



Orange County Parks and Recreation Impact Fee Update Study

FINAL REPORT

June 7, 2017



Prepared for:

Orange County

4801 West Colonial Drive
Orlando, FL 32808
ph (407) 836-6200

Prepared by:

Tindale Oliver

1000 N. Ashley Dr., #400
Tampa, Florida, 33602
ph (813) 224-8862
fax (813) 226-2106
E-mail: nkamp@tindaleoliver.com
363035-00.16

**Orange County
Parks and Recreation Impact Fee Update Study
Table of Contents**

Executive Summary	ES-1
Introduction and Methodology	1
Inventory.....	4
Population and Service Area.....	9
Level of Service.....	9
Cost Component.....	10
Credit Component	15
Net Parks and Recreation Impact Cost.....	17
Calculated Parks and Recreation Impact Fee Schedule.....	18
Parks and Recreation Impact Fee Schedule Comparison	18
Future Revenue Estimates	21
Indexing	22

APPENDICES

APPENDIX A: Population Analysis - Supplemental Information

APPENDIX B: Land Value Analysis - Supplemental Information

Executive Summary

Parks and recreation impact fees are used to fund acquisition and expansion of parks and recreation service-related capital assets required to address the additional parks and recreation service demand created by new growth. Orange County implemented a parks and recreation facilities impact fee in 2006 and last updated the impact fee schedule in 2011. Per the requirements of the impact fee ordinance, the County retained Tindale Oliver (TO), in association with Laura Turner Planning Services, to update the impact fee to reflect most recent and localized data.

The methodology used to update Orange County's impact fee program is a consumption-based impact fee methodology, which has also been used to calculate the County's adopted parks and recreation impact fees as well as other impact fees throughout Florida. A consumption-based impact fee charges new development based upon the burden placed on services from each land use (demand). The demand component is measured in terms of population per unit of land use. A consumption-based impact fee is intended to charge new growth the proportionate share of the cost of providing additional infrastructure available for use by new growth. In addition, per the requirements of case law, a credit is subtracted from total cost to account for contributions of new development toward any capacity expansion projects through other revenue sources.

Consistent with the County's adopted impact fee methodology, the primary steps involved in the update of the parks and recreation impact fee included the following:

- Review of the inventory and establishment of the achieved level of service compared to the adopted LOS standard;
- Estimation of the current value of the park land and facilities;
- Review of funding sources used for parks and recreation facility expansion projects;
- Calculation of the demand component; and
- Calculation of the updated parks and recreation impact fee.

Table ES-1 provides a comparison of the calculated fees to the County's current adopted fees. As part of this study, a new land use is added to the fee schedule to reflect the lower impact of the Retirement/Age Restricted housing on parks and recreational facility infrastructure needs.

**Table ES-1
Calculated Parks and Recreation Impact Fee Schedule**

Land Use	Calculated Impact Fee ⁽¹⁾	Adopted Impact Fee ⁽²⁾	% Change
Single Family (detached)	\$1,544	\$972	59%
Accessory Single Family	\$1,044	\$702	49%
Multi-Family	\$1,044	\$702	49%
Mobile Homes	\$1,150	\$728	58%
Retirement Housing/Age Restricted	\$827	\$702	18%

1) Source: Table 10

2) Source: Orange County Impact Fee Administration; Community, Environmental & Development Services Department. The retirement housing/age restricted land use is compared to the multi-family land use in the adopted fee schedule as a proxy. Adopted impact fees shown are rounded to the nearest ones place.

Introduction and Methodology

Parks and recreation impact fees are used to fund acquisition and expansion of parks and recreation service-related capital assets required to address the additional parks and recreation service demand created by new growth. Orange County implemented a parks and recreation impact fee in 2006 and last updated the impact fees in 2011 (with final report dated January 2012). Per the requirements of the impact fee ordinance, the County retained Tindale Oliver (TO), in association with Laura Turner Planning Services, to update the impact fee to reflect most recent and localized data.

Methodology

The methodology used to update Orange County's impact fee program is a consumption-based impact fee methodology, which is used throughout Florida. This methodology was also used in preparing the current adopted impact fees. A consumption-based impact fee charges new development based upon the burden placed on services from each land use (demand). The demand component is measured in terms of population per unit. A consumption-based impact fee charges new growth the proportionate share of the cost of providing additional infrastructure available for use by new growth. In addition, per legal requirements, a credit is subtracted from the total cost to account for the value of future tax contributions of the new development toward any capacity expansion projects through other revenue sources. Contributions used to calculate the credit component include estimates of future non-impact fee revenues generated by the new development that will be used toward capacity expansion projects. In other words, case law requires that the new development should not be charged twice for the same service.

Legal Standard Overview

In Florida, legal requirements related to impact fees have primarily been established through case law since the 1980's. Generally speaking, impact fees must comply with the "dual rational nexus" test, which requires that they:

- Be supported by a study demonstrating that the fees are proportionate in amount to the need created by new development paying the fee; and
- Be spent in a manner that directs a proportionate benefit to new development, typically accomplished through establishment of benefit districts when needed and a

list of capacity-adding projects included in the County's Capital Improvement Plan, Capital Improvement Element, or another planning document/Master Plan.

In 2006, the Florida legislature passed the "Florida Impact Fee Act," which recognized impact fees as "an outgrowth of home rule power of a local government to provide certain services within its jurisdiction." § 163.31801(2), Fla. Stat. The statute – concerned with mostly procedural and methodological limitations – did not expressly allow or disallow any particular public facility type from being funded with impact fees. The Act did specify procedural and methodological prerequisites, such as the requirement of the fee being based on most recent and localized data, a 90-day requirement for fee changes, and other similar requirements, most of which were common to the practice already.

More recent legislation further affected the impact fee framework in Florida, including the following:

- **HB 227 in 2009:** The Florida legislation statutorily clarified that in any action challenging an impact fee, the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee meets the requirements of state legal precedent or the Impact Fee Act and that the court may not use a deferential standard.
- **SB 360 in 2009:** Allowed fees to be decreased without the 90-day notice period required to increase the fees and purported to change the standard of legal review associated with impact fees. SB 360 also required the Florida Department of Community Affairs (now the Department of Economic Opportunity) and Florida Department of Transportation (FDOT) to conduct studies on "mobility fees," which were completed in 2010.
- **HB 7207 in 2011:** Required a dollar-for-dollar credit, for purposes of concurrency compliance, for impact fees paid and other concurrency mitigation required. The payment must be reduced by the percentage share the project's traffic represents of the added capacity of the selected improvement (up to a maximum of 20% or to an amount specified by ordinance, whichever results in a higher credit). The courts have not yet taken up the issue of whether a local government may still charge an impact/mobility fee in lieu of proportionate share if the impact/mobility fee is higher than the calculated proportionate share contribution.
- **HB 319 in 2013:** Applied mostly to concurrency management authorities, but also encouraged local governments to adopt alternative mobility systems using a series of tools identified in section 3180(5)(f), Florida Statutes.

The following paragraphs provide further detail on the generally applicable legal standards applicable here.

Impact Fee Definition

- An impact fee is a one-time capital charge levied against new development.
- An impact fee is designed to cover the portion of the capital costs of infrastructure capacity consumed by new development.
- The principle purpose of an impact fee is to assist in funding the implementation of projects identified in the Capital Improvements Element (CIE) and other capital improvement programs for the respective facility/service categories.

Impact Fee vs. Tax

- An impact fee is generally regarded as a regulatory function established as a condition for improving property and is not established for the primary purpose of generating revenue, as are taxes.
- Impact fee expenditures must convey a proportional benefit to the fee payer. This is accomplished through the establishment of benefit districts, where fees collected in a benefit district are spent in the same benefit district.
- An impact fee must be tied to a proportional need for new infrastructure capacity created by new development.

This technical report has been prepared to support legal compliance with existing case law and statutory requirements. The technical report also documents the methodology components, including an evaluation of the inventory, service area, level of service (LOS), cost, credit, and demand components. Information supporting this analysis was obtained from the County and other sources, as indicated.

It should be noted that although this study establishes a technically calculated fee, the Board of County Commission has the policy option of adopting the fee at a reduced level or phase it in over time.

Inventory

Orange County parks that are included in the impact fee calculations are classified into four different types, including community, district, regional and specialty parks. The following provides the definitions of the various park types included in the impact fee update study.

- **Community** – Community parks usually range in size from 20 to 149 acres with a typical park size of 50 acres. Because of the types of amenities and activities offered in these parks, the service area of this park type ranges from a 3-mile radius to the entire county. Community parks can be accessed by walking or bike riding, but more often by car. These parks are usually located near major collector streets or arterial roads to promote accessibility. Community parks are designed to serve the needs of several neighborhoods. This park type typically includes facilities such as sportsfields, playgrounds, large picnic pavilions, splash pads, gyms or recreation centers. Natural areas (resource-based) are also included for walking, jogging, picnicking, and other passive recreational activities.
- **District** – District parks typically range in size from 150 to 500 acres. This type of park usually has a countywide service area. Access to these parks is most often by car. These parks are usually classified as resource-based and are usually located contiguous to or encompassing natural resources. They offer playgrounds, play fields, and family recreation centers. District parks, when located near urban or population centers, can provide activity-based recreation facilities such as sports complexes.
- **Regional** – Regional parks are usually 500 acres or more and tend to have a multi-county service area. Access to these parks is most often by car. These parks are usually resource-based, located in areas of diverse or unique natural resources, such as lakes, streams, marshes, flora, fauna, or topography. Activity-based facilities may be located at Regional parks as long as the activity does not negatively impact the natural resources.
- **Special Facilities** – These parks are designed for predominantly one activity or use, such as a multi-use trail, golf course, equestrian complex, sports complex, indoor recreation center or historic site. Because their use varies, standards cannot be quantified for special facilities. The size of the special facilities is variable, depending on the particular use. These facilities usually serve the entire county.

Orange County Comprehensive Policy Plan classifies and measures recreation sites as either activity-based, resource-based, a combination of the two or habitat parkland to establish the LOS for concurrency purposes. It is noted that park types (i.e., pocket parks, neighborhood parks, community parks, district parks, regional parks and special facilities) can contain activity-based, resource-based and habitat parklands. These terms are further defined as follows.

- **Activity-based parkland** – consists of predominately user-oriented facilities that are located within or adjacent to population centers. User-based activities may include tennis, golf, baseball/softball, football/soccer, shuffleboard, basketball, volleyball, paved trails, playgrounds, indoor recreation and swimming/leisure pools/water recreation.
- **Resource-based parkland** – provides access to natural and historic resources. Recreation activities are considered to be passive-in-nature and include historic tours, interpretation, nature observation, fishing, lake swimming, camping, and picnicking. Even though some of these activities may have man-made facilities such as nature trails, boat ramps, picnic tables, and campground hookups, these are secondary to natural resources required for each activity.
- **Habitat parkland** – includes park and recreation facilities that provide habitat and wildlife areas that are unlikely to be developed for more intense uses. In addition, because in most cases habitat land is not accessible to the public, it is excluded from the inventory and the impact fee calculations.

For impact fee calculation purposes, the study includes only the community, district, regional, and specialty parks, which have a wide service area, and excludes pocket and neighborhood parks, which tend to serve the immediate area. In addition, parks located within municipal limits are not included in the inventory since the fee is collected only in the unincorporated area. Finally, as mentioned previously, habitat land acreage is also excluded. **Table 1** summarizes the following information for the parks included in this analysis.

- Facility name
- Park type (community, district, regional, special facility)
- Number of acres
- Activity-based or resource-based parkland acreage

- Type and number of amenities (boat ramps, playgrounds, picnic facilities, restrooms, tennis courts, ball fields, etc.)

Table 1 provides an inventory of all parks and recreation facilities that are owned by Orange County and included in the impact fee analysis, along with the facilities that are available at each park location. The parks and recreation inventory used as the basis for the impact fee analysis includes 51 parks, including 23 community parks, 19 specialty parks, three regional parks, and six district parks.

**Table 1
Parks and Recreation Facility Inventory (1)**

Facility	Park Type	Activity Based Acres	Resource Based Acres	Total Acreage	Baseball Field Total	Basketball Court (goals)	Batting Cages	Boardwalk (total linear feet per site)	Boat Ramp	Camping Total	Classrooms/ Meeting Rooms (sf)	Clubhouse/ Community Center (sf)	Concession Stands (full service)	Dog Park	Equestrian Trail (linear miles)	Exercise Course	Fitness Center	Frisbee/Disc Golf (# of holes)	Golf Facility	Historical Facilities	Hockey Rink (Lit)	Horseshoe Pits	Multi Purpose Field
Barber Park	C	68.30	13.2	81.50		3								2							1		3
Barnett Park	C	130.00	28.00	158.00		6		416	2		3,104			2		1	1	36	1			4	1
Bear Creek Park	C	37.00	7.00	44.00	2		2	250			1,008		1			1							
Bithlo Park	C	29.90	8.10	38.00	6	2	4				1,024	16,500	1										1
Blanchard Park	C	43.00	41.00	84.00		4																	3
Cypress Grove Park	C	60.00	20.00	80.00		2					2,315												3
Deputy Brandon Coates Park	C	27.20	0.00	27.20																			
Downey Park	C	50.00	0.00	50.00	4	2	3		1				1	2									
Dr. P. Phillips Park	C	23.00	20.00	43.00	1	2								2									
East Orange Neighborhood Park	C	20.00	0.00	20.00		2																	
Econ Soccer Complex	C	31.00	0.00	31.00																			
George Bailey Park	C	20.00	0.00	20.00	6		5																
Goldenrod Park & Trailhead (CWT)	C	6.00	0.00	6.00		4					2,100						1						
Meadow Woods Park	C	19.00	0.00	19.00		6					2,100						1						
Orlo Vista Park	C	28.00	0.00	28.00		5					2,342												1
R.D. Keene Park	C	25.00	27.00	52.00					1														
Roosevelt Nichols Park	C	6.00	0.00	6.00		2																	1
Shadow Bay Park	C	26.20	84.80	111.00		4										1							
Silver Star Park	C	25.00	0.00	25.00		4					2,100						1						
South Econ Park/Renaissance Sr. Center	C	51.00	11.00	62.00		2					8,476	3,000					1						
South Orange Youth Complex	C	28.00	0.00	28.00	6		2						1										
West Beach Park	C	20.30	0.00	20.30																			
West Orange Soccer Complex	C	37.00	10.00	47.00										2									
East Orange District Park (Christmas Creek Preserve)	D	0.00	243.00	243.00																			
Horizon West Park	D	0.00	219.00	219.00											5.000								
Kelly Park	D	98.00	292.00	390.00				2,790		26	1,300		1		3.553							3	
Magnolia Park	D	7.10	48.90	56.00		2			1	18												6	
Tibet-Butler Nature Park	D	7.70	431.30	439.00				1,151			900												
Trimble Park	D	40.00	31.00	71.00				800	1	30						1							2
Hal Scott Preserve	R	0.00	8,427.00	8,427.00						3					19.000								
Moss Park	R	100.00	1,451.00	1,551.00					2	60													4
Split Oak Forest	R	0.00	1,134.00	1,134.00																1			
Apopka Station (WOT)	SP	1.00	0.00	1.00							750												
Apopka-Vineland Outpost	SP	3.00	0.00	3.00																			
Avalon-Mailer Trailhead (Avalon Trail)	SP	0.66	0.00	0.66																			
Bywater Boat Ramp	SP	0.00	0.20	0.20					1														
Cady Way Trail	SP	43.00	0.00	43.00																			
Clarcona Horse Park	SP	40.00	0.00	40.00						28			1										
Clarcona-Ocoee Connector Trail	SP	3.00	0.00	3.00																			
Fern Creek Boat Ramp	SP	0.00	1.00	1.00					1														
Fort Christmas Historical Park	SP	95.60	47.10	142.70		2														14		2	1
Fort Gatlin Recreational Park	SP	7.70	0.00	7.70		4						230											1
Lake Apopka Loop Trail	SP	22.00	0.00	22.00																			
Little Econ Greenway	SP	49.00	396.00	445.00																			
Powell Cemetery	SP	0.00	0.50	0.50																			
Randolph Street Boat Ramp	SP	0.00	0.50	0.50					1														
Rolling Hills Park	SP	9.60	0.00	9.60	4								1										
SR 50 Boat Ramp	SP	0.00	1.00	1.00					1														
Taft Ball Field	SP	2.00	0.00	2.00	1	2																	
West Orange Trail	SP	126.00	0.00	126.00											10.000								
Woodsmere Boat Ramp	SP	0.00	1.00	1.00					1														
Total	51	1,466.26	12,994.60	14,460.86	30	60	16	5,407	13	165	27,519	19,730	7	12	37.553	4	5	36	1	15	1	21	15
Summary of Parks and Recreation Facilities	# of Parks	Activity Based Acres	Resource Based Acres	Total Acreage	Baseball Field Total	Basketball Court (goals)	Batting Cages	Boardwalk (total linear feet per site)	Boat Ramp	Camping Total	Classrooms/ Meeting Rooms (sf)	Clubhouse/ Community Center (sf)	Concession Stands (full service)	Dog Park	Equestrian Trail (linear miles)	Exercise Course	Fitness Center	Frisbee/Disc Golf (# of holes)	Golf Facility	Historical Facilities	Hockey Rink (Lit)	Horseshoe Pits	Multi Purpose Field
Community Parks	23	810.90	270.10	1,081.00	25	50	16	666	4	0	24,569	19,500	4	12	0.000	3	5	36	1	0	1	4	13
Specialty Parks	19	402.56	447.30	849.86	5	8	0	0	5	28	750	230	2	0	10.000	0	0	0	0	14	0	2	2
Regional Parks	3	100.00	11,012.00	11,112.00	0	0	0	0	2	63	0	0	0	0	19.000	0	0	0	0	1	0	4	0
District Parks	6	152.80	1,265.20	1,418.00	0	2	0	4,741	2	74	2,200	0	1	0	8.553	1	0	0	0	0	0	11	0
Total	51	1,466.26	12,994.60	14,460.86	30	60	16	5,407	13	165	27,519	19,730	7	12	37.553	4	5	36	1	15	1	21	15

Table 1 (Continued)
Parks and Recreation Facility Inventory (1)

Facility	Park Type	Activity Based Acres	Resource Based Acres	Total Acreage	Nature Center/Study (square feet)	Nature Trail/Hiking (miles)	Picnic Pavilion (rental only-med. or lg.)	Picnic Pavilion, non-rental (large)	Picnic Pavilion, non-rental (medium)	Picnic Pavilion, non-rental (small)	Playground (ages 5-12)	Playground/Tot lot (ages 2-5)	Recreation Center / Gymnasium (sf)	Restroom (women)	Restroom (men)	Restrooms (unisex/family)	Shuffleboard Court	Skate Park	Soccer Field Total	Softball Field Total	Sprayground/Splash Park	Swimming Pool	Tennis Court Total	Trail-Paved (linear mile)	Volleyball Court Total
Barber Park	C	68.30	13.2	81.50			1			1	1	1		1	1				3					0.750	1
Barnett Park	C	130.00	28.00	158.00			4				5	5	24,400	6	6	1				2	1		2		3
Bear Creek Park	C	37.00	7.00	44.00			1				2	2	1,200	2	2					2					1
Bithlo Park	C	29.90	8.10	38.00			1				1	2		2	2					2	1				1
Blanchard Park	C	43.00	41.00	84.00			2				2	2		1	1				1				4		1
Cypress Grove Park	C	60.00	20.00	80.00			1				1	1		4	4	3								0.800	2
Deputy Brandon Coates Park	C	27.20	0.00	27.20														1							
Downey Park	C	50.00	0.00	50.00			2				2	2		3	3					1	1				2
Dr. P. Phillips Park	C	23.00	20.00	43.00		0.600	6				1	1		1	1				2	1	1			1.300	2
East Orange Neighborhood Park	C	20.00	0.00	20.00					1		1	1		1	1					1					
Econ Soccer Complex	C	31.00	0.00	31.00							2	1		1	1				2						
George Bailey Park	C	20.00	0.00	20.00			1				3	1		1	1										
Goldenrod Park & Trailhead (CWT)	C	6.00	0.00	6.00					2		1		24,400	3	3	1							2		
Meadow Woods Park	C	19.00	0.00	19.00					2		3	1	24,400	3	3	1									1
Orlo Vista Park	C	28.00	0.00	28.00		1.000	2				1	1		3	3								2		1
R.D. Keene Park	C	25.00	27.00	52.00							2	1				3			2						
Roosevelt Nichols Park	C	6.00	0.00	6.00					2		2	1								1					
Shadow Bay Park	C	26.20	84.80	111.00		1.621	1	2			1	1		2	2					1			17	2.379	
Silver Star Park	C	25.00	0.00	25.00							2	1	24,400	2	2	1									
South Econ Park/Renaissance Sr. Center	C	51.00	11.00	62.00							1	1		3	3	1									
South Orange Youth Complex	C	28.00	0.00	28.00							2									2					
West Beach Park	C	20.30	0.00	20.30					1		8	1	1	1	1										2
West Orange Soccer Complex	C	37.00	10.00	47.00							5	1		2	2				4						
East Orange District Park (Christmas Creek Preserve)	D	0.00	243.00	243.00		3.000																			
Horizon West Park	D	0.00	219.00	219.00																					
Kelly Park	D	98.00	292.00	390.00	1,300	1.245	4				2	1		4	4										2
Magnolia Park	D	7.10	48.90	56.00		0.439	4				5			5	5										2
Tibet-Butler Nature Park	D	7.70	431.30	439.00	9,600	3.600								1	1										
Trimble Park	D	40.00	31.00	71.00		0.310	4				3			3	3										
Hal Scott Preserve	R	0.00	8,427.00	8,427.00		19.000																			
Moss Park	R	100.00	1,451.00	1,551.00		1.000	5	1			1	2	1	7	7										2
Split Oak Forest	R	0.00	1,134.00	1,134.00		10.000																			
Apopka Station (WOT)	SP	1.00	0.00	1.00					1		1	1		1	1										
Apopka-Vineland Outpost	SP	3.00	0.00	3.00					1		1														
Avalon-Mailer Trailhead (Avalon Trail)	SP	0.66	0.00	0.66							1			1	1										
Bywater Boat Ramp	SP	0.00	0.20	0.20																					
Cady Way Trail	SP	43.00	0.00	43.00							3													6.200	
Clarcona Horse Park	SP	40.00	0.00	40.00										2	2										
Clarcona-Ocoee Connector Trail	SP	3.00	0.00	3.00																					
Fern Creek Boat Ramp	SP	0.00	1.00	1.00																					
Fort Christmas Historical Park	SP	95.60	47.10	142.70			3				1	1		1	1	2				1			1		
Fort Gatlin Recreational Park	SP	7.70	0.00	7.70				1			3	1	3,459	1	1	3						118,000	10	0.250	
Lake Apopka Loop Trail	SP	22.00	0.00	22.00		0.700																			
Little Econ Greenway	SP	49.00	396.00	445.00							2													8.000	
Powell Cemetery	SP	0.00	0.50	0.50																					
Randolph Street Boat Ramp	SP	0.00	0.50	0.50																					
Rolling Hills Park	SP	9.60	0.00	9.60								1		1	1					1					
SR 50 Boat Ramp	SP	0.00	1.00	1.00							1														
Taft Ball Field	SP	2.00	0.00	2.00							1	1									1				
West Orange Trail	SP	126.00	0.00	126.00					1		1													22.000	
Woodsmere Boat Ramp	SP	0.00	1.00	1.00																					
Total	51	1,466.26	12,994.60	14,460.86	10,900	42.515	42	3	15	46	46	25	102,259	69	69	16	2	1	14	13	4	118,000	38	41.679	23
Summary of Parks and Recreation Facilities	# of Parks	Activity Based Acres	Resource Based Acres	Total Acreage	Nature Center/Study (square feet)	Nature Trail/Hiking (miles)	Picnic Pavilion (rental only-med. or lg.)	Picnic Pavilion, non-rental (large)	Picnic Pavilion, non-rental (medium)	Picnic Pavilion, non-rental (small)	Playground (ages 5-12)	Playground/Tot lot (ages 2-5)	Recreation Center / Gymnasium (sf)	Restroom (women)	Restroom (men)	Restrooms (unisex/family)	Shuffleboard Court	Skate Park	Soccer Field Total	Softball Field Total	Sprayground/Splash Park	Swimming Pool	Tennis Court Total	Trail-Paved (linear mile)	Volleyball Court Total
Community Parks	23	810.90	270.10	1,081.00	0	3.221	22	2	8	33	31	18	98,800	42	42	11	2	1	14	10	4	0	27	5.229	17
Specialty Parks	19	402.56	447.30	849.86	0	0.700	3	0	4	12	5	3	3,459	7	7	5	0	0	3	0	0	118,000	11	36.450	0
Regional Parks	3	100.00	11,012.00	11,112.00	0	30.000	5	1	0	1	2	1	0	7	7	0	0	0	0	0	0	0	0	0.000	2
District Parks	6	152.80	1,265.20	1,418.00	10,900	8.594	12	0	3	0	8	3	0	13	13	0	0	0	0	0	0	0	0	0.000	4
Total	51	1,466.26	12,994.60	14,460.86	10,900	42.515	42	3	15	46	46	25	102,259	69	69	16	2	1	14	13	4	118,000	38	41.679	23

1) Source: Orange County Parks and Recreation

Population and Service Area

The Orange County parks and recreation service area includes the unincorporated County. As such, the current 2017 population for the unincorporated county is used to develop the parks acreage level of service. Consistent with the County’s Comprehensive Plan, population figures in this report include permanent residents only and uses BEBR mid-level projections. Appendix A, Table A-1 provides the population trends and projections from 2000 through 2045 for use in the parks and recreation impact fee update study.

Level of Service

Table 2 presents the calculation of the current achieved level of service (LOS) for each park land type included in the inventory, as well as the County’s adopted LOS standards included in the County’s Comprehensive Plan. Orange County’s 2017 achieved LOS for activity-based parks is 1.7 acres per 1,000 residents and the LOS for resource-based parks is 15.5 acres per 1,000 residents, for a total of 17.2 acres per 1,000 residents. The current achieved LOS represents the investment the community has made into parks and recreation facilities while the adopted LOS standard indicates the intended LOS going forward. In the case of Orange County, the adopted LOS standards are lower than the achieved LOS. Given that the County does not intend to increase the adopted LOS standards, the standard of 7.5 acres per 1,000 residents is used for the impact fee calculations, resulting in a conservative fee.

**Table 2
Current Level of Service & Adopted Level of Service Standard**

Park Land Category	Unincorporated County		
	Inventory (Acres) ⁽¹⁾	Level of Service ⁽²⁾	Adopted LOSS ⁽³⁾
Activity Based Acres	1,466.26	1.7	1.5
Resource Based Acres	12,994.60	15.5	6.0
Total	14,460.86	17.2	7.5
2017 Unincorporated County Population⁽⁴⁾	839,114		

1) Source: Table 1

2) Acres divided by 2017 unincorporated county population (Item 4) multiplied by 1,000

3) Source: Orange County Comprehensive Plan 2010-2030, Recreation and Open Space Elements

4) Source: Appendix A, Table A-1

Cost Component

The total cost per resident for parks and recreation facilities consists of two components: the cost of purchasing and developing land for each park and the cost of facilities and equipment located at each park.

Land Cost

To account for recent fluctuations in land values statewide, an in-depth analysis of the land values was conducted. This analysis evaluated recent purchase information provided by Orange County staff, an analysis of recent sales and value of vacant land similar in size and location to Orange County's parks, and change in vacant land values since the last technical study, obtained from the Orange County Property Appraiser. More specifically, the following analysis was conducted:

- A review of County's park land purchases over the past five years;
- A review of the current value of existing park land based on information included in the Orange County Property Appraiser database;
- A review of vacant land sales between 2013 and 2016;
- A review of the current appraised value of vacant land of similar size, obtained from the Orange County Property Appraiser database; and
- A review of annual changes in just market value of vacant land since the previous study which was obtained from the Florida Department of Revenue.

Based on this analysis and information, a unit cost of \$60,000 per acre is found to be a reasonable estimate for activity-based parks and \$30,000 per acre for resource-based parks. Similarly, based on recently developed parks, site preparation cost is estimated at \$25,000 per acre for activity-based parks. As shown in **Table 3**, the impact cost per resident for park land amounts to \$308. A more detailed explanation of the land value and site preparation cost estimates is included in Appendix B.

**Table 3
Land Impact Cost per Resident**

Park Land Category	Land Cost per Acre ⁽¹⁾	Site Development Cost per Acre ⁽²⁾	Total Land Cost per Acre ⁽³⁾	Adopted LOS Standard ⁽⁴⁾	Impact Cost per Resident ⁽⁵⁾
Activity Based Parks	\$60,000	\$25,000	\$85,000	1.5	\$127.50
Resource Based Parks	\$30,000	\$0	\$30,000	6.0	\$180.00
				Total:	\$307.50

- 1) Based on an evaluation of the current value of the park land, recent purchases, value of vacant parcels of appropriate size and zoning, and other information. See Appendix B for more information.
- 2) Based on recent projects
- 3) Sum of land cost (Item 1) and site development cost (Item 2)
- 4) Source: Table 2
- 5) Cost per acre (Item 3) multiplied by LOS standard (Item 4) divided by 1,000

Facility and Equipment Cost

The next step in calculating the total cost for parks and recreation services in Orange County involves estimating the current value of the facility and equipment cost of the total inventory.

As presented in **Tables 4 and 5**, the total park recreational and ancillary facilities and equipment value is estimated at \$251 million, including facilities, equipment, and architecture and engineering costs. Table 4 primarily includes recreational amenities while Table 5 includes the support/ancillary facilities.

When available, the current value for the parks facilities and equipment is estimated based on recent bids or actual construction costs paid by the County for its park facilities. Available bids indicated significant increase in unit costs (45 percent to 230 percent) compared to the 2011 study estimates. These reflect the recent cost increase experienced in Central Florida due to high construction activity as well as new pollution insurance requirement by Orange County, which results in fewer eligible vendors and higher costs. When recent bid/purchase information was not available, unit costs from the County’s insurance reports and indexed unit costs from the previous 2011 study were used. Insurance values are considered to be a conservative estimate since not all components of a structure are insured. Indexing results in an increase of 10 percent compared to 2011 figures. Use of insurance values and indexing represents a conservative approach since recent bids suggest, on average, doubling of unit values compared to the 2011 figures. Resulting estimates were also compared to cost data for similar facilities from other jurisdictions.

**Table 4
Parks and Recreation Facilities and Equipment Cost**

Facility Type	Unit	2016 Inventory ⁽¹⁾	Unit Cost ⁽²⁾	Total Facility Cost ⁽³⁾
Baseball Fields	field	30	\$279,000	\$8,370,000
Basketball Court	goal	60	\$35,000	\$2,100,000
Batting Cages	cage	16	\$17,000	\$272,000
Boardwalk	linear feet	5,407	\$70	\$378,490
Boat Ramp/ Dock	ramp	13	\$160,000	\$2,080,000
Camping	site	165	\$14,500	\$2,392,500
Classrooms/ Meeting Rooms	square foot	27,519	\$279	\$7,677,801
Clubhouse/Community Center	square foot	19,730	\$175	\$3,452,750
Concession Stands	stand	7	\$325,000	\$2,275,000
Dog Park	park	12	\$70,000	\$840,000
Equestrian Trail	mile of trail	37.553	\$39,000	\$1,464,567
Exercise Course	course	4	\$45,000	\$180,000
Fitness Center	center	5	\$600,000	\$3,000,000
Frisbee/Disc Golf	course	36	\$4,000	\$144,000
Golf Facility	facility	1	\$178,500	\$178,500
Historical Facilities	facility	15	\$170,000	\$2,550,000
Hockey Rink	rink	1	\$780,500	\$780,500
Horseshoe Pits	pit	21	\$1,200	\$25,200
Multi Purpose Field	field	15	\$106,000	\$1,590,000
Nature Center/Study	square foot	10,900	\$110	\$1,199,000
Nature Trail/ Hiking	mile of trail	42.515	\$39,000	\$1,658,085
Picnic Pavilions	pavilion	106	\$42,000	\$4,452,000
Playground (ages 5-12)	playground	46	\$160,000	\$7,360,000
Playground/Tot lot (ages 2-5)	playground	25	\$65,000	\$1,625,000
Recreational Center/Gymnasium	square foot	102,259	\$200	\$20,451,800
Restrooms	restroom	85	\$250,000	\$21,250,000
Shuffleboard Court	court	2	\$6,000	\$12,000
Skate Park	park	1	\$225,000	\$225,000
Soccer Field	field	14	\$750,000	\$10,500,000
Softball Field	field	13	\$279,000	\$3,627,000
Sprayground/Splash Park	park	4	\$400,000	\$1,600,000

Table 4 (Continued)
Parks and Recreation Facilities and Equipment Cost

Facility Type	Unit	2016 Inventory ⁽¹⁾	Unit Cost ⁽²⁾	Total Facility Cost ⁽³⁾
Swimming Pool	pool	1	\$976,000	\$976,000
Tennis Court	court	38	\$40,000	\$1,520,000
Trail-Paved (linear mile)	mile of trail	41.679	\$1,500,000	\$62,518,500
Volleyball Court	court	23	\$8,000	\$184,000
Facilities and Equipment Value				\$178,909,693
Architecture, Engineering, and Inspection @ 10% ⁽⁴⁾				\$17,890,969
Total Facilities and Equipment Value				\$196,800,662

- 1) Source: Table 1
- 2) Source: Orange County insurance reports, recent construction information both in Orange County and other communities, and indexed unit costs from the previous 2012 report
- 3) Unit cost (Item 2) multiplied by unit count (Item 1)
- 4) Facilities and equipment value multiplied by 10 percent, based on information from other jurisdictions and discussions with County staff

Table 5
Parks and Recreation Ancillary Facility Cost

Facility Type	Unit	2016 Inventory ⁽¹⁾	Unit Cost ⁽²⁾	Total Facility Cost ⁽³⁾
Horse Barns	barn	13	\$49,100	\$638,300
Maintenance/Operations Buildings	square foot	34,118	\$180	\$6,141,240
Multi-use Trail Pedestrian Bridge	bridge	3	\$5,200,000	\$15,600,000
Office/Administration Buildings	square foot	85,299	\$270	\$23,030,730
Picnic Shelters	shelter	3	\$20,000	\$60,000
Storage Facilities	square foot	9,804	\$24	\$235,296
Tennis Pro Shop	shop	2	\$88,000	\$176,000
Trailhead Buildings	building	4	\$463,000	\$1,852,000
Walkway Pedestrian Bridge (Wood)	bridge	10	\$48,000	\$480,000
Walkway Pedestrian Bridge (Metal Truss)	bridge	1	\$1,000,000	\$1,000,000
Ancillary/Unique Facility Value				\$49,213,566
Architecture, Engineering, and Inspection @ 10% ⁽⁴⁾				\$4,921,357
Total Facilities and Equipment Value				\$54,134,923

- 1) Source: Orange County Parks and Recreation
- 2) Source: Orange County insurance reports, recent construction information both in Orange County and other communities, and indexed unit costs from the previous 2012 report
- 3) Unit cost (Item 2) multiplied by unit count (Item 1)
- 4) Facilities and equipment value multiplied by 10 percent, based on information from other jurisdictions and discussions with County staff

Table 6 provides a summary of all facility values as well as value per resident, which is estimated at \$299.

**Table 6
Summary of Parks and Recreation
Facilities and Equipment Cost**

Facility Type	Total Facility Cost
Recreational Facilities and Equipment ⁽¹⁾	\$196,800,662
Ancillary/Support Facilities ⁽²⁾	\$54,134,923
Total Facility Value ⁽³⁾	\$250,935,585
Unincorporated County Population (2017) ⁽⁴⁾	839,114
Total Facility Cost per Resident⁽⁵⁾	\$299.05

1) Source: Table 4

2) Source: Table 5

3) Sum of recreational facilities (Item 1) and ancillary/support facilities (Item 2)

4) Source: Table 2

5) Total facility value (Item 3) divided by population (Item 4)

Total Impact Cost per Resident

The first section of **Table 7** identifies the total land cost as \$308 per resident. The second section of the table shows the total facility cost of \$299 per resident. The total impact cost per resident (third section of the table) amounts to \$607.

**Table 7
Total Impact Cost per Resident**

Calculation Step	Total Asset Value	Percent of Total Asset Value ⁽⁴⁾
Land Cost per Resident ⁽¹⁾	\$307.50	51%
Facility Cost per Resident ⁽²⁾	\$299.05	49%
Total Cost per Resident⁽³⁾	\$606.55	100%

1) Source: Table 3

2) Source: Table 6

3) Sum of land cost per resident (Item 1) and facility cost per resident (Item 2)

4) Distribution of total asset value per resident

Credit Component

To avoid overcharging new development for the capital cost of providing parks and recreation services, a review of the capital funding program for the parks and recreation program was completed. The purpose of this review is to determine future non-impact fee revenues that may be spent on parks and recreation capital facility expansion projects. The future revenue amounts were estimated based on a review of non-impact fee revenues generated by new development that have been used within the last five years and are programmed to fund over the next two years the expansion of capital facilities, land, and equipment related to the Orange County's parks and recreation program. This review indicated that the County uses a certain level of non-impact fee revenues for parks and recreation capital facility expansion projects in terms of cash payments.

Capital Expansion Expenditures Credit

Between FY 2012 and FY 2018, in addition to impact fees, the County has used a combination of ad valorem tax revenue, grant revenue, and other general revenues to fund capital expansion projects. To calculate the capital expansion expenditure per resident, the average annual capital expansion expenditures over the 7-year period is divided by the average population for the same period.

Over the 7-year period, Orange County's parks and recreation capacity expansion expenditures amount to a total of \$12.9 million, resulting in an average annual capital expansion expenditure of \$1.8 million. As presented in **Table 8**, the average annual capital expansion expenditure per resident, based on this 7-year period, is \$2.30.

Once the capital expansion credit per resident is calculated, a credit adjustment is needed for the portion of the capital expansion credit funded with ad valorem tax revenues, which is approximately 70 percent of cash funding. The adjustment accounts for the fact that new homes tend to pay higher property taxes per dwelling unit than older homes. This adjustment factor is estimated based on a comparison of the average taxable value of newer homes to that of all homes. As shown, the adjusted capital expansion credit per person amounts to \$2.94 per resident.

Table 8
Capital Expansion Credit per Resident ⁽¹⁾

Project Description	Funding Source	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Total
Countywide Parks Projects	Ad Valorem/Other	\$0	\$0	\$0	\$0	\$0	\$7,500,000	\$0	\$7,500,000
Pine Hills Trail	Ad Valorem/Other	\$40,836	\$0	\$0	\$0	\$0	\$0	\$0	\$40,836
Dorman Stadium	Ad Valorem/Other	\$0	\$0	\$0	\$0	\$220,563	\$0	\$0	\$220,563
Bithlo Splash Pad	Ad Valorem	\$364,195	\$804,908	\$0	\$0	\$0	\$0	\$0	\$1,169,103
Dorman Property Soccer Fields	Ad Valorem	\$0	\$0	\$0	\$0	\$58,101	\$0	\$0	\$58,101
Barber Park Multi-Purpose Fields	Ad Valorem	\$0	\$0	\$0	\$19,199	\$23,432	\$0	\$0	\$42,631
Lap Avalon/Mailer Trail Blvd.	Grants	\$106,256	\$0	\$0	\$0	\$0	\$0	\$0	\$106,256
LAP Shingle Creek Trail Total	Grants	\$0	\$449,702	\$515,889	\$420,440	\$119,830	\$0	\$0	\$1,505,861
LAP Pine Hill Multi-Use Trail	Grants	\$0	\$0	\$229,479	\$395,358	\$1,663,611	\$0	\$0	\$2,288,448
Christmas Regional Park	Grants	\$0	\$0	\$0	\$325	\$0	\$0	\$0	\$325
East Orange Recreational Center	Grants	\$0	\$0	\$0	\$0	\$8,415	\$0	\$0	\$8,415
Total Expenditures		\$511,287	\$1,254,610	\$745,368	\$835,322	\$2,093,952	\$7,500,000	\$0	\$12,940,539
Average Annual Expenditures ⁽²⁾									\$1,848,648
Average Annual Population ⁽³⁾									803,596
Revenue Credit per Resident⁽⁴⁾									\$2.30
- Portion Funded with Ad Valorem ⁽⁵⁾									\$1.61
- Portion Funded with Other Revenues ⁽⁶⁾									\$0.69
Credit Adjustment Factor (Ad Valorem Portion Only) ⁽⁷⁾									1.40
Adjusted Revenue Credit per Person (Ad Valorem Portion Only) ⁽⁸⁾									\$2.25
Total Adjusted Credit Per Resident⁽⁹⁾									\$2.94

1) Source: Orange County Parks and Recreation

2) Total expenditures divided by seven to calculate the average annual expenditure

3) Source: Appendix A, Table A-1, average population over the same 7-year period.

4) Average annual expenditures (Item 2) divided by the average annual population (Item 3)

5) Portion of the revenue credit per resident funded with ad valorem tax revenue dollars only

6) Revenue credit per resident (Item 4) less the portion funded with ad valorem tax revenues (Item 5)

7) Adjustment factor to reflect higher ad valorem taxes paid by new homes

8) Revenue credit per resident funded with ad valorem tax revenues (Item 5) multiplied by the credit adjustment factor (Item 7)

9) Sum of the revenue credit per resident funded with other revenues (Item 6) and the adjusted revenue credit per resident (Item 8)

Net Parks and Recreation Impact Cost

The net impact fee per resident is the difference between the cost component and the credit component. **Table 9** summarizes the calculation of the net parks and recreation impact cost. As presented, the net impact cost amounts to \$555 per resident.

Table 9
Net Impact Cost per Resident

Impact Cost / Credit Element	Figure
Impact Cost:	
Total Impact Cost per Resident ⁽¹⁾	\$606.55
Impact Credit:	
Revenue Credit per Resident ⁽²⁾	\$2.94
Capitalization Rate	3%
Capitalization Period (years)	25
Total Revenue Credits per Resident ⁽³⁾	(\$51.19)
Net Impact Cost:	
Net Impact Cost per Resident⁽⁴⁾	\$555.36

1) Source: Table 7

2) Source: Table 8

3) Present value of the revenue credit (Item 2) over a 25-year period with a capitalization rate of 3%. The capitalization rate is based on the information provided by the Orange County Budget Office.

4) Total impact cost per resident (Item 1) less total revenue credits per resident (Item 3)

Calculated Parks Recreation Impact Fee Schedule

The calculated parks and recreation impact fee schedule is presented in **Table 10**. Table 10 also shows the percentage change between the adopted and calculated fees and includes a new land use, retirement housing/age restricted, as requested by the County.

Table 10
Calculated Parks and Recreation Impact Fee Schedule

Land Use	Persons per Unit ⁽¹⁾	Net Cost per Person ⁽²⁾	Calculated Impact Fee ⁽³⁾	Adopted Impact Fee ⁽⁴⁾	% Change ⁽⁵⁾
Single Family (detached)	2.78	\$555.36	\$1,544	\$971.71	59%
Accessory Single Family	1.88	\$555.36	\$1,044	\$701.99	49%
Multi-Family	1.88	\$555.36	\$1,044	\$701.99	49%
Mobile Homes	2.07	\$555.36	\$1,150	\$727.86	58%
Retirement Housing/Age Restricted	1.49	\$555.36	\$827	\$701.99	18%

1) Source: Appendix A, Table A-2

2) Source: Table 9

3) Persons per unit (Item 1) multiplied by the net cost per resident (Item 2)

4) Source: Orange County Impact Fee Administration; Community, Environmental & Development Services Department. The retirement housing/age restricted land use is compared to the multi-family land use in the adopted fee schedule as a proxy.

5) Change from the calculated impact fee (Item 3) compared to the adopted fee (Item 4)

Parks and Recreation Impact Fee Schedule Comparison

As part of the work effort in updating the Orange County parks and recreation impact fee, a comparison of parks and recreation impact fee schedules is completed for the various counties throughout Florida that charge parks and recreation impact fees (as well as the City of Orlando). As presented, the County's current adopted fee as well as calculated fees are within the range of fees imposed by these jurisdictions.

**Table 11
Parks and Recreation Impact Fee Schedule Comparison**

County	Date of Last Update Study	Adoption %	Single Family (2,000 sf du)	Multi-Family (du)	Mobile Home (du)	Single Family Fee @ 100% ⁽¹⁾
Levy County ⁽²⁾	2005	100%	\$150	\$124	\$158	\$150
Putnam County ^{(3)*}	2006	100%	\$227	\$187	\$231	\$227
Lake County ⁽⁴⁾	2003	95%	\$222	\$171	\$177	\$234
Alachua County ⁽⁵⁾	2004	100%	\$252	\$252	\$252	\$252
Flagler County ⁽⁶⁾	N/A	N/A	\$268	\$268	\$269	\$268
DeSoto County ^{(7)*}	2006	100%	\$291	\$291	\$291	\$291
Wakulla County ^{(8)*}	2007	25%	\$82	\$72	\$81	\$329
Monroe County ⁽⁹⁾	1992	100%	\$340	\$340	\$340	\$340
Hillsborough County ⁽¹⁰⁾	1985	100%	\$354	\$372	\$387	\$354
Polk County ⁽¹¹⁾	2015	50%	\$178	\$126	\$134	\$357
Glades County ^{(12)*}	2006	100%	\$366	\$340	\$388	\$366
Broward County ⁽¹³⁾	N/A	N/A	\$377	\$223	\$341	\$377
Hernando County ⁽¹⁴⁾	1995	N/A	\$411	\$311	\$411	\$411
St. Johns County ⁽¹⁵⁾	2011	100%	\$511	\$511	\$511	\$449
Nassau County ⁽¹⁶⁾	2015	100%	\$559	\$504	\$559	\$559
Volusia County ⁽¹⁷⁾	N/A	N/A	\$608	\$608	\$608	\$608
Bay County ⁽¹⁸⁾	2005	50%	\$330	\$261	\$336	\$660
Citrus County ^{(19)*}	2014	100%	\$675	\$479	\$675	\$675
Charlotte County ⁽²⁰⁾	2014	40%	\$310	\$164	\$167	\$776
Pasco County ⁽²¹⁾	2001	100%	\$892	\$627	\$627	\$892
Osceola County ⁽²²⁾	2006	100%	\$924	\$679	\$677	\$924
Orange County (Adopted)⁽²³⁾	2012	100%	\$972	\$702	\$728	\$972
Palm Beach County ⁽²⁴⁾	2015	N/A	\$860	\$860	\$860	\$979
Manatee County ⁽²⁵⁾	2015	90%	\$1,298	\$1,298	\$1,298	\$1,442
Lee County ⁽²⁶⁾	2012	44%	\$658	\$490	\$658	\$1,506
St. Lucie County ⁽²⁷⁾	2016	100%	\$1,525	\$1,060	\$959	\$1,525
Orange County (Calculated)⁽²⁸⁾	2017	N/A	\$1,544	\$1,044	\$1,150	\$1,544
Indian River County ⁽²⁹⁾	2014	69%	\$1,343	\$767	\$749	\$1,947
Martin County ⁽³⁰⁾	2012	100%	\$1,972	\$1,972	\$1,972	\$1,972
Miami-Dade County ⁽³¹⁾	2006	N/A	\$2,999	\$1,823	\$2,999	\$2,276
Sarasota County ⁽³²⁾	2016	100%	\$2,719	\$2,204	\$1,880	\$2,719
Collier County ⁽³³⁾	2015	100%	\$3,628	\$1,685	\$2,862	\$3,313
City of Orlando ⁽³⁴⁾	2014	14%	\$966	\$825	\$966	\$6,902

* Indicates fees are currently under moratorium

Note: counties surrounding Orange County are highlighted.

- 1) Fee shown is the fully calculated single family rate
- 2) Source: Levy County Community Development Department
- 3) Source: Putnam County Planning & Development Services. Fee is suspended through February 2018.
- 4) Source: Lake County Growth Management Department
- 5) Source: Alachua County Growth Management Department. Fees shown for the multi-family and mobile home rate is for 2,000 sf.

- 6) Source: Flagler County Planning and Zoning Department
- 7) Source: Desoto County Planning & Zoning Department. Fees are suspended through November 2017.
- 8) Source: Wakulla County Building Department. Fees are currently suspended.
- 9) Source: Monroe County Planning & Environmental Resources Department
- 10) Source: Hillsborough County Development Services Department. Fees shown is an average of the four districts at the 3-bedroom rate.
- 11) Source: Polk County Building and Construction Department
- 12) Source: Glades County Planning Zoning Department. Fees are suspended through February 14, 2018.
- 13) Source: Broward County Planning and Development Management Division. Rates shown for single family and mobile home use the 2 or less bedroom option and 2 bedroom option. The multi-family rate shown is the 1 or less bedroom option.
- 14) Source: Hernando County Planning Department. Impact fees were last updated by County staff based on the 1995 study and review of other county's fees.
- 15) Source: St. Johns County Growth Management Department. Fees were adopted in 2011 and 100% and have since been indexed annually based off construction costs. Fees shown for the multi-family and mobile home rate is the 2,000 sf tier.
- 16) Source: Nassau County Department of Planning and Economic Opportunity. Fee shown is the average of the combined fee of regional and community parks for the four park districts.
- 17) Source: Volusia County Growth and Resource Management Department. Fees shown combine the local and district parks' impact fees.
- 18) Source: Bay County Planning and Zoning. Fees were adopted at 100% and have since been reduced to 50% of the fully calculated fees.
- 19) Source: Citrus County Growth and Management Department. Fee is suspended through April 2018.
- 20) Source: Charlotte County Community Development Department. Regional/ Specialty & Community Parks impact fees are shown.
- 21) Source: Pasco County Central Permitting Department
- 22) Source: Osceola County Impact and Mobility Fee Office
- 23) Source: Orange County Impact Fee Administration; Community, Environmental & Development Services Department
- 24) Source: Palm Beach County Planning, Zoning, and Building Department. Fees shown use a 2,000 sf home as a proxy. Fee shown under single family fee at 100% reflects an on-going technical study.
- 25) Source: Manatee County Financial Management Department. Fees shown for the multi-family and mobile home rate is the 2,000 sf tier.
- 26) Source: Lee County Department of Community Development. Fees shown combine the community (adopted at 98%) and regional (adopted at 95%) park's impact fees. Fees have since been reduced to 45% of their adopted levels (approximately 44% of calculated fees).
- 27) Source: St. Lucie County Planning & Development Services Department. Fee shown for multi-family uses the 1 and 2 story category as a proxy.
- 28) Source: Table 10
- 29) Source: Indian River County Planning Division. Adopted the "affordable growth" scenario which discounted fees to 92%. Additionally, staff recommended a 25% discount to all land uses
- 30) Source: Martin County Growth Management Department. Fees shown for the multi-family and mobile home rate is the 2,000 sf tier.
- 31) Source: Miami-Dade County Zoning and Impact Fee Section. Fees shown is the average of the three park district's impact fees that were last updated in 2006 and include an annual increase based on the CPI.
- 32) Source: Sarasota County Planning and Development Services. Fees shown for the multi-family rate is the 2,000 sf tier.
- 33) Source: Collier County Impact Fee Administration Department. Fees shown combine community and regional parks' impact fees that were last updated in 2015. Additionally, fees have since been indexed which the County does annually.
- 34) Source: City of Orlando Families, Parks and Recreation Department

Future Revenue Estimates

Revenue estimates are calculated based on the growth population projections provided in Appendix A, Table A-1. Based on this analysis, it is estimated that the parks and recreation impact fees will generate approximately \$246 million of total revenues, or an average of \$8.5 million annually through 2045, as shown in **Table 12**. These figures are in 2017 dollars and do not take into account indexing or possible update of the fees. In addition, it should be noted that these figures generate an overall order-of-magnitude annual estimate.

For impact fee purposes, revenue projections serve only as an overall guideline in planning future infrastructure needs. In their simplest form, impact fees charge each unit of new growth for the net cost (total cost less credits) of infrastructure needed to serve that unit of growth. If the growth rates remain high, the County will have more impact fee revenues to fund growth related projects sooner rather than later. If the growth rate slows down, less revenue will be generated, and the timing and need for future infrastructure improvements will be later rather than sooner.

Table 12
Parks and Recreation Revenue Estimates

Year	Projected Population ⁽¹⁾	Estimated Impact Fee Revenue ⁽²⁾
2017	839,114	
2045	1,282,560	
Change in Population	443,446	
Net Impact Cost per Resident ⁽³⁾	\$555.36	
Total Revenues For the Period 2017 - 2045		\$246,272,171
Average Annual Revenue Estimate ⁽⁴⁾		\$8,492,144

1) Source: Appendix A, Table A-1

2) Net impact cost per resident multiplied by the change in population

3) Source: Table 9

4) Total revenues for the entire period divided by 29 years

Indexing

In many cases, impact fees are reviewed periodically (every three to five years, etc.) as opposed to on an annual basis. If no adjustment to the impact fee schedule is made during this period, a situation can be created where major adjustments to the impact fee schedule likely become necessary due to the time between the adjustments. During periods of cost increases, the need for significant adjustments also creates major concerns in the development community. To address this issue, in the past, Orange County indexed its fees annually for construction and land cost changes based on changes over the past five years, as appropriate. The remainder of this section provides the method to calculate a combined index that can be updated by the County annually.

Land Cost

As shown in **Table 13**, between 2011 and 2016, just value of vacant land increased by an annual average of 5 percent in the unincorporated county. Given the high level of fluctuations in land values, it is recommended to review a longer period as well. A review of land value changes from 1976 to 2016 suggested an average increase of 5.6 percent per year. This figure is consistent with the increase experienced over the past five years. When the change in a shorter period suggests a large average annual increase (for example, 8 percent or greater), this average can be moderated by using a longer-term period.

Table 13
Vacant Land Value Change

Year	Just Value	Percent Change
2011	\$1,600,468,213	-
2012	\$1,462,392,892	-8.6%
2013	\$1,478,892,972	1.1%
2014	\$1,701,638,886	15.1%
2015	\$1,835,656,636	7.9%
2016	\$2,014,490,714	9.7%
Average		5.0%

Source: Florida Department of Revenue, Ad Valorem Valuation and Tax Data files

Building Construction Cost

For building construction costs, a common index used is the building cost index provided by Engineering-News Record. As shown in **Table 14**, the building cost index has remained fairly stable averaging 2.2 percent over the past five-years.

**Table 14
Facility and Equipment Cost Index**

Year	Annual Avg	Percent Change
2011	5,058	-
2012	5,174	2.3%
2013	5,278	2.0%
2014	5,387	2.1%
2015	5,518	2.4%
2016	5,645	2.3%
Average		2.2%

Source: Engineering News-Record, Building Cost Index

Application

To index the parks and recreation impact fee schedule previously presented in this report, the combined index should first be calculated, which is presented in **Table 15**. The second column summarizes the average cost increases presented previously in Tables 13 and 14. The third column presents the percent of the total cost for each inventory component, which are then multiplied with the annual change to create the overall index. The combined index for the parks and recreation impact fee is then applied to the calculated fees presented in the impact fee schedule in **Table 16**.

**Table 15
Indexing Application – Combined Index**

Cost Component	Annual Change ⁽¹⁾	Percent of Total ⁽²⁾	Index ⁽³⁾
Land Cost	5.0%	51%	2.6%
Facility Cost	2.2%	49%	<u>1.1%</u>
Total			3.7%

- 1) Source: Tables 13 and 14
- 2) Source: Table 7
- 3) Annual change (Item 1) multiplied by the percent of total (Item 2)

Table 16 presents the indexed fee schedules for the next four years. With the overall index calculated and shown in Table 15, the parks and recreation impact fee for the single family detached residential home increases from \$1,544 in Year 1 to \$1,785 in Year 5. It is recommended the calculated index be reviewed and recalculated annually, especially during time periods when the costs fluctuate significantly.

Table 16
Indexed Fees

Land Use	Year 1 Calculated Impact Fee ⁽¹⁾	Year 2 ⁽²⁾	Year 3 ⁽³⁾	Year 4 ⁽⁴⁾	Year 5 ⁽⁵⁾
Single Family (detached)	\$1,544	\$1,601	\$1,660	\$1,721	\$1,785
Accessory Single Family	\$1,044	\$1,083	\$1,123	\$1,165	\$1,208
Multi-Family	\$1,044	\$1,083	\$1,123	\$1,165	\$1,208
Mobile Homes	\$1,150	\$1,193	\$1,237	\$1,283	\$1,330
Retirement Housing/Age Restricted	\$827	\$858	\$890	\$923	\$957
Annual Index⁶		3.7%	3.7%	3.7%	3.7%

1) Source: Table 10

2) Year 1 figures (Item 1) multiplied by (1+0.037), annual index (Item 6)

3) Year 2 figures (Item 2) multiplied by (1+0.037), annual index (Item 6)

4) Year 3 figures (Item 3) multiplied by (1+0.037), annual index (Item 6)

5) Year 4 figures (Item 4) multiplied by (1+0.037), annual index (Item 6)

6) Source: Table 15

Appendix A
Population Analysis
Supplemental Information

Appendix A

The parks and recreation impact fee requires the use of population data in calculating current levels of service, performance standards, and credit calculations. To accurately determine demand for services, and to be consistent with the County's Comprehensive Plan, population projections include only permanent residents and uses the mid-level population projections obtained from the University of Florida, Bureau of Economic and Business Research (BEBR).

Table A-1 presents the population trend for Orange County, unincorporated Orange County, and a trend of the unincorporated portion of the countywide population. The projections indicate that the current population for the unincorporated portion of the county is approximately 839,000 and is estimated to increase by an average of 1.5 percent annually between 2017 and 2045. Also, as shown, the unincorporated portion of the countywide population has averaged 64 percent between 2011 and 2016, which is utilized to project the population through 2045.

**Table A-1
Population Estimates and Projections – Unincorporated Orange County**

Year	Orange County ⁽¹⁾	Percent Change ⁽²⁾	Unincorporated County ⁽³⁾	Percent Change ⁽²⁾	Percentage Unincorporated ⁽⁴⁾
2000	896,344	-	596,164	-	66.5%
2001	929,246	3.7%	619,072	3.8%	66.6%
2002	956,062	2.9%	631,580	2.0%	66.1%
2003	982,599	2.8%	644,721	2.1%	65.6%
2004	1,014,242	3.2%	662,729	2.8%	65.3%
2005	1,050,333	3.6%	681,660	2.9%	64.9%
2006	1,084,706	3.3%	701,015	2.8%	64.6%
2007	1,111,307	2.5%	717,534	2.4%	64.6%
2008	1,125,822	1.3%	722,586	0.7%	64.2%
2009	1,133,453	0.7%	726,201	0.5%	64.1%
2010	1,145,956	1.1%	736,657	1.4%	64.3%
2011	1,157,342	1.0%	742,671	0.8%	64.2%
2012	1,175,941	1.6%	754,470	1.6%	64.2%
2013	1,202,978	2.3%	772,657	2.4%	64.2%
2014	1,227,995	2.1%	786,296	1.8%	64.0%
2015	1,252,396	2.0%	799,985	1.7%	63.9%
2016	1,280,387	2.2%	813,421	1.7%	63.5%
2017	1,311,116	2.4%	839,114	3.2%	64.0%
2018	1,342,583	2.4%	859,253	2.4%	64.0%
2019	1,374,805	2.4%	879,875	2.4%	64.0%
2020	1,407,600	2.4%	900,864	2.4%	64.0%
2021	1,435,189	2.0%	918,521	2.0%	64.0%
2022	1,463,319	2.0%	936,524	2.0%	64.0%
2023	1,492,000	2.0%	954,880	2.0%	64.0%
2024	1,521,243	2.0%	973,596	2.0%	64.0%
2025	1,551,400	2.0%	992,896	2.0%	64.0%
2026	1,576,222	1.6%	1,008,782	1.6%	64.0%
2027	1,601,442	1.6%	1,024,923	1.6%	64.0%
2028	1,627,065	1.6%	1,041,322	1.6%	64.0%
2029	1,653,098	1.6%	1,057,983	1.6%	64.0%
2030	1,679,700	1.6%	1,075,008	1.6%	64.0%
2031	1,702,880	1.4%	1,089,843	1.4%	64.0%
2032	1,726,380	1.4%	1,104,883	1.4%	64.0%
2033	1,750,204	1.4%	1,120,131	1.4%	64.0%
2034	1,774,357	1.4%	1,135,588	1.4%	64.0%
2035	1,799,100	1.4%	1,151,424	1.4%	64.0%
2036	1,820,329	1.2%	1,165,011	1.2%	64.0%
2037	1,841,809	1.2%	1,178,758	1.2%	64.0%
2038	1,863,542	1.2%	1,192,667	1.2%	64.0%
2039	1,885,532	1.2%	1,206,740	1.2%	64.0%
2040	1,908,000	1.2%	1,221,120	1.2%	64.0%
2041	1,926,889	1.0%	1,233,209	1.0%	64.0%
2042	1,945,965	1.0%	1,245,418	1.0%	64.0%
2043	1,965,230	1.0%	1,257,747	1.0%	64.0%
2044	1,984,686	1.0%	1,270,199	1.0%	64.0%
2045	2,004,000	1.0%	1,282,560	1.0%	64.0%

- 1) Source: University of Florida, Bureau of Economic and Business Research (BEBR), historical estimates and medium projections for 2020, 2025, 2030, 2035, and 2045.
- 2) Percent change from year to year
- 3) Source: University of Florida, Bureau of Economic and Business Research (BEBR) for 2000-2016. For future projections, the portion of the unincorporated county to countywide population for 2011-2016 (64%) was used to project the unincorporated county population.
- 4) Unincorporated county population (Item 3) divided by the countywide population (Item 1)

Apportionment of Demand by Residential Unit Type

The residential land uses to be used for the impact fee calculations are the following:

- Single Family (detached)
- Multi-Family
- Mobile Home
- Retirement Housing/Age Restricted

Table A-2 presents the number of persons per housing type for the residential categories identified above in the Orange County parks and recreation impact fee update study. This analysis includes all housing units, both occupied and vacant. As mentioned previously, this study adds a new land use to recognize the difference in the demand from retirement housing/age restricted housing. In the case of the new land use, data from the 2001 National Household Travel Survey was used to adjust the single family and multi-family land uses to account for the residents over 55 years of age.

**Table A-2
Persons per Housing Unit (Unincorporated Orange County)**

Housing Type	Population ⁽¹⁾	Housing Units ⁽²⁾	Persons per Housing Unit ⁽³⁾
Single Family (detached)	567,669	203,840	2.78
Multi-Family	153,337	81,539	1.88
Mobile Home	37,782	18,252	2.07
Weighted Avg.	758,788	303,631	2.50
Retirement Housing/Age Restricted	425,394	285,379	1.49

1) Source: 2015 American Community Survey, Table B25033. Population for the retirement housing/age-restricted housing type adjusts the sum of the population of single family and multi-family for the residents over 55 years of age based on information obtained from the 2001 National Household Travel Survey, prepared by the US Department of Transportation.

2) Source: 2015 American Community Survey, Table DP04

3) Population (Item 1) divided by housing units (Item 2)

4) Notes: Excluding boats, RVs, vans, etc.

Appendix B
Land Value Analysis
Supplemental Information

This appendix provides a summary of land value estimates for the parks and recreational facilities impact fee.

In order to determine the land value for Orange County parks, the following information was reviewed and analyzed:

- Change in vacant land values since the last technical study (2011);
- Recent park land purchases made by the County;
- Vacant land sales obtained from the Orange County Property Appraiser database; and
- Vacant land values (both the parkland inventory and other similarly sized vacant property in the County) obtained from the Orange County Property Appraiser's database.

The 2011 technical study estimated average land value at \$40,000 per acre for activity-based parks and \$20,000 per acre for resource-based parks. Since then, the property values increased by 25 percent based on Orange County Property Appraiser's estimates. This results in a value of \$50,000 per acre for activity-based parks and \$25,000 for resource-based parks.

A review of the recent park land purchases was completed. The County purchased three parcels that are approximately 10 acres or larger between 2013 and 2016. Cost for these purchases ranged from \$33,000 per acre to \$98,000 per acre.

A review of residential vacant land sales of similarly sized parcels suggested an average value of \$60,000 per acre to \$92,000 per acre depending of size of the parcels while the median values were lower. This information is summarized in Table B-1.

Given this information, an average value of \$60,000 per acre for activity-based parks and \$30,000 per acre for resource-based parks are found to be reasonable, if not conservative, estimates for impact fee calculation purposes.

**Table B-1
Summary of Park Land Value Information**

Item	Land Value
2011 Estimates Adjusted for Inflation ⁽¹⁾ :	
- Activity-Based	\$50,400
- Resource-Based	\$25,200
Recent Land Purchases (2012-2016) ⁽²⁾ :	
- Average	\$68,000
- Range	\$33,000 - \$98,000
- Count	3
Recent Land Sales (2013-2016) ⁽³⁾ :	
1 - 5 acres	
- Average	\$58,000
- Median	\$26,000
- Range	\$1,600 - \$967,000
- Count	439
5.01 - 10 acres	
- Average	\$75,000
- Median	\$20,000
- Range	\$3,700 - \$785,000
- Count	26
10.01 - 15 acres	
- Average	\$92,000
- Median	\$49,000
- Range	\$2,400 - \$604,000
- Count	16
Used in the Study:	
- Activity-Based	\$60,000
- Resource-Based	\$30,000

- 1) 2011 report values of \$40,000 per acre for activity-based parks and \$20,000 per acre for resource-based parks are increased by 26% based on data obtained from the Orange County Property Appraiser data.
- 2) Source: Orange County Parks and Recreation
- 3) Source: Orange County Property Appraiser Database for vacant land in unincorporated county

Site Development Cost

Site development cost includes costs associated with site clearing/preparation, landscaping, utilities, parking, etc. This cost was estimated at \$20,000 per acre in 2011. The most recent three projects completed by the County suggested an average cost of \$30,000 per acre, with a range of \$15,000 per acre to \$45,000 per acre. Given this information, an average site development cost of \$25,000 per acre is found to be a reasonable estimate for impact fee calculation purposes.