

CITY OF DELTONA
CAPITAL IMPROVEMENTS SCHEDULE 2023/24 – 2027/28
LEVEL OF SERVICE REPORT

INTRODUCTION

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

The City’s Comprehensive Plan CIE Policy CIE1-2.11 states: “The Five-Year program of scheduled capital improvements shall be reviewed and updated annually by the City Manager. The CIE annual review and update will be integrated into the City’s annual budget process, complete with timetables and a deadline for specific tasks in the City’s operating budget process, recognizing direct expenditures for the CIE of the Comprehensive Plan. The CIE document shall be completed, subsequent to the completion of the annual budget document.”

According to the above policy, the City’s CIE ensures compliance with the adopted level of service standards for public facilities and other projected needs and services. Under State law, local governments have a degree of flexibility in the management of public services. For example, the method traffic is managed on non-state roads is primarily a decision left to the local government. The City of Deltona utilizes a traditional 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 considered approved support documentation as it was previously adopted by the City through the budget-making process. Therefore, the CIE update is 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 level of service standards and project future capital needs.

YEAR	POPULATION
2023	97,337
2024	99,770
2025	102,265
2026	104,821
2027	107,442
2028	110,128

**Population estimates for April 1, 2023, 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 2025. Waste Pro is the only vendor responsible for solid waste generated within the City. Since the last CIE update, the per capita solid waste stream has remained at 3.04 pounds a day, similar to levels observed in FY 2022-2023.

Combining the known residential and unknown non-residential trash generation rates, the City will not surpass the 8.6 pounds per day level of service threshold articulated by the Comprehensive Plan, and a decrease in trash generation is a positive attribute. The 8.6 pounds per day per capita cited in the City Comprehensive Plan was adopted from the County's Comprehensive Plan. Within unincorporated Volusia County, there are various land uses, and each associated with different trash generation rates. The dominant land use within the City is residential; however, the City land use base is diverse.

The 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
2022-2023	108,117,600	3.04
2023-2024	110,820,068	3.04
2024-2025	113,591,403	3.04
2025-2026	116,430,494	3.04
2026-2027	119,341,783	3.04
2027-2028	122,325,273	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 shown as developed acres per 1,000 residents and is programmed to incrementally increase yearly throughout the planning horizon. The City currently has 697 acres of developed recreation land available for City residents and 284 acres of undeveloped land available for park use.

Table 2.1 indicates the Park Level of Service (Source: Parks and Recreation Element, Objective PR1-1, Policy PR1-1.2). Table 2.2 illustrates that the City has met the LOS 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
2023 ¹	97,337	697	7.16	346.59	3.80	981
2024	99,770	697	6.99	327.85	3.90	981
2025	102,265,	697	6.82	308.39	4.00	981
2026	104,821	697	6.65	288.20	4.10	981
2027	107,442	697	6.49	267.23	4.20	981
2028	110,128	697	6.33	245.48	4.30	981

*Developed Acres per 1000 Residents

¹Population estimates for April 1, 2023, prepared by the University of Florida, Bureau of Economic and Business Research (BEBR)

2023 - 2028 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 shall maintain the level of service standard providing for an annual average daily volume of 300 gallons of potable water per equivalent residential unit (ERU).” The City has provided a LOS below the cited 300 gallons per day per ERU. Water usage within the City has increased from 169 gallons per day per ERU to 170 gallons per day per ERU. The City retains adequate water capacity and can serve the population above LOS standards. 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)
2022-2023*	33,860	2,100,891,821	170
2023-2024	34,763	2,157,057,446	170
2024-2025	35,632	2,210,983,883	170
2025-2026	36,523	2,266,258,480	170
2026-2027	37,436	2,322,914,942	170
2027-2028	38,372	2,380,987,815	170

Projections for the potable water level of service for the fiscal years 2023-2028 have been determined by the application of the following formula:

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

Approximately 4,000 acres within the City of Deltona are served by Volusia County Deltona North water and sewer system. Water usage within the Deltona North service area is tracked by the County and managed through the County Capital Improvements Program. The above referenced City level of service of 300 gallons per ERU is identical to the Volusia County goal for servicing water users within the Deltona North service area.

*Information provided by Deltona Utilities as of September 30, 2023. Projections for fiscal years 2023-2028 are 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 10 elementary, three (3) middle, and three (3) high schools. Majority of these school facilities are located within the municipal limits of Deltona. All public schools serving the City currently has adequate workstation capacity. School District information indicated there is adequate school workstation space. (See *attached Volusia County Schools Level of Service Utilization Charts*)

LOS – TRANSPORTATION

The City of Deltona encompasses approximately 41 square miles and has over 450 linear miles of streets and roadways. Streets, 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/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 Planning Organization (TPO). The City has been funded for various transportation improvement projects including turn lane construction, intersection improvements, sidewalks, trail development, and paved shoulders through the TPO. The partnership with the TPO and Florida Department of Transportation (FDOT) leverages City transportation dollars to ensure the LOS standards within the City are maintained.

In order to continue to maintain transportation level of service and in light of major developments in the area (existing and proposed), the City is prepared to invest in the upgrade of North Normandy Boulevard. The upgrade includes the four-lane expansion of the roadway from Energy Avenue south to South Street. In addition, to relieve major corridors within the City such as Howland Boulevard, Graves Avenue, and Saxon Boulevard, the City is looking to build a roadway referred to as the Rhode Island Avenue extension. The new road will extend from North Normandy Boulevard eastward before transitioning to Wolf Pack Run. The Rhode Island Avenue extension will help provide a more functional roadway network in the Activity Center development district, and eventually provide an alternative connection west to Orange City.

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 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. 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 periodically inspects 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 continues to be active in upgrading existing stormwater infrastructure. The goal of such 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 such as 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 intend to serve as 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 to limited areas of the City. The City has approximately 100 miles of wastewater pipe and services 6,655 connections (both residential and non-residential). The City currently has two (2) wastewater treatment plants utilized to manage wastewater. Additionally, some commercial developments are served by active reuse water lines. After treatment, wastewater is allowed to percolate, used for golf course irrigation, or in certain areas used by homeowners. 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 6,273 residential connections generated an average of 177 gallons a day per household; much less than the 284 gallons LOS. Compared to last year, wastewater generation rates remain essentially unchanged.

Since the previous CIE update last year, the residential wastewater customer base has increased by 416 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 that residential sewer connections will continue to grow. Factoring in the demands on the existing City wastewater plants and the permitted capacity of each plant, the City has an average of approximately 1.3 million gallons of additional permitted wastewater treatment capacity per day available. Therefore, the City presently has ample capacity to serve new development and redevelopment projects.

Furthermore, the City is working to upgrade current wastewater treatment facilities including the Eastern plant and the Fisher plant. Capacity at the Eastern plant will be expanded to treat an extra 500,000 gallons of wastewater a day. The Fisher plant is being improved for more efficient nutrient removal treatment.

The City is reviewing options to treat wastewater at the Fisher plant; one option includes an expansion/upgrade of the plant for regulatory treatment standards for existing flows as well as new flows, thus continuing to have control of the development growth in the City of Deltona; additional options include diversion of all wastewater flow to the Eastern plant or diversion of wastewater to the County. Regardless of the option selected, the City will be compliant with the Blue Spring Management Action Plan.

To promote economic development and provide an alternative to septic systems, the City has interest in expanding wastewater service capacity. Therefore, the City is engaging in cost share arrangements with developers for the extension of sewer and continues to strategically plan for the expansion of sewer infrastructure to encourage commercial development. The City is studying the feasibility of extending wastewater within the City Community Development Area (CRA) to retrofit existing commercial nodes not served by central sewer. The extension of central services is anticipated to encourage greater investment, redevelopment, and development activity within the CRA.

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

A byproduct of wastewater is reclaimed water for non-potable uses. The City provides reclaimed water services to the Deltona Golf Course as well as the City's premier Dewey O. Boster Sports Complex. In addition, the City has extended reclaimed water service to several existing residential communities and requires that all new residential communities install reclaimed water lines.

END OF REPORT