

CAPITAL IMPROVEMENTS SCHEDULE 2020/21 – 2024/25

LEVEL OF SERVICE REPORT

INTRODUCTION

The Capital Improvements Element (CIE) evaluates the capital facilities and level of service thresholds needed to support the City and implement the Comprehensive Plan.

The City's Comprehensive Plan CIE Policy CIE1-2.13 states the following: "The Five Year program of scheduled capital improvements shall be reviewed and updated annually by the City Manager. This annual review and update shall be integrated into the City's annual budget process, complete with time tables and a deadline for specific tasks in the City's operating budget process recognizing direct expenditures for capital improvements of element of the comprehensive plan. The Capital Improvements Element document shall be completed subsequent to the completion of the annual budget document."

According to the above policy, the City's Capital Improvements Element ensures compliance with the adopted level of service standards for public facilities and other projected needs and services. Pursuant to State law, local governments have a degree of flexibility with regard to the management of public services. For example, the method in which traffic is managed on non-State roads is basically a decision left to the local government. However, the City of Deltona utilizes a traditional level of service (LOS) approach to ensure capacity is available for various public services including solid waste, park land, roads, drainage, potable water, wastewater, and schools.

The financial information associated with this report is copied directly from the City's approved budget. The City budgetary information is essentially supported documentation already vetted and adopted by the City through the budget making process. Therefore, the CIE update is only intended to be an analysis of the achievement of the level of service standards and not a reevaluation or reconsideration of the City's approved budget.

For the purpose of the annual update to the CIE, the City has used a 2.5% population growth rate to determine the implementation of its level of service standards and project future capital needs.

YEAR	POPULATION
2020*	93,677
2021	96,019
2022	98,419
2023	100,880
2024	103,402
2025	105,987

**Population estimates for April 1, 2020, prepared by the University of Florida, Bureau of Economic and Business Research (BEBR).*

LOS – SOLID WASTE

The City has a trash hauling contract with the firm Waste Pro. The City contract with Waste Pro extends to the end of 2024. Waste Pro is the only vendor responsible for the collection and disposal of solid waste generated within the City.

Since the last CIE update, the per capita solid waste stream has increased to 3.04 pounds a day. This increase of solid waste generation appears to be attributable to the cessation of recycling and more consumption. Another contributing factor could be COVID related work at home arrangements, furloughs, etc.

Combining the known residential and unknown non-residential trash generation rates, the City will not achieve the 8.6 pounds per day level of service threshold articulated by the Comprehensive Plan. However, in light of the fact, the solid waste stream originating from the City is properly managed, the idea of attempting to achieve what may be a high LOS standard is somewhat ludicrous. Less trash generation is generally considered to be a positive attribute. The 8.6 pounds per day per capita cited in the City Plan was carried over from the County Comprehensive Plan. Within unincorporated Volusia County, there are many different land uses and each is associated with different trash generation rates. The dominant land use within the City is residential; however, the City land use base is diversifying. In addition, no recycling and greater trash hauling volumes through a single hauler suggest maintaining the existing LOS threshold would be appropriate.

The first table below (Table 1.1) illustrates the existing Comprehensive Plan solid waste stream LOS. Table 1.2 serves as a 5 year projection of the solid waste stream as the population within the City grows.

Table 1.1

FACILITY TYPE	ADOPTED LOS	SOURCE
Solid Waste	8.6 pounds per capita per day	Infrastructure Element Objective I3-SW3, Policy I3-SW3.1

Table 1.2

FISCAL YEAR	TOTAL POUNDS	POUNDS PER CAPITA PER DAY
2019-2020	103,902,620	3.04
2020-2021	106,500,269	3.04
2021-2022	109,162,249	3.04
2022-2023	111,891,887	3.04
2023-2024	114,689,184	3.04
2024-2025	117,556,358	3.04

LOS – PARKS AND RECREATION

The City of Deltona Comprehensive Plan has established a minimum level of service for developed parks and recreational lands. The LOS is expressed as developed acres per 1,000 residents. In addition, the LOS is programmed to incrementally increase every year throughout the planning horizon. The City has 697 acres of developed park land available for City residents. The City has another 284 acres of undeveloped land available for park use.

Table 2.1 indicates the Park Level of Service (LOS) (Source: Parks and Recreation Element, Objective PR1-1, Policy PR1-1.2). Table 2.2 illustrates that the City has met the level of service threshold articulated within the Comprehensive Plan.

Table 2.1

BY YEAR	ADOPTED LOS*
2020	3.50
2025	4.00
2030	4.50

Table 2.2

YEAR	POPULATION	Total Acreage Developed Parks	Achieved LOS	Surplus	Adopted LOS	Total Acreage Developed & Undeveloped Parks
2020 ¹	93,677	697	7.44	358.61	3.50	981
2021	96,019	697	7.26	341.32	3.60	981
2022	98,419	697	7.08	323.36	3.70	981
2023	100,880	697	6.91	304.72	3.80	981
2024	103,402	697	6.74	285.36	3.90	981
2025	105,987	697	6.58	265.27	4.00	981

**Developed Acres per 1000 Residents*

¹Population estimates for April 1, 2020, prepared by the University of Florida, Bureau of Economic and Business Research (BEBR)

2020 - 2025 population projections based on a growth average of 2.50% per year.

POTABLE WATER – RESIDENTIAL UNITS

The City of Deltona Comprehensive Plan, Infrastructure Element (Potable Water) policy I1-PW1.1, states: “The City of Deltona adopts a level of service standard providing for an annual average daily volume of 300 gallons of potable water per equivalent residential unit.” The City has been providing a level of service below the cited 300 gallons per day per ERU. Water usage within the City has increased from 175 gallons per day per ERU to 180 gallons per day per ERU. This increase of water usage may be explained by the fact there has been COVID related work at home initiatives or loss of work resulting in greater home occupation during the course of a typical day. Notwithstanding the increase of water use, the City does have adequate water capacity and an ability to serve. Furthermore, the City continues to invest in improving the potable water system.

Table 3.1

FACILITY TYPE	ADOPTED LOS	SOURCE
Potable Water	300 gallons of potable water per equivalent residential unit (annual average daily volume)	Infrastructure Element Objective I1-PW1 Policy I1-PW1.1

Table 3.2

FISCAL YEAR	RESIDENTIAL UNITS	GALLONS OF POTABLE WATER PER YEAR	GALLONS OF POTABLE WATER PER EQUIVALENT RESIDENTIAL UNIT (annual average daily volume)
2019-2020*	32,983	2,161,398,477	180
2020-2021	33,809	2,221,282,878	180
2021-2022	34,655	2,276,814,950	180
2022-2023	35,521	2,333,735,323	180
2023-2024	36,409	2,392,078,706	180
2024-2025	37,319	2,451,880,674	180

Projections for the potable water level of service for the fiscal years 2020-2025 have been determined by the application of the following formula:

$$\frac{\text{Gallons of potable water per year}}{\text{Residential units}} = \frac{\text{Gallons of potable water per residential unit per year}}{365 \text{ days}} = \text{Gallons of potable water per equivalent residential unit (annual average daily volume)}$$

About 4,000 acres of the City of Deltona is served by the County Deltona North water and sewer system. The above referenced City level of service of 300 gallons per equivalent residential unit (ERU) is identical to the County goal for servicing water users within the Deltona North service area. Water usage within the Deltona North service area is tracked by the County and managed through the County capital improvements program.

**Information provided by Deltona Utilities as of September 30, 2020. Projections for fiscal years 2020-2025 is based on population projections.*

LOS – SCHOOLS

Pursuant to the County Charter, the City of Deltona is a party to an interlocal agreement with the Volusia County School District and maintains a Public School Facilities Element (PSFE).

The City of Deltona is currently served by ten elementary, three middle, and three high schools. Most of these school facilities are located within the municipal limits of Deltona. All public schools serving the City currently have adequate workstation capacity. In addition, the Volusia County School District is upgrading schools within the City including a major renovation and expansion of Deltona Middle School. School projects within the City will help maintain and improve school capacity.

LOS – TRANSPORTATION

The City of Deltona encompasses approximately 41 square miles and has over 450 linear miles of streets and roadways. Streets and roadways, and sidewalks within the City fall under the maintenance and improvement responsibility of the City, County of Volusia, or the State of Florida. VOTRAN provides mass transit within the City, in the form of bus and shuttle routes.

City transportation improvements within the City are funded by impact fees, transportation bond proceeds, local option gas tax disbursements, grants, and through other sources, such as interest. The City continues to expand the sidewalk system to encourage safe pedestrian access to goods and services and provide an alternate mode of transportation.

The City has been active with regard to obtaining funding for transportation improvements through the River to Sea Transportation Organization (TPO). Through the TPO call for projects process, the City has been funded for various transportation improvement projects including turn lane construction, intersection improvements, sidewalks, trail development, and paved shoulders. The partnership with the TPO and FDOT leverages City transportation dollars to ensure the LOS standards within the City are maintained.

The LOS for roadways is articulated by the City Comprehensive Plan as follows:

Policy T1-4.3

Unless a thoroughfare is designated separately within the LOS Roadway Segment Table of this document for a level of service standard, the City of Deltona shall establish the following PM peak hour level of service standards:

Functional Classification	Acceptable Standard
I-4	As determined by FDOT
Arterial	E
Collector	E
Local	D

Policy T1-4.4 *Roadway level of service thresholds shall be defined consistent with the FDOT Quality/Level of Service Handbook (A.K.A. Lookup tables).*

The city will continue to maintain an acceptable LOS on City roads with the limited resources available.

LOS – STORMWATER

The City's Comprehensive Plan articulates a stormwater level of service in the terms of development thresholds. The stormwater LOS is as follows:

Policy I4-STW1.3

All land use and development approval decisions which impact water resources in Deltona shall conform to the comprehensive surface and groundwater watershed management plan when approved by the City Commission.

Level of Service for Storm Water Quantity and Quality:

- a. **Closed Basin LOS:** The City will establish a Level of Service design standard in closed drainage basins as follows: All development shall meet the minimum volume of retention equivalent to one-half inch of depth over the entire project area and the discharge hydrograph produced for the developed or redeveloped site shall not exceed, in terms of peak flow and total volume, the hydrograph produced by conditions existing before development or redevelopment for a 24 hour, 100 year frequency storm.*
- b. **Basins with Outfall LOS:** The City will establish a Level of Service design standard in non-closed basins as follows: All development shall meet the minimum volume of retention equivalent to one-half inch of depth over the entire project area and the discharge hydrograph produced for the developed or redeveloped site shall not exceed, in terms of peak flow and total volume, the hydrograph produced by conditions existing before development or redevelopment for a 24 hour, 25 year frequency storm.*

The above referenced policy establishes a specific LOS for both closed basins and basins with outfalls. Basins are treated differently to recognize local drainage conditions. In Deltona and much of west Volusia County, stormwater tends to be more difficult to manage within closed basin areas. Therefore, in general, development within closed basins is required to afford more retention compared to development within basin areas that have outfalls. Implementation of the stormwater LOS is performed during the site plan review process. Actual stormwater infrastructure includes, but is not limited to, retention areas, swales, pipes, etc. and such infrastructure is designed/constructed based on proposed impervious surfaces, soil characteristics, slopes, etc. The City does periodically inspect existing stormwater facilities to ensure drainage systems are maintained and function appropriately.

The City LOS thresholds are applied in the context of new development. However, much of the City was not developed under modern codes and regulations regarding stormwater management. The City has been and continues to be very active in upgrading existing stormwater infrastructure. The goal is of these retrofit projects is often to solve drainage problems that have occurred as a result of inadequate stormwater infrastructure. Stormwater retrofits and upgrades are prioritized based on the following criteria:

- 1) Structural flooding – i.e. floodwaters in homes or businesses;
- 2) Flooding of emergency routes like major City thoroughfares relied on by first responders;
- 3) Promotion of economic development including ensuring a business is not impacted by flooding;
- 4) General flooding such as excessive large scale and long term ponding; and
- 5) Nuisance flooding like wet period water contained in roadside swales.

While some stormwater projects represent maintenance, many of the stormwater improvement projects increase stormwater management capacity through greater conveyance and storage.

Drainage is an important public works activity for the City of Deltona. Therefore, there is anticipation in subsequent annual CIE reporting, stormwater projects will be documented in greater numbers. Stormwater projects are funded through the City stormwater fund and Federal Community Development Block Grant (CDBG) money.

LOS – WASTEWATER

Wastewater within the City is mostly managed by individual, on-site wastewater management systems (septic tanks). However, the City does provide wastewater treatment for a limited area of the City. The City has approximately 100 miles of wastewater pipe and services 6,247 connections (both residential and non-residential). The City currently has two wastewater treatment plants utilized to manage wastewater. After treatment, wastewater is allowed to percolate, used for golf course irrigation, or in certain areas used by home owners. Also, some commercial developments are served by active reuse water lines. The level of service for wastewater is illustrated in the following policy:

Policy I2-SS1.1

The City of Deltona adopts a level of service standard providing for an annual average daily volume of 284 gallons of domestic wastewater per equivalent residential unit. Projected flow for commercial, industrial, and institutional land uses will be calculated utilizing Deltona Water equivalent residential unit factors for water and wastewater service as illustrated in City land development regulations.

The subject average daily 284 gallons of domestic wastewater per day LOS was carried over to the City Comprehensive Plan from the Volusia County Comprehensive Plan. The 284 gallon per day LOS was generated by averaging the flow rates of County utility facilities. The City's 5,597 residential connections, generated an average of 191 gallons a day per household; much less than the 284 gallons LOS. Compared to last year, wastewater generation rates remain essentially unchanged.

Since the last CIE update last year, the residential wastewater customer base has increased by over 300 connections. Most of the new connections have occurred in recently entitled and platted subdivisions which are fully serviced with utilities. Based on development trends within the City, there is an expectation residential sewer connections will continue to grow. Factoring in all demands on the existing City wastewater plants and the permitted capacity of each plant, the City has an average of approximately 555,750 gallons of additional permitted wastewater treatment capacity per day available. Therefore, the City presently has ample capacity to serve new development and redevelopment projects.

To promote economic development and provide an alternative to septic systems, the City has been interested in expanding its wastewater service capacity. Therefore, the City is engaging in cost share arrangements with developers for the extension of sewer and is also continues to strategically plan for the expansion of sewer infrastructure to encourage commercial development.

Over 4,000 acres of the City is served by the County Deltona North wastewater system. Wastewater flows and treatment rates are tracked by the County and wastewater level of service is maintained by the County.