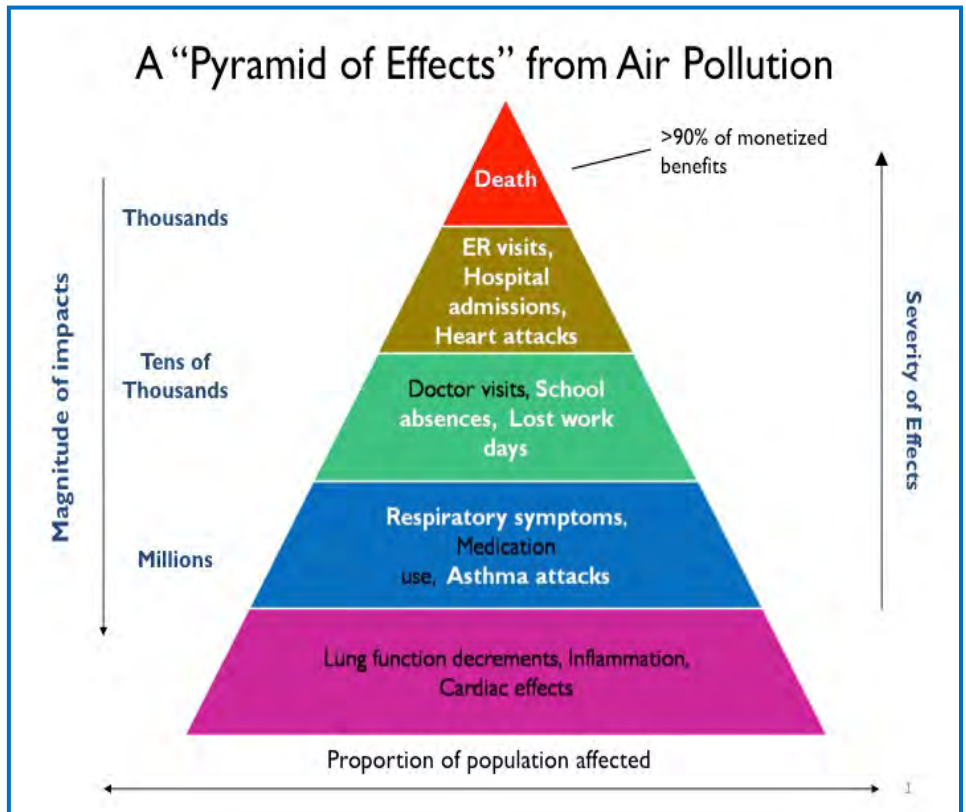
Mosquito Control

Charlotte County parks and preserves play a major role in limiting mosquito activity. Mosquito-borne diseases continue to pose a major threat to human and animal health and are spread through the bite of mosquitoes. Mosquito-borne diseases found in Florida include Chikungunya, Dengue, Dog Heartworm, Eastern equine encephalitis, St. Louis encephalitis, West Nile fever and West Nile encephalitis, and Zika. All mosquitoes require water for their offspring to develop and this water is often flood waters that could not drain properly due to poor stormwater management. Thankfully, with the green spaces at Charlotte County Parks and Natural Resource, standing water is typically present for less than 72 hours, which is much shorter than the time needed for mosquitoes to develop from larvae to adults. The pervious areas provided by parks ensures that water is infiltrated quickly enough to limit mosquito activity and development. The quick removal of stormwater provided by Charlotte County parks and preserves also reduces the need for insecticides which benefits the health and safety of all users, as well as the environment.



Air Pollution Removal

Charlotte County parks and preserves encompass over 5,100 acres available for recreation and social opportunities. Charlotte County works diligently to protect, restore, and conserve our great environmental resources. Charlotte County parks and preserves serve to mitigate climate changes that include modified temperatures, wind, rain, and air quality patterns. In one year, an acre of forest can absorb twice the carbon dioxide produced by the average car's annual mileage. The thousands of trees throughout Charlotte County facilities play a vital role in preserving our community.



Additional air pollutants that are removed by the vegetation at Charlotte County parks and preserves include carbon monoxide, nitrogen dioxide, ozone, coarse dust particles, fine particles, and sulfur dioxide.

Reduction of Heat Islands

Heat islands are urbanized areas that experience higher temperatures than outlying areas. Tree shading produces substantial environmental benefits in the form of reduced surface temperatures. Tree shading has been known to reduce surface temperatures on building walls and rooftops by as much as 45°F, and can further reduce solar gain through windows to reduce interior temperatures.

At a larger scale, urban forests also contribute to regional cooling and can therefore reduce carbon emissions. One study estimated that the average annual savings per tree was 36 kWh of cooling energy. Savings in warmer urban, like southwest Florida, has been estimated to be up to 96 kWh per tree. This evidence suggests that tree planting at any scale can have significant benefits on both the local and regional scale.

Parks and open greenspace can also provide cooling through evapotranspiration rather than shading. The open greenspace of urban parks can produce an "oasis effect" with much cooler temperatures within them compared to the surrounding urban area. The magnitude of this effect can range from roughly 2.7 to 7.2°F. This cooling effect can also extend beyond the park's boundary. Even small urban greenspaces have been observed to have a significant difference in local temperature. One study found that small urban parks can have a cooling effect of up to 12°F.

In contrast to cooling provided by tree canopy, parks often provide greater cooling benefits during the night than during the day. These cooling rates are accelerated if the park is irrigated. As previously noted, the cooling effect, both during the day and night, has been found to extend outside of the park itself. While the magnitude of the cooling effects of parks are found to drop off exponentially as distance increases, cooling has been observed to extend as far as 840 meters (0.52 miles) from a park boundary. The cooling extent is heavily dependent on factor such as wind patterns and topography.

Charlotte County parks and preserves provide a combination of both tree canopy cover and open greenspaces. The SWFWMD FLUCFCS mapping for the Charlotte County parks and natural resources identifies 1,904.79± acres of forested habitat types. In addition, approximately 1,400 acres could be classified as open greenspace. In total over 3,300± acres of forested and greenspace areas provide cooling effects within their limits and to adjacent communities. According to the EPA, shaded areas could see a decrease in peak temperatures by 20-45 degrees Fahrenheit.

Biological Diversity

Southwest Florida and Charlotte County is home to many state and federally listed species. Parks and natural resources are important as biodiversity hotspots within urban areas. Parks and preserves can harbor rare and listed species. Parks and natural preserves help to protect populations of vulnerable species by providing refuge, foraging, or nesting/denning habitat. The location of the parks and preserves may also deem them as components of dispersal corridors needed for habitat connectivity among populations.

Biodiversity helps to protect the resiliency of communities. This benefit includes commercial and recreational fisheries that are valuable to the County and its residents, and state and federally listed species. As previously indicated, Charlotte County parks and preserves have the potential to provide support of 32 state and federally listed species of wildlife and 32 species of plants listed by FDACS. In fact, Charlotte County Parks and Natural Resources Staff have confirmed observations of several of these species, including but not limited to, eastern indigo snake, gopher tortoise, Florida Scrub-Jay, bald eagle, crested caracara, Florida panther, American kestrel, roseate spoonbill, little blue heron, and American alligator.



Conservation

Charlotte County’s Parks and Natural Resources Division help to protect both state and federally listed species and the lands that are essential to their survival. Some of the ways that Charlotte County protects these species is by acquiring conservation lands, managing natural habitats, species monitoring, coordination with other conservation programs, and ensuring state and federal permitting requirements are met.

The conservation measures describe below also highlight how Charlotte County Parks and Natural Resources Division is fostering environmental stewardship through passive use of sensitive lands as well as conserving and managing habitats for future generations in accordance with the objectives of the FPRA and NRPA Pillars.

Acquiring Environmentally Sensitive Lands

Based on data prepared by the Florida Legislature Office of Economic and Demographic Research, Charlotte County has seen a 16.8% population increase from 2010 to 2020. Based on United States Census Bureau Estimates and Projections, Charlotte County is projected to see a population growth of 14.7% from 2020 to 2030 or a population growth of 24.7% from 2020 to 2040. As the population of Charlotte County continues to increase, the need for more infrastructure increases as well. However, with increasing population and infrastructure, the importance of protecting and acquiring environmentally sensitive lands to balance the impacts of future growth is emphasized. As previously mentioned in this report, green spaces perform services for us that include improving water quality, preventing flooding, recharging our aquifer, removing air pollution, reducing heat islands, and providing open spaces and recreational opportunities. By acquiring, protecting, and preserving environmentally sensitive lands, we are able to help keep Charlotte County unique and beautiful, and avoid future infrastructure cost.

On November 7, 2006, Charlotte County citizens voted to tax themselves for the purchase of environmentally sensitive lands. They approved the Conservation Charlotte referendum authorizing the County to issue up to \$77 million in bonds to purchase environmentally sensitive lands. The bonds are paid for by a .20 mil ad valorem tax, equal

Table #10. Charlotte County Population Growth

Census Year	Charlotte County Population
2000	141,627
2010	159,978
2020	186,847
2030	215,478
2040	234,391

Table #11. Charlotte County Environmental Lands

Amberjack Environmental Park
Ann and Chuck Environmental Park
Bill Coy Preserve
Cedar Point Environmental Park
Charlotte Flatwoods Environmental Park
Deep Creek Preserve
Myakka River Park
Oyster Creek Regional Park
Peace River Preserve
Prairie Creek Preserve
Shell Creek Preserve
Thornton Key Preserve
Tippecanoe Environmental Park
Tippecanoe II

to about 20 cents on every \$1,000 of tax assessed land value. The tax will be levied annually for 20 years until 2027. All funds raised by these bonds are used to buy and manage environmental lands and open spaces. These lands are held in preservation for public use.

Charlotte County Scrub-Jay Habitat Conservation Plan

The Charlotte County Scrub-Jay Habitat Conservation Plan (HCP) was developed as part of an application for an Incidental Take Permit (ITP) to address construction and development related impacts within the County to the Florida Scrub-Jay (*Aphelocoma coerulescens*) and Eastern indigo snake (*Drymarchon corais couperi*) which are state and federally threatened species. The HCP provides measures to ensure Scrub-Jays continue to reside within Charlotte County, including the designation and protection of the Scrub-Jay Reserve totaling approximately 4,500 acres. The Reserve was designated under the HCP to serve as compensation for loss of occupied Scrub-Jay habitat. An objective of the HCP is to acquire a minimum of 1,300 acres identified within the Reserve. County acquisition, restoration, and long-term management of lands within the Reserve has been conducted through the HCP process to provide mitigation and compensation for impacts to occupied Scrub-Jay habitat.



Charlotte County Manatee Protection Plan

The Charlotte County Manatee Protection Plan (MPP) was approved by the Florida Fish and Wildlife Conservation Commission (FWC) July 2017, the Fish and Wildlife Service (FWS) September 2017 and adopted by the Charlotte County Board of County Commissioners (BCC) May 2018. The principal objective of the MPP is to provide predictable and expanded options for development, while aiding in the long-term viability of manatees within Charlotte County. The MPP establishes a guideline by which state wildlife and regulatory agencies, federal wildlife and regulatory agencies, local entities and applicants can utilize to review new or expanding slips or boat facilities in an expedited manner. Along with guidance for future water-related development, the MPP also provides recommendations for future habitat protection measures, educational efforts, and law enforcement initiatives, including the pursuit of appropriations and grant funding.

Charlotte County Sea Turtle Protection Plan

In May 1989, and later amended in June 1998, Charlotte County adopted a Sea Turtle Protection Ordinance (Article XII) which provides standards and criteria for the protection of sea turtle nesting, coastal development, and prohibits artificial lighting on the nesting zone during the nesting season. In 2005, The Sea Turtle Management Plan was developed to provide clarification and supplemental information on Article XII, Sea Turtle Protection Ordinance. It is the intent of this management plan to provide a balance between the needs of residents and visitors and threatened and endangered sea turtles. This document is also designed to provide the beachfront community a greater understanding of how the County will implement the sea turtle ordinance.



Conclusion

Charlotte County Community Services Parks and Natural Resources Division offer a variety of opportunities for people of all ages, income levels, race, religion, gender, and physical abilities to interact, learn, and grow, contributing to a community that is stronger, safer, and more successful. This report illustrates that Charlotte County's parks and natural resources are key economic drivers that contribute millions in economic benefits. The 5,100 acres that make up Charlotte County parks and natural resources annually mitigates approximately **727,952,591** gallons of stormwater which saves **\$3,892,524** each year, and can prevent millions of dollars worth of damage from severe storms. As shown in this report, close proximity to these facilities can cause an increased home value of **\$7,000-\$8,000**. These facilities attract visitors that often end up spending considerable amounts of money on food, entertainment, fuel, gifts, lodging, and other local assets.

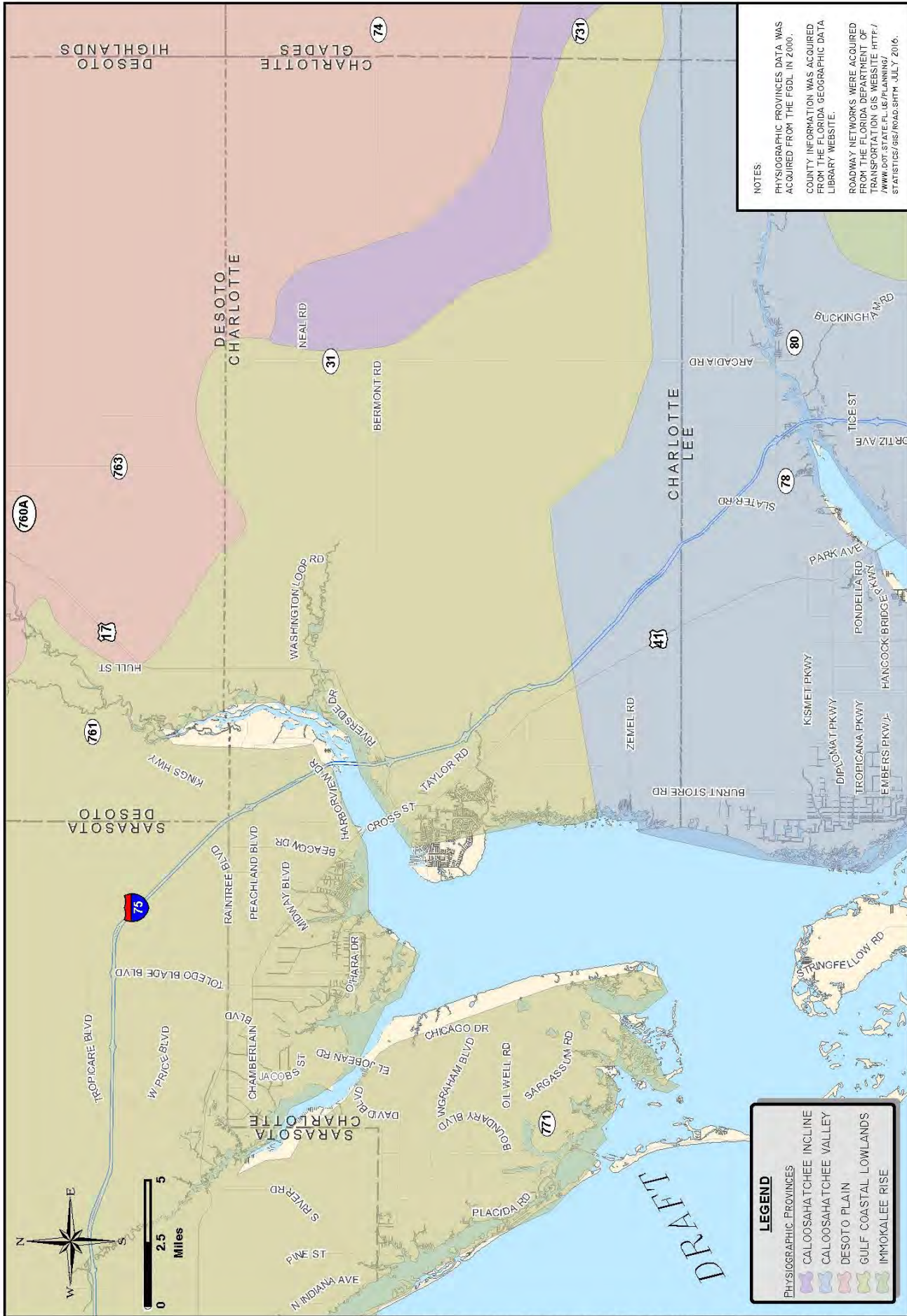
Charlotte County Parks and Natural Resources Division encourages a healthy, active lifestyle. Our facilities provide the opportunity for citizens to control their weight, strengthen their bones and muscles, and reduce their risk of cancers, cardiovascular diseases, and type-2 diabetes. Parks also improve your mental health and mood. Participating in recreation activities and being outdoors in nature has been shown to reduce anxiety and depression. Being in nature can also increase your sense of balance, self-esteem, and connection to your community.

Community cohesion is essential for a community to thrive. Charlotte County Parks and Natural Resources Division are one of our counties most effective assets to change the character and improve the image of our community. Parks and natural resources provide areas for people to meet and play in a safe open space, specifically designed for their enjoyment and safety. When people are brought together, they can have a powerful positive influence on our community, especially through donated volunteer time and financial contributions. With the assistance of our residents, Charlotte County Community Services Parks and Natural Resources Division continues to maintain and improve our parks and preserves to best meet the needs all visitors to further strengthen our strong and growing community.

Charlotte County contains rare and unique species of plants and wildlife, many of which are state or federally listed species. Charlotte County Parks and Natural Resources Division acquires and manages environmental sensitive habitat for the benefit of wildlife and protection of biodiversity. This includes management of invasive species, implementing controlled burns and managing human-wildlife interactions through the implementation of programs such as the artificial reef program, beach nest bird monitoring and the CCCL program. These measure help to preserve these rare and unique species and resources for future generations.



Appendix A: Geological Features: Physiographic Provinces



LEGEND

- PHYSIOGRAPHIC PROVINCES
- CALOOSAHATCHEE INCLINE
- CALOOSAHATCHEE VALLEY
- DESOTO PLAIN
- GULF COASTAL LOWLANDS
- IMMOKALEE RISE

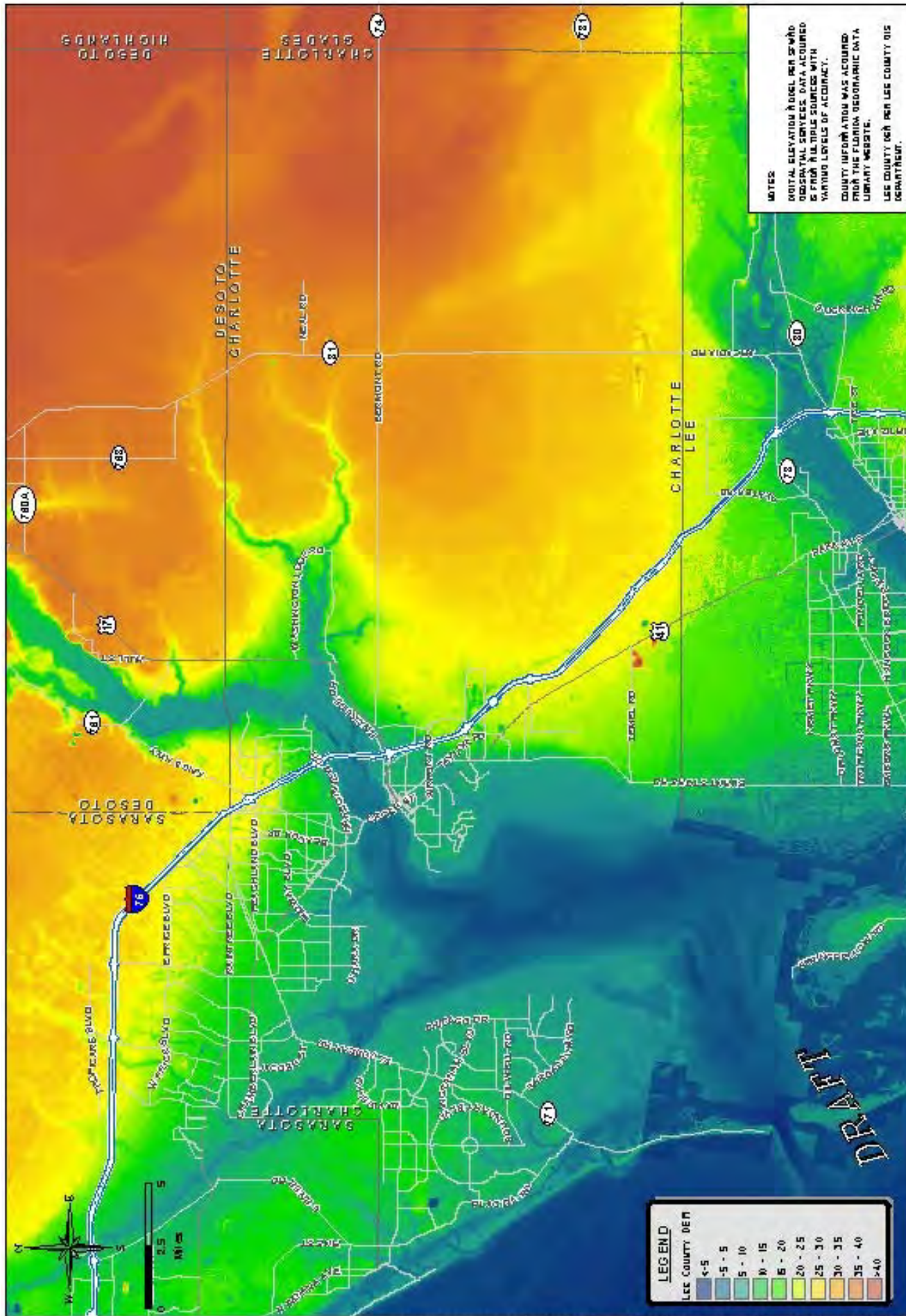
NOTES:
 PHYSIOGRAPHIC PROVINCES DATA WAS ACQUIRED FROM THE FGDL IN 2000. COUNTY INFORMATION WAS ACQUIRED FROM THE FLORIDA GEOGRAPHIC DATA LIBRARY WEBSITE.
 ROADWAY NETWORKS WERE ACQUIRED FROM THE FLORIDA DEPARTMENT OF TRANSPORTATION GIS WEBSITE HTTP://WWW.DOT.STATE.FL.US/PLANNING/STATISTCS/GIS/ROAD.SHTM JULY 2016.

DRAWN BY	DATE
H.H.	12/20/21
REVIEWED BY	DATE
H.S.	12/20/21
REVISED	DATE

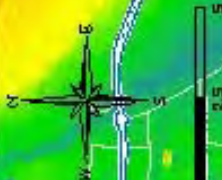


APPENDIX A. GEOLOGICAL FEATURES: PHYSIOGRAPHIC PROVINCES
CHARLOTTE COUNTY BENEFIT OF PARKS

Appendix B: Topography Map



NOTES
 DIGITAL ELEVATION MODEL DERIVED FROM
 REMOTE SENSING DATA ACQUIRED
 FROM AIR PHOTO SOURCES WITH
 VARYING LEVELS OF ACCURACY.
 COUNTY INFORMATION WAS ACQUIRED
 FROM THE FLORIDA GEOGRAPHIC DATA
 LIBRARY WEBSITE.
 LEE COUNTY DEM PER LEE COUNTY GIS
 DEPARTMENT.



LEGEND	
Lee County DEM	DEM
[Blue]	< 5
[Light Blue]	5 - 10
[Light Green]	10 - 15
[Green]	15 - 20
[Yellow-Green]	20 - 25
[Yellow]	25 - 30
[Orange]	30 - 35
[Red-Orange]	35 - 40
[Red]	> 40

H.H.	12/20/21	4-11
C.E.	12/20/21	4-11
H.S.	12/20/21	4-11
C.E.	12/20/21	4-11



APPENDIX B. TOPOGRAPHY MAP
 CHARLOTTE COUNTY BENEFIT OF PARKS

Appendix C: Charlotte County Parks and Preserves Soils

Charlotte County Parks and Preserves Soils

Soil Map Unit	Soil Name	Hydric Status	Acreage	Percent
2	Canaveral fine sand, 0 to 2 percent slopes	Yes	18.79	0.32%
4	Canaveral fine sand-Urban land complex, 0 to 2 percent slopes	Unranked	7.72	0.13%
6	Hallandale fine sand, wet, 0 to 2 percent slopes	No	15.30	0.26%
7	Matlacha gravelly fine sand-Urban land complex, 0 to 2 percent slopes	Unranked	194.69	3.31%
9	EauGallie sand, 0 to 2 percent slopes	No	67.23	1.14%
11	Myakka fine sand, 0 to 2 percent slopes	No	309.49	5.25%
12	Felda fine sand, 0 to 2 percent slopes	Yes	24.18	0.41%
13	Boca fine sand, 0 to 2 percent slopes	Yes	22.14	0.38%
14	Valkaria fine sand, 0 to 2 percent slopes	Yes	0.02	0.00%
15	Estero muck, tidal, 0 to 1 percent slopes	Yes	33.70	0.57%
16	Peckish mucky fine sand, tidal, 0 to 1 percent slopes	Yes	22.33	0.38%
17	Daytona sand, 0 to 5 percent slopes	No	20.55	0.35%
22	Beaches	Unranked	5.72	0.10%
23	Wulfert muck, tidal, 0 to 1 percent slopes	Yes	277.23	4.71%
24	Kesson fine sand, tidal, 0 to 1 percent slopes	Yes	55.09	0.94%
25	St. Augustine, organic substratum-Urban land complex, 0 to 2 percent slopes	Unranked	0.79	0.01%
26	Pineda-Pineda, wet, fine sand, 0 to 2 percent slopes	Yes	296.76	5.04%
27	Pompano fine sand, frequently ponded, 0 to 1 percent slopes	Yes	34.74	0.59%
28	Immokalee sand, 0 to 2 percent slopes	No	482.89	8.20%
29	Punta fine sand, 0 to 2 percent slopes	No	20.60	0.35%
33	Oldsmar sand, 0 to 2 percent slopes	Yes	773.15	13.13%
34	Malabar fine sand, 0 to 2 percent slopes	No	84.83	1.44%
35	Wabasso sand, 0 to 2 percent slopes	No	238.67	4.05%
36	Immokalee sand-Urban land complex, 0 to 2 percent slopes	Yes	176.35	2.99%
40	Anclote sand, frequently ponded, 0 to 1 percent slopes	Yes	22.11	0.38%
42	Wabasso sand, limestone substratum, 0 to 2 percent slopes	Yes	262.36	4.45%
43	Smyrna fine sand, 0 to 2 percent slopes	No	313.02	5.31%
44	Malabar fine sand, frequently ponded, 0 to 1 percent slopes	Yes	6.26	0.11%
45	Copeland fine sandy loam, frequently ponded, 0 to 1 percent slopes	Yes	35.07	0.60%

48	St. Augustine sand, 0 to 2 percent slopes	Yes	11.41	0.19%
49	Felda fine sand, frequently ponded, 0 to 1 percent slopes	Yes	21.21	0.36%
51	Floridana sand, frequently ponded, 0 to 2 percent slopes	Yes	4.27	0.07%
53	Myakka fine sand, frequently ponded, 0 to 1 percent slopes	Yes	31.40	0.53%
59	Urban land, 0 to 2 percent slopes	No	19.80	0.34%
61	Orsino fine sand, 0 to 5 percent slopes	No	464.17	7.88%
63	Malabar fine sand, high, 0 to 2 percent slopes	Yes	80.29	1.36%
64	Hallandale fine sand, wet-Urban land complex, 0 to 2 percent slopes	Yes	32.16	0.55%
67	Smyrna fine sand-Urban land complex, 0 to 2 percent slopes	Unranked	121.72	2.07%
69	Matlacha gravelly fine sand, 0 to 2 percent slopes	No	15.46	0.26%
70	Heights fine sand, 0 to 2 percent slopes	No	6.81	0.12%
73	Pineda fine sand, frequently ponded, 0 to 1 percent slopes	Yes	27.22	0.46%
76	Electra fine sand, 0 to 2 percent slopes	No	150.83	2.56%
99	Water	Unranked	101.30	1.72%
100	Waters of the Gulf of Mexico	Unranked	50.21	0.85%
102	Boca fine sand-Urban land complex, 0 to 2 percent slopes	Yes	83.95	1.43%
103	Boca fine sand, tidal-Urban land complex, 0 to 2 percent slopes	Unranked	0.44	0.01%
105	Copeland fine sandy loam, ponded-Urban land complex, 0 to 1 percent slopes	Unranked	26.35	0.45%
106	Daytona sand-Urban land complex, 0 to 5 percent slopes	No	4.31	0.07%
107	EauGallie sand-Urban land complex, 0 to 2 percent slopes	No	39.83	0.68%
108	Electra fine sand-Urban land complex, 0 to 2 percent slopes	Yes	4.82	0.08%
109	Estero muck, tidal-Urban land complex, 0 to 1 percent slopes	Yes	3.85	0.07%
110	Felda fine sand-Urban land complex, 0 to 2 percent slopes	No	9.51	0.16%
111	Felda fine sand, ponded-Urban land complex, 0 to 1 percent slopes	Yes	21.29	0.36%
112	Floridana sand, ponded-Urban land complex, 0 to 1 percent slopes	Unranked	6.32	0.11%
117	Isles fine sand, flooded-Urban land complex, 0 to 1 percent slopes	Yes	151.93	2.58%
118	Kesson fine sand, tidal-Urban land complex, 0 to 1 percent slopes	Unranked	3.91	0.07%
119	Malabar fine sand-Urban land complex, 0 to 2 percent slopes	Unranked	19.32	0.33%
121	Malabar fine sand, high-Urban land complex, 0 to 2 percent slopes	Yes	4.23	0.07%

123	Myakka fine sand-Urban land complex, 0 to 2 percent slopes	No	63.45	1.08%
124	Myakka fine sand, ponded-Urban land complex, 0 to 1 percent slopes	Unranked	15.53	0.26%
125	Oldsmar sand-Urban land, 0 to 2 percent slopes	Yes	120.11	2.04%
126	Oldsmar fine sand, limestone substratum-Urban land complex, 0 to 2 percent slopes	No	21.72	0.37%
127	Orsino fine sand-Urban land complex, 0 to 5 percent slopes	Unranked	25.00	0.42%
129	Pineda fine sand-Urban land complex, 0 to 2 percent slopes	Yes	43.44	0.74%
132	Pompano fine sand, ponded-Urban land complex, 0 to 1 percent slopes	Yes	1.72	0.03%
133	Punta fine sand-Urban land complex, 0 to 2 percent slopes	No	24.71	0.42%
134	Satellite fine sand-Urban land complex, 0 to 2 percent slopes	No	18.05	0.31%
135	St. Augustine sand-Urban land complex, 0 to 2 percent slopes	Yes	0.57	0.01%
136	Valkaria fine sand-Urban land complex, 0 to 2 percent slopes	Yes	16.41	0.28%
137	Wabasso sand-Urban land complex, 0 to 2 percent slopes	Unranked	23.93	0.41%
138	Wabasso sand, limestone substratum-Urban land complex, 0 to 2 percent slopes	No	175.24	2.98%
Total			5,890	100.00%



Appendix D: Typical Soils Map



LEGEND

 BISCAYNE CONSERVATION EASEMENT

 SOILS

Soil Unit	Description
23	Wulfert muck, tidal, 0 to 1 percent slopes
28	Immokalee sand, 0 to 2 percent slopes
33	Old smar sand, 0 to 2 percent slopes
36	Immokalee sand-Urban land complex, 0 to 2 percent slopes
45	Copeland fine sandy loam, frequently ponded, 0 to 1 percent slopes
51	Florida sand, frequently ponded, 0 to 2 percent slopes
61	Orsino fine sand, 0 to 5 percent slopes
99	Water
108	Electra fine sand-Urban land complex, 0 to 2 percent slopes
125	Old smar sand-Urban land, 0 to 2 percent slopes
127	Orsino fine sand-Urban land complex, 0 to 5 percent slopes

DRAMA

NOTES:
 PARKS PER THE CHARLOTTE COUNTY GIS WEBSITE.
 SOILS MAPPING WAS ACQUIRED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE WEBSITE APRIL 2021.

DRAWN BY	DATE
H.H.	12/20/21
REVIEWED BY	DATE
H.S.	12/20/21
REFRID	DATE



APPENDIX C. TYPICAL SOILS MAP
 CHARLOTTE COUNTY BENEFIT OF PARKS

Appendix E: Soil Attributes

Appendix D. Soil Attributes (as Defined in The Soil Survey of Charlotte County (Henderson 1984))

Soil Map Unit	Soil Name	Acres	Physical Attributes		Biological Attribute: Potential for Wildlife Use In				Limitations for Recreational Use*
			Hydrologic Group	% Organic Matter	Open Land	Wood land	Wetland	Rangeland	
2	Canaveral fine sand, 0 to 2 percent slopes	18.79	C	<1	Poor	Poor	Very Poor	NR	Severe: wetness, too sandy
4	Canaveral fine sand-Urban land complex, 0 to 2 percent slopes	7.72	C	<1	Poor	Poor	Very Poor	NR	Severe: wetness, too sandy
6	Hallandale fine sand, wet, 0 to 2 percent slopes	15.30	B/D	2-5	Poor	Poor	Fair	Poor	Severe: wetness, too sandy
7	Matlacha gravelly fine sand-Urban land complex, 0 to 2 percent slopes	194.69	C	—	NR	NR	NR	NR	Severe: wetness, too sandy
9	EauGallie sand, 0 to 2 percent slopes	67.23	B/D	2-8	Poor	Poor	Poor	NR	Severe: wetness, too sandy
11	Myakka fine sand, 0 to 2 percent slopes	309.49	B/D	<2	Fair	Poor	Poor	NR	Severe: wetness, too sandy
12	Felda fine sand, 0 to 2 percent slopes	24.18	B/D	1-4	Fair	Poor	Fair	NR	Severe: wetness, too sandy
13	Boca fine sand, 0 to 2 percent slopes	22.14	B/D	1-3	Fair	Poor	Fair	Good	Severe: wetness, too sandy
14	Valkaria fine sand, 0 to 2 percent slopes	0.02	B/D	1-4	Poor	Poor	Good	NR	Severe: wetness, too sandy
15	Estero muck, tidal, 0 to 1 percent slopes	33.70	D	—	Very Poor	Very Poor	Good	NR	Severe: flooding, wetness, excess humus
16	Peckish mucky fine sand, tidal, 0 to 1 percent slopes	22.33	D	—	Very Poor	Very Poor	Fair	NR	Severe: flooding, wetness, too sandy, excess salt
17	Daytona sand, 0 to 5 percent slopes	20.55	B	5-10	Poor	Poor	Very Poor	NR	Severe: too sandy
22	Beaches	5.72	—	—	NR	NR	NR	NR	—

Soil Map Unit	Soil Name	Acres	Physical Attributes		Biological Attribute: Potential for Wildlife Use In				Limitations for Recreational Use*
			Hydrologic Group	% Organic Matter	Open Land	Wood land	Wetland	Rangeland	
23	Wulfert muck, tidal, 0 to 1 percent slopes	277.23	D	—	Very Poor	Very Poor	Fair	NR	Severe: flooding; wetness, excess humus, excess salt
24	Kesson fine sand, tidal, 0 to 1 percent slopes	55.09	D	—	Very Poor	Very Poor	Fair	NR	Severe: flooding, wetness, too sandy
25	St. Augustine, organic substratum-Urban land complex, 0 to 2 percent slopes	0.79	B	1-3	Very Poor	Very Poor	Poor	NR	Severe: flooding, wetness, excess salt
26	Pineda-Pineda, wet, fine sand, 0 to 2 percent slopes	296.76	B/D	0.5-6	Fair	Poor	Fair	NR	Severe: wetness, percs slowly, too sandy
27	Pompano fine sand, frequently ponded, 0 to 1 percent slopes	34.74	B/D	1-5	Very Poor	Poor	Good	NR	Severe: ponding, too sandy
28	Immokalee sand, 0 to 2 percent slopes	482.89	B/D	1-2	Poor	Poor	Poor	NR	Severe: wetness, too sandy
29	Punta fine sand, 0 to 2 percent slopes	20.60	B/D	1-4	Fair	Fair	Poor	NR	Severe: wetness, percs slowly, too sandy
33	Oldsmar sand, 0 to 2 percent slopes	773.15	B/D	1-2	Fair	Fair	Poor	NR	Severe: wetness, percs slowly, too sandy
34	Malabar fine sand, 0 to 2 percent slopes	84.83	B/D	1-2	Poor	Poor	Fair	NR	Severe: wetness, percs slowly, too sandy
35	Wabasso sand, 0 to 2 percent slopes	238.67	B/D	1-4	Poor	Fair	Poor	NR	Severe: wetness, percs slowly, too sandy
36	Immokalee sand-Urban land complex, 0 to 2 percent slopes	176.35	B/D	1-2	Poor	Poor	Poor	NR	Severe: wetness, too sandy
40	Anclote sand, frequently ponded, 0 to 1 percent slopes	22.11	B/D	2-10	Very Poor	Very Poor	Good	NR	Severe: ponding
42	Wabasso sand, limestone substratum, 0 to 2 percent slopes	262.36	B/D	2-5	Poor	Fair	Poor	NR	Severe: wetness, too sandy
43	Smyrna fine sand, 0 to 2 percent slopes	313.02	B/D	1-5	Fair	Fair	Fair	NR	Severe: wetness, too sandy
44	Malabar fine sand, frequently ponded, 0 to 1 percent slopes	6.26	B/D	1-2	Very Poor	Very Poor	Good	NR	Severe: ponding, too sandy

Soil Map Unit	Soil Name	Acres	Physical Attributes		Biological Attribute: Potential for Wildlife Use In				Limitations for Recreational Use*
			Hydrologic Group	% Organic Matter	Open Land	Wood land	Wetland	Rangeland	
45	Copeland fine sandy loam, frequently ponded, 0 to 1 percent slopes	35.07	D	2-6	Very Poor	Very Poor	Good	NR	Severe: ponding
48	St. Augustine sand, 0 to 2 percent slopes	11.41	C	1-3	Very Poor	Very Poor	Poor	NR	Severe: flooding, too sandy
49	Felda fine sand, frequently ponded, 0 to 1 percent slopes	21.21	D	1-4	Very Poor	Very Poor	Good	NR	Severe: ponding, too sandy
51	Floridana sand, frequently ponded, 0 to 2 percent slopes	4.27	D	6-15	Very Poor	Very Poor	Good	NR	Severe: ponding, percs slowly, too sandy
53	Myakka fine sand, frequently ponded, 0 to 1 percent slopes	31.40	D	1-2	Very Poor	Very Poor	Good	NR	Severe: ponding, too sandy
59	Urban land, 0 to 2 percent slopes	19.80	—	—	NR	NR	NR	NR	—
61	Orsino fine sand, 0 to 5 percent slopes	464.17	A	<1	Poor	Poor	Very Poor	NR	Severe: too sandy
63	Malabar fine sand, high, 0 to 2 percent slopes	80.29	B/D	1-2	Fair	Poor	Fair	Fair	Severe: wetness, too sandy
64	Hallandale fine sand, wet-Urban land complex, 0 to 2 percent slopes	32.16	B/D	2-5	Poor	Poor	Fair	Poor	Severe: wetness, too sandy
67	Smyrna fine sand-Urban land complex, 0 to 2 percent slopes	121.72	B/D	1-5	Fair	Fair	Fair	NR	Severe: wetness, too sandy
69	Matlacha gravely fine sand, 0 to 2 percent slopes	15.46	C	—	NR	NR	NR	NR	Severe: too sandy
70	Heights fine sand, 0 to 2 percent slopes	6.81	B/D	1-2	Fair	Fair	Fair	NR	Severe: wetness, too sandy
73	Pineda fine sand, frequently ponded, 0 to 1 percent slopes	27.22	D	0.5-6	Very Poor	Very Poor	Good	NR	Severe: wetness, too sandy
76	Electra fine sand, 0 to 2 percent slopes	150.83	C	1-2	Poor	Poor	Poor	NR	Severe: too sandy
99	Water	101.30	—	—	NR	NR	NR	NR	—
100	Waters of the Gulf of Mexico	50.21	—	—	NR	NR	NR	NR	—
102	Boca fine sand-Urban land complex, 0 to 2 percent slopes	83.95	—	—	NR	NR	NR	NR	—
103	Boca fine sand, tidal-Urban land complex, 0 to 2 percent slopes	0.44	—	—	NR	NR	NR	NR	—
105	Copeland fine sandy loam, ponded-Urban land complex, 0 to 1 percent slopes	26.35	—	—	NR	NR	NR	NR	—
106	Daytona sand-Urban land complex, 0 to 5 percent slopes	4.31	—	—	NR	NR	NR	NR	—
107	EauGallie sand-Urban land complex, 0 to 2 percent slopes	39.83	—	—	NR	NR	NR	NR	—
108	Electra fine sand-Urban land complex, 0 to 2 percent slopes	4.82	—	—	NR	NR	NR	NR	—
109	Estero muck, tidal-Urban land complex, 0 to 1 percent slopes	3.85	—	—	NR	NR	NR	NR	—
110	Felda fine sand-Urban land complex, 0 to 2 percent slopes	9.51	—	—	NR	NR	NR	NR	—
111	Felda fine sand, ponded-Urban land complex, 0 to 1 percent slopes	21.29	—	—	NR	NR	NR	NR	—
112	Floridana sand, ponded-Urban land complex, 0 to 1 percent slopes	6.32	—	—	NR	NR	NR	NR	—
117	Isles fine sand, flooded-Urban land complex, 0 to 1 percent slopes	151.93	—	—	NR	NR	NR	NR	—
118	Kesson fine sand, tidal-Urban land complex, 0 to 1 percent slopes	3.91	—	—	NR	NR	NR	NR	—
119	Malabar fine sand-Urban land complex, 0 to 2 percent slopes	19.32	—	—	NR	NR	NR	NR	—
121	Malabar fine sand, high-Urban land complex, 0 to 2 percent slopes	4.23	—	—	NR	NR	NR	NR	—
123	Myakka fine sand-Urban land complex, 0 to 2 percent slopes	63.45	—	—	NR	NR	NR	NR	—

Soil Map Unit	Soil Name	Acres	Physical Attributes		Biological Attribute: Potential for Wildlife Use In				Limitations for Recreational Use*
			Hydrologic Group	% Organic Matter	Open Land	Wood land	Wetland	Rangeland	
124	Myakka fine sand, ponded-Urban land complex, 0 to 1 percent slopes	15.53	—	—	NR	NR	NR	NR	—
125	Oldsmar sand-Urban land, 0 to 2 percent slopes	120.11	—	—	NR	NR	NR	NR	—
126	Oldsmar fine sand, limestone substratum-Urban land complex, 0 to 2 percent slopes	21.72	—	—	NR	NR	NR	NR	—
127	Orsino fine sand-Urban land complex, 0 to 5 percent slopes	25.00	—	—	NR	NR	NR	NR	—
129	Pineda fine sand-Urban land complex, 0 to 2 percent slopes	43.44	—	—	NR	NR	NR	NR	—
132	Pompano fine sand, ponded-Urban land complex, 0 to 1 percent slopes	1.72	—	—	NR	NR	NR	NR	—
133	Punta fine sand-Urban land complex, 0 to 2 percent slopes	24.71	—	—	NR	NR	NR	NR	—
134	Satellite fine sand-Urban land complex, 0 to 2 percent slopes	18.05	—	—	NR	NR	NR	NR	—
135	St. Augustine sand-Urban land complex, 0 to 2 percent slopes	0.57	—	—	NR	NR	NR	NR	—
136	Valkaria fine sand-Urban land complex, 0 to 2 percent slopes	16.41	—	—	NR	NR	NR	NR	—
137	Wabasso sand-Urban land complex, 0 to 2 percent slopes	23.93	—	—	NR	NR	NR	NR	—
138	Wabasso sand, limestone substratum-Urban land complex, 0 to 2 percent slopes	175.24	—	—	NR	NR	NR	NR	—

* Assessment of recreational uses limited to camping and picnic areas, playgrounds, and paths/trails

NR – Not Reviewed

Hydrologic Soil Group: The runoff producing characteristics of the soil. Slope and plant cover are not considered.

Group B: When wet these soils have moderate infiltration rate. Soils have a moderate rate of water transmission.

Group C: When thoroughly wet these soils have a slow infiltration rate. Soils have a slow rate of water transmission.

Group D: When thoroughly wet these soils have a very slow infiltration rate and high runoff potential.

Potential for Wildlife Use:

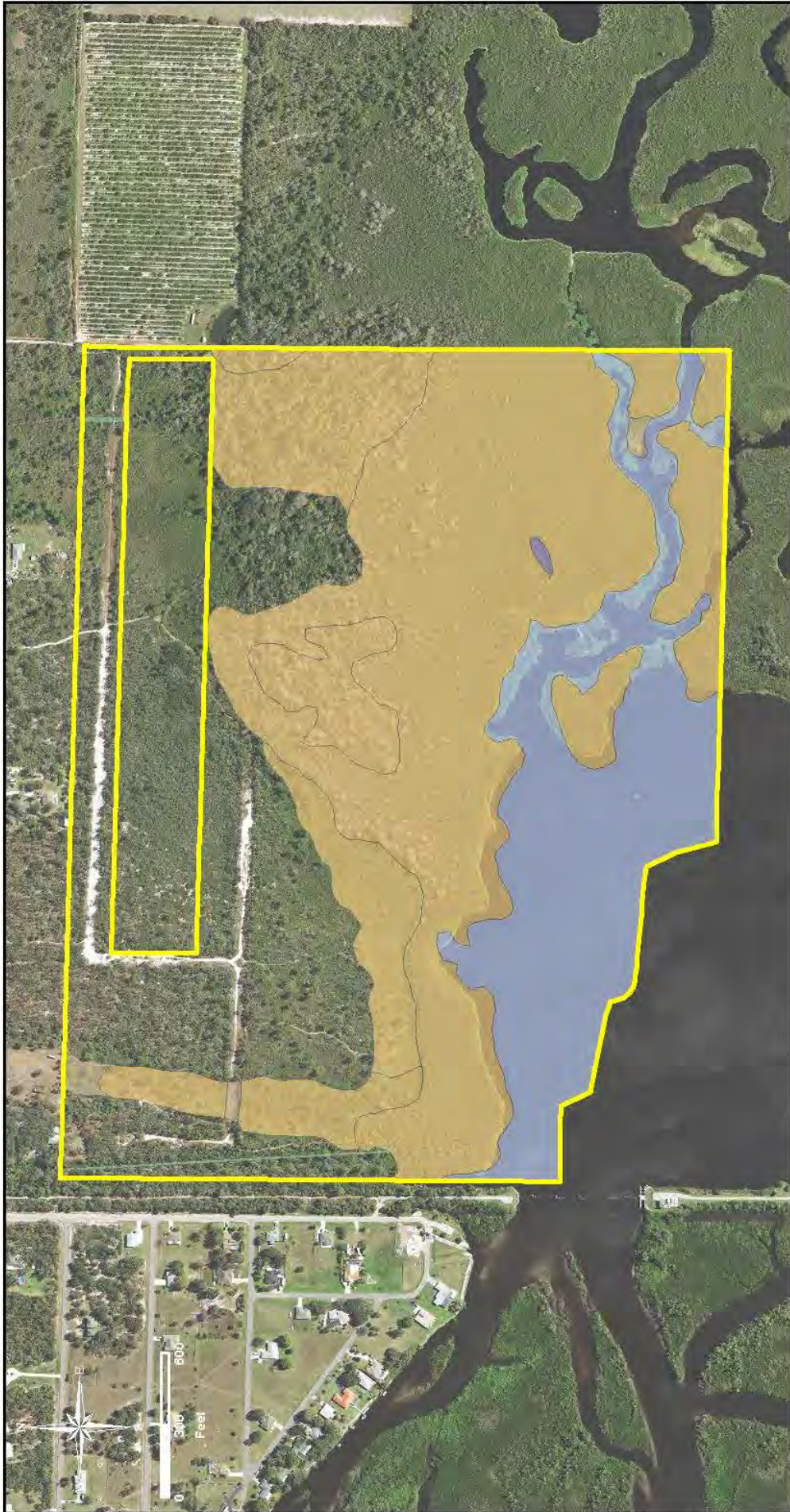
Good: Habitat is easily established, improved, or maintained.

Fair: Habitat can be established, improved, or maintained. Moderate to intensive management is required.

Poor: Limitations are severe; however, habitat can be created, improved, and/or maintained. Management is difficult and intensive.

Very Poor: Habitat restrictions are very severe and unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

Appendix F: Typical National Wetland Inventory Map



LEGEND

	BISCAYNE CONSERVATION EASEMENT
	NATIONAL WETLANDS INVENTORY
	FRESHWATER EMERGENT WETLAND
	FRESHWATER FORESTED/SHRUB WETLAND
	FRESHWATER POND
	LAKE
	RIVERINE

DRAFT

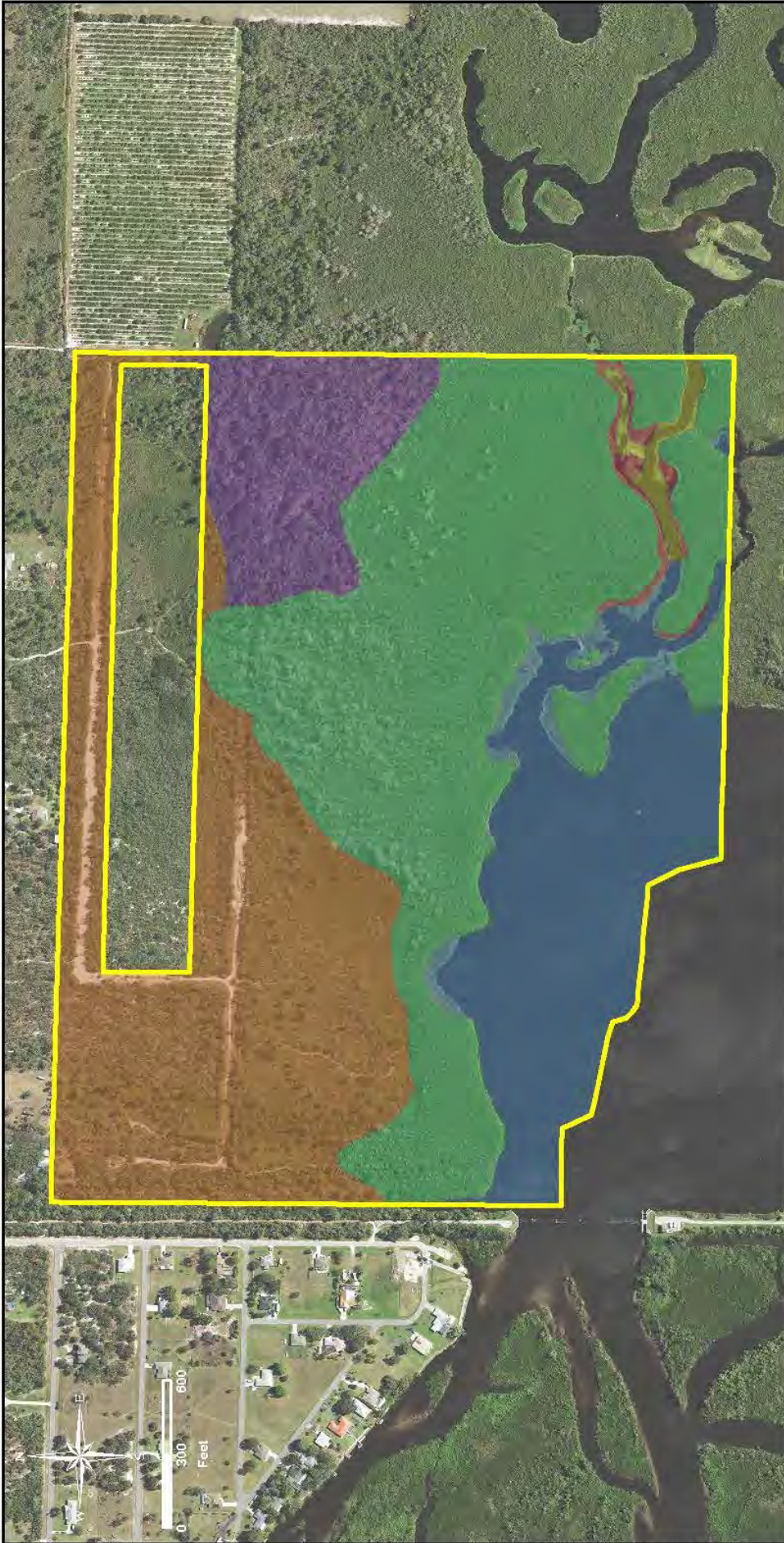
NOTES:
 PARKS PER THE CHARLOTTE COUNTY GIS WEBSITE.
 NATIONAL WETLANDS INVENTORY WAS ACQUIRED FROM THE USFWS WEBSITE AUGUST 2021.

DRAWN BY	DATE
H.H.	12/20/21
REVIEWED BY	DATE
H.S.	12/20/21
REVISED	DATE



APPENDIX E. TYPICAL NATIONAL WETLAND INVENTORY MAP
 CHARLOTTE COUNTY BENEFIT OF PARKS

Appendix G: Typical SWFWMD FLUCFCS Map



LEGEND

	BISCAYNE CONSERVATION EASEMENT
	SWFWMD FLUCFCS
	1100, RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS PER ACRE
	1900, OPEN LAND
	2200, TREE CROPS
	4.34.0, UPLAND HARDWOOD - CONIFEROUS MIX
	5100, STREAMS AND WATERWAYS
	5200, LAKES
	6410, FRESHWATER MARSHES
	6440, EMERGENT AQUATIC VEGETATION

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NOTES:
 PARKS PER THE CHARLOTTE COUNTY GIS WEBSITE.
 SWFWMD FLUCFCS WERE ACQUIRED FROM THE SWFWMD WEBSITE SEPTEMBER 2021 AND IS CURRENT TO 2017.

DRAWN BY	DATE
H.H.	12/20/21
REVIEWED BY	DATE
H.S.	12/20/21
REVISED	DATE



APPENDIX F. TYPICAL SWFWMD FLUCFCS MAP
 CHARLOTTE COUNTY BENEFIT OF PARKS

**Appendix H:
Charlotte County Parks and Preserves
FLUCFCS Descriptions**

Residential Low Density <2 Dwelling Units Per Acre (FLUCFCS Code 1100)

Areas of low intensity residential use. For the Charlotte County Parks and Natural Resources this land uses occurs where these lands abut residential neighborhoods. This classification is a product of aerial imagery interpretation done at a large scale, rather than these lands containing residential development.

Residential Medium Density 2 to 5 Dwelling Units Per Acre (FLUCFCS Code 1200)

Areas of medium intensity residential use. For the Charlotte County Parks and Natural Resources this land uses occurs where these lands abut residential neighborhoods. This classification is a product of aerial imagery interpretation done at a large scale, rather than these lands containing residential development.

Residential High Density (FLUCFCS Code 1300)

Areas of high intensity residential use. For the Charlotte County Parks and Natural Resources, this land uses occurs where these lands abut residential neighborhoods. This classification is a product of aerial imagery interpretation done at a large scale, rather than these lands containing residential development.

Commercial and Services (FLUCFCS Code 1400)

Commercial areas that are predominantly associated with the distribution of products and services. This can include a large number of individual types of commercial land uses which often in occur in complex mixtures. This land use category includes secondary structures associated with an enterprise in addition to the main building and integral areas assigned to support the base unit. Include are shed, warehouse, office buildings, driveways, parking lots and landscaped areas. For the Charlotte County Parks and Natural Resources, this land uses occurs where these lands abut commercial areas. This classification is a product of aerial imagery interpretation done at a large scale, rather than these lands containing commercial development.

Industrial (FLUCFCS Code 1500)

The industrial land use category includes uses where manufacturing, assembly or processing of materials and products are accomplished. This can include a wide array of industry types. Also included are those facilities for administration and research, assembly, storage, warehousing, shipping, and associated parking lots and grounds. For the Charlotte County Parks and Natural Resources, this land uses occurs where these lands abut industrial areas. This classification is a product of aerial imagery interpretation done at a large scale, rather than these lands containing industrial development.

Institutional (FLUCFCS Code 1700)

Educational, religious, health and military facilities are typical components of this category. This includes all buildings, grounds, and parking lots that compose the facility. For the Charlotte County Parks and Natural Resources, this land uses occurs where these lands abut such facilities as described above. This classification is a product of aerial imagery interpretation done at a large scale, rather than these lands containing institutional development.

Recreational (FLUCFCS Code 1800)

The recreational land use category includes areas whose physical structure indicates that active user-oriented recreation is or could be occurring within a given physical area. This includes parks, swimming beaches, shores, marinas, fairgrounds, etc. While many of the parks could be included in this classification. The aerial interpretation of the SWFWMD FLUCFCS typically included parks with sports courts or fields and/or paved walking trails.

Golf Courses (FLUCFCS Code 1820)

The golf course land use category includes all greens and fairways, lakes and ponds, associated building structures, and parking lots. For Charlotte County Parks and Natural Resources, this land use designation reflects a mapping error where a small amount of land adjacent to Coral Creek Golf Course was designated over Charlotte County Parks and Natural Resources.

Open Land (FLUCFCS Code 1900)

This category includes undeveloped land within urban areas and inactive land with street patterns but without structures. Open land does not normally exhibit any structures or any indication of intended use. Often, this land use category may be in a transitional state and ultimately will be developed into one of the typical urban land uses although at the time of the inventory the intended use may be impossible to determine from an aerial photo alone. For Charlotte County these areas generally resemble FLUCFCS Code 3200 but contain signs of human disturbance such as tails and dirt roads.

Cropland and Pastureland (FLUCFCS Code 2100)

The Cropland and Pastureland category includes agricultural land that is managed for the production of row or field crops and improved, unimproved, and woodland pastures.

Tree Crops (FLUCFCS Code 2200)

The Tree Crops land use designation includes orchards and groves. Water bodies, that moderate the effects of short-term temperature fluctuations are often in close proximity to this type of agriculture.

Other Open Lands (FLUCFCS Code 2600)

This category includes agricultural lands whose intended usage cannot be determined. For Charlotte County Parks and Natural Resources, these areas are generally located next to adjacent cropland or pastureland.

Shrub and Brushland (FLUCFCS Code 3200)

This category includes saw palmettos, gallberry, wax myrtle, coastal scrub and other shrubs and brush. Generally, saw palmetto is the most prevalent plant cover intermixed with a wide variety of other woody scrub plant species as well as various types of short herbs and grasses. Coastal scrub vegetation would include pioneer herbs and shrubs composed of such typical plants as sea purslane, sea grapes and sea oats without any one of these types being dominant.

Mixed Rangeland (FLUCFCS Code 3300)

When more than one-third intermixture of either grassland or shrub-brushland range species occurs, the specific classification is changed to Mixed Rangeland. Where the intermixture is less than one-third, it is classified as the dominant type of rangeland, whether Grassland or Shrub and Brushland categories.

Pine Flatwoods (FLUCFCS Code 4110)

The pine flatwoods class is dominated by either slash pine, longleaf pine or both and less frequently pond pine. The common flatwoods understory species include saw palmetto, wax myrtle, gallberry and a wide variety of herbs and brush.

Upland Hardwood Forests-Part 1 (FLUCFCS Code 4200)

This classification of upland forest lands has a crown canopy with at least a 66 percent dominance by hardwood tree species.

Upland Hardwood-Conifer Mix (FLUCFCS Code 4340)

This class is reserved for those forested areas in which neither upland conifers nor hardwoods achieve a 66 percent crown canopy dominance.

Streams and Waterways (FLUCFCS Code 5100)

This category includes rivers, creeks, canals and other linear water bodies.

Lakes (FLUCFCS Code 5200)

The Lakes category includes extensive inland water bodies, excluding reservoirs. Islands within lakes that are too small to delineate will be included in the water area.

Reservoirs (FLUCFCS Code 5300)

Reservoirs are artificial impoundments of water. They are used for irrigation, flood control, municipal and rural water supplies, recreation and hydro-electric power generation.

Bays and Estuaries (FLUCFCS Code 5400)

Bays and estuaries are inlets or arms of the sea that extend into the land and, as such, are properly classified in this system only when they are included within the land mass of Florida. In order that this land mass be commensurate with the area the United States Government uses in compiling census statistics, the convention employed by the Bureau of Census in setting the outer limits of the United States has been followed. Where bays and estuaries are between one and ten nautical miles (1.85 and 18.5 kilometers) in width, the outer limit of the United States will be a straight line connecting the headlands except where the indentation of the embayment is so shallow that the water area would be less than the area of a semicircle drawn with this straight line as the diameter. In that event, the coastline itself would form the outer limit of the United States.

Gulf of Mexico (FLUCFCS Code 5720)

Open water areas associated with the Gulf of Mexico.

Wetland Hardwood Forests (FLUCFCS Code 6100)

Wetland Hardwood Forests are those wetland areas are 66 percent or more dominated by wetland hardwood species, either salt or freshwater.

Mangrove Swamps (FLUCFCS Code 6120)

This coastal hardwood community is composed of red and/or black mangrove which is pure or predominant. The major associates include white mangrove, buttonwood, cabbage palm and sea grape.

Stream and Lake Swamps [Bottomland] (FLUCFCS Code 6150)

This community, often referred to as bottomland or stream hardwoods, is usually found on but not restricted to river, creek, and lake flood plain or overflow areas. This category has a wide variety of predominantly hardwood species of which some of the more common components include red maple, river birch, water oak, sweetgum, willows, tupelos, water hickory, bays, and water ash and buttonbush. Associated species include cypress, slash pine, loblolly pine and spruce pine.

Wetland Coniferous Forests (FLUCFCS Code 6200)

Wetland Coniferous Forests are wetlands which are the result of natural generation. These communities are commonly found in the interior wetlands in such as places as river flood plains, bogs, bayheads and sloughs.

Wetland Forested Mixed (FLUCFCS Code 6300)

This category includes mixed wetlands forest communities in which neither hardwoods or conifers achieve a 66 percent dominance of the crown canopy composition.

Vegetated Non-Forested Wetlands (FLUCFCS Code 6400)

Vegetated Non-forested Wetlands include marshes and seasonably flooded basins and meadows. These communities are usually confined to relatively level, low-lying areas. This category does not include areas which have a tree cover which meets the crown closure threshold for the forested categories. When the forest crown cover is less than the threshold for wetland forest or is non-woody, it will be included in this category. Sawgrass and cattail are the predominant species in freshwater marshes while spartina and needlerush are the predominant species in the saltwater marsh communities.

Freshwater Marshes (FLUCFCS Code 6410)

The communities included in this category are characterized by having one or more of the following species: sawgrass, cattail, arrowhead, maidencane, buttonbush, cordgrass, giant cutgrass, switchgrass, bulrush, needlerush, common reed, or arrowroot.

Saltwater Marshes (FLUCFCS Code 6420)

The communities included in this category will contain one or more of the following species: cordgrasses, needlerush, seashore saltgrass, saltwort, glassworts, fringerush, salt dropseed, seaside daisy, salt jointgrass.

Wet Prairies (FLUCFCS Code 6430)

This classification is composed predominately of grassy vegetation on hydric soils and is usually distinguished from marshes by having less water and shorter herbage.

Emergent Aquatic Vegetation (FLUCFCS Code 6440)

This category of wetland plant species includes both floating vegetation and vegetation which is found either partially or completely above the surface of water.

Intermittent Ponds (FLUCFCS Code 6530)

This category of wetland is defined as a waterbody which exists for only a portion of the year. It may be referred to as a seasonal waterbody. Its existence relies upon water received directly from precipitation, runoff or spring flow.

Salt Flats (FLUCFCS Code 6600)

This category is composed of that portion of the shore environment protected from wave action, as in the case of estuaries, comprised primarily of muds transported by tidal channels. An important characteristic of the salt flat environment is its alternating tidal cycle of submergence and exposure to the atmosphere.

Disturbed (FLUCFCS Code 7400)

Disturbed Lands are those areas which have been changed due primarily to human activities other than mining. In Florida, these areas may be rather extensive and often appear outside of urban areas.

Transportation (FLUCFCS Code 8100)

Transportation facilities are used for the movement of people and goods; therefore, they are major influences on land and many land use boundaries are outlined by them.

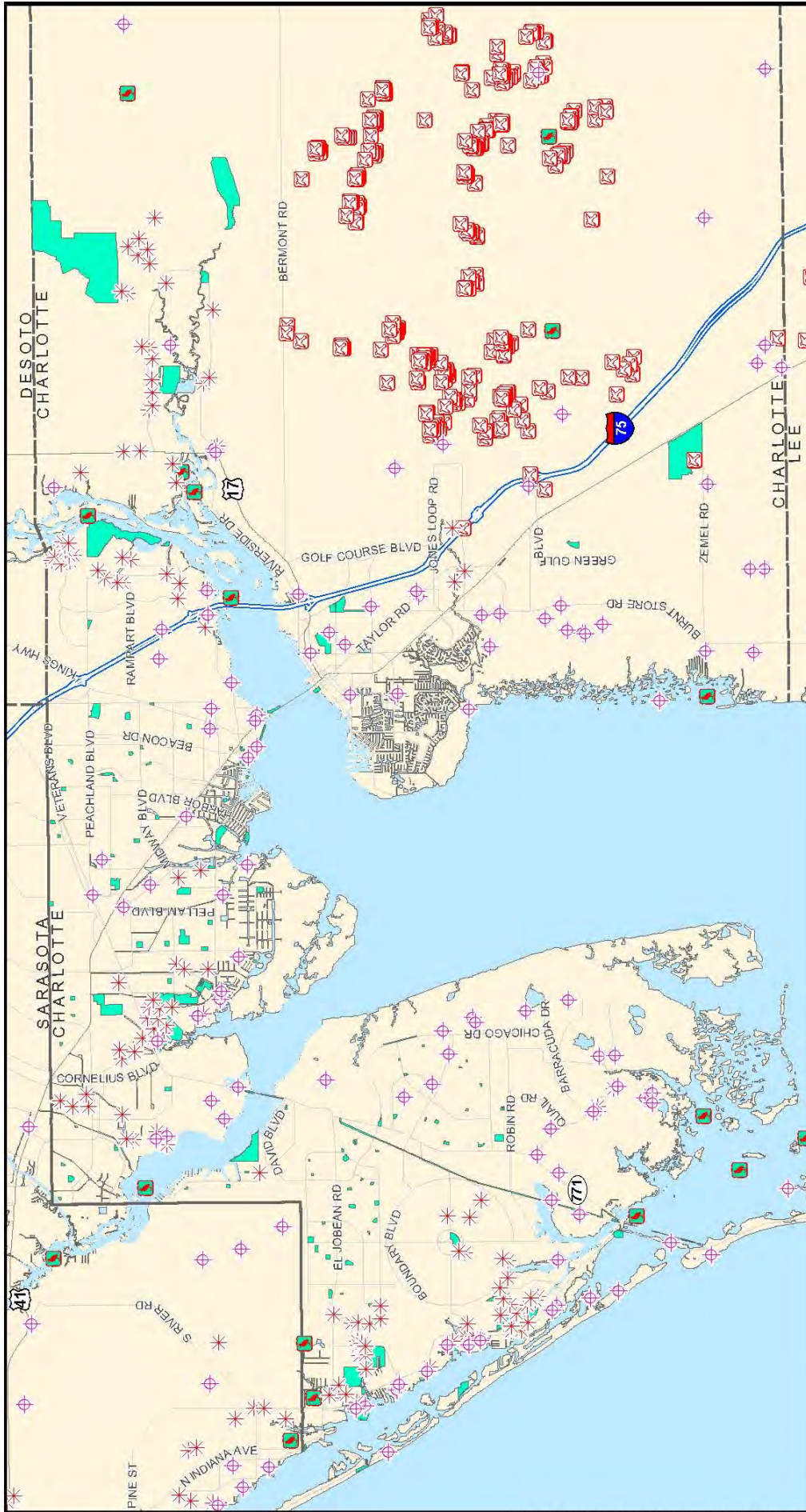
The Transportation category encompasses rail-oriented facilities including stations, round-houses, repair and switching yards and related areas. Airport facilities include runways, intervening land, terminals, service buildings, navigational aids, fuel storage, parking lots and a limited buffer zone and fall within the Transportation category.

Transportation areas also embrace ports, docks, shipyards, dry docks, locks and water course control structures designed for transportation purposes. The docks and ports include buildings, piers, parking lots and adjacent water utilized by ships in the loading and unloading of cargo or passengers. Locks, in addition to the actual structures, include the control buildings, power supply buildings, docks and surrounding supporting land use (i.e., parking lots and green areas). For the Charlotte County Parks and Natural Resources, this land uses occurs where these lands abut transportation features. This classification is a product of aerial imagery interpretation done at a large scale, rather than these lands containing transportation related development.

Utilities (FLUCFCS Code 8300)

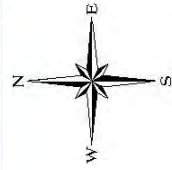
Utilities usually include power generating facilities and water treatment plants including their related facilities such as transmission lines for electric generation plants and aeration fields for sewage treatment sites. Small facilities or those associated with an industrial, commercial, or extractive land use are included within these larger respective categories.

Appendix I: Documented Occurrences of Listed Species



LEGEND

- CHARLOTTE COUNTY PARKS AND PRESERVES
- BALD EAGLE NEST LOCATION
- RED-COCKADED WOODPECKER LOCATION
- SCRUB JAY LOCATION
- WADING BIRD LOCATION



NOTES:

EAGLE NEST LOCATIONS WERE ACQUIRED FROM THE AUDUBON EAGLEWATCH ON SEPTEMBER 2021 AND ARE CURRENT TO END OF 2021 NESTING SEASON.

RED-COCKADED WOODPECKER LOCATIONS WERE ACQUIRED FROM THE FWCC ON SEPTEMBER 2021.

SCRUB JAY LOCATIONS WERE ACQUIRED FROM THE USFWS ON SEPTEMBER 2021.

WADING BIRD ROOMERIES WERE ACQUIRED FROM THE FWCC ON SEPTEMBER 2021 AND ARE CURRENT TO 1999.

DRAFT

DRAWN BY	DATE
H.H.	12/21/21
REVIEWED BY	DATE
H.S.	12/21/21
REVISED	DATE



APPENDIX H. DOCUMENTED OCCURRENCES OF LISTED SPECIES
CHARLOTTE COUNTY BENEFIT OF PARKS

Appendix J:

Florida Recreation & Parks Impact Report



FLORIDA RECREATION & PARKS IMPACT REPORT

WEILER ENGINEERING
CORPORATION

FRPA FLORIDA RECREATION
& PARK ASSOCIATION
POWERED BY SPORTS FACILITIES ADVISORY



WHY REPORTS MATTER.

As Albert Einstein once said, “Not everything that counts can be counted, and not everything that can be counted counts.” Meaningful and accurate data-driven reporting is one of the most important ways to communicate value. Common reporting methodologies focus on data that is easily collected, but has little correlation to the larger, more substantial community impact that, in reality, a park ignites. If reports are difficult to assimilate, then they have less chance of actually being created. If there is no connection to a broader community context, then there is less relevance.

If stakeholders and decision makers fail to see the value in parks then, arguably, there is no value. Demonstrating how parks add value should be a fundamental focus for agencies looking to develop, maintain, and grow community assets.

What if you could generate specific, accurate, evidence-based reports, capable of communicating the value of a single park or your entire park system in terms of dollars and areas of significant impact? FRPA’s new Impact Calculator website will help you to do exactly that. Developing a customized report that will help to transcend the noise of meaningless data to provide a relevant, usable and meaningful report that will effectively influence and support decision makers in a way that justifies the continued allocation of resources and value of your park system through a report that matters, because parks matter.



Felicia Donnelly
Felicia Donnelly
2018-2019 President

THE POWER OF PARKS.

We can all name a positive feeling we get when we are outdoors in a park or watching a child's first dance class at the local recreation center. The mental and physical benefits of parks and recreation are a little easier to define. Concerts...Baseball Games... Festivals... Tournaments... these are just a few ways that park and recreation departments add to the economic benefits of a community. The impact of these events, along with the value of having a community center or park near a neighborhood, can shape a community's economic standing and quality of life.

According to a study by the National Recreation and Park Association, in conjunction with the Center for Regional Analysis at George Mason University, in 2013 Florida's local and regional public park agencies generated nearly \$7.2 billion in economic activity and supported over 60,000 jobs in the state. The Economic Impact Pillar of the FRPA Strategic Plan hopes to leverage the economic impact of park and recreation agencies to ultimately improve funding sources that allow departments to serve their community in the highest capacity.

By partnering with Sports Facilities Advisory on the development of a statewide impact calculator, FRPA is now able to provide members with a platform for educating and influencing internal and external audiences about the quantifiable impact and value of parks.

This initiative will build a network of advocates positioned to promote the message of how important parks and recreation offerings are to a community and provide agencies with the resources to help establish best practices and build sustainable and expanded funding models that validate the power of parks.



Eleanor J. Warmack

Eleanor Warmack
Executive Director

WEILER ENGINEERING CORPORATION

INCREMENTAL PROPERTY VALUES BASED ON THE PROXIMITY EFFECT.

Distance from parks and trails is known to influence property values. Nationwide research shows that the premium for proximity to these spaces can affect market values up to 2,000 feet by 20 percent or more. Parks and recreation areas can also lead to proportionately higher property tax revenues for local governments.



The real estate market consistently demonstrates that people are willing to pay more for a house close to a park, which results in higher home values.*

\$7,590

IN INCREMENTAL PROPERTY VALUES

\$2

IN INCREMENTAL TAX REVENUE

PHOTO CREDIT: CITY OF NEW PORT RICHEY

* John L. Crompton (2005). *The Impact of Parks on Property Values*

Date Report Generated: 03/29/2022

WEILER ENGINEERING CORPORATION

HEALTH CARE SAVINGS ATTRIBUTED TO ACCESS TO PARKS.

Studies of health care economics and policy have established that increased access to public outdoor spaces and more biking and walking infrastructure encourages people to exercise, which as a result, reduces overall health care expenditures.

\$760.7 MILLION

IN ANNUAL HEALTH CARE COST SAVINGS



Strong evidence shows that when people have access to parks, they are more likely to exercise, which can reduce healthcare costs.*



PHOTO CREDIT: PALM BEACH COUNTY

* The Trust for Public Land.(2006) - The Health Benefits of Parks

Date Report Generated: 01/14/2022

IMPACT ON THE ENVIRONMENT BASED ON STORM WATER MANAGEMENT.

Parks have been proven to positively impact the environment and reduce the cost of storm water management, pollution mitigation, energy consumption, and other environmental-related issues.



Parks serve to mitigate climate changes that are a result of urban heat island effects, such as modified temperature, wind, rain, and air quality patterns.*

\$3.9 MILLION

SAVINGS IN STORMWATER MANAGEMENT COSTS



PHOTO CREDIT: CITY OF CAPE CORAL

* American Planning Association (2007) - Climate Change Management

WEILER ENGINEERING CORPORATION

THE AMOUNT OF TOURISM DOLLARS GENERATED.

From majestic parks to oceanside beaches and sports tourism destinations, visitors are attracted to Florida's natural resources and spend money on food, travel, and lodging during their stay, bringing new dollars and tax receipts into the region.

\$42 MILLION

ANNUAL SPENDING GENERATED THROUGH RECREATION AND/OR EVENTS



The estimated direct economic impact of Florida state parks is \$3 billion, generating \$205 million in increased sales tax revenue.*

PHOTO CREDIT: LEE COUNTY

* Florida Department of Environmental Protection (FDEP) - Economic Impact Assessment - Florida State Park System

Date Report Generated: 01/14/2022

PUBLIC SAFETY THROUGH PARKS AND RECREATION PROGRAMS.

Parks that offer spaces that are well-maintained, and activated can have a positive impact on the public safety of the communities they are located in. Additionally, parks that offer out-of-school time programming (before school activity, after school activity, summer camps, volunteer opportunities, etc.) can help deter youth from engaging in risky behavior.



Data suggests that kids who are enrolled in Out-of-School Time Programs are more likely to have higher self-esteem, greater academic achievement, and lower instances of delinquency than those who do not participate.*

356 YOUTH IN OUT-OF-SCHOOL PROGRAMMING 210 YOUTH IN SWIM LESSONS AND WATER SAFETY PROGRAMS



PHOTO CREDIT: LEE COUNTY

* National Recreation & Park Association (NRPA) - Out of School Time Report (2018)

WEILER ENGINEERING CORPORATION

TOTAL JOBS SUPPORTED BY PARKS & RECREATION PROGRAMS.

Parks have been proven to be drivers of significant economic activity, having a positive impact on the economy through supporting jobs in local communities. The calculator strives to utilize currently published data to quantify the total jobs supported.



Florida had an impact of: \$7.2 billion in economic activity, and \$2.5 billion in labor income, supported by more than 60,100 jobs

94 JOBS

IN RELATED EMPLOYMENT



PHOTO CREDIT: CITY OF PENSACOLA

* National Recreation & Park Association (NRPA) - The Economic Impact of Local Parks

SUMMARY REPORT

WEILER ENGINEERING CORPORATION

Overview:

The following is the estimated impact of the park system or park based on increases in home values and incremental taxes, healthcare cost savings, annual direct spending, environmental savings, job creation and the value of public safety.

\$882,808

IN INCREMENTAL PROPERTY VALUES

\$3.9 MILLION

IN ENVIRONMENTAL SAVINGS

\$883

IN INCREMENTAL TAX REVENUE

94 JOBS

IN RELATED EMPLOYMENT

\$760.7 MILLION

IN ANNUAL HEALTH CARE COST SAVINGS

356 YOUTH

IN OUT-OF-SCHOOL PROGRAMMING

\$42 MILLION

IN ANNUAL DIRECT SPENDING

210 YOUTH

IN SWIM LESSONS/WATER SAFETY PROGRAMS



POWERED BY SPORTS FACILITIES ADVISORY



Eric Call

Director, Palm Beach County Parks and Recreation

Eric M. Call is the Director of the Palm Beach County Parks and Recreation Department where for more than 35 years he has been a recognized leader in the parks and recreation industry. He currently oversees an award-winning 103 parks, 1,075 employees and a \$77 million annual operating budget – the 11th largest park system in the nation.

For more information visit: <https://calculator.frpa.org/about/>



Felicia Donnelly

Assistant City Manager/Economic Development Director, City of Oldsmar

Felicia Donnelly, AICP has spent 28 years helping communities achieve their vision in both the private and public sectors in the areas of government operations, parks and recreation, community engagement, land use planning and transportation.

For more information visit: <https://calculator.frpa.org/about/>



Dr. Janet E. Fulton

Chief, Physical Activity and Health Branch, Centers for Disease Control and Prevention

Dr. Janet E. Fulton is an epidemiologist and Chief of the Physical Activity and Health Branch in the Division of Nutrition, Physical Activity, and Obesity at the Centers for Disease Control and Prevention in Atlanta, Georgia. She earned her PhD in Epidemiology from the University of Texas-Houston, School of Public Health.

For more information visit: <https://calculator.frpa.org/about/>



T. Michael Starves

Assistant City Manager, City of Winter Haven

T. Michael Starves has over 30 years in local government experience associated with parks and recreation and municipal administration. He has worked with the Cities of Lakeland, Temple Terrace, St. Petersburg, and Orange County. He has spent the past 17 years with the City of Winter Haven serving as Parks & Recreation Director, Community Services Director, since 2016 as the Assistant City Manager.

For more information visit: <https://calculator.frpa.org/about/>



Dr. Tom Tomerlin

Dr. Tom Tomerlin served as the Assistant City Manager for the City of Lake Mary, Florida. He was responsible for guiding and implementing the City's economic development strategy, as well as directing various functions for the City. Dr. Tomerlin is a seasoned economist with over 20 years of experience in the analysis of both public and private sector issues.

For more information visit: <https://calculator.frpa.org/about/>



Bryan Nipe

Director, Lake Mary Parks and Recreation

Bryan Nipe has 15 years of experience in a management role, 10 of which are in the parks and recreation field. Bryan is currently the Parks and Recreation Director for the City of Lake Mary where he and his team oversee city facilities, building maintenance, beautification, events, recreation programs and the renowned Lake Mary Events Center.

For more information visit: <https://calculator.frpa.org/about/>



SFA TEAM MEMBERS



Dev Pathik
Founder and CEO, Sports Facilities Advisory

Dev Pathik founded Sports Facilities Advisory in 2003 and is widely regarded as an industry thought-leader who has contributed to the well-being of communities around the world.

For more information visit: <https://calculator.frpa.org/about/>



Evan Eleff
CCO, Sports Facilities Advisory

Evan serves as COO of SFA overseeing the company's customer service and delivery systems as well as the team of strategic advisors, business analysts, project managers, and research specialists who produce SFA's market research, feasibility, and financing services.

For more information visit: <https://calculator.frpa.org/about/>



Daniel Morton
Strategic Advisor, Sports Facilities Advisory

Dan joined SFA in 2012 as a market research and document specialist, and today serves as a Strategic Advisor, leading SFA's team of market specialists and business analysts through the development of market studies, financial forecasts, economic impact analyses, feasibility studies, and existing facility optimization plans.

For more information visit: <https://calculator.frpa.org/about/>



Gary Smallshaw
Strategic Advisor, Sports Facilities Advisory

Gary currently helps to lead Sports Facilities Advisory's team of business analysts and researchers in assessing market opportunities, producing feasibility studies and delivering institutional-grade financial pro formas.

For more information visit: <https://calculator.frpa.org/about/>



Jared Carnes
Project Manager, Sports Facilities Advisory

Since joining Sports Facilities Advisory, Jared has worked on a portfolio of over 80 projects totaling more than \$200 million in planned and operational recreation, wellness, sports tourism, and entertainment destinations.

For more information visit: <https://calculator.frpa.org/about/>



Richard Stifinger
Project Coordinator, Sports Facilities Advisory

Prior to joining Sports Facilities Advisory, Richard has previously worked for the Tampa Bay Rays, Seminole Hard Rock Hotel & Casino Tampa, and JPMorgan Chase & Co. Richard earned a bachelor's degree in Psychology from the University of South Florida.

For more information visit: <https://calculator.frpa.org/about/>





THE FLORIDA RECREATION AND PARK ASSOCIATION

The Florida Recreation and Park Association is a non-profit organization dedicated to the promotion, preservation, and advocacy of the Parks, Recreation and Leisure Services profession. Originally organized in 1942 and incorporated in 1983, the Association is directed by a volunteer Board of Directors, and an Executive Office based in Tallahassee.

The mission of the Florida Recreation and Park Association is to establish parks and recreation as a cornerstone of health, economic development, environmental sustainability, and community throughout the State of Florida.

Our vision is an empowered and engaged network of members, advocates, and partners equipped to advance parks and recreation. Through a vast network of recreation and park professionals and advocates, FRPA forwards the message of the importance parks and recreation in the areas of health, environmental resiliency and sustainability, community building, and economic impact.



THE FLORIDA RECREATION AND PARK ASSOCIATION FOUNDATION

The Florida Recreation and Park Association Foundation is committed to supporting the professional development and education of leisure professionals, students and citizen advocates. The FRPA Foundation was established in 1998 to support the development and education of parks and recreation professionals, students, and citizen advocates in the State of Florida. In conjunction with The Florida Recreation and Park Association, our intent is to educate, advocate, and communicate the benefits of parks and recreation by investing in our individual professionals working in the industry. The Board of Trustees has adopted a strategic plan in support of the priorities facing the parks and recreation profession and professionals in Florida.



SPORTS FACILITIES ADVISORY

The mission of Sports Facilities Advisory is to dramatically improve the health and economic vitality of the communities we serve.

Our goal is to transform the decision making process for parks & recreation budgets, empowering parks professionals and advocates with data that elevates the conversation around the true value of parks. We believe that parks are a vital ingredient in a recipe for building a healthier society — providing opportunities for increased physical activity, access to sport and a community hub for social engagement.



PROPERTY VALUES CALCULATIONS & CITATIONS

The studies essentially used John L. Crompton's research on the Proximate Principle. The calculation involves estimating the market value of homes within 500 feet of a park and then using a very conservative multiplier to estimate the incremental value attributable to park proximity. The local tax rate was applied to the market value to estimate the incremental tax benefit as well.

Resources/Articles: Property Values:

The Economic Benefits of the Park and Recreation System of Mecklenburg County, North Carolina – The Trust for Public Land (2010)
http://cloud.tpl.org/pubs/ccpe_MecklenburgNC_econben.pdf

The Economic Benefits of Cleveland Metroparks – Trust for Public Land (2018)
<https://www.tpl.org/clevelandeconbenefits#sm.0000hrqebqa2he59x3x2fxbguuwkv>

John Crompton's work:
<https://rpts.tamu.edu/the-proximate-principle-impact-of-parks-on-property-value/>

HEALTH SAVINGS CALCULATIONS & CITATIONS

Based on previous work in health care economics (including a National Medical Expenditures Survey that has been widely cited), this calculator assigns a value of \$1,230 as the annual medical cost savings of adults under 65 years old, who exercise regularly (according to the CDC guidelines for levels for moderate and/or vigorous physical activity levels). The assigned value of \$1,230 was doubled to \$2,460 for adults over 65, because seniors typically incur 2-3 times the average healthcare expenditures of working-age people.

Resources/Articles: Health Savings:

The Economic Benefits of the Park and Recreation System of Mecklenburg County, North Carolina – The Trust for Public Land (2010)
http://cloud.tpl.org/pubs/ccpe_MecklenburgNC_econben.pdf

The Economic Benefits of Cleveland Metroparks – Trust for Public Land (2018)
<https://www.tpl.org/clevelandeconbenefits#sm.0000hrqebqa2he59x3x2fxbguuwkv>

M. Pratt, C. A. Macera, and G. Wang, "Higher Direct 103 Medical Costs Associated with Physical Inactivity," *Physician and Sports Medicine* 28, no. 10 (2000): 63–70.
<https://www.tandfonline.com/doi/abs/10.3810/psm.2000.10.1237>

PUBLIC SAFETY CALCULATIONS & CITATIONS

Parks that offer spaces that are well-maintained, and activated can have a positive impact on the public safety of the communities they are located in. Additionally, Parks that offer out-of-school time programming can help deter youth from engaging in risky behavior. Furthermore, Parks and Recreation is the leading provider of low-cost/free aquatics programming. These programs can help to lower drowning cases, which is one of leading causes of death for children ages one through four.

Resources

- <https://www.nrpa.org/parks-recreation-magazine/2015/september/structured-recreation-programming-can-help-reduce-juvenile-crime/>
- http://www.nccu.edu/formsdocs/proxy.cfm?file_id=2907
- <https://www.cdc.gov/homeandrecreationsafety/water-safety/waterinjuries-factsheet.html>
- <https://www.nrpa.org/parks-recreation-magazine/2019/february/park-pulse-the-importance-of-learning-to-swim-at-a-young-age/>

ENVIRONMENTAL IMPACT CALCULATIONS & CITATIONS

Parks have been proven to positively impact the environment and reduce the cost of environmental impacts for communities related to storm water management, pollution mitigation, energy consumption, and other issues. The calculator strives to utilize currently published data to quantify the positive environmental impacts in terms of the appropriate unit measurement (i.e. Gallons of storm water mitigated) and the monetary value of these impacts. The two calculations consider the impacts in terms of number of trees as well as the number of acres of parkland.

Resources/Articles

Urban Forestry Tree Guide: Florida Regions – US Forest Service (2006–2010)

https://www.fs.fed.us/psw/topics/urban_forestry/products/tree_guides.shtml

STRATUM Climate Zones Map

https://www.fs.fed.us/psw/topics/urban_forestry/images/ncz_map.jpg

Central Florida Community Tree Guide: Benefits, Costs, and Strategic Planting

https://www.fs.fed.us/psw/topics/urban_forestry/products/2/psw_cufr797_psw_gtr230.pdf

Coastal Plain Community Tree Guide: Benefits, Costs, and Strategic Planting

https://www.fs.fed.us/psw/topics/urban_forestry/products/2/cufr_679_gtr201_coastal_tree_guide.pdf

Tropical Community Tree Guide: Benefits, Costs, and Strategic Planting

https://www.fs.fed.us/psw/topics/urban_forestry/products/2/psw_cufr753_psw_gtr216.pdf

The Economic Benefits of the Park and Recreation System of Mecklenburg County, North Carolina – The Trust for Public Land (2010)

http://cloud.tpl.org/pubs/ccpe_MecklenburgNC_econben.pdf

The Economic Benefits of Cleveland Metroparks – Trust for Public Land (2018)

<https://www.tpl.org/clevelandeconbenefits#sm.0000hrqebqa2he59x3x2fxbguuwkv>

TOURISM IMPACT CALCULATIONS & CITATIONS

Event/Visitor Tourism articles:

- Florida Department of Environmental Protection – Economic Impact Assessment for the Florida State Park System
- Florida Sports Foundation – The Economic Impact of the Florida Sports Industry
- Florida Department of Environmental Protection – Economic Impact of Outdoor Recreation Activities in Florida
- Oxford Economics – The Economic Impact of Out-of-State Visitors in Florida
- National Park Service, U.S. Department of the Interior – National Park Spending Effects
- The American Planning Association – How Cities Use Parks to Promote Tourism
- Outdoor Industry Association – The Outdoor Recreation Economy
- Americans for the Arts – Arts & Economic Prosperity 5 – The Economic Impact of Nonprofit Arts & Cultural Organizations & Their Audiences
- Journal of Park and Recreation Administration – The Impact of 30 Sports Tournaments, Festivals, and Spectator Events in Seven U.S. Cities

JOBS IMPACT CALCULATIONS & CITATIONS

Parks have been proven to be drivers of significant economic activity, having a positive impact on the economy through supporting jobs in local communities. The calculator strives to utilize currently published data to quantify the total jobs supported.

Resources

<https://www.nrpa.org/siteassets/research/economic-impact-study-summary-2018.pdf>

<https://floridadep.gov/sites/default/files/Economic%20Impact%20Assessment%202016-2017.pdf>



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Appendix D

Environmentally Sensitive Lands Classifications



MEMORANDUM

Date: 1/18/2023
To: Tommy Scott, Community Services Director
From: Tina Powell, Parks & Natural Resources Manager
Subject: Environmentally Sensitive Lands Classifications

MEMORANDUM FOR INTERNAL USE ONLY

Preserve

Preserves are generally larger parcels and tend to have less urban interface.

These lands are home to many listed species as defined by the Endangered Species Act in addition to habitats protected by Federal, State and Local legislation. These species and habitats are the guiding influence for management.

Management on Preserves is typically the more intensive with higher level monitoring along with mitigation lands.

Preserves are intended to be restored, managed and maintained in perpetuity in the most natural state possible for the citizens of Charlotte County

Preserves have limited public use, less programming, and less structures/amenities.

Environmental Park

Environmental Parks are typically similar in size as preserves, but to have more urban interface.

These lands can have some listed species and sensitive environmental habitats however they are not always the guiding influence of management.

Management on Environmental Parks can be less intensive, and monitoring is typically at a lower level.

Environmental Parks focus on the appropriate health and structure of the habits to maximize their natural biodiversity.

Environmental Parks often have a higher level of recreational use with more programming, interpretive features, amenities and structures.

Mitigation Lands

Mitigation Lands are lands that are either owned by the County or a conservation easement has been granted to the County; they are variable in size and level of urban interface.

These lands can be home to listed species and/or habitats protected by legislation. The guiding influence for management of these lands are as a result of impacts to these species and habitats.

Management on Mitigation Lands are intended to address specific species/habitats and/or permit requirements in perpetuity and typically receive the most intensive management and monitoring along with Preserves.

Mitigation lands have limited or no public access, they typically have no structures/amenities.

Natural Lands

Natural Lands are variable in size and tend to have higher levels of urban interface.

These lands can have listed species and sensitive environmental habitats, but not always. The species and habitats found on these lands are typically more common. The guiding influence of management on these lands is general environmental preservation and habitat health.

Management on Natural Lands is less intensive with little to no formal monitoring.

Natural Lands focus on both environmental preservation and management from a human dimension where in many cases their recreational value is an important consideration in management.

Natural Lands have a high level of recreational use with more significant amenities and structures, along with programming and interpretive features.

Appendix E

Parks and Natural Resources Division

Levels of Maintenance and Operations

Modes and Standards

Charlotte County
Community Services Department

Parks and Natural Resources Division
Levels of Maintenance and Operations
Modes and Standards

Ballfields Maintenance

Mode 1

High level of intensive and frequent maintenance associated with high usage fields. The goal is to provide clean and safe field conditions above recreational levels; maintenance includes more extensive work that would surpass other service level areas. These fields are used for tournaments, league play and pickup games are allowed when they don't interfere with scheduled games or maintenance. Fields are staffed 7 days per week. Event/tournament staffing 3 FTE for initial prep up to 5 fields; 4 FTE for a full day of service.

Grass height maintained according to species and variety of grass. Mowed at least every other day. Aerate a minimum of four times per year. Over seeding annually or as needed; full field re-sodding as every 5 years. Weed control should be practiced so that no more than 20% of the surface has weeds present.

Pest control program is varied and may include 1. Integrated pest management withholding controls measures until pests demonstrate damage to plant materials 2. Preventative scheduled chemical or cultural program application to prevent significant damage, and/or 3. Corrective applications of chemical or mechanical controls to eliminate observed problems. The maintenance goal is that problems will either be prevented or observed at a very early stage and corrected immediately.

Daily/weekly field prep includes Ballfields to be kept safe and playable through regular dragging/raking to ensure a level-consistent surface; care is taken to avoid lip buildup along infield/outfield transition line. Fencing to be maintained in a manner such that the majority of original material is of good integrity and condition. Bleacher should be intact, seating surface is clean, smooth, and free of any sharp edges or protrusions and secured to concrete pads which are clean and clear of any mold or debris. Pitching mound are sized and sloped to meet infield construction specs. Fields that have been reserved shall be lined for specific user/age groups. Paint turf athletic fields lines with a non-toxic paint that does not harm turf; batter boxes are properly installed and lined. Dugout surfaces should be free of glass, litter, debris, and trip hazards.

Mode 2

Moderate level of maintenance associated with high usage fields. The goal is to provide clean and safe field conditions at base recreational levels. These fields are used for tournaments, league play and pickup games are allowed when they don't interfere with scheduled games or maintenance. Fields are staffed Monday through Friday. Event/tournament staffing 2 FTE for initial prep up to 5 fields; 4 FTE for a full day of service.

Grass cut once every 2-3 working days, but no less than every 5 working days. Aeration as required but not less than two times per year. Re-seeding or sodding when bare spots are present; full field re-sodding as every 10 years. Weed control practiced when weeds present visible problem or when weeds represent 10 percent of the turf surface. Some pre-emergent products may be utilized at this level.

Pest control program is done when disease or insects are inflicting noticeable damage with limited preventative measures such as systemic chemical treatment and limited cultural prevention. The maintenance goal allows for toleration of minor issues with little impact to the public.

Ballfields to be kept safe and playable through pre-game/practice dragging/raking. Fencing to be maintained in a manner such that at least 50% of original material is of good integrity and condition. Bleacher should be intact and free of any sharp edges or protrusions. Pitching mound are sized and sloped to meet infield construction specs. Fields that have been reserved for games shall be lined for specific user/age groups. Paint turf athletic fields lines with a non-toxic paint that does not harm turf; batter boxes are properly installed and lined. Prior to reservation, dugout surfaces should be free of glass, litter, debris, and trip hazards.

Mode 3

Moderately low-level maintenance associated with moderate field usage or budget imposed maintenance restrictions. The goal is to provide fields that are generally neat and orderly with tolerance to the effects of wear and tear. These fields experience moderate visitation, may have league or individual team play and neighborhood pickup games. Event/tournament staffing 1 FTE for initial prep up to 5 fields; no full day support.

Cut once every 5 working days. Normally not aerated unless turf quality indicates a need or in anticipation of an application of fertilizer. Re-seeding or re-sodding done only when major bare spots appear. Weed control measures normally used when 50 percent of small areas are weed infested, limited pre-emergent products may be utilized at this level.

Pest control is done only on epidemic or serious complaint basis. The maintenance goal it to ensure the health or survival of the plant material when it is threatened.

Ballfields to be kept safe and playable through pre-game dragging/raking. Fencing to be maintained in a manner such that the original material is of fair integrity and condition. Bleacher should be intact and free of any sharp edges or protrusions. Pitching mound are sized and sloped to meet infield construction specs. Fields that have been reserved for games shall be lined for specific user/age groups. Paint turf athletic fields lines with a non-toxic paint that does not harm turf; batter boxes are properly installed and lined. Prior to reservation, dugout surfaces should be free of glass and trip hazards.

Land Management

Mode 1

Natural areas conservation land management includes mowing and trail maintenance, habitat management, exotics, species monitoring and habitat assessments and programming. The goal is to provide land management services in a manner that initiates restoration and all habitats types with long term goals of reaching maintenance level management. Outreach, education and programming are regular and proactive. Levels are based on 1 FTE staff per 700 acres.

Wet season mowing is conducted 3/month with full trail trimming. Dry season mowing is conducted 2/month with full trail trimming.

Prescribed burning goals are equal to 1/3 of total conservation land acreage. Mechanical treatment goals are equal to ¼ of total conservation land acreage. Manual land management activities to include site inspections, over story thinning, contractor oversight should equal approximately 300 hours/month.

Exotic treatment that entail more than 200 hours of staff time will be contracted out; a maximum of 5 contracted treatments per year based on budget capacity. Staff will be responsible for contractor oversight and re-treatments. Staff should focus on small spot treatments and exotic treatment visible from trails and the highest risk habitats on all conservation properties.

Species monitoring should meet permitting/grant requirements and include evaluation of data to inform management goals along with statistical tracking over multiple years with long term impactful benchmarks. Habitat monitoring should meet minimum permitting/grant requirements and include evaluation of data to inform management goals along with statistical tracking over multiple years.

Programming is active outreach to schools, community groups and intra-departmental programs.

Mode 2

Natural areas conservation land management includes mowing and trail maintenance, habitat management, exotics, species monitoring and habitat assessments and programming. The goal is to provide land management services in a manner that reaches maintenance levels of habitats that are most sensitive or where permitted listed species are present. Outreach, education and programming are semi-regular. Levels are based on 1 FTE staff per 1,200 acres.

Wet season mowing is conducted 2/month with full trail trimming 1/month. Dry season mowing is conducted 1/month with full trail trimming every other month.

Prescribed burning goals are equal to ¼ of total conservation land acreage. Mechanical treatment goals are equal to 1/8 of total conservation land acreage. Manual land management activities to include site inspections, over story thinning, contractor oversight should equal approximately 180 hours/month.

Exotic treatment that entail more than 120 hours of staff time will be contracted out; a maximum of 5 contracted treatments per year based on budget capacity. Staff will be responsible for contractor oversight and re-treatments. Staff should focus on small spot treatments and exotic treatment visible from trails and the highest risk habitats on priority conservation properties.

Species monitoring should meet minimum permitting/grant requirements and include some evaluation of data to inform management goals. Habitat monitoring should meet minimum permitting/grant requirements and include some evaluation of data to inform management goals.

Programming is done 1/month for internal or external customers and may be pre-developed or a customized program based on the request.

Mode 3

Natural areas conservation land management includes mowing and trail maintenance, habitat management, exotics, species monitoring and habitat assessments and programming. The goal is to provide land management services in a manner that initiates restoration and improves habitats that are most sensitive or where permitted listed species are present. Outreach, education and programming are minimal. Levels are based on 1 FTE staff per 1,400 acres.

Wet season mowing is conducted 2/month with trail trimming is done on a complaint basis. Dry season mowing is conducted 1/month with trail trimming done on a complaint basis.

Prescribed burning goals are equal to 1/8 of total conservation land acreage. Mechanical treatment goals are equal to 1/16 of total conservation land acreage. Manual land management activities to include site inspections, over story thinning, contractor oversight should equal approximately 120 hours/month.

Exotic treatment that entail more than 80 hours of staff time will be contracted out; a maximum of 5 contracted treatments per year based on budget capacity. Staff will be responsible for contractor oversight and re-treatments. Staff should focus on small spot treatments and exotic treatment visible from trails.

Species monitoring should meet minimum permitting/grant requirements. Habitat monitoring should meet minimum permitting/grant requirements.

Outreach and programming is done on a request basis.

** All modes require 2 FTE Equipment Operators

Parks Maintenance

Mode 1

Visited Daily: High level of intensive and frequent maintenance associated with high visitation premier parks. The goal is to provide a clean and safe environment; maintenance includes more extensive work that would surpass other service level areas.

Park is visited a minimum of once per day, 7 days per week to perform a visual inspection to include general site conditions, playground safety, electrical outlets, water fountains and hose bibs, sport courts, pests (fire ants, bees, rodents) and restrooms.

Trash/recycling is removed when bags are over 1/3rd full, food, bugs or odor is present. Pick-sticking park property to include parking lot and perimeter. Quantity of receptacles should be plentiful enough to hold all trash generated between servicing without routine overflowing.

Sweeping, cleaning and washing of surfaces should be done daily and include blowing off of pavilions, playgrounds, pay stations, boardwalks, sidewalks and parking areas so that accumulation of dirt and leaves distract from the appearance or safety of the area. Parks with playgrounds should include raking of mulch under swings and slide exits. Graffiti should be washed off or painted over the next working day after application.

Repairs to all elements should be done immediately upon discovery provided replacement parts and technicians are available to accomplish the job; work orders should be submitted immediately. When disruption to the public might be major and the repair not critical, repairs may be postponed to a time period which is least disruptive. Features/elements including BBQ grills, bike racks, dog parks, dog waste stations, fitness equipment, flag poles, water fountains should be maintained on the highest possible level.

Mode 2

Visited 5/week: High level maintenance associated with well-developed park areas with reasonably high visitation. The goal is to provide areas that are safe, neat and orderly in their appearance.

Park is visited 5 days per week to perform a visual inspection to include general site conditions, playground safety, electrical outlets, water fountains and hose bibs, sport courts, pests (fire ants, bees, rodents) and restrooms.

Trash/recycling is removed when bags are over 1/2 full, food, bugs or odor is present. Pick-sticking park property to include parking lot and perimeter. Off-site movement of trash dependent on size of containers and use by the public.

Sweeping, cleaning and washing of surfaces should be done 3 times per week and include blowing off of pavilions, playgrounds, pay stations, boardwalks, sidewalks and parking areas so that accumulation of dirt and leaves distract from the appearance or safety of the area. Graffiti should be washed off or painted over within 48 hours. Parks with playgrounds should include raking of mulch under swings and slide exits.

Work orders should be submitted by close of business whenever safety, function or bad appearance is in question. When disruption to the public might be major and the repair not critical, repairs may be postponed to a time period which is least disruptive. Features/elements including BBQ grills, bike racks, dog parks, dog waste stations, fitness equipment, flag poles, water fountains should be maintained for safety, function and appearance.

Mode 3

Visited 3/week: Moderate level maintenance associated with moderately developed parks with moderate to low levels of visitation or budget imposed maintenance restrictions. The goal is to provide areas that are generally neat and orderly with some tolerance to the effects of wear and tear.

Park is visited 3 days per week to perform a visual inspection to include general site conditions, playground safety, electrical outlets, water fountains and hose bibs, sport courts, pests (fire ants, bees, rodents) and restrooms.

Trash/recycling is removed when bags are over ½ full, food, bugs or odor is present. Pick-sticking park property to include parking lot and perimeter. High use may dictate higher levels during season.

Sweeping, cleaning and washing of surfaces should be done 2 times per week and include blowing off of pavilions, playgrounds, pay stations, boardwalks, sidewalks and parking areas so that accumulation of dirt and leaves distract from the appearance or safety of the area. Graffiti should be washed off or painted over within 5 business days. Parks with playgrounds should include raking of mulch under swings and slide exits.

Work orders should be submitted weekly unless safety or function is in question. Features/elements including BBQ grills, bike racks, dog parks, dog waste stations, fitness equipment, flag poles, water fountains should be maintained for function and safety.

Mode 4

Visited Weekly: Moderately low level associated with low level of development, low visitation, or remote parks. The goal is to provide areas that are generally neat and orderly with tolerance to the effects of wear and tear.

Park is visited weekly to perform a visual inspection to include general site conditions, playground safety, electrical outlets, water fountains and hose bibs, sport courts, pests (fire ants, bees, rodents) and restrooms.

Trash/recycling is removed when bags are over ½ full, food, bugs or odor is present. Pick-sticking park property to include parking lot and perimeter. Complaint may increase level above one servicing.

Sweeping, cleaning and washing of surfaces should be done 1 times per week and include blowing off of pavilions, playgrounds, pay stations, boardwalks, sidewalks and parking areas so that accumulation of dirt and leaves distract from the appearance or safety of the area. Graffiti should be washed off or painted over within 10 business days. Parks with playgrounds should include raking of mulch under swings and slide exits.

Work orders should be submitted bi-weekly unless safety or function is in question. Features/elements including BBQ grills, bike racks, dog parks, dog waste stations, fitness equipment, flag poles, water fountains should be maintained to allow safe use.

Mode 5

Visited Monthly: Minimum maintenance level undeveloped parks, remote parks and/or designated reduced service parks. The goal is to provide areas that are safe.

Park is visited monthly to perform a visual inspection to include general site conditions and safety concerns.

Trash/recycling is removed monthly or on *complaint basis*. Pick-sticking park property to include parking lot and perimeter.

Serviced when safety is consideration. Sweeping, cleaning and washing of surfaces should be done on a complaint basis and include blowing off of pavilions, playgrounds, pay stations, boardwalks, sidewalks and parking areas so that accumulation of dirt and leaves distract from the appearance or safety of the area. Graffiti should be washed off or painted over within 15 business days.

Work orders should be submitted monthly unless safety or function is impaired; should have same year service on poor appearance. Features/elements including BBQ grills, bike racks, dog parks, dog waste stations, fitness equipment, flag poles, water fountains should be serviced based on lowest acceptable frequency for feature or removed.

Appendix F

Level of Service Points per Park

PARK CLASSIFICATION	Level of Service Points per Park																								
	Ann & Chuck Dever Regional Park	Bissett Park	Carmalita Park	Centennial Park	Deep Creek Park	Englewood East Park	Franz Ross Park	G. C. Herring Park	Harbour Heights Park	Harold Avenue Park	Hathaway Park	Higgs Park	Katherine-Ariens Park	Larry Taylor Kiwanis Park	Lake Betty Park	Maracalbo Kidspace Park	McGuire Park	Myakka River Park	Randy Spence Park	Rotonda Community Park	San Domingo Park	South County Regional Park	South Gulf Cove Park	Tringali Park	William R. Gaines Jr. Veterans Memorial Park
Required Points by Classification	350.00	110.00	110.00	350.00	110.00	50.00	110.00	110.00	110.00	350.00	110.00	50.00	50.00	50.00	50.00	110.00	110.00	110.00	50.00	110.00	50.00	350.00	50.00	110.00	110.00
ACERAGE	11.80	7.90	26.32	13.63	0.17	3.80	0.60	9.26	5.80	2.46	12.39	2.90	1.46	1.16	1.01	1.61	3.47	13.43	4.82	0.42	0.21	0.86	36.66	35.41	19.02
Environmental parkland	11.80	7.90	-	13.63	-	-	-	-	-	-	-	2.90	-	-	-	-	-	13.43	-	-	-	-	36.66	35.41	19.02
Active parkland	-	-	26.32	-	0.17	3.80	0.60	9.26	5.80	2.46	12.39	-	1.46	1.16	1.01	1.61	3.47	-	4.82	0.42	0.21	0.86	-	-	-
ADD-ONS	21.00	-	27.00	60.00	9.00	-	15.00	-	15.00	48.00	-	9.00	12.00	12.00	-	-	-	-	5.00	6.00	6.00	60.00	-	9.00	-
Dog Friendly Stations	18.00	-	-	12.00	-	-	-	-	6.00	-	-	-	12.00	12.00	-	-	-	-	2.00	-	6.00	12.00	-	-	-
Shade Structure (Playground free standing)	3.00	-	3.00	6.00	3.00	-	3.00	-	-	6.00	-	-	-	-	-	-	-	-	3.00	6.00	-	6.00	-	3.00	-
Shade Structures (Spectator)	-	-	24.00	42.00	-	-	9.00	-	-	42.00	-	-	-	-	-	-	-	-	-	-	-	36.00	-	-	-
Shade Structures (Sport Court)	-	-	-	-	6.00	-	3.00	-	-	9.00	-	9.00	-	-	-	-	-	-	-	-	-	6.00	-	6.00	-
AMENITY	39.69	10.00	45.00	37.00	6.00	6.00	14.00	9.00	26.00	28.00	30.46	6.00	16.00	15.24	0.54	14.00	6.00	3.00	-	7.00	-	43.24	25.36	6.00	9.74
Bike Repair Station	-	1.00	-	-	-	-	-	-	-	-	1.00	-	-	-	-	-	-	-	-	-	1.00	-	-	-	-
Boat Ramp Lanes	-	-	-	-	-	-	-	-	15.00	-	15.00	-	-	-	-	-	-	-	-	-	-	-	15.00	-	-
Canoe/Kayak (ADA Complaint)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canoe/Kayak (Natural)	-	3.00	-	-	-	-	-	-	3.00	-	-	-	-	-	-	-	-	3.00	-	-	-	-	-	-	-
Concession Stand	8.00	-	16.00	16.00	-	-	8.00	-	-	16.00	-	-	-	-	-	8.00	-	-	-	-	-	16.00	-	-	3.00
Dock/ Boardwalk /Fishing Pier (1000 sf)	1.69	-	-	-	-	-	-	2.00	-	-	2.46	-	-	9.24	0.54	-	-	-	-	-	-	0.24	1.36	-	0.74
Dog Park	15.00	-	-	-	-	-	-	-	-	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-
Horse Arena	-	-	5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Open Space (ac)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Outdoor Classroom	-	-	-	-	-	-	-	-	-	-	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remote Control Features	-	-	-	-	-	-	-	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	6.00	-	-	-
Restroom	12.00	6.00	24.00	18.00	6.00	6.00	6.00	6.00	6.00	12.00	6.00	6.00	6.00	6.00	-	6.00	6.00	-	-	6.00	-	18.00	6.00	6.00	6.00
Special Event Venue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Specialty/ Community Garden	3.00	-	-	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00	-	-	3.00
Wildlife Observation Platform	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQUATIC FACILITIES	40.00	-	-	30.00	-	-	-	-	-	-	-	-	-	-	-	-	10.00	-	-	-	-	40.00	-	-	-
Diving Well/Beach	10.00	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.00	-	-	-
Swimming Pool	20.00	-	-	20.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.00	-	-	-
Splash Pad / Interactive Water Feature	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.00	-	-	-	-	10.00	-	-	-
ENVIRONMENTAL/ HISTORICAL FACILITIES	3.00	-	3.00	3.00	-	-	-	-	3.00	3.00	-	3.00	-	3.00	-	-	3.00	-	3.00	-	-	3.00	-	3.00	3.00
Environmental Center	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental Interpretive	3.00	-	-	-	-	-	-	-	-	-	-	3.00	-	3.00	-	-	-	-	-	-	-	3.00	-	-	-
Historic Interpretive	-	3.00	3.00	3.00	-	-	-	-	3.00	3.00	-	-	-	-	-	-	3.00	-	3.00	-	-	-	-	3.00	3.00
PAVILIONS	12.00	9.00	6.00	6.00	6.00	3.00	9.00	6.00	9.00	-	9.00	9.00	6.00	12.00	12.00	-	12.00	-	12.00	6.00	3.00	9.00	6.00	3.00	6.00
Amphitheater/Group Pavilion/Pavilion Rentals	6.00	6.00	-	6.00	-	-	6.00	6.00	6.00	-	6.00	6.00	-	12.00	12.00	-	12.00	-	12.00	6.00	-	6.00	6.00	-	-
Single Table Picnic Pavilion	6.00	3.00	6.00	-	6.00	3.00	3.00	-	3.00	-	3.00	6.00	-	-	-	-	-	-	-	-	3.00	3.00	-	3.00	6.00
PLAYGROUNDS	19.00	19.00	32.00	19.00	19.00	13.00	16.00	-	11.00	22.00	-	19.00	11.00	14.00	11.00	19.00	13.00	-	11.00	19.00	-	19.00	8.00	19.00	26.00
Accessible Playgrounds (2-5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.00
Accessible Playgrounds (5-12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.00
Playgrounds (2-5)	5.00	5.00	10.00	5.00	5.00	5.00	5.00	-	-	5.00	-	5.00	5.00	-	-	5.00	5.00	-	-	5.00	-	5.00	-	5.00	-
Playgrounds (5-12)	8.00	8.00	16.00	8.00	8.00	8.00	8.00	-	-	8.00	-	8.00	8.00	8.00	8.00	8.00	8.00	-	-	8.00	-	8.00	-	8.00	-
Playgrounds Speciality Play Feature	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Playgrounds Swings (Bays)/Standalone Play Features	6.00	6.00	6.00	6.00	6.00	-	3.00	-	3.00	9.00	-	6.00	6.00	6.00	3.00	6.00	-	-	3.00	6.00	-	6.00	-	6.00	6.00
RECREATION CENTER	50.00	-	10.00	40.00	-	-	-	-	40.00	-	-	-	-	-	-	-	-	-	-	-	-	40.00	-	30.00	-
Rec Multipurpose Room	30.00	-	-	20.00	-	-	-	-	-	20.00	-	-	-	-	-	-	-	-	-	-	-	20.00	-	10.00	-
Rec Gymnasium	10.00	-	-	10.00	-	-	-	-	-	20.00	-	-	-	-	-	-	-	-	-	-	-	10.00	-	10.00	-
Rec Fitness Center	10.00	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.00	-	10.00	-
Rentable Community Facility/Room	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.00	-
SPORTS COURTS	64.00	18.00	26.00	15.00	21.00	2.50	32.00	10.00	34.50	57.00	-	29.00	-	-	5.00	-	12.00	-	5.00	16.00	-	84.00	4.00	65.00	22.00
Basketball Court (Dedicated)	10.00	5.00	-	-	5.00	2.50	-	10.00	2.50	5.00	-	5.00	-	-	5.00	-	-	-	5.00	-	-	10.00	-	-	-
Basketball Court (Multi-purpose)	-	-	-	-	-	-	-	-	-	8.00	-	-	-	-	-	-	8.00	-	-	-	-	-	4.00	16.00	-
Bike BMX	6.00	-	6.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bocce Courts	-	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horseshoes	-	-	-	-	-	-	-	-	2.00	-	-	-	-	-	-	-	4.00	-	-	-	-	-	-	-	-
Inline Hockey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lighting (Court) (by Sport-type)	12.00	-	-	-	-	-	6.00	-	6.00	12.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pickleball (Dedicated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.00	-	12.00	6.00
Shuffleboard	-	4.00	-	-	-	-	-	-	8.00	-	-	24.00	-	-	-	-	-	-	-	-	-	40.00	-	-	-
Skatepark	5.00	-	5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tennis Courts (Dedicated)	-	-	-	-	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tennis Courts (Multi-purpose)	16.00	8.00	-	-	16.00	-	-	-	16.00	-	-	-	-	-	-	-	-	-	-	16.00	-	16.00	-	32.00	16.00
Volleyball Courts	15.00	-	15.00	15.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPORTS FIELDS	65.00	7.00	126.00	170.00	-	-	53.00	-	-	112.00	-	-	-	-	-	30.00	7.00	-	-	7.00	-	154.00	-	-	-
Baseball Fields	-	-	-	50.00	-	-	-	-	-	40.00	-	-	-	-	-	30.00	-	-	-	-	-	40.00	-	-	-
Cricket Field	7.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disc Golf (9 holes)	10.00	-	-	10.00	-	-	-	5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	10.00	-	-	-
Football Fields	30.00	-	25.00	-	-	-	30.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lighting (Ballfield) (by Field)	18.00	-	51.00	60.00	-	-	18.00	-	-	42.00	-	-	-	-	-	-	-	-	-	-	-	54.00	-	-	-
Multi-Purpose Field	-	7.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.00	-	-	7.00	-				

Appendix G

Master Plan Park Evaluation Criteria

Charlotte County Community Services Park Evaluation Criteria

Parks and facilities will be rated on a five-point scale as follows:

1. Amenity is in **very poor** condition or in need of **immediate replacement**
2. Amenity is in **poor** condition, scheduled for replacement/repair
3. Amenity is in **fair** condition from use and wear
4. Amenity is in **good** condition, recently repaired or maintained
5. Amenity is in **excellent** condition, recently replaced

Amenities subject to ADA guidelines will be noted for compliance.

Playgrounds

1. In very poor condition: drainage issues; significant material deterioration and ineffective safety surfacing, no border. Does not comply with CPSI standards. Closed
2. In poor condition: drainage issues; 25% or greater material deterioration; compliance issues that can be repaired.
3. In fair condition: no drainage issues; normal wear use, 10-20% safety surfacing material deterioration; minor compliance issues that can be repaired to meet CPSI standards.
4. In good condition: no drainage issues; 0-10% material deterioration safety surfacing with a border at the site; meets CPSI standards.
5. In excellent condition: no drainage issues; 0% material deterioration or recently replenished safety surfacing with a border at the site; meets CPSI standards.

Accessibility for People with Disabilities or Mobility Issues:

- Does the accessible path of travel connect to the play area?
- Is the surfacing accessible (rubber surfacing or compliant mulch)?
- Is there a transfer system or ramp?

Paved courts

1. In very poor condition: horizontal cracks more than 1", uneven surface; ponding on surface; requires complete resurfacing; fencing missing, has large holes and is not effective; painting is over 50% faded or missing, striping is non-existent.
2. In poor condition: horizontal cracks more than ½" wide, cracks over 30% of the surface; fencing has large protrusions, holes/passages or defects; painting and striping are patchy and color has faded dramatically.
3. In fair condition: hairline cracks to ¼", cracks over 20% of the surface; fencing has minor protrusions, or holes/passages that do not affect game play; painting and striping have flaking or color fading.
4. In good condition: no cracks in surfacing; fencing is functional, free of protrusions, and free of holes/passages; painting and striping are appropriately located, whole, and uniform in color.
5. In excellent condition: no cracks in surfacing or recently resurfaced or built; fencing is functional, free of protrusions, and free of holes/passages; painting and striping are appropriately located, whole, and uniform in color and vibrant.

Charlotte County Community Services Park Evaluation Criteria

Accessibility for People with Disabilities or Mobility Issues (Paved Courts)

- Does the accessible path of travel connect to the court?
- If there is fencing, is the gateway accessible (32" wide)?
- Is the gate hardware operable with a closed fist?
- If there are bleachers, is there companion seating next to the first tier?

Multi-Purpose Fields

1. In poor condition; no irrigation, bare spots, predominantly weeds, soil compacted.
2. In poor condition; irrigation problems, bare spots, some weeds, soil compacted.
3. In fair condition; some bare spots, some weeds, some drainage problems.
4. In good condition; lush and full, few weeds, no drainage problems.
5. In excellent condition; lush and full, no weeds, no drainage problems.

Accessibility for People with Disabilities or Mobility Issues:

- Is the turf area connected to the parking lot by an accessible path?

Sports fields

1. In very poor condition; bare areas over 50% of the playable surface, weeds are predominant, uneven playing surface that holds water in certain places, drainage issues, , improper layout and/or orientation; fencing has large protrusions, holes/passages or defects.
2. In poor condition; bare areas over 30% of the playable surface, some weeds and uneven playing surfaces that holds water in certain places, drainage issues, , improper layout and/or orientation; fencing has protrusions, holes/passages or defects.
3. In fair condition; grass with bare turf areas in high-use locations, may have some weeds, some drainage issues in overuse areas, , infields have grading problems (bump) at transition to grass and have no additive, may not have proper layout and/or orientation, fencing if present has minor protrusions, or holes/passages that do not affect game play.
4. In good condition: thick grass with few bare spots and few weeds; turf culture practices are evident (over seeding/aeration/top dressing) few depressions; no noticeable drainage issues, fencing if present is functional, free of protrusions, and free of holes.
5. In excellent condition: thick grass with no bare spots and no weeds; may have been recently re-sodded, over seeded/aerated/top dressed; no depressions; no noticeable drainage issues, fencing if present is functional, free of protrusions, and free of holes. May have fence pads.

Accessibility for People with Disabilities or Mobility Issues:

- Does the accessible path of travel connect to the edge of the field?
- Does the accessible path of travel connect to bleachers, if any, or player seating areas and dugouts?

Charlotte County Community Services Park Evaluation Criteria

- If there are bleachers, is there companion seating next to the first tier?

Park structures (Restrooms, picnic shelters, etc.)

1. In very poor condition; roof leaks or otherwise needs repair; floors show significant wear and is difficult to maintain; finishes are missing or discolored, have graffiti, or in need of replacement; some elements not working or in need of repair (e.g., non-functioning sink, toilet).
2. In poor condition; roof leaks or needs repair; floors show significant wear and is difficult to maintain; finishes are dull, may have graffiti, or are not easily maintained; some elements in need of repair (e.g., burned out light).
3. In fair condition; roof shows signs of wear and needs a structural evaluation; floor shows some wear; finishes show some wear with some marks or blemishes. Fixtures are in working order, may be dated.
4. In good condition; roof has no leaks; floor show some wear; finishes are absent of graffiti or vandalism, may show some wear; all elements are in working order. Fixtures are working and in good condition.
5. In excellent condition; roof has no leaks and may be new; floor shows little sign of wear; finishes are fresh with no graffiti or vandalism; all elements are in working order. Fixtures are new or recently upgraded.

Accessibility for People with Disabilities or Mobility Issues:

- Does the accessible path of travel connect to the building or structure?
- Is there adequate turnaround space inside (a 5' radius)?
- For buildings, is the accessible entrance signed?

Accessibility for People with Disabilities -- Restrooms:

- There is an adequate turnaround space inside (a 5' radius)
- There is a wide stall with grab bars. There is at least one low urinal in the men's room. Lavatories have hardware that can be operated with a closed fist
- There is signage on the wall outside of the door (Braille and pictogram on the face of the door).

Parking areas

1. In very poor condition; surfaces (gravel, asphalt, or concrete) needs repair; potholes, uneven grading; no signage; no delineation for vehicles. No defined parking area or inadequate parking area.
2. In poor condition; surfaces (gravel, asphalt, or concrete) needs repair; uneven grading; limited signage; no delineation for vehicles. No defined parking area.
3. In fair condition; paving needs patching or has some drainage problems; more than 75% of wheel stops and curbs are intact.

Charlotte County Community Services Park Evaluation Criteria

4. In good condition; paving and drainage do not need repair; at least 90% of wheel stops and curbs are intact; pavement markings clear; pathway connection provided to facility; proper layout.
5. In excellent condition; recently installed or resurfaced; paving and drainage do not need repair; all wheel stops and curbs are intact; pavement markings clear; pathway connection provided to facility; proper layout.

Accessibility for People with Disabilities or Mobility Issues:

- Are there 3 types of signs (warning sign regarding towing cars without placards, pavement marking, and sign in front of each parking space)?
- Is there an access aisle between spaces?
- Is there an accessible path of travel that does not go over a curb or behind parked cars?
- Is there a van accessible space?
- Are all curb cuts the correct type, not built up asphalt?

Maintained Open Space

Maintained open space includes managed natural areas such as forests and grasslands, stream and river corridors, and other natural areas within urban and suburban areas.

1. In very poor condition; Form or spacing issues exist; significantly overgrown; evidence of disease, pests, and significant invasive species; vandalism; hazardous trees. Landscape beds over run with weeds.
2. In poor condition; Form or spacing issues may exist; evidence of disease or pests; invasive/exotics present; some vandalism evident; potential for trees becoming hazardous. Unkempt landscape beds.
3. In fair condition; overall health is good; less than 5% of trees show signs of topping, disease or pest infestation; vandalism is repaired and treated. Landscape beds require attention.
4. In good condition; trees overall have good form and spacing; no topping; area is free of disease or pest infestation; minimal invasive species or exotics if at all; no vandalism; no hazard trees. Landscape beds are weeded.
5. In excellent condition; trees overall have good form and spacing; no topping; free of disease or pest infestation; no invasive or exotic species, no vandalism; no hazard trees. Landscape beds are freshly mulched, trimmed.

Pathways/trails

1. In very poor condition; not defined, uneven surfaces; inadequate width (less than 5ft.); paved/shell: 50% or more cracking or heaving, natural soil: 50% or more root exposure due to traffic or poor maintenance; clearance issues. May be blocked in some areas by fallen trees or debris. Irrelevant/outdated wayfinding signs where present.
2. In poor condition; uneven surfaces; inadequate width (less than 5ft.); paved/shell: 30% or more cracking or heaving, natural soil: 30% or more root exposure due to traffic or

Charlotte County Community Services Park Evaluation Criteria

poor maintenance; clearance issues. Some obstructions may be present.
Damaged/faded wayfinding signs where present.

3. In fair condition; uneven surfaces in places; some drainage issues; paved/shell: less than 20% cracking or heaving, natural soil: less than 20% root exposure due to traffic or poor maintenance; narrow widths in some places. Readable, but in need of replacement wayfinding signs where present.
4. In good condition; surface generally smooth and even, evidence of ongoing maintenance; proper width and material for type of pathway; proper clearances; minimal drainage issues. Wayfinding signs are present and functional.
5. In excellent condition; surface generally smooth, even and compacted; proper width and material for type of pathway; proper clearances; minimal drainage issues. Wayfinding signs where present are in good condition. Interpretive signs may be present.

Accessibility for People with Disabilities or Mobility Issues:

- Is there a continuous accessible path through the site, connecting all elements?
- Are the paths reasonably wide (5'), with accessible surfacing, and without excessive slopes?

Signage

1. In very poor condition; multiple signage systems within one site, signs that are not legible from a reasonable distance, over 25% damaged or missing signs, old logos, deteriorated materials, no signage.
2. In poor condition; may have multiple signage systems within one site, signs that are not legible from a reasonable distance, some damaged signs (10-25%), old logos, deteriorated materials, no signage.
3. In fair condition; signage may be consistent with standard system, a few damaged signs (0-10%), need maintenance.
4. In good condition; signage is consistent with standard system, appropriate signs, no damaged signs. May have been recently replaced.
5. In excellent condition; signs are new and appropriate for the site, no damaged signs. New logos.

Site furnishings

Site furnishings include benches, picnic tables, bicycle racks, waste receptacles, drinking fountains, and other outdoor furnishings.

1. In very poor condition; 50% or more are damaged or missing and require replacing; significant peeling or chipped paint; multiple styles within park site require different maintenance; ADA issues.
2. In poor condition; 20% or more are damaged and require replacing or repair; obvious peeling or chipped paint; may have multiple styles within park site require different maintenance; ADA issues.

Charlotte County Community Services Park Evaluation Criteria

3. In fair condition; 0-20% furnishings are damaged and require replacing or repair; some peeling or chipped paint; furnishings are not consistent, but are operational.
4. In good condition; not damaged; free of peeling or chipped paint; consistent throughout park. Trash receptacles, drinking fountain, picnic tables, benches may be on paved surface.
5. In excellent condition; not damaged; free of peeling or chipped paint; consistent throughout park. Trash receptacles, drinking fountain, picnic tables, benches on paved surface.

Accessibility for People with Disabilities or Mobility Issues:

- Does the accessible path of travel connect to the site amenities?
- Do 50% of the benches on the accessible path of travel have an armrest, back, and space for companion seating next to the bench?
- Are drinking fountains on the accessible path of travel and of an accessible style?
- Is there at least one accessible picnic table per cluster of tables that is connected to the accessible path of travel?
- Are associated amenities such as grills or fire rings on the accessible path?
- Is there adequate space between picnic tables (36" on all sides)?

Appendix H

Charlotte County Bicycle and Pedestrian Master Plan Implementation Plan Memorandum

Charlotte County

Bicycle-Pedestrian Master Plan

Connecting People Places and Parks



Implementation
Plan
Memorandum



JACOBSTM

alta
PLANNING + DESIGN

October 29, 2018

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Implementation Plan

This report outlines an implementation plan that identifies projects, programs and policies that should be adopted in the master plan. The report also includes a prioritized list of infrastructure improvements and schedule for implementing projects over time and by project tier, tier 1 (first 5 years to 2024), tier 2 (years 2024 to 2029) and tier 3 (years 2030 to 2040).

Leadership and dedication to bicycle and pedestrian recommendations in this plan will be required to implement infrastructure, programs, and policies. This chapter defines a management structure to implement these recommendations by providing key action steps for stakeholders to follow.

Equally critical will be meeting the need for a recurring source of revenue. Even small amounts of local funding will be very useful and beneficial when matched with outside sources. Most importantly, the MPO, Charlotte County and its partners need not accomplish the recommendations of this Plan by acting alone. Success will be realized through collaboration with regional and state agencies, the private sector, and non-profit organizations.

Given the constant change in funding availability at local, state, and federal levels, it is difficult to know what financial resources will be available at different time frames during the implementation of this Plan. However, there are important actions to take in advance of major investments, including key organizational steps, initiating education and safety programs, and developing strategic, lower-cost infrastructure improvements. Following through on these priorities will allow the key stakeholders to prepare for the development of larger walkway or bikeway projects over time, while taking advantage of strategic opportunities as they arise.

1. Policy Action Steps

Several policy steps are crucial to the success of future plan implementation. These steps will legitimize the recommendations found in this plan and support policy decision-making necessary to carry out those recommendations.

Adopt this Plan

Adoption should be considered as the first step of implementation. Once adopted, the MPO and Charlotte County will be able to make better transportation related decisions with its partners so that the goals of the plan are accomplished. Most importantly, having an adopted plan is a crucial component for many federal, state, and private sources. Adopting the Plan indicates intent to implement over time and does not commit the MPO and the county to dedicate or allocate funds.

Update Development Regulations and Land Development Codes with Walking and Biking Oriented Standards

Many standards in the county are ripe for updating to provide better facilities for people biking and walking. Development regulations and regulations regarding roadway development both shape the built environment and the safety and convenience of active transportation infrastructure. A full list of recommendations is available in the Design Guidance Technical Memorandum



Figure 1: Existing bicycle and pedestrian wayfinding in Punta Gorda

Updating development regulations with enhanced bike parking standards is a key step to enhancing convenience for people biking. Bike parking requirements should be explicitly required with commercial, multi-family and civic developments. Use the Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines for resources on best practices related to site design, construction, and number of bike parking spaces to require.

Adopt Complete Streets Policy in Support of Existing Vision Zero Policy

A Complete Street is for everyone, including people walking, biking, taking a bus or driving. Complete streets are designed and operated in a manner which is safe for everyone, regardless of age and ability. They provide access to destinations, places where people live, work and play. Each street is unique and requires an understanding of the surrounding context and community needs. Complete streets are designed to benefit all people as they improve safety, equity, and livability.

This Plan recommends that Charlotte County adopt a Complete Streets policy. In addition to adopting a Complete Streets policy, the city and county should develop and adopt street design guidelines identified in this plan to support the policy and communicate desired street treatments. The policy is intended to support the Vision Zero efforts of the county and MPO and are not intended to supersede those efforts.

According to the National Complete Streets Coalition, an ideal Complete Streets Policy should include the following elements:

- Includes a vision for how and why the community wants to complete its streets.
- Specifies that “all users” includes pedestrians, bicyclists and transit users of all ages and abilities, as well as trucks, buses, and automobiles.
- Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right-of-way.
- Sets a clear procedure that requires high level approval for exceptions to the policy.
- Encourages street connectivity and aims to create a comprehensive, integrated and connected network for all modes.
- Is adoptable by all agencies or departments to cover all roads.
- Directs the use of the latest and best design criteria and design guidelines while recognizing the need for flexibility in balancing user needs.
- Directs that complete streets solutions will complement the context of the community.

Additional Resources

- FDOT Complete Streets Policy - www.flcompletestreets.com/000-625-017-a.pdf
- FDOT Design Manual - fdot.gov/roadway/fdm/
- National Complete Streets Coalition - www.smartgrowthamerica.org/complete-streets/changing-policy



Figure 2: A Complete Street in Fort Myers Beach along Estero Boulevard, a commercial corridor within the Town. Key elements of this complete street include safe, comfortable, and signaled pedestrian mid-block crossings to access destinations, local transit, and speeds suitable to the context of the place.

2. Program Action Steps

While policies and regulatory standards provide a legal basis for facility development, programs build support for walking and biking facilities and establish a strong walking and biking culture in Charlotte County. The Recommendations chapter of this plan provides action steps intended to be implemented from 2019 onward.

Designate/Hire Staff

Charlotte County and the City of Punta Gorda should designate or hire staff to oversee the implementation of this Plan and the proper maintenance of existing and future facilities. It is recommended that a combination of existing Planning, Public Works and city and county management staff oversee the day-to-day implementation and maintenance. The position or division of labor should include areas focused on policy, programs and infrastructure while covering the needs of all areas within Charlotte County.

Implement Biking and Walking Campaigns

A concerted walk and bike campaign celebrates success and generates enthusiasm for these modes by raising awareness of the benefits of active transportation as new facilities developed. A key task of this effort is to design and launch a one-stop website or an accessible and user-friendly website for walking and biking initiatives, programs, and infrastructure across Charlotte County.

Program Focus: *After adoption of the Charlotte Punta Gorda MPO Bicycle and Pedestrian Master Plan, campaigns should specifically be focused on providing permanent and passive education. Campaigns and efforts can utilize roadway messaging boards, existing media information from partner agencies and national information to assist in this effort.*

Establish an Evaluation and Reporting Program

From the adoption of this Plan, the MPO should establish specific benchmarks to track through a monitoring program. Monitoring progress tracks implementation and celebrates successes associated with this Plan, such as completion of projects with public events and media coverage. The BPAC should also develop an annual report to document work towards achieving the goals and recommendations in this Plan.

Conduct an Annual Biking and Walking Meeting

Coordination between key project partners will establish a system of checks and balances, provides a level of accountability ensuring that recommendations are implemented. This meeting should be organized by designated government staff and should include representatives from stakeholders within the area. The purpose of the meeting should be to ensure that this Plan's



Figure 3: Art is a vital element of placemaking along trails, creating space for people to gather and appreciate either natural or manmade elements.

recommendations are integrated with other transportation planning efforts in the region as well as long-range and current land use planning, economic development planning and environmental planning. Attendees should work together to identify and secure funding necessary to immediately begin the first year’s work and start working on a funding strategy that will allow the MPO and its government partners to incrementally complete each of the suggested physical improvements, policy changes and programs over a five to 10-year period. A brief progress report should be a product of these meetings and participants should reconfirm the Plan’s goals each year. The meetings could also occasionally feature special training sessions on pedestrian, bicycle and trail issues.



Figure 4: The Charlotte Punta-Gorda MPO Bicycle Pedestrian Advisory Committee discusses the draft plan at a meeting in 2018.

Maintain and Improve Existing Programs

Stakeholders in the area should coordinate to improve existing bicycle and pedestrian programs and to launch new programs, such as those described above.

Estimated Program Staffing

Programs require staffing to fulfil the demand for pedestrian, bicycle and trail programming in Charlotte County and Punta Gorda. These programs are not solely anticipated to be fulfilled by Charlotte Punta Gorda MPO and are shared responsibilities between stakeholders. Nevertheless, without an increase in staff capacity as the population changes in Charlotte County, capacity to carry out these programs will decrease. Staffing could potentially be fulfilled by various Charlotte County or City of Punta Gorda Departments either with full or part time staff. These employees could be seasonal and hired specifically to coordinate agency programming across organizations. Table 1 provides existing and proposed Full Time Equivalent (FTE) for employee times, estimated by stakeholder.

Table 1: Estimated Existing and Proposed FTE for Programs

Programs	Existing FTE – Estimated	Proposed FTE – Estimated
Safe Routes to Schools	10%	15%
Public Safety Education and Enforcement	10%	15%
Walking and Biking Open Street Events	5%	15%
Public Safety Announcements	5%	10%
Walking and Biking Website	-	10%
Pilot Programs	-	20%
Conduct Roadway Safety Audits	-	10%
Conduct Annual Bike/Ped Counts at Key Locations	-	10%
Silver Sneaker Program	-	10%
Total FTE	30%	115%

3. Infrastructure Action Steps

High quality bicycle and pedestrian infrastructure is a key element in providing safe and comfortable facilities for all users. Capital improvements complement policies and programs creating access to destinations within the area. The Charlotte County Punta-Gorda MPO and its government partners should identify funding for long-term, higher-cost projects.

Identify Funding

Achieving the vision defined within this Plan will require, among other things, a stable and recurring source of funding. Communities across the country that have successfully engaged in pedestrian and bicycle programs have relied on multiple funding sources to achieve their goals. No single source of funding will meet the recommendations identified in this Plan. Instead, stakeholders will need to work cooperatively with municipal, state, and federal partners to generate funds sufficient to implement the Plan.

A stable and recurring source of revenue is needed that can then be used to leverage grant dollars from state, federal and private sources. The ability of local agencies to generate a source of funding for facilities depends on a variety of factors, such as taxing capacity, budgetary resources, voter preferences and political will. It is very important that these local agencies explore the ability to establish a stable and recurring source of revenue for facilities. Federal and state grants should be pursued along with local funds to pay for necessary right-of-way acquisition and project design, construction, and maintenance expenses. Also, the MPO should continually maintain a back-log of designed projects that are “shovel ready” to take advantage of future funding opportunities as they become available. To be on the MPO’s TIP a project must have all phases through construction programmed. The city or county may have designs that are shovel-ready for funding, but not the MPO.

Prioritize Projects in Local Plans

The county, MPO and the city can demonstrate its commitment to carrying out this Plan and will better sustain enthusiasm generated during the planning process by quickly identifying specific project priorities. Tier 1 projects should be considered in each area of Charlotte County to ensure biking and walking infrastructure is geographically well-distributed. Projects in Tiers 2 and 3 should also be prioritized in transportation plans. Because these projects are considered in the medium and long term, it is possible these projects may be partially or wholly implemented by stakeholders other than the MPO.

Complete Project Recommendations

Project recommendations identified in the Recommendations Technical Memorandum have been prioritized into Tiers. These Tiers represent the recommended order to implement projects within five years, from five to ten years and beyond ten years. Projects that are already in the implementation phase or can be implemented quickly, typically those in Tier 1. The longer termed projects in Tiers 2 and 3, require greater coordination between stakeholders to fully explore feasibility, fund, permit, engineer and construct the facilities.

Figure 5: The recently constructed Edgewater Drive at Lakeview Boulevard provides generous sidewalks for people walking and traffic calming for automobiles.



4. Project Tiers

The needs of all roadway users, including the safety and comfort of people walking, bicycling, accessing transit and driving, must be balanced with roadway characteristics and corridor constraints. This Plan's 53 capital project recommendations provide guidance on balancing roadway user needs with creating safe, comfortable networks for all users. Recommendations provided are conceptual, include planning level cost estimates and should be implemented at a corridor level through an annual work program.

Tier 1

Tier 1: This tier represents the highest level of need relative to other projects. Projects in this tier should be given the highest level of attention from staff and stakeholders. Projects in this tier should aim to be constructed or prioritized for funds within the first five years after this plan's adoption. Tier 1 Projects are listed in Table 5.

Approximately \$14.0 Million before FY 2019-2024

Tier 2

Tier 2: Projects located in tier 2 represent the second highest level of priority. The prioritization of these projects should be secondary to that of tier one and either constructed or prioritized for funds after tier one projects but no longer than ten years after adoption of this plan. Tier 2 Projects are listed in Table 6.

Approximately \$20.9 Million between FY 2024-2029

Tier 3

Tier 3: Identified tier 3 projects should be considered for the long term implementation by stakeholders and agencies. These projects are key for the overall network development in Charlotte County, but do not represent the highest needs to develop the pedestrian and bicycle network. Tier 7 Projects are listed in Table 7.

Approximately \$40.3 Million from FY 2030-2040

5. MPO 2040 Long Range Transportation Plan

The MPO 2040 Long Range Transportation Plan Needs Plan bicycle, pedestrian and multi-use trail facility projects were identified for roads that do not have existing facilities or have gaps or missing links in the facilities currently provided.

Highlights of the proposed multi-use trail, pedestrian and bicycle improvement program include the following:

- Expand the bicycle network, including all roads being improved on the highway needs plan (except I-75), as road improvements would include paved shoulders with the intent to put bicycle facilities in place concurrently
- Expand the sidewalk network associated with new roadway construction or road improvements; building sidewalks in the urbanized area ensures that more county residents have access to sidewalk facilities and it promotes safety and transit usage
- Expand the conceptual multi-use trails; trails could be selected as revenues become available.

The MPO 2040 Long Range Transportation Plan Cost Feasible Plan includes \$14.6 million Present Day Costs (PDC) or \$22.4 million Year of Expenditure (YOE) for bicycle, pedestrian, and multi-use trail facility projects. This total cost includes only projects identified separately from road projects, as those improvements are included in the total cost for highway projects. Projects included in the Cost Feasible Plan were analyzed to determine those projects' tiers (time frame). **Figure 6** and **Table 2** show the Cost Feasible bicycle, pedestrian, and multi-use trail facility projects. Costs are presented in Year of Expenditure dollars and it is assumed that cost feasible projects will include bicycle and pedestrian improvements when they are constructed, as appropriate. The multi-use trails projects listed in **Table 2** may be constructed before, after, or as a component of road construction projects.

The revenue stream identified to fund bicycle, pedestrian, and multi-use trail projects through 2040 is \$22.4 million, according to the MPO's LRTP. Again, total cost includes only projects identified separately from road projects, as those improvements are included in the total cost for highway projects.

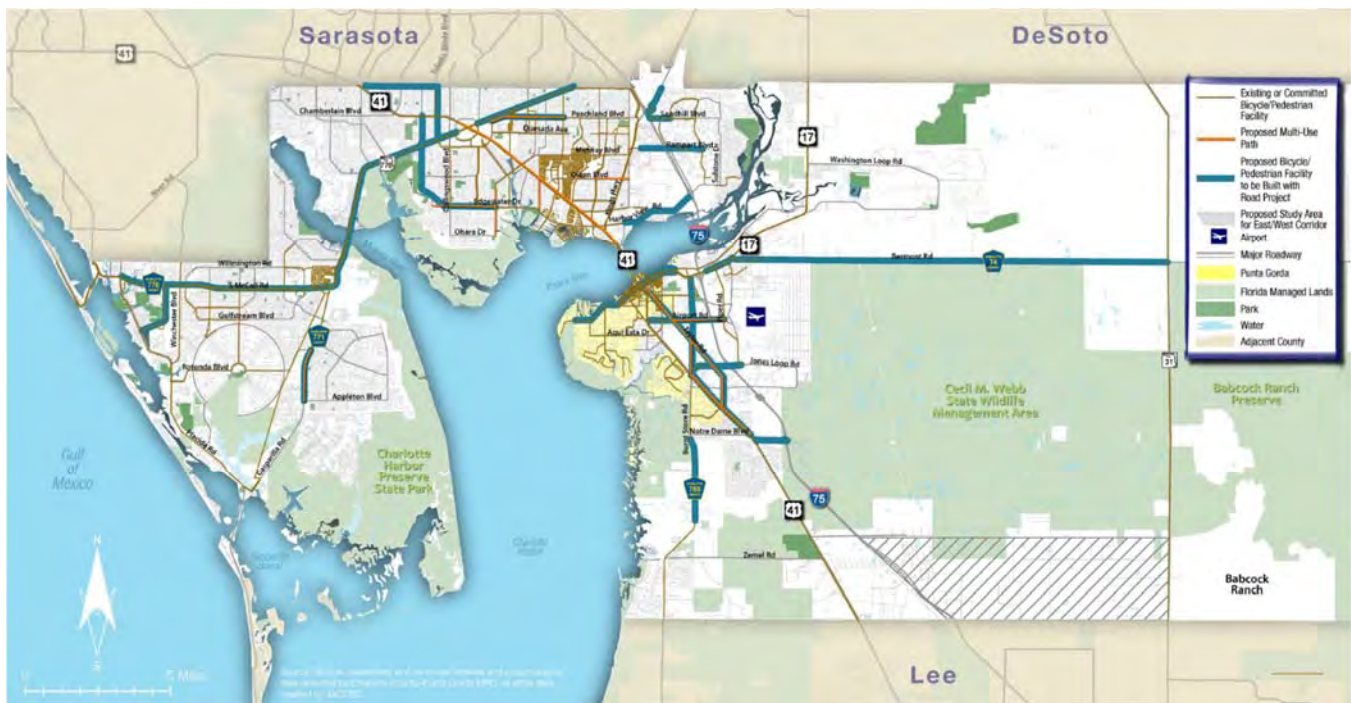


Figure 6: MPO 2040 LRTP Cost Feasible Plan Bicycle, Pedestrian and Multi-Use Trail Facilities

Table 2: MPO 2040 LRTP Cost Feasible Plan Bicycle, Pedestrian and Multi-Use Trail Facilities

Facility	To	From	Length (mi.)
Airport Road	Taylor Road	Piper Road	1.7
Edgewater Drive	Flamingo Boulevard	Midway Boulevard	2.2
CR 771 (Gasparilla Road)	Rotonda Boulevard E	Appleton Boulevard	1.8
Midway Blvd	Ohara Drive	Victoria Avenue	1.6
Olean Blvd	Beacon Drive	Loveland Boulevard	1.1
Peachland Blvd	Cochran Boulevard	Harbor Boulevard	2.5
Taylor Road	US 41 (South End)	N. Jones Loop Road	1.6
Taylor Road	N Jones Loop Road	Airport Road	2.0
Taylor Road	Airport Road	US 41 (North End)	1.3
US 41	Notre Dame Boulevard	Burnt Store Road	2.9
East Side of US 41	Peace River Bridge	Enterprise Drive	7.0

6. Project Recommendations and Tiers

Currently there are approximate 530 miles of existing sidewalks and bikeways in Charlotte County, including MSBUs and Punta Gorda. This plan’s focus is to develop a network to support safe, convenient, and comfortable use of new sidewalks and bikeway in the county, focusing projects on arterials and collectors to help move people throughout the county. The plan does not focus on MSBU or Punta Gorda but includes projects that pass through these areas.

A total of 53 projects consisting of 165 miles of sidewalks, paved shoulders, shared-use paths and crossing projects are identified in this plan. **Table 3** summarizes the approximate network improvements by infrastructure type.

Table 3: Summary of Project Recommendations by Type

Type	Existing*	Proposed**	Total	% Increase
Sidewalks	393	17	413	4%
Bikeways & Paved Shoulders	93	54	147	58%
Shared-Use Paths	44	94	138	216%
Total	530	165	695	30%

*Existing includes all local sidewalks (MSBU, Sales Tax, City of Punta Gorda, Charlotte County and FDOT sidewalks)

**Proposed include only facilities on functionally classified system of roads, focused on arterials and collectors and not on MSBUs and Punta Gorda

This plan’s 53 biking and walking project recommendations strive to balance all roadway user needs for safe and comfortable networks. A summary of the project recommendations is described in **Table 4** including the type of project, number of miles of the project and recommended project width. Recommendations provided are conceptual, include planning level cost estimates and should be implemented at the corridor level through an annual work program.

Table 4: Summary of Project Recommendations and Conceptual Costs

Type	Details	Costs
Bikeways and Paved Shoulders Projects	11 projects; 54 miles of 7-foot-wide paved shoulders	\$38.2M
Sidewalk Projects	11 projects; 17 miles of 5-foot-wide facilities	\$4.1M
Shared Use Path Projects	24 projects; 94 miles of 12-foot-wide facilities	\$31.5M
Crossing & Advisory Shoulder Improvement Projects*	Costs include mid-block signal at Charlotte Sports Park and full signalization at San Casa & Avenue of the Americas. Does not included 6 projects which needs further study.	\$1.4M
TOTAL ESTIMATED COSTS:		\$75.2M

*Many crossing projects do not have a cost estimate reflected as they require further study.

The following tables provide the project recommendations that resulted from the Bicycle and Pedestrian Master Plan process along with each recommendation’s conceptual cost and implementation priority tier. The recommendations are based out of the needs plan, input from stakeholders and the public and input from the MPO.

Table 5: Tier 1 Project List for Implementation before 2024

Project ID	Project Name	Sidewalk Improvement	Bikeway Improvement	Estimated Project Cost	Included in LRTP/ CIP/CNA?	Project Rank
24	US 41 (Lee County Line to Tucker's Grade)		Shared-Use Path, one side	\$2,161,844	Y	1
6	South County Reg. Park Internal Road (Carmalita St to Cooper St)	Sidewalk, one side	Advisory Shoulder	\$160,343	N	2
12	E/W Utility Easement (N/S Follows utility easement to Education Ave)		Shared-Use Path, one side	\$181,953	N	3
2	Port Charlotte Blvd (Edgewater Dr. to US 41)		Shared-Use Path, one side	\$262,660	Y	4
8	Harbor View Rd (US 41 to Sulstone Dr)		Shared-Use Path, one side	\$983,778	Y	5
9	Edgewater Dr (Midway Blvd. to Collingswood)		Shared-Use Path, one side	\$476,011	Y	6
1	Notre Dame Blvd (Burnt Store Rd to US 41)	Sidewalk or Shared-Use Path, one side		\$482,847 to \$524,243	Y	7
15	US 41 (Tucker's Grade to Burnt Store Rd)		Shared-Use Path, one side	\$974,526	Y	8
41	US 41 (Peace River Bridge to Midway Blvd)		Shared-Use Path, one side	\$1,422,598	Y	9
13	Airport Rd (FSW to Piper Rd and Piper Rd to Riverside Dr)		Shared-Use Path, one side	\$1,174,982	N	10
45	Taylor Road (Airport Rd to US 41)	Separated Bike Lane, One Way		\$2,642,373	Y	11
53	Loveland Blvd (Peachland Blvd to Veterans Blvd)		Shared-Use Path, one side	\$305,310	Y	12
16	Zemel Rd (Burnt Store to US 41)		Shared-Use Path, one side	\$1,662,245	N	13
3	Tucker's Grade (US 41 to Wildlife Mgmt. Area)	Sidewalk, one side	Buffered bike lanes	\$1,440,714 Bikeway \$312,431 Sidewalk	Y	14

Table 6: Tier 2 Project List for Implementation between 2024-2029.

Project ID	Project Name	Sidewalk Improvement	Bikeway Improvement	Estimated Project Cost	Included in LRTP/ CIP /CNA?	Project Rank
38	SUN Trail on US 41 (Midway Blvd to SR 776)		Shared-Use Path, one side	\$723,481	N	15
47	Rampart Blvd (Kings Hwy to Rio de Janeiro Ave)	Sidewalk, one side	Separated Bike Lane, One Way	Bikeway \$432,481 Sidewalk \$149,115	Y	16
42	SUN Trail (Cape Haze Pioneer Trail Corridor) Pioneer Trail to Boca Grande		Shared-Use Path, one side	\$220,245	N	17
17	Fruitland Ave/Avenue of the Americas (San Casa Rd to Gulfstream Blvd)	Sidewalk, one side		\$357,402	Y	18
36	SUN Trail (Myakka State Forest to SR 776)		Shared-Use Path, one side	\$678,285	N	19
44	SUN Trail on Placida Rd (Gasparilla Rd to SR 776)		Shared-Use Path, one side	\$2,996,636	N	20
39	SUN Trail on Burnt Store Rd (Zemel Rd to Jones Loop Rd)		Shared-Use Path, one side	\$693,684	N	21
21	Oil Well Rd (US 41 to Granville Rd)	Sidewalk, one side	Advisory shoulder	\$762,141	Y	22
40	SUN Trail on Beach Rd (Gulf Blvd to SR 776)		Shared-Use Path, one side	\$1,082,970	N	23
7	San Casa Dr (Placida Rd to SR 776)		Separated Bike Lane, One Way	\$1,434,737	Y	24
11	Harbor Blvd (Port Charlotte Beach complex to Midway Blvd)	Sidewalk, gap closures	Separated Bike Lane, One Way	2,346,746	Y	25
37	SUN Trail on SR 776 (Gasparilla Rd to US 41)		Shared-Use Path, one side	\$2,503,165	N	26
20	SR 776 (Sarasota County Line to Gasparilla Rd)		Shared-Use Path, both sides	\$4,422,373	Y	27

48	Atwater St (Veterans Blvd to Hillsborough Blvd)	Sidewalk, one side	Shared-Use Path, one side	\$132,546	Y	28
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Table 7: Tier 3 Project List for Implementation after 2029

Project ID	Project Name	Sidewalk Improvement	Bikeway Improvement	Estimated Project Cost	Included in LRTP/CIP/CNA?	Project Rank
50	O'Donnell Blvd (North Charlotte Reg. Park to US 41)		Advisory Shoulder	*TBD - requires study	Y	29
51	Royal Poinciana (Burnt Store Road to US 41)		Shared-Use Path as part of City complete streets project	*TBD- requires study on Shared-Use Path (City Council approved unfunded CIP cost estimate of entire project \$2,250,000)	Y	30
10	Pellam Blvd/Prineville St (Edgewater Dr to County Line)		Shared-Use Path, one side	*TBD - requires study	N	31
4	Moss Rd (Charlotte Sports Park to No. Charlotte Reg. Park)		Advisory Shoulder	*TBD – requires further study	N	32
19	Edgewater Dr/Flamingo Blvd Ext. (Collingswood Blvd to County Line)	Sidewalk	Shared-Use Path or Paved Shoulder	*TBD -requires further study	Y	33
5	Gulfstream Boulevard (Fruitland Ave to SR 776)	Sidewalk, one side	Bike Lane	Bikeway \$2,992,203 Sidewalk \$951,493	Y	34
14	Washington Loop Rd (US 17 S. to US 17 N.)		Paved Shoulder	\$8,203,403	N	35
18	CR 74/Bermont Rd (Richards Blvd to SR 31)		Paved Shoulder	\$9,191,930	Y	36
52	Hillsborough Boulevard (Cranberry Blvd/US 41 to Veterans Blvd)	Sidewalk, one side	Separated Bike Lane, One Way	\$284,028	Y	37
43	SUN Trail on Burnt Store Rd. (Lee County Line to Zemel Rd.)		Shared-Use Path, one side	\$688,940	N	38

Project ID	Project Name	Sidewalk Improvement	Bikeway Improvement	Estimated Project Cost	Included in LRTP/CIP/CNA?	Project Rank
35	SUN Trail on US 41 (N Jones Loop Rd. to Peace River Bridge)		Shared-Use Path, one side	\$1,464,873	N	39
49	Kings Highway (Veterans Blvd to Sandhill Blvd)	Sidewalk, both sides	Separated Bike Lane, One Way	\$298,229	Y	40
46	Jones Loop Rd (Piper Rd to Burnt Store Rd/Acline)		Paved Shoulder	\$4,208,105	Y	41
23	Swath for Babcock Ranch Connection		Shared-Use Path, one side	\$5,939,673	N	42
22	Riverside Drive (Marion to US 17)		Paved Shoulder	\$3,706,766 (5.5 Mile)	N	43

Table 8: Crossing improvement project list for Implementation as funds become available

Project ID	Project Name	Crossing improvements	Estimated Project Cost	Included in LRTP/CIP/CNA?	Project Tier	Project Rank
25	Cape Haze Pioneer Trail near Rotonda Blvd E.	Enhanced Crosswalk	*TBD - requires study	Y	1	1
28	US 41 @ Harbor Blvd	Enhanced Crosswalk	*TBD - requires study	N	1	2
27	SR 776 @ Fairgrounds/Charlotte Sports Park	Crossing Enhancements/Traffic Signal	\$1,100,000	Y	1	3
29	US 41 @ Murdock Circle E	Median Safety Islands and at intersection. Consider LPIs to give people walking time to safely enter the intersection.	*TBD- requires study	Y	2	4
30	US 41 @ Harbor View Rd/Edgewater Blvd	Add North to South Crossing across US 41. Add Median Safety Islands, Consider LPIs	*TBD- requires study	Y	2	5

Project ID	Project Name	Crossing improvements	Estimated Project Cost	Included in LRTP/CIP/CNA?	Project Tier	Project Rank
		to give people walking time to safely enter the intersection.				
31	Veterans Blvd @ Murdock Circle E	Median Safety Islands and at intersection. Consider LPIs to give people walking time to safely enter the intersection.	*TBD- requires study	Y	2	6
32	US 41 @ Burnt Store Road	Median Safety Islands and at intersection. Consider LPIs to give people walking time to safely enter the intersection.	*TBD- requires study	Y	2	7
33	US 41 @ Carmalita St	Full Traffic Signal	*TBD- requires study	Y	2	8
34	US 41 @ Tuckers Grade	Median safety islands and at intersection. Consider LPIs to give pedestrians time to safely enter the intersection.	*TBD- requires study	Y	3	9
26	San Casa Drive @ Avenue of the Americas	Full Traffic Signal	\$257,597	Y	3	10

7. Infrastructure Implementation Strategies

This section describes construction methods for the proposed pedestrian and bicycle facilities outlined in the Recommendations chapter. Note that many types of transportation facility construction and maintenance projects can be used to create new facilities. It is much more cost-effective to provide facilities during roadway construction and re-construction projects than to initiate the improvements later as “retrofit” projects.

To take advantage of upcoming opportunities and to incorporate bicycle and pedestrian facilities into routine transportation and utility projects, the Charlotte County-Punta Gorda MPO should monitor FDOT projects and any other transportation improvements to look for opportunities for integrating plan recommendations. While doing this, MPO and the local entities should be aware of the different procedures for state and local road improvements.

Bridge Construction or Replacement

Provisions should always be made to include a walking and bicycling facility as a part of roadway bridges. All new or replacement bridges should accommodate two-way travel for all users. Even though bridge construction and replacement does not occur regularly, it is important to consider these policies for long-term pedestrian planning.

Many bridges in Charlotte County do not have provisions for people walking or bicycling. Some of these bridges will require coordination with FDOT due to their location on a state roadway. Provisions should include separation of people biking and walking from vehicles where speed poses a higher risk of serious injury or fatality.



Figure 7: Photo of the US 41 South Trail in Punta Gorda where a gap exists between two segments of existing trail. Photo provided courtesy of the City of Punta Gorda.



Figure 8: A rendering provided courtesy of the City of Punta Gorda, produced by Agenor & Campbell Structural Engineers.

Easements

The Charlotte County Public Works Department and City of Punta Gorda should explore opportunities to revise existing easements to accommodate public access for shared-use path facilities. Similarly, as new easements are acquired in the future, the possibility of public access should be considered. Sewer and utility easements are very commonly used for this purpose, offering cleared and graded corridors that easily accommodate trails. This approach avoids the difficulties associated with acquiring land and it better utilizes the local government resources.

Charlotte County Punta-Gorda MPO Transportation Improvement Program

The MPO's Transportation Improvement Program (TIP) is based on the Long-Range Transportation Plan. The TIP is a federally mandated transportation planning document that details transportation improvements prioritized by stakeholders for inclusion in the Work Program over the next five years. The TIP is updated every year. This program provides opportunities for funding of active transportation projects either as part of roadway projects or as stand-alone projects.

Local Roadway Construction or Reconstruction

Pedestrians and bicyclists should be accommodated any time a new road is constructed or an existing road is reconstructed. In the longer-term, all arterial and collector roads should have sidewalks and safe crossings at intersections based on the design guidelines in the plan. Bicyclists should have dedicated space based on the design guidelines and roadway context.

Also, case law surrounding the Americans with Disabilities Act (ADA) has found that roadway resurfacing constitutes an alteration, which requires adding curb ramps at intersections where they do not yet exist. The Department of Justice and the Federal Highway Administration recently released guidance on Title II of the ADA requirement to provide curb ramps when streets, roads, or highways are altered through resurfacing. More information is available on the following website: www.ada.gov/doj-fhwa-ta.htm.

Residential and Commercial Development

New development and redevelopment should require sidewalks, bikeways, and safe crosswalks. Construction of facilities that corresponds with site construction is more cost-effective than retrofitting a site. In commercial developments, emphasis should focus on safe pedestrian and bicyclist routes along roadways, as well as access to storefronts and through parking lots. This implementation strategy ensures growth of a safe pedestrian network as the community develops.

Resurfacing, Restoration and Rehabilitation Projects (3R)

3R projects provide a clean slate for re-allocating roadway space through revised pavement markings. When a 3R project occurs, the roadway should be considered for narrower lanes and space added for bikeways or shoulders.

Retrofit Roadways with New Bicycle and Pedestrian Facilities

Critical locations in the bicycle and pedestrian network where there are safety issues or essential links to destinations may justify a scheduled reconstruction or a higher priority 3R project. In some locations, it may be easier to add pavement for bikeways or sidewalks, but other segments could require tree and landscaping removal, or re-grading ditches. Similar challenges may be present when retrofitting for shared-use paths.

Some roads may have excess capacity and are candidates for a “road diet” solution to create space for bikeways or walkways. Road diets reallocate underutilized motor vehicle travel lanes to increase roadway safety for all users and in some cases could create space for on-street parking, on-street bikeways, walkways, and even shared-use paths. This strategy is only recommended in situations where vehicular traffic counts can safely and efficiently justify a reduction of travel lanes for motorists. However, the addition of pedestrian and bicyclist infrastructure increases for



Figure 9: Roadway reconstruction will be necessary to improve walking, biking and driving conditions for all roadway users in Charlotte County. Estero Boulevard in Fort Myers Beach is pictured above.

these modes and may allow a greater number of persons to move throughout the roadway. In-depth study of roadway characteristics is recommended for road diets to ensure that the needs of all road users are being met.

Funding

Achieving the vision defined within this Plan will require, among other things, a stable and recurring source of funding that can leverage grant dollars from state, federal and private sources. Communities across the country that have successfully engaged in pedestrian and bicycle programs have relied on multiple funding sources to achieve their goals. No single source of funding will meet the recommendations identified in this Plan. Instead, stakeholders will need to work cooperatively with municipal, state, and federal partners to generate funds sufficient to implement the Plan. A description of local, state, federal and private funding sources is identified in the Funding Technical Memorandum.

Local funds should be leveraged to attract additional Federal and State grant funds to pay for necessary right-of-way acquisition and project design, construction, and maintenance expenses. Also, the MPO should continually maintain a back-log of designed projects that are “shovel ready” to take advantage of future funding opportunities as they become available.

The MPO 2040 Long Range Transportation Plan Needs Plan identified bicycle, pedestrian, and multi-use trail facility projects along roads without existing facilities or that have gaps or missing links. The MPO 2040 Long Range Transportation Plan Cost Feasible Plan includes \$14.6 million in Present Day Costs (PDC) or \$22.4 million in Year of Expenditure for bicycle, pedestrian, and multi-use trail facility projects. This total cost and projected revenues includes only bicycle, pedestrian and multi-use trail projects identified separately from road projects, as those improvements are included in the total cost for highway projects. The MPO 2040 cost feasible plan provides an excellent and vetted source providing projected revenue stream to implement projects in this Plan through the year 2040.

Given the constant change in funding availability at local, state, and federal levels, it is difficult to know what financial resources will be available at different time frames during the implementation of this Plan. However, there are important actions to take in advance of major investments, including key organizational steps, the initiation of education and safety programs and the development of strategic, lower-cost infrastructure improvements.

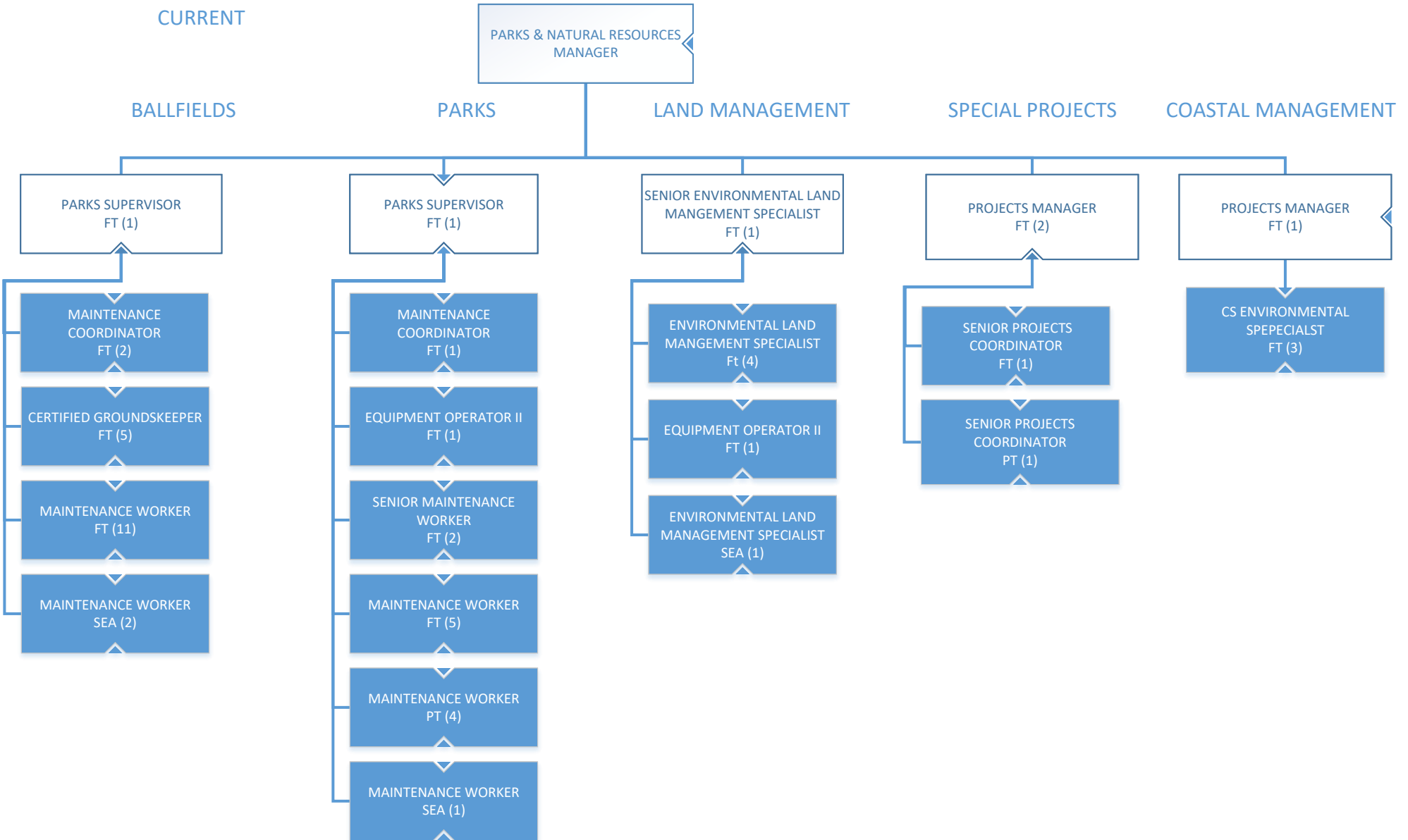
Appendix I

Organizational Charts

Parks and Natural Resources Organizational Chart – Current

PARKS AND NATURAL RESOURCES

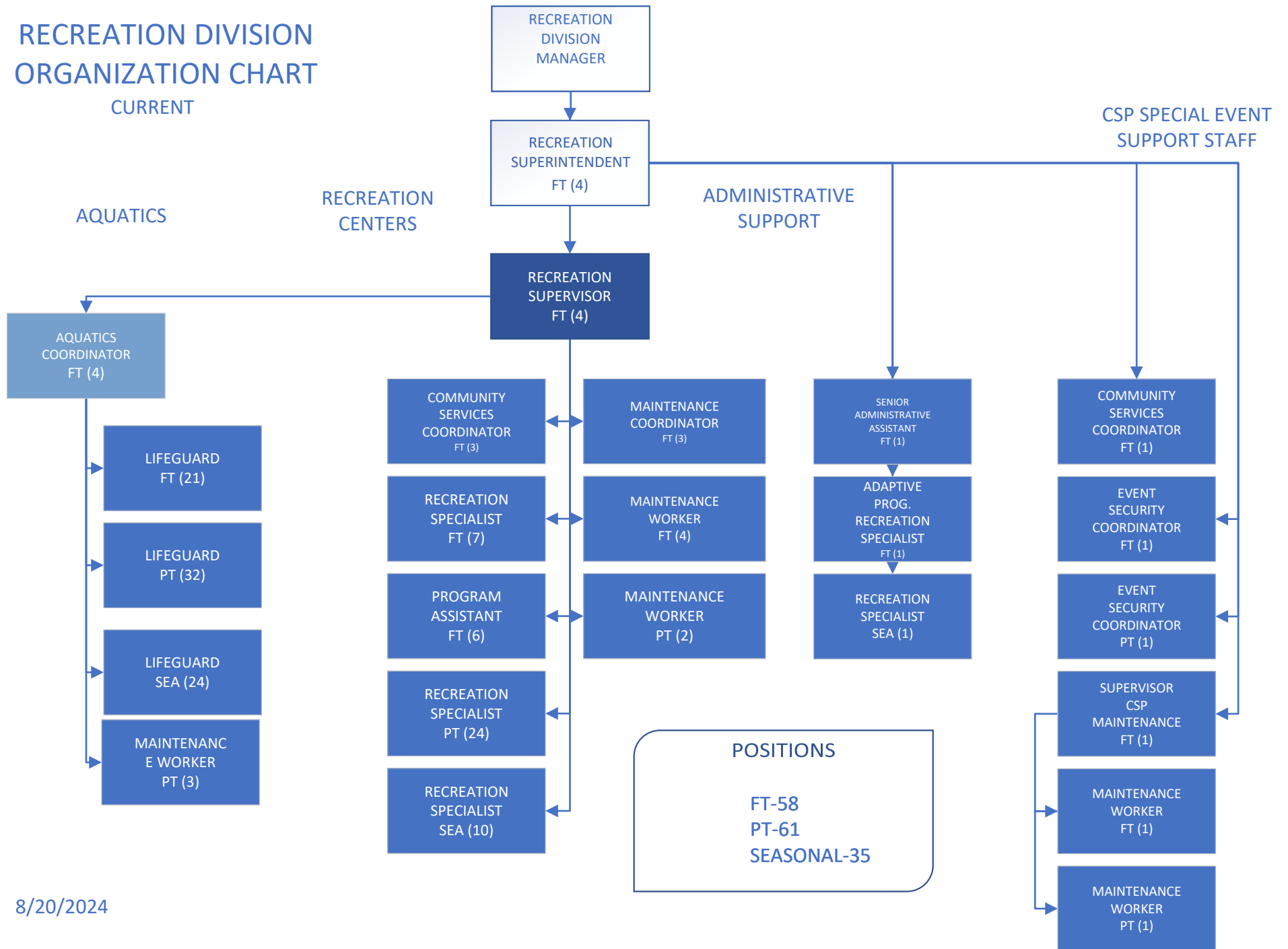
CURRENT



Recreation Organizational Chart – Current

RECREATION DIVISION ORGANIZATION CHART

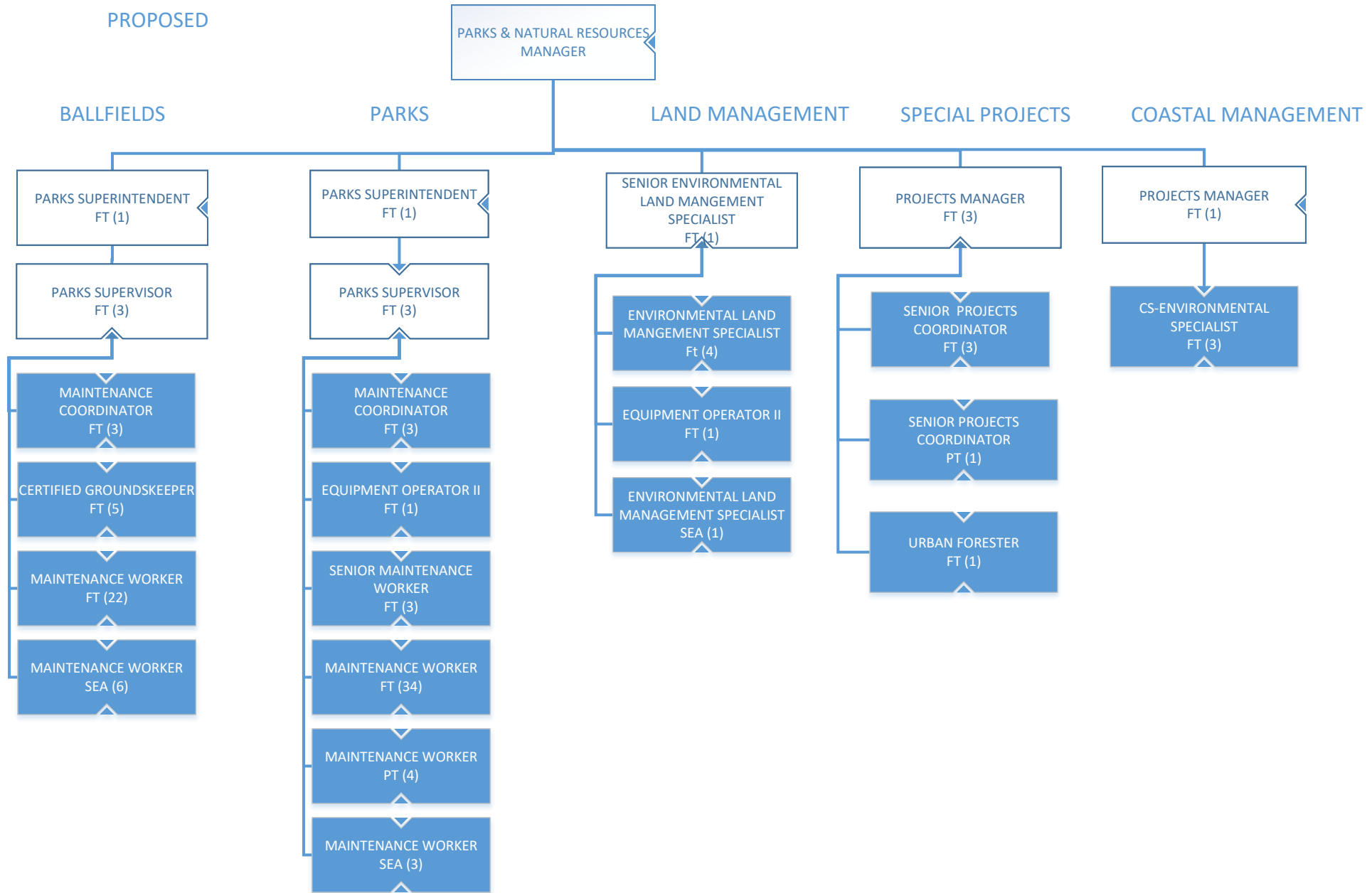
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Parks and Natural Resources Chart – Proposed

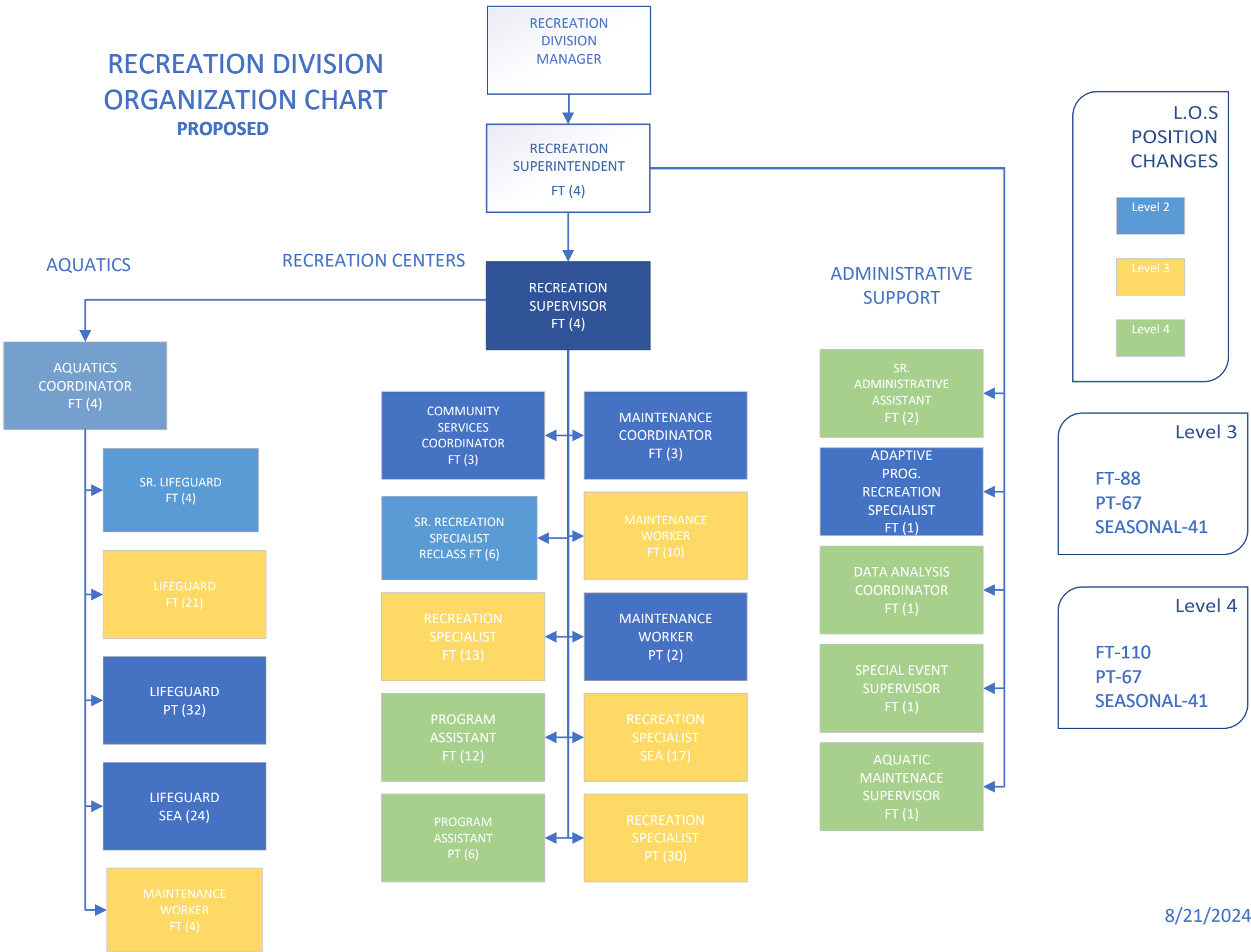
PARKS AND NATURAL RESOURCES

PROPOSED



Recreation Organizational Chart – Proposed

RECREATION DIVISION ORGANIZATION CHART PROPOSED



Appendix J

Parks and Natural Resources Amenity to Staffing Conversion

Amenity to Staffing Conversion

Minor Maintenance Attention					Moderate Maintenance Attention					Major Maintenance Attention				
	Quantity Grouping	Hours per group/week	Total # of groups	Total # of Hours		Quantity Grouping	Hours per group/week	Total # of groups	Total # of Hours		Quantity Grouping	Hours per group/week	Total # of groups	Total # of Hours
BBQ Grills	3	0.5	14	7	Canoe/Kayak (ADA)	1	1.5	1	1.5	Baseball Fields	1 field	12	16	192
Benches	10	0.5	28	14	Wildlife Observation Platform	3	1.5	1	1.5	Bike Trails/BMX/Pump Track	1000 lf	1	46	46
Bike Racks	10	0.25	7	1.75	Basketball Court (dedicated & multi)	1	3	19.5	58.5	Softball Fields	1 field	12	10	120
Bike Repair Station	2	0.25	3	0.75	Dock/Boardwalk	1000 sf	1	73	73	Dog Park	2	5	2.5	12.5
Canoe/Kayak (Natural)	2	0.5	10	5	Fishing Pier	1000 lf	3.5	17	59.5	Football Fields	1 field	6	9	54
Dumpster/Lift Station Enclosures	4	0.5	17	8.5	Horse Arena	1	4.5	1	4.5	Group Pavillion/Amphitheater/Rentals	2	14	15	210
Environmental Center (Contracted)	1	1	1	1	Horseshoe pit (2 full pits)	2	1.5	7	10.5	Soccer Fields	1 field	7	8	56
Flag Pole	4	0.25	6	1.5	Cricket Field	1	4.5	1	4.5	Splash Pad	1	10	1	10
Fitness Trail Equipment	3	0.25	6	1.5	Multi-Purpose Field	1	1	1	1	Pickleball/Tennis (dedicated & multi)	2	3	32	96
Horse Trails	1000lf	0.5	15	7.5	Multi-Purpose Trail (paved)	1000lf	1	99	99	Beach	1	20	2	40
Monofilament Bins	4	0.25	5	1.25	Boat Ramp	2 lanes	3.5	8	28	Bocce Court (clay)	2 lanes	3.5	2	7
Open Space	2 acres	0.5		0	TOTAL HOURS				341.5	Community Center/Meeting Room	1	1.5	1	1.5
Outdoor Classroom	1	0.25	3	0.75						Disc Golf (9 holes)	9	3.5	7	24.5
Port-o-lets	10	1	3	3						Inline Hockey Rink	1	5	1	5
Remote Control Features	1	0.25	3	0.75						Playground (1) single 5-12	1	3.5	26	91
Running Track	1	0.25	1	0.25						Playground (1) single 2-5	1	3	20	60
Signage (rules/wayfinding)	12	0.25	109	27.25						Swings (Bays)	1	1	39	39
Single Table Picnic Pavilion	4	1	5	5						Sand Volleyball Court	3	4.5	3	13.5
Specialty Garden	3	0.75	3	2.25						Outdoor shower/footwash	2	5	4	20
Picnic Tables	2	0.5	168	84						Restroom (tringali standard)	5	5	15	75
Shuffleboard	20	1	4	4						Trash/Recycling Can	6	1	111	111
Skatepark	2	3	2	6						TOTAL HOURS				1284
Sports Lighting (Court)	4	0.25	3	0.75										
Sports Lighting (Ballfield)	40	0.75	40	30										
Dog Friendly Stations	5	1	10	10										
Parking Lot	60 spaces	1	52	52										
Concession Stand	2	0.5	11	5.5										
Nature Trail/Walking Trail (unpaved)	1000lf	1	65	65										
Signage (Historical Markers)	6	0.25	1	0.25										
Kiosks	5	0.5	4	2										
Special Event Equipment	1	0.25	1	0.25										
TOTAL HOURS				348.75										

Note: this chart does not include evaluation of the following:

1. Travel time, administrative duties, support tasks (supply stocking, gas etc.)
2. How PT/FT additions interact with the staffing of the route schedule
3. Full repairs/maintenace, it is only based on day-to-day tasks
4. Desire for a park location to be visited more or less frequently

Appendix K

Parks and Natural Resources Levels of Maintenance and Operations Modes by Park

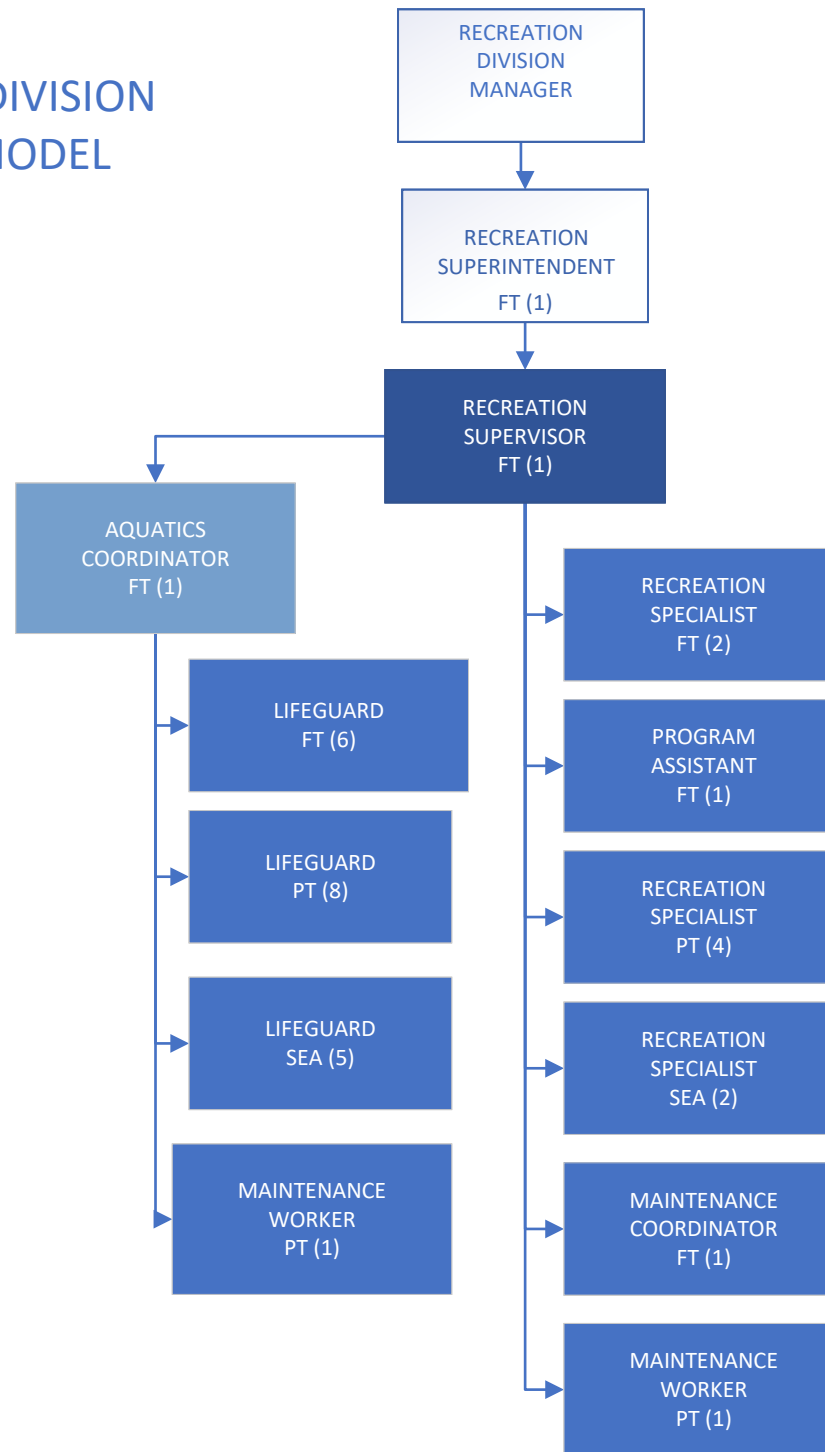
Parks and Natural Resources				
Levels of Maintenance & Operations Modes				
Park	2006 BCC Approved Mode (old standard)	2008 BCC Approved Mode (old standard)	Current Mode (old standard)	Recommended Modes (new standard)
<u>Active Parks</u>				
Ainger Creek Park	3	3	1	1
Allapatchee Shores Park	3	3	3	4
Anger Fishing Pier	3	6	1	1
Audubon-Pennington Nature Park	4	3	4	5
Bayshore Live Oak Park	N/A	4	1	1
Bissett Park	2	3	2	2
Boca Grande Fishing Pier	2	3	3	3
Butterford Waterway Park	6	4	4	4
Cape Haze Pioneer Trail	1	4	3	3
Cedar Point Environmental Park	2	2	2	3
Centennial Fishing Pier	3	3	3	3
Chester Roberts Park	N/A	4	4	4
Darst Park	4	4	3	3
Deep Creek Park	2	3	2	2
El Jobean Boat Ramp	2	3	1	1
El Jobean Fishing Pier	2	3	1	1
Englewood Beach/Chadwick Park	1	2	1	1
Englewood East Park	2	4	3	3
G. C. Herring Park	3	3	2	3
Harbour Heights Park	2	3	2	2
Hathaway Park	2	4	3	3
Higgs Park	2	4	3	3
Katherine-Ariens Dog Park	2	4	1	1
Lake Betty Park	3	4	3	3
Larry Taylor Kiwanis Park	2	3	2	2
Lemon Bay Sunrise Park	N/A	4	1	1
Live Oak Point	N/A	N/A	1	1
McGuire Park	2	3	1	1
Midway Park	3	4	4	4
Myakka River Park	N/A	N/A	5	5
Ollie's Pond Park	4	4	3	4
Placida Fishing Pier	3	3	1	1
Placida Park	2	3	1	1
Port Charlotte Beach Park	1	3	1	1
Randy Spence Park	3	4	3	3
Riverside Park	3	6	3	4
Rotonda Community Park	1	3	1	1
San Domingo Park	N/A	N/A	3	3
Scott Park	4	4	4	5
South Gulf Cove Park	N/A	4	2	2
Springlake Park	3	3	2	2
St. Paul Linear Park	N/A	N/A	3	3
Stump Pass State Park	1	2	1	1
The Learning Garden	N/A	NGO	NGO	NGO
Tringali Park	3	3	1	1
William R. Gaines Jr. Veterans Memorial Park	N/A	3	2	2

<u>Athletics Parks</u>				
Ann & Chuck Dever Regional Park	1	3	2	3
Carmalita Park (Football)	1	3	2	3
Carmalita Park (Softball)	1	3	2	2
Centennial Park (Baseball)	1	3	2	2
Centennial Park (Soccer)	1	3	2	3
Franz Ross Park	1	3	3	3
Harold Avenue Regional Park	1	3	2	2
Maracaibo Park/Kidspace	2	3	3	3
South County Regional Park (Baseball)	3	3	2	2
South County Regional Park (Soccer)	3	3	2	2
<u>Environmental Lands</u>				
Amberjack Environmental Park	6	3	6	2
Ann & Chuck Dever Environmental	1	5	4	2
Bill Coy Preserve	N/A	2	6	2
Biscayne Trust	N/A	6	N/A	2
Cedar Point Environmental Park	2	2	2	2
Charlotte Flatwoods Environmental Park	6	6	6	2
HCP Reserve Lands	N/A	N/A	N/A	2
Oyster Creek Environmental Park	1	5	4	2
Peace River Preserve	N/A	6	6	2
Prairie Creek Preserve	N/A	6	6	2
Rotonda Mitigation Area	N/A	6	6	2
Shell Creek Preserve	N/A	6	6	2
Thornton Key Preserve	N/A	6	6	2
Tippecanoe Environmental Park	6	6	6	2
Tippecanoe II	6	6	6	2
<u>Reduced Services/Contracted Parks</u>				
Event & Conference Center	N/A	Contracted	Contracted	Contracted
Charlotte Sports Park	1	Contracted	Contracted	Contracted
Clark Park	6	Reduced/Closed	R/C - Quarterly	5
Gulfstream Park	N/A	Reduced/Closed	R/C - Quarterly	5
Lincoln Park	6	Reduced/Closed	R/C - Quarterly	5
Lister Park	6	Reduced/Closed	R/C - Quarterly	5
Ott Circle Park	6	Reduced/Closed	R/C - Quarterly	5
Price Circle Park	6	Reduced/Closed	R/C - Quarterly	5
Salyers Park	6	Reduced/Closed	R/C - Quarterly	5
Scott Lots	4	Reduced/Closed	R/C - Quarterly	5
Severin Park	3	Reduced/Closed	R/C - Quarterly	5
Sharon Circle Park	3	Reduced/Closed	R/C - Quarterly	5
Shirley Park	6	Reduced/Closed	R/C - Quarterly	5

Appendix L

Recreation Division Levels of Maintenance and Operations Modes and Standards

RECREATION DIVISION STAFFING MODEL



RECREATION CENTER OPERATIONS - LEVEL 1

Recreation Center	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TOTALS	FTE'S
DAILY HOURS OF OPERATION	-	9	9	9	9	9	9	54 HOURS	
STAFF HOURS NEEDED FOR FACILITY OPERATION	-	27	27	27	27	27	27	162 HOURS	4.05 FTE'S
STAFF MINIMUMS DURING OPERATIONAL HOURS	-	3 Staff							
ADDITIONAL WEEKLY HOURS FOR TRAININGS, PTO, MEETINGS, EVENTS, SUMMER CAMP, ETC.								40 HOURS	1FTE'S
TOTAL HOURS NEEDED FOR OPERATION								202	5.05 FTE's
ASSIGNED STAFFING: <ul style="list-style-type: none"> 2 FT Rec Specialist (80 Hours) 1 FT Program Assistant (40 Hours) 5 PT Rec Specialist (100 Hours) working 20 hours per week 								220 CURRENT	4.87 FTE'S
ADMIN/SUPERVISORY SUPPORT STAFF <ul style="list-style-type: none"> Recreation Superintendent or Supervisor (40 HOURS) Community Services Coordinator or Maintenance Coordinator at 40 HOURS 									2.65 FTE'S
LOMO <ul style="list-style-type: none"> Maintenance Worker (25 HOURS) 									
TOTAL ASSIGNED FTE'S									8.15 FTE'S

AQUATIC FACILITY OPERATIONS – LEVEL 1

Aquatic Facility	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TOTALS	FTE'S
DAILY HOURS OF OPERATION	9	-	12	12	12	12	12	69 HOURS	
STAFF HOURS NEEDED FOR FACILITY OPERATION	45	-	60	60	60	60	60	345 HOURS	8.62 FTE'S
STAFF MINIMUMS DURING OPERATIONAL HOURS	5 Staff								
ADDITIONAL WEEKLY HOURS FOR TRAININGS, PTO, MEETINGS, EVENTS, MAINTENANCE, SWIM LESSONS, SUMMER CAMP, ETC.								40 HOURS	1 FTE'S
TOTAL HOURS NEEDED FOR OPERATION								385	9.62 FTE'S
ASSIGNED STAFFING <ul style="list-style-type: none"> 6 FT Lifeguards (240 HOURS) 8 PT Lifeguards (200 HOURS) 								440 HOURS	11 FTE'S
ADMIN/SUPERVISORY SUPPORT STAFF <ul style="list-style-type: none"> Aquatic Coordinator (40 HOURS) Maintenance Worker (25 HOURS) 									1 FTE's
LOMO <ul style="list-style-type: none"> Maintenance Worker (25 HOURS) 									.65 FTE
TOTAL ASSIGNED FTE'S									12.65 FTE's

- Each Regional pool will be closed one day a week. At least one pool in the County will be open.

SUMMER CAMP - LEVEL 1	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TOTALS
DAILY HOURS OF OPERATION:	-	11.5	11.5	11.5	11.5	11.5	-	57.5 HOURS
STAFF HOURS NEEDED FOR OPERATIONS:	-	112	112	112	112	112	-	560 HOURS
ASSIGNED STAFFING: <ul style="list-style-type: none"> 16 Camp Counselors per 105 campers/ avg. 35 hrs. per week 								560 HOURS
OPERATIONS SUPPORT STAFF (NOT COUNTED IN COVERAGE) <ul style="list-style-type: none"> 2 Camp Supervisors per 105 campers (80 Hours) 								

RECREATION CENTER OPERATIONS - LEVEL 2 (CURRENT OPERATIONS)

Recreation Center	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TOTALS	FTE'S
DAILY HOURS OF OPERATION	4	12	12	12	12	12	6	70 HOURS	
STAFF HOURS NEEDED FOR FACILITY OPERATION	8	36	36	36	36	36	12	200 HOURS	5 FTE'S
STAFF MINIMUMS DURING OPERATIONAL HOURS	2 Staff	3 Staff					2 Staff		
ADDITIONAL WEEKLY HOURS FOR TRAININGS, PTO, MEETINGS, EVENTS, SPRING TRAINING, SUMMER CAMP, ETC.								49 HOURS	1.2FTE'S
TOTAL HOURS NEEDED FOR OPERATION								249	6.22 FTE's
ASSIGNED STAFFING <ul style="list-style-type: none"> • 2 FT Rec Specialist (80 Hours) • 1 FT Program Assistant (40 Hours) • 5 PT Rec Specialist (125 HOURS) • 1 SEA Rec Spec (25 HOURS) 								270 HOURS CURRENT	6.75 FTE'S
ADMIN/SUPERVISORY SUPPORT STAFF <ul style="list-style-type: none"> • Recreation Superintendent of Supervisor (40 HOURS) • Community Services Coordinator or Maintenance Coordinator (40 HOURS) 									2 FTE'S
LOMO <ul style="list-style-type: none"> • Maintenance Worker (40 HOURS) 									1FTE
TOTAL ASSIGNED FTE'S									9.75 FTE'S

AQUATIC FACILITY OPERATIONS – LEVEL 2

CURRENT OPERATIONS

Aquatic Facility	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TOTALS	FTE'S
DAILY HOURS OF OPERATION	9	13	13	13	13	13	11.5	85.5 HOURS	
STAFF HOURS NEEDED FOR FACILITY OPERATION	45	65	65	65	65	65	57.5	427.5 HOURS	10.68 FTE'S
STAFF MINIMUMS DURING OPERATIONAL HOURS	5 Staff								
ADDITIONAL WEEKLY HOURS FOR TRAININGS, PTO, MEETINGS, EVENTS, MAINTENANCE, SWIM LESSONS, SUMMER CAMP, ETC.								48.5 HOURS	1.21 FTE'S
TOTAL HOURS NEEDED FOR OPERATION								476	11.9 FTE'S
ASSIGNED STAFFING <ul style="list-style-type: none"> 6 FT Lifeguards (240 HOURS) (1 FT position to be reclassified to Sr. Lifeguard (40 HOURS)) 8 PT Lifeguards (200 HOURS) 5 SEA Lifeguards (125 HOURS) 								565 HOURS	14.12 FTE'S
ADMIN/SUPERVISORY SUPPORT STAFF <ul style="list-style-type: none"> Aquatic Coordinator (40 HOURS) 									1 FTE's
LOMO <ul style="list-style-type: none"> Maintenance Worker (25 HOURS) 									.65 FTE
TOTAL ASSIGNED FTE'S									15.77 FTE's

SUMMER CAMP - LEVEL 2	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TOTALS
DAILY HOURS OF OPERATION:	-	11.5	11.5	11.5	11.5	11.5	-	57.5 HOURS
STAFF HOURS NEEDED FOR OPERATIONS:	-	112	112	112	112	112	-	560 HOURS
ASSIGNED STAFFING: <ul style="list-style-type: none"> 16 Camp Counselors per 105 campers/ avg. 35 hrs. per week 								560 HOURS
OPERATIONS SUPPORT STAFF (NOT COUNTED IN COVERAGE) <ul style="list-style-type: none"> 2 Camp Supervisors per 105 campers (80 Hours) 								

AQUATIC FACILITY OPERATIONS – LEVEL 3

REFLECTS INCREASE IN OPERATING HOURS

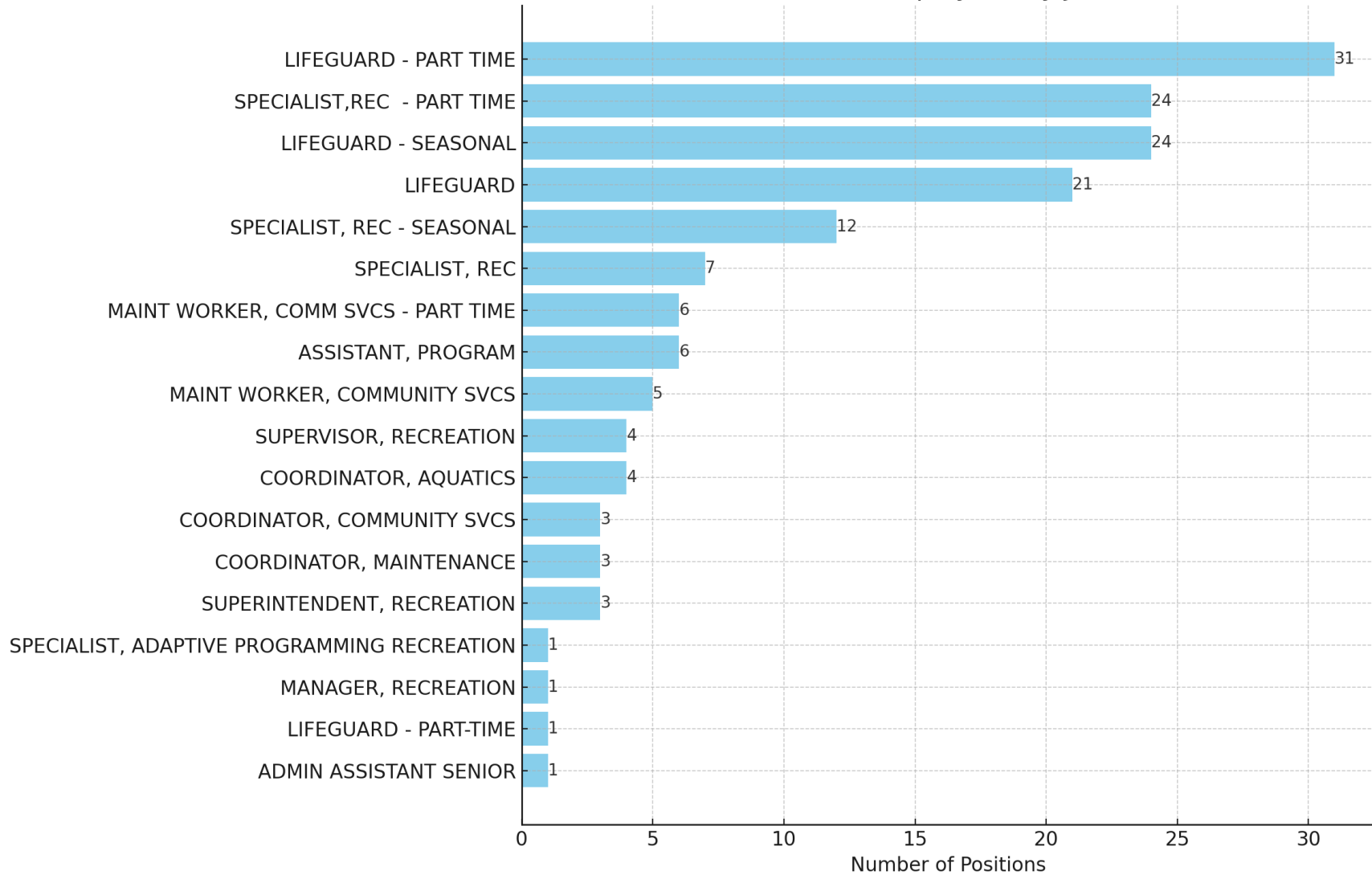
Aquatic Facility	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TOTALS	FTE'S
DAILY HOURS OF OPERATION:	15	15	15	15	15	15	15	105 HOURS	
STAFF HOURS NEEDED FOR FACILITY OPERATION	75	75	75	75	75	75	75	525 HOURS	13.12 FTE's
STAFF MINIMUMS DURING OPERATIONING HOURS	5 Staff								
ADDITIONAL WEEKLY HOURS FOR TRAININGS, PTO, MEETINGS, EVENTS, SWIM LESSONS, MAINTENANCE, ETC.								54 HOURS	1.35 FTE's
TOTAL HOURS NEEDED FOR OPERATIONS								579 HOURS	14.47 FTE's
ASSIGNED STAFFING: <ul style="list-style-type: none"> 1 FT Sr. Lifeguard (40 HOURS) 6 FT Lifeguards (240 HOURS) 8 PT Lifeguards (200 HOURS) 5 SEA Lifeguards (125 HOURS) 								605 HOURS	15.12 FTE's
ADMIN/SUPERVISORY SUPPORT STAFF <ul style="list-style-type: none"> 2 FT Aquatic Coordinator (80 HOURS) 									2 FTE's
LOMO <ul style="list-style-type: none"> Maintenance Worker (40 HOURS) 									1 FTE's
TOTAL ASSIGNED FTE'S									18.12 FTE'S

AQUATIC FACILITY OPERATIONS – LEVEL 4

REFLECTS INCREASE IN HOURS FOR PROGRAMS/EVENTS

Aquatic Facility	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TOTALS	FTE'S
DAILY HOURS OF OPERATION:	15	15	15	15	15	15	15	105 HOURS	
STAFF HOURS NEEDED FOR FACILITY OPERATION	75	75	75	75	75	75	75	525 HOURS	13.12 FTE's
STAFF MINIMUMS DURING OPERATIONING HOURS	5 Staff								
WEEKLY HOURS FOR TRAININGS, PTO, MEETINGS, EVENTS, SWIM LESSONS, MAINTENANCE, TOURISM EVENTS, ETC.								79 HOURS	1.97 FTE's
TOTAL HOURS NEEDED FOR OPERATIONS								604 HOURS	15.1 FTE's
ASSIGNED STAFFING: <ul style="list-style-type: none"> 1 FT Sr. Lifeguard (40 HOURS) 6 FT Lifeguards (240 HOURS) 8 PT Lifeguards (200 HOURS) 5 SEA Lifeguards (125 HOURS) 								605 HOURS	15.12 FTE's
ADMIN/SUPERVISORY SUPPORT STAFF <ul style="list-style-type: none"> 2 FT Aquatic Coordinator (80 HOURS) 									2 FTE's
LOMO <ul style="list-style-type: none"> Maintenance Worker (40 HOURS) 									1 FTE
TOTAL ASSIGNED FTE'S									18.12 FTE'S

Number of Employees by Job Title



This is a visual representation of the positions by job title, with the count of each position shown at the end of each bar. This chart helps to quickly understand the distribution of job positions.