
CAPITAL IMPROVEMENTS ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Capital Improvements Element is to evaluate the need for public facilities as identified in the other comprehensive plan elements and as defined in the applicable definitions for each type of public facility, to estimate the cost of improvements for which the local government has fiscal responsibility, to analyze the fiscal capability of the local government to finance and construct improvements, to adopt financial policies to guide the funding of improvements and to schedule the funding and construction of improvements in a manner necessary to ensure that capital improvements are provided when required based on needs identified in the other comprehensive plan elements. The element shall also include the requirements to ensure that an adequate concurrency management system will be implemented by the Town.

PLANNING TIMEFRAMES

The Town of Surfside Comprehensive Plan provides guidance on development and redevelopment over two planning periods: a 5-Year period ending FY 2022 (short term) and a long term planning period ending FY 2035.

Public Facility Needs

TRANSPORTATION

The Town is responsible for maintaining the local network program. The regional road network is under the State of Florida's jurisdiction. Collins Avenue and Harding Avenue are the major north-south corridors through the Town, while 96th Street is the main east-west roadway.

The Town of Surfside comes under the Miami-Dade County's Transportation Concurrency Exception Area (TCEA) to promote urban infill and redevelopment in the area. The Level of Service for major, state roadways in Surfside is LOS E+20, meaning that where mass transit service having headways of 20 minutes or less is provided within a ½ mile distance, roadways shall operate at no greater than 120 percent of their capacity.

State arterial roadways include Collins Avenue, Harding Avenue and 96th Street which are all functioning at Level of Service Standard D and are meeting level of service standards. There are no FIHS or SIS facilities within the Town of Surfside.

Roadway performance conditions are measured by Level of Service (LOS) which is represented by letters "A" or most favorable through "F" or least favorable conditions. Roadway LOS standards are the ratio of the number of vehicles to the road capacity during peak time periods. The Town monitors roadway concurrency and currently all roadways are meeting level of service standards.

Currently, the only roadway capital improvements planned in the Surfside area by FDOT is the Indian Creek Bridge Rehabilitation Project.

To accommodate the impacts of new development, alternative modes of transportation are required to reduce traffic congestion. Six bus routes from Miami-Dade Transit travel through the Town; all the routes run along Collins Avenue and Harding Avenue. The Town has its own bus system which complements the Miami-Dade County Transit. The Town's mini buses circulate between the business district and residential areas.

De Minimis Impacts

The Town does not allow for exceptions for de minimis impacts. Also, the Town lies completely within a Transportation Concurrency Exception Area.

Gas Tax Projects

Per F.S. 336.025 (1)(a)3 municipal governments shall use local option gas taxes for transportation expenditures to meet the requirements of the capital improvements element of an adopted comprehensive plan or for expenditures needed to meet immediate local transportation problems and for other transportation-related expenditures that are critical for building comprehensive roadway networks by local governments. Such expenditures are required to be included in the Comprehensive Plan.

The Schedule of Capital Projects to be partially funded by gas taxes are identified in Table 9-10D. The related projects are not planned to alleviate level of service issues, but are included to meet statutory requirements for listing local option gas tax projects in the Capital Improvement Element.

POTABLE WATER

The Town of Surfside's potable water is provided by the Miami-Dade County Water and Sewer Department (MDWASD) which provides service for approximately 2.6 million customers in Miami Dade County. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami-Dade County.

The water is distributed to residents and commercial business by approximately 11 miles of cast iron pipe installed in 1938. Primary mains feeding the system run under the Town's streets and vary in size from 6-inch to 16-inches in diameter, which feed three-inch and four-inch water lines located along the rear property lines.

Water Source

The source water for Hialeah Water Treatment Plant (WTP) is from the Hialeah Miami Springs Wellfields, supplemented by the Northwest Wellfield. There are three active wells located in the Hialeah Wellfield constructed in 1936. Each well is 14 inches in diameter, 115 feet deep and have casing depths of 80 feet. The total wellfield capacity is 12.54 mgd or 8,700 gpm (2,900 gpm for each well). The twenty active wells located in the Miami Springs Wellfield were constructed between 1924 and 1954. These wells are 14 inches and 30 inches in diameter, 80 to 90 feet deep and have casing depths of 80 feet. The total wellfield capacity is 79.30 mgd or 55,070 gpm (ranging between or 2,500 and 5,000 gpm for each well). The Northwest Wellfield has fifteen active wells that were constructed in 1980. The wells are 40 inches and 48 inches diameter and 80 to 100 feet deep, with casing depths ranging from 46 to 57 feet. These wells have two-speed motors. The total nominal capacity of the wells at the low speed flow rate is 149.35 mgd. The capacity of each well, except well No. 10, is 10 mgd at the low speed flow rate. Well 10 has a low speed capacity of 9.35 mgd. The total nominal capacity for the wells at the high speed flow is 220.94 mgd.

The seven active wells located in the John E. Preston Wellfield were constructed in 1966 and 1972. Each well is 42 inches in diameter, 107 feet deep and have casing depths of 66. The capacity of wells No. 1 through No. 6 is 5,000 gallons per minute (gpm) each and the capacity of well No. 7 is 7,000 gpm. The total wellfield capacity is 53.28 mgd.

Water Treatment Plants (WTPs)

The Hialeah WTP was originally designed in 1924 with a total capacity of 10 mgd. By 1935, the plant’s capacity totaled 40 mgd. In 1946, capacity was increased to 60 mgd. Air strippers with a capacity of 84 mgd were added to the treatment process in 1991 to remove volatile organics from the finished water. A 3.2 MG storage reservoir for both the Hialeah and John E. Preston WTPs was also added in 1991. The Hialeah WTP has a current rated capacity of 60 mgd and there are plans to rerate and upgrade the Hialeah WTP to a capacity of 70 mgd, if necessary. The treatment process for this WTP includes lime softening with sodium silicate activated by chlorine, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The plant site is relatively small, and is surrounded by residential areas.

The John E. Preston WTP was originally designed as a 60 mgd plant in 1968 and upgraded to 110 mgd in 1980. The plant was re-rated to a total capacity of 130 mgd in 1984. The plant reached its present capacity of 165 mgd with another addition in 1988. In 1991, the plant was modified with an air stripping capacity of 185 mgd to remove VOCs. In 2005, plant process modifications to provide enhanced softening for reduction of color and total organic carbon came on line. The main source of water for the Preston WTP is from the Northwest Wellfield. The current rated capacity is 165 mgd with a treatment process similar to that of the Hialeah WTP. This includes lime softening with ferric and other coagulant and chemicals added to prior to lime for enhanced softening, recarbonation, chlorination, ammoniation, fluoridation, filtration, and air stripping. The Preston plant is also located in a residential area of Hialeah.

Potable Water Level of Service

The Town of Surfside currently coordinates with MDWASD and the South Florida Water Management District to meet existing and projected demands based on level of service (LOS). The Town’s projected water demands shown in Table 9-1 below were developed utilizing the Town’s average per capita value of 148.04 gallons per capita per day.

**Table 9-1
Town of Surfside Water Demand Projection**

Year	Population	Per Capita Consumption	Projected Consumption	Projected Consumption
		GPCD	GPD	MGD
2015	5,866	148.04	868,399	.87
2020	6,019	148.04	891,073	.89
2025	6,173	148.04	913,747	.91
2030	6,326	148.04	936,421	.94

Source: MDWASD’s 20 year water supply plan (2014-2033)

Figure 4.1 in the Town of Surfside 15 Year Water Supply Facilities Work Plan indicates that there will be no deficit of finished water through 2030.

The existing LOS for the Town of Surfside based on MDWASD goals for potable water is as follows:

- (a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily

flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.

- (b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential	1,500
Semiprofessional Offices	
Hospitals; Schools	2,000
Business and Industry	3,000

Storage Capacity

The finished water storage facilities for the Hialeah-Preston subarea consist of both “in-plant” and remote storage facilities. The total combined storage capacity between both plants inclusive of all potable water 56.0 MG.

SANITARY SEWER

The sanitary sewer system is defined as structures or systems designed for the collection, transmission, treatment, or disposal of sewage and may include trunk mains, interceptors, treatment facilities, and disposal systems. The Town’s sanitary sewer system is interconnected with the Miami-Dade County Water and Sewer Department (MDWASD) system. Surfside maintains its own sewer collection system and two pumping stations. By agreement, the Town of Surfside and Bal Harbour share a sanitary force main that connects to the City of Miami Beach transmission system. The tri-party agreement provides for the transmission of sewage via force mains to the MDWASD system and eventually to the treatment plant and disposal.

Geographic Service Area

The Town’s system is coextensive with the Town’s boundaries, while the County system includes unincorporated and incorporated areas of Miami-Dade County inside the 2005 Urban Development Boundary that have an agreement with MDWASD. The system also incorporates a small number of facilities, mostly State or County owned, outside of the Urban Development Boundary.

Treatment Facilities and Capacity

There has been a significant reduction in average flow into the regional system as a result of extensive infiltration and inflow (groundwater and rainwater) prevention projects conducted by MDWASD in recent years. Infiltration and inflow within the sewer system should be kept at a minimum to avoid hydraulic overload to the receiving treatment plant. It is pertinent for an operation and maintenance plan to be part of the county’s sanitary sewer system. As a result, the regional wastewater treatment plants operating capacity can remain in compliance with Miami-Dade County MDWASD and Florida Department of Environmental Protection (FDEP) standards.

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however, MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system.

Surfside’s sewer system is treated by a secondary treatment facility on Virginia Key owned and operated by the Miami-Dade County Water and Sewer Department (MDWASD). The Town’s sanitary sewer collection system is divided into two basins. Sanitary sewer pipes range in size from 8 to 15 inches with flows directed to two pump stations. Pump Station 1 receives sewage from the area of Surfside north of 91st Street, which includes the Business District and a majority of the high rise buildings. Pump Station 2 serves the remainder of the Town, including most of the waterfront lots. The sewage is pumped via the force main which runs along 89th Street, 93rd Street, Collins Avenue and connects to the City of Miami Beach’s system near 74th street. Sewage continues under pressure through MDWASD force mains to Virginia Key.

Current Facility Demand

According to the Town of Surfside Consumption Analysis, in 2014/2015 approximately 258 million gallons of wastewater were treated by the County system from the Town of Surfside and 260 million in 2015/2016.

In FY08, the Town began mapping all sewer and potable water lines within the municipal boundary to enhance maintenance. Also in FY09, the Town identified infiltration issues to the sanitary sewer system and has completed a program to seal manholes to identify and inventory broken lines. Table 9-2 shows projected sewage flow demands for the Town of Surfside and Table 9-2B show current and projected wastewater capacity for the entire county.

In 2010 to 2014, the Town completed a sanitary sewer rehabilitation plan. All existing gravity sewer mains and laterals were lined or reconstructed in accordance with the approved plan. All sanitary manholes were rehabilitated. The Town also completed rehabilitation of the existing sanitary sewer pump stations, and construction of 12” Force Mains along 93rd Street and 89th Street. The Force Mains were tied-in to the newly constructed 16” Force Main along Collins Avenue. The existing Force Main that runs along Byron Avenue is not currently in use and only remains as a stand-by facility.

Since the Town completed the sanitary sewer rehabilitation plan of the existing system in the recent past, there are currently no additional level of service projects required or needed for the Town’s sanitary sewer system.

**Table 9-2A
Projected Sewage Flows**

PROJECTED SEWAGE FLOWS			
Year	2010	2015	2020
Population	5,744	5,952	6,398
Per Capita (gallons per day finished sewage)	155	155	155
(all potable volumes are finished sewage)	MGD	MGD	MGD
Sewage Total Flow (daily average annual)	0.89	0.92	0.99

Source: Calvin, Giordano & Associates, Inc. 2017

**Table 9-2B
Miami-Dade County Current and Projected Wastewater System Capacity 2016-2026**

County WWTP Capacities		Actual County Flow (mgd)	Total Permitted Capacity / Projected County Flows (mgd)		
	2016 Plant Capacity (mgd)	Dec. 2015	2022	2024	2026
North	120.0	89.3	120.0 / N/A ¹	120.0 / N/A ¹	85.0 / N/A ¹
Central	143.0	120.0	143.0 / N/A ¹	143.0 / N/A ¹	83.0 / N/A ¹
South	112.5	97.1	121.0 / N/A ¹	131.0 / N/A ¹	131.0 / N/A ¹
West	N/A	N/A	N/A	N/A	102.0 / N/A ¹
Total	375.5	306.4	384.0 / 321.1	394.0 / 326.3	401.1 / 331.6

Source: Miami-Dade Water and Sewer Department, 2016; ¹County only has projected data for total regional system

DRAINAGE

In 2013, the Town completed a major retrofit of the existing drainage systems. The existing storm drainage system consisted of a network of underground storm sewers and outfalls discharging directly into the Indian Creek and Biscayne Bay. An existing pumping station at the western end of 92nd Street assisted the drainage of water from that street by pumping to an outfall. Storm sewers in the existing system ranged in diameter from 10 inches to 36 inches.

Town of Surfside has two state roadways within the Town; a north-south pair SR A1A/Collins Ave (northbound) and Harding Avenue (southbound); and one east-west SR-922/96th Street. The Florida Department of Transportation (FDOT) provided storm drainage improvements on Harding and Collins Avenue in the early 1990's. Equipment which currently serves the 92nd Street pump station were replaced by FDOT and will be maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations. The water level of Biscayne Bay is higher than normal during high- high tide, creating a back up in the outfall pipes. The Harding and Collins storm drainage improvements utilize on-site wells and control structures to provide additional capacity.

In 2002 FDOT completed the Stormwater Pump Station System Operational Evaluation and Recommended Improvements (OERI) Report which provided three alternatives to improve stormwater pump systems along Harding. It was determined that the most feasible alternatives are those that have an appropriate overflow capacity, once the wells reach capacity. This was achieved by introducing an emergency gravity bypass in the event that the pumps fail. The alternative consists of new pump stations at the existing vault locations. These new stations required the existing gravity system to be extended to the Intracoastal Waterway seawalls (at 88th Street and 94th Street), a new 36-inch force main to connect to existing wells; new pumps, structures, controls, and a new gravity bypass drainage pipe.

In 2006, the Town of Surfside initiated another stormwater project, which consists of retrofitting the Town's outfall pipes to reduce pollutants entering Biscayne Bay. The facilities at each location consists of three new stormwater pump stations which pump water into drainage wells. In order to address pollution concerns for a Florida Department of Environmental Protection (FDEP) drainage well permit, the Town installed Nutrient Separating Baffle Boxes upstream of the pump station to provide treatment before the runoff enters the groundwater which was included in this retrofit project.

The recently constructed retrofitted stormwater management system of the Town consists of a network of underground storm sewers along with outfall control structures discharging into the Indian Creek and Biscayne Bay, and three additional pump stations discharging into 9 drainage wells. The newly constructed control structures facilitate well discharge before discharging to Biscayne Bay. The project addressed long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores. The project directly addressed The Trust for Public Land's Biscayne Bay Accessibility report, supported the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhanced the level of service.

In 2015, the Town completed drainage improvements for Biscaya Island along 88th Street. The Town constructed new check valves to prevent back flow into the existing roadways and upsized one 12-inch outfall to a 24-inch diameter outfall. Since the Town completed the retrofit of the existing drainage system in the recent past, there are currently not additional level of service projects required or needed for the Town's drainage system.

SOLID WASTE

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Last year (FY15/16) Surfside deposited approximately 4,932 tons of waste material at the county's facility. Based on the 2010 U.S. Census population of 5,744 approximately 4.7pounds per person per day was collected. The Town, as of June 2, 2016, discontinued recycling services with Miami-Dade County for residential properties. The Town now collects recycling. Between June 2, 2016 and December 29, 2016 the Town collected a total of 218.9 tons of recycling. Based on information supplied by the Miami-Dade County Department of Solid Waste Management (Table 9-2C), the existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate to meet Surfside's needs for the foreseeable future.

**Table 9-2C
Miami-Dade County Solid Waste Facility Capacity**

	South Dade Landfill	North Dade Landfill	Resources Recovery Facility and Ashfill
Built out Capacity in Tons	23,208,000	13,526,000	8,060,000
Tons in Place (June 30, 2016)	17,547,000	11,984,000	5,765,000
Remaining Capacity in Tons	1,261,000	1,541,000	2,295,000
Last Year's Disposal Tonnage (7/1/15 – 6/30/16)	390,626	190,478	160,879
Estimated Average Disposal Rate per Year in Tons	400,800	183,900	168,500

Source: Miami-Dade County Department of Solid Waste Management, 2016; Landfill Capacity Analysis for DSWM Active Landfills, July 1, 2016.

There is sufficient capacity Miami-Dade County landfills to meet the Town's needs for solid waste disposal for the short term and long term planning horizons.

PARKS

The following is an acreage inventory of Surfside’s public recreation facilities:

**Table 9-3
Park Inventory**

FACILITY	ACREAGE
Hawthorne Park Tot Lot	0.22
Veterans Park/Surfside Tennis Center	0.99
96 th Street Park	0.99
Surfside Community Center	1.27
Paws Up Dog Park	0.10
Public beach	34.76
Street ends	1.44
TOTAL:	39.77

Source: Calvin, Giordano & Associates, Inc., 2017

While the public beach does not generally offer Parks and Recreation Department programming, this acreage will be included for the level of service (LOS) analysis because it is an integral part of the Town. Using the 39.77 acres of public recreation, along with population projections, Surfside’s LOS for recreation can be projected through 2035. The LOS standard for publicly-owned recreation lands in Surfside is six (6) acres per one thousand (1,000) permanent population. As the following table shows, this standard will be met through 2035.

**Table 9-4
Projected Park LOS**

Year	Population (Projected)	LOS Standard	Acres Needed	Town Park Acreage	Surplus Acreage
2010	5,744*	6.0/1,000	34.46	39.77	5.31
2015	5,705**	6.0/1,000	34.23	39.77	5.54
2020	5,952**	6.0/1,000	35.71	39.77	4.06
2025	6,181**	6.0/1,000	37.08	39.77	2.69
2030	6,398**	6.0/1,000	38.39	39.77	1.38
2035	6,556**	6.0/1,000	39.34	39.77	0.43

Sources: * 2010 U.S. Census; ** Florida Housing Data Clearinghouse (FHDC), 2016

It should be noted this analysis does not take into account private recreation facilities such as the Surf Club and private beach frontage west of the erosion control line.

SCHOOLS

Surfside is within District 3 of the Miami-Dade County School District.

The following table shows student enrollment and capacity in 2016 for the schools serving Surfside. Each school is operating at or above capacity.

**Table 9-5
Public Schools Serving Surfside
Capacity and Enrollment (2016)**

School	Enrollment	Capacity	Percent Capacity Utilized
Elementary Schools			
Ruth K. Broad Bay Harbor K-8 Center	1,385	990	140%
Middle School			
Nautilus	1,028	1,050	98%
High School			
Miami Beach Senior High	2,469	2,110	117% 96.3%

Source: Miami-Dade Public Schools, 2016

PUBLIC HEALTH SYSTEM

Capital Improvement Element must also include the location of public health systems within the local jurisdiction. There are no major public health facilities within Surfside. The hospitals and public health centers located nearby and accessible to Surfside residents are as follows:

Aventura Hospital & Medical Center
20900 Biscayne Blvd, Aventura

The Miami-Dade Health Department (Florida Department of Health) has offices in various location in Miami-Dade County with the following offices closest to Surfside:

Miami-Dade County Health Department
Main Complex
1350 NW 14th St.
Miami, FL 33125

LOCAL POLICIES AND PRACTICES

The Town annually prepares and adopts operating budgets for its various departments. Through the budget process, capital improvement needs are considered and funds are allocated.

Timing and location of public facilities is determined by needs projected by the various departments of the Town, and in the case of multi-jurisdictional facilities such as state roads or potable water, by coordination with the affected agencies. Capital facilities will be planned and constructed in accordance with the established Schedule of Capital Improvements. This program is a five year schedule of improvements which is supported by a projection of revenues to ensure its feasibility. Improvements included in the 5-year program include those items called for by the various departments of the Town.

There are four stimuli which prompt Town departments to call for capital improvements; demand created from outside the Town as well as within the Town:

- Anticipated demand through growth
- Coordination of Town plans with those of State agencies and water management districts, and other outside agencies
- Demand for improvements created by facility breakdown or by life expectancy of the facility

- Maintenance of level of service standards

FUNDING SOURCES

Existing Revenue Sources

Ad Valorem Tax

The Miami-Dade County Property Appraiser's Office sets the Town's assessed and taxable values of property. Ad valorem translates from Latin, "according to value." This is the property tax paid based upon the appraised value of one's property and it is calculated by a millage rate. Each mill generates \$1 of tax revenue for every \$1,000 of taxable property value. Taxable value may differ from assessed value because of exemptions, the most common of which is the \$25,000 homestead exemption, and another \$50,000 in exemption for homeowners aged 65 or greater, subject to income requirements. The maximum millage a Town may levy is 10 mills, but this can only be accomplished through a unanimous vote of all Commissioners (not just those present).

Sales and Use Taxes

This category of taxes includes the local option sales tax and resort taxes. These are taxes generated by local jurisdictions under authorization by the State of Florida.

Franchise & Utility Taxes

The Town collects three types of franchise and utility taxes: electric utility taxes, gas utility taxes, and Surfside Occupational License Taxes. Since Fiscal Year 2002, the Town has been prohibited from collecting taxes on telephone franchises, telephone utility taxes, and cable television franchise taxes. These taxes are now collected by the State of Florida's Department of Revenue and re-distributed to municipalities according to use records at a rate of 5.22%.

Permits/licenses/and inspections

Licenses, permits and inspection fees are collected for services performed at specific properties for the benefit of particularly property owners. Building permit categories include: structural, electrical, plumbing, roofing and mechanical permits. As the Town is substantially at build out, little revenue is generated above a base level unless there is commercial development underway.

Intergovernmental Revenue

The Town receives recurring revenues from revenue sharing programs with the State of Florida. The Town receives periodic intergovernmental revenues from the federal government in the form of assistance grants for specific projects. All disbursements of State revenues are based on receipts by the State and the Town's population.

Services Revenues

This category includes all fees generated from services provided by the Town. This includes recreation fees, solid waste collection fees, stormwater collection fees, lien search services, stormwater utility fees, and similar items.

Fines and Forfeitures

Funds to promote public safety and other projects are received by the Town from fines, forfeitures, and/or seizures connected with illegal behavior in the community. Those funds are restricted to, and accounted for, in the Town's fines and forfeiture fund. Fines for the general fund derive from parking violations.

Miscellaneous Revenues

Any revenues that the Town receives which do not reasonably conform to any of the above identified categories is included in this category. This category includes interest earnings, receipts from the

disposition of assets by sale, and similar items. Interfund Transfers between other funds may also be captured here.

Revenue and Expense Projections

The Town of Surfside develops operating costs based on a zero-based budget model. Departments are encouraged to review prior spending as a way of reminding themselves of on-going obligations. Each request for funding must, however, be accompanied by a detailed justification. The practice of incremental budgeting (identifying operational budgets by increasing/decreasing the prior years' expenditures by a percentage) is an option which the Town has rejected. The following tables illustrate the Town's projected revenue and expense. Projections for FY2017-FY2021 based upon a projected 1% increase in property values and an overall 3% increase of revenues and expenditures.

**Table 9-6
Projected General Fund Revenues (FY17-FY21)**

Department	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Property Tax	8,047,948	8,289,386	8,538,068	8,794,210	9,058,036
Sales and Use Taxes	1,411,477	1,453,821	1,497,436	1,542,359	1,588,630
Franchise and Utility Tax	1,364,515	1,405,450	1,447,614	1,491,042	1,535,773
Permits/Licenses/Inspection	70,700	72,821	75,006	77,256	79,574
Intergovernmental-Federal/State	601,812	619,866	638,462	657,616	677,344
Services Revenues	486,100	500,683	515,703	531,174	547,109
Fines & Forfeitures	712,000	733,360	755,361	778,022	801,363
Misc. Revenues	31,525	32,471	33,445	34,448	35,481
Transfers - In	446,116	459,499	473,284	487,483	502,108
Total General Fund	13,172,193	13,567,357	13,974,379	14,393,610	14,825,419

Source: Calvin, Giordano and Associates, Inc. (Based upon Town of Surfside Adopted Budget Fiscal Year 2017)

**Table 9-7
Projected General Fund Expenditures (FY17-FY21)**

Department	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Personnel	8,257,679	8,505,409	8,760,571	9,023,388	9,294,090
Operating Expenses	3,985,657	4,105,227	4,228,384	4,355,236	4,485,893
Capital Outlay	99,500	102,485	105,560	108,727	111,989
Debt Service	50,669	52,187	53,753	55,366	57,027
Non-Operating Expenses	8,000	8,240	8,487	8,742	9,004
Transfers - Out	770,688	793,809	817,623	842,152	867,417
Total General Fund	13,172,193	13,567,357	13,974,379	14,393,610	14,825,419

Source: Calvin, Giordano and Associates, Inc. (Based upon Town of Surfside Adopted Budget Fiscal Year 2017)

Debt Capacity

The Town is expecting to pay debt service on State revolving loans for stormwater, wastewater, and potable water projects

Stormwater Utility Fund

Table 9-8 shows the available revenue funds for the Stormwater Projects shown in the Schedule of Capital Improvements and the ability to manage debt service for the projects. As a result of the rate increases, the Storm Water Fund for period forecasted 2018 through 2022 provides net positive results,

and both debt coverage ratios will be well above the required 110% (Senior Debt – 2011 Utility Bonds) and 115% (Subordinate Debt – SRF Loan).

**Table 9-8
Stormwater Utility Fund Budget and Projected (FY18 – FY 22)**

	2018	2019	2020	2021	2022
Annual Growth Rate	21.50%	11.50%	11.50%	11.50%	1.50%
Revenue	\$ 613,575	\$ 684,136	\$ 762,812	\$ 850,535	\$ 863,293
Expenses	\$ 691,106	\$ 711,839	\$ 733,194	\$ 755,190	\$ 777,846
Operating Margin	\$ (77,531)	\$ (27,703)	\$ 29,618	\$ 95,345	\$ 85,447
Operating Margin %	-12.5%	-4.05%	3.88%	11.21%	9.90%

Source: Town of Surfside Finance Department

Water and Sewer Fund

Table 9-9 shows the current and projected revenues and expenditures for the the Water and Sewer Fund. It shows the Town’s ability to fund wastewater and potable water improvements as shown in the Schedule of Capital Improvements and the ability to manage debt service payments.

**Table 9-9
Water and Sewer Fund Budget and Projected (FY 2018 – FY 2022)**

	2018	2019	2020	2021	2022
Revenue	\$ 3,677,158	\$3,777,158	\$ 3,877,158	\$ 3,977,158	\$ 4,077,158
Expenses	\$ 3,677,158	\$3,777,158	\$ 3,877,158	\$ 3,977,158	\$ 4,077,158

Source: Town of Surfside Finance Department

Financial Feasibility Analysis

The Town’s Schedule of Capital Improvements is financially feasible with funds committed throughout the five year period.

The Town’s scheduled projects and related funding sources show a positive or zero balance. The purpose of this comparison is to test and demonstrate the financial feasibility of the Comprehensive Plan. The Plan has been determined to be financially feasible because this comparison demonstrates the ability of the Town to finance capital improvements necessitated by the anticipated population and revenues.

Capital Improvement Element Goals, Objectives and Policies

Goal 1: Undertake capital improvements necessary to provide adequate infrastructure and a high quality of life within sound fiscal practices.

Objective 1 – In general, use the capital improvements element as a means to meet the needs for capital facilities necessary to meet existing deficiencies, accommodate desired future growth and replace obsolete or worn-out facilities. In particular achieve annual Town Commission use of this element as the framework to monitor public facility needs as a basis for annual capital budget and five-year program preparation.

Policy 1.1 – In setting priorities, the following kinds of criteria shall be used by the Town Commission; in all cases, financial feasibility or budget impact will be assessed:

Public safety projects: any project to ameliorate a threat to public health or safety.

Quality of life projects: any project that would enhance the quality of life, such as a public streetscape improvement project.

Level of service or capacity projects: any project needed to maintain an adopted or otherwise desirable Level of Service.

Redevelopment projects: any project that would assist in the revitalization of deteriorated non-residential properties.

Environmental enhancement projects: any project which would enhance the environmental quality of the Atlantic Ocean, the Atlantic Ocean beach and dune system, Biscayne Bay or other natural resources.

Potable water projects:

Update the capital improvements schedule to maintain consistency with its 20-Year Water Supply Facilities Work Plan.

Use funds for the expansion, enhancement, and upgrade of the water supply facilities in accordance with the 15-Year Water Supply Facilities Work Plan.

Coordinate planning for the Town's infrastructure improvements related to water supply with the plans of state agencies, the South Florida Water Management District and Miami-Dade County.

Revision of priorities for the replacement of facilities, correction of existing water supply and facility deficiencies, and provision for future water supply and facility needs.

The Capital Improvement Element shall be reviewed and revised, as necessary, on an annual basis. The annual update shall demonstrate that the level of service standards will be maintained during the next five-year planning period.

In order to coordinate land uses with available and projected fiscal resources and a financially feasible schedule of capital improvements for water supply and facility projects, the Town shall include in its annual update of the its financially feasible five (5) year capital improvement project listing the first five (5) years of Water Supply Facilities Work Plan to ensure consistency between the Potable Water Sub-Element of the Infrastructure Element and the Capital Improvements Element.

The Town hereby incorporates by reference into its Comprehensive Plan the Miami-Dade 20-Year Water Supply Facilities Work Plan (2014-2033) adopted November 2014 inclusive of all potable water projects.

Policy 1.2 – The Town shall prudently limit the amount of debt it assumes for capital improvements or other purposes. At a minimum, the Town shall not assume debt obligations which would result in the Town exceeding the debt ratios established by state law.

Policy 1.3 – The Town shall maintain a current inventory of all Town-owned capital facilities, to include information on type, capacity, location and condition.

Policy 1.4 – The Town shall regularly schedule inspections of all capital facilities to monitor and record the condition of each.

Policy 1.5 – The Town shall use designated funding mechanisms such as the sewer assessments thereby freeing up general funds (and general obligation bonds) for such Town-wide projects identified in the policies of other Comprehensive Plan elements.

Policy 1.6 – The Town shall prepare and adopt each year a five year capital improvements program and a one-year capital budget, to include all projects which entail expenditures of at least \$10,000 and a life of at least three years. Staff studies, engineering studies and other appropriate studies shall form the basis for preparation of a five-year capital improvement program, including one year capital budget. Among items which are specifically authorized and encouraged by this policy are the following: sidewalk repair and replacement; roadway and right-of-way drainage; street lighting; traffic signs, traffic engineer, signalization, and pavement markings; parking improvements serving the Harding Avenue Business District, and debt service and current expenditures for transportation capital projects in the foregoing program areas (including construction or reconstruction of roads). The preceding list is intended to be illustrative of appropriate expenditure categories. Other capital expenditures in related and different projects are hereby authorized.

Policy 1.7 – The Town shall utilize the following implementation schedule to aid state requirements for annual updates and to ensure level of service standards are maintained.

- Preliminary meetings in April with the Building, Public Works, and Finance department to discuss capital improvement planning and revenues
- Capital improvement plan/budget workshop in July with the Town Commission for discussion of proposed projects and financing
- Prepare capital improvement plan in coordination with Town budget for approval in June.
- Public hearing on capital improvement plan/budget in September.
- Revise Schedule of Capital Improvements and update Capital Improvement Element in October.

Policy 1.8 – The Town will implement the projects listed in the capital improvement program and in the Implementation Schedule of this capital improvements element according to the schedule listed in this Element.

Policy 1.9 –Capital improvements associated with the construction of educational facilities are not addressed in the Town’s Capital Improvement Plan or Schedule of Capital Improvements, but rather are the responsibility of the Miami-Dade County Public Schools. To address financial feasibility associated with school concurrency, the current Miami-Dade County Public School Facilities Work Program for educational facilities is incorporated by reference into the CIE.

Policy 1.10 – The Town, in conjunction with Miami-Dade County and Miami-Dade County Public Schools, has the responsibility for providing school concurrency related to capital improvements and should continually seek to expand funding sources available to meet those requirements.

Policy 1.11 – For public school facilities, a proportionate share mitigation agreement, is subject to approval by Miami-Dade County Public Schools and the Town and must be identified in the adopted Miami-Dade County Public School Facilities Work Program.

Policy 1.12 – The Town shall update its Capital Improvements Element and Program annually, to include the annual update of the Miami-Dade County Public Schools 5-Year District Facilities Work Plan.

Policy 1.13 – The annual update of the Capital Improvement Element shall include reflect proportionate fair-share contributions for transportation projects if applicable.

Policy 1.14 – The Town shall evaluate the costs and benefits of adaptation alternatives in the location and design of new infrastructure as well as the fortification or retrofitting of existing infrastructure.

Policy 1.15 – The Town shall commit funding to climate change adaptation and resiliency projects.

Objective 2 – In general, coordinate land use decisions and available or projected fiscal resources with a schedule of capital improvements which maintains adopted level of service standards and meets existing and future facility needs. In particular, achieve coordinated Town use of: 1) existing and already approved development; 2) the Future Land Use Plan; 3) the financial analyses in this Element, and 4) the established Level of Service Standards in both reviewing development applications and in preparing the annual schedule of capital improvements.

Policy 2.1 – The following Level of Service (LOS) standards shall be maintained:

Streets:

Local roads: D

Collector roads: D

State Roadways

A Level of Service of LOS E+20 shall be established (where mass transit service having headways of 20 minutes less is provided within 1/2-mile distance, roadways shall operate at no greater than 120 percent of their capacity.)

Sanitary Sewers: The County-wide “maximum day flow” of the preceding year shall not exceed 102 percent of the County treatment system’s rated capacity. The sewage generation standard shall be 155average gallons per capita per day.

Potable Water:

- (a) The regional treatment system shall operate with a rated maximum daily capacity no less than 2 percent above the maximum daily flow for the preceding year, and an average daily capacity 2 percent above the average daily system demand for the preceding 5 years. The maximum daily flow shall be determined by calculating the average of the highest five single day flows for the previous 12 months.
- (b) Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi. Unless otherwise approved by the Miami-Dade Fire Rescue Department, minimum fire flows based on the land use served shall be maintained as follows:

Land Use	Min. Fire Flow (gpm)
Single Family Residential Estate	500
Single Family and Duplex; Residential on minimum lots of 7,500 sf	750
Multi-Family Residential	1,500
Semiprofessional Offices	1,500
Hospitals; Schools	2,000
Business and Industry	3,000

Sources: Miami-Dade County Adopted 2014, Water, Sewer and Solid Waste Element

Drainage: All nonresidential development and redevelopment shall adequately accommodate runoff to meet all Federal, state and local requirements. Stormwater shall be treated in accordance with the provisions of Chapter 17-25, FAC in order to meet receiving water standards in Chapter 17-302.500, FAC. One inch runoff shall be retained on site. Post-development runoff shall not exceed peak pre development runoff.

Solid Waste: The County solid waste disposal system shall maintain a minimum of five years’ capacity. For Town planning purposes, a generation rate of 5.6 pounds per person per calendar day shall be used.

Parks: The Town shall achieve and maintain a Level of Service standard of at least 6 acres of public recreation sites per 1,000 permanent population.

Public Schools: The adopted level of service (LOS) standard for all public school facilities is 100% utilization of Florida Inventory of School Houses (FISH) Capacity (with Relocatable Classrooms). This LOS standard, except for Magnet Schools, shall be applicable in each public school concurrency service area (CSA), defined as the public school attendance boundary established by the Miami-Dade County Public Schools. The adopted LOS standard for Magnet Schools is 100% of FISH (with Relocatable

Classrooms), which shall be calculated on a districtwide basis. Level of Service standards for public school facilities apply to those traditional educational facilities, owned and operated by the Miami-Dade County Public Schools, that are required to serve the residential development within their established Concurrency Service Area. Levels of Service standards do not apply to charter schools. However, the capacity of both charter and magnet schools will be credited against the impact of development.

Policy 2.2 – The concurrency management system formulas shall include the public facility demands to be created by “committed” development and the capital improvement schedule shall include the project implications of such committed development to assure facilities are provided concurrent with the impact of development.

Policy 2.3 – The Town shall not give development approval to any new construction, redevelopment, or renovation project which creates a need for new or expanded public capital improvement unless the project pays a proportional share of the costs of these improvements.

Policy 2.4 – The Town shall maintain and improve as part of the land development code a concurrency management system which meets the requirements of state statutes. The concurrency management system shall specify that no development permit shall be issued unless the public facilities necessitated by a development (in order to meet level of service standards specified in the Transportation, Recreation and Open Space, Infrastructure and Public School Facilities) will be in place concurrent with the impacts of the development or the permit is conditional to assure that they will be in place. The requirement that no development permit shall be issued unless public facilities necessitated by the project are in place concurrent with the impacts of development shall be effective immediately and shall be interpreted pursuant to the provisions of Policy 1.4 of the Future Land Use Element.

CAPITAL IMPROVEMENT ELEMENT IMPLEMENTATION SYSTEMS

Five-Year Schedule of Capital Improvements: See schedule nearby in this element.

Other Programs: The other principal programs needed to implement this Element are as follows:

- Continue the annual capital programming and budgeting including use of the project selection criteria contained on Policy 1.1; related thereto will be the annual review of the Element.
- Amendments to the existing land development code to assure conformance to the “concurrency” requirements relative to development orders, levels of service and public facility timing as outlined in C below.

Monitoring and Evaluation: The Town Manager or designee shall annually prepare a status report on this Capital Improvement Element for submittal to the Town Commission. The primary purpose is to update the five-year schedule including the basis for next year’s capital budget. The project evaluation criteria shall be used in the project list review and special attention shall be devoted to maintenance of the level of service standards. This entire evaluation process shall be integrated into the Town’s annual budget process.

Concurrency Management: Concurrency management shall be implemented as articulated in Future Land Use Element and the Capital Improvement Element.

MONITORING, UPDATING AND EVALUATION PROCEDURES

Annual Monitoring: In conjunction with one of the plan amendment cycles, the Local Planning Agency may annually conduct a public workshop on the Comprehensive Plan. A status report shall be provided by the Town Manager or designee and then citizen comment shall be solicited. This meeting shall be publicized by a legal notice in the newspaper plus efforts to have a news story in the Miami Herald and flyer announcements at the Town Hall. The LPA will then submit a report on the status of the Plan to the Town Commission. This report may be accompanied by recommended amendments, using the normal amendment process.

Evaluation and Appraisal Review (EAR): , the Town Manager or designee shall prepare an Evaluation and Appraisal Review in conformance with statutory requirements and with special emphasis on the extent to which the Comprehensive Plan objectives and policies have been achieved. The report will pinpoint obstacles to plan implementation and update baseline data.

Revised Objectives and Policies: As part of this EAR process, amendments to the goals, objectives and policies based upon the above review, focusing short and long term community objectives. The citizen participation procedures used in preparing the Comprehensive Plan (plus any future modifications thereto) shall be used in amending the Plan.

Concurrency Management System Standards

Facility Capacity Determinations: The determination that there is adequate facility capacity for a proposed project shall be based on a formulation such as $(A+B) \text{ minus } (C+D+E)$ shall be greater than zero, where

“A” equals the total ***design capacity*** of existing facilities;

“B” equals the total ***design capacity*** of any ***planned new facilities*** that will become available concurrent with the impact of the proposed development;

“C” equals existing demand on facilities measured as traffic volumes, sewer and water flows, utilization of FISH capacity (for schools) or population;

“D” equals committed demand from approved projects that are not yet constructed; and

“E” equals the demand anticipated to be created by a proposed project.

Criteria for Measuring the Design Capacity of Existing and Planned New Facilities: The design capacity of existing and planned new facilities shall be determined as follows:

Sewage: the capacity of the County sewage treatment system.

Water: the capacity of the County water treatment and storage system.

Solid Waste: the capacity of the County disposal system.

Drainage: the on-site detention capability and/or storm sewer capacity.

Roadways: The standard for measuring highway capacities shall be the Florida DOT Table of Generalized Two-Way Peak Hour Volumes for Urbanized Areas or other techniques that are compatible to the maximum extent feasible with FDOT standards and guidelines. The measurement of capacity may also be determined by engineering studies provided that analysis techniques are technically sound and acceptable to the Town engineer.

Recreation: Measurement shall be based on recreation data in the Comprehensive Plan plus the latest Town population estimate with any necessary interpretation provided by the Town Manager or designee thereof.

Transit: The County Transit Agency bus schedules for routes within the Town.

Criteria for Counting the Capacity of Planned New Facilities: The capacity of planned new facilities may be counted only if the following timing requirements to ensure that adequate public facilities are available to meet level of service standards with the impact of development:

- (a) Sanitary sewer, solid waste, drainage, adequate water supplies, and potable water facilities shall be in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy or its functional equivalent. Prior to approval of a building permit or its functional equivalent, the Town shall determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the Town of a certificate of occupancy or its functional equivalent.
- (b) Parks and recreation facilities to serve new development shall be in place or under actual construction no later than 1 year after issuance by the local government of a certificate of occupancy or its functional equivalent. However, the acreage for such facilities shall be dedicated or be acquired by the Town prior to issuance of a certificate of occupancy or its functional equivalent, or funds in the amount of the developer's fair share shall be committed no later than the local government's approval to commence construction.

- (c) Transportation facilities needed to serve new development shall be in place or under actual construction within 3 years after the Town approves a building permit that results in traffic generation.

Responsibility for Concurrency Monitoring System: The manager or designee thereof shall be responsible for monitoring facility capacities and development activity to ensure that the concurrency management system data base is kept current, i.e., includes all existing and committed development. This data base shall be used to systematically update the formulas used to assess projects. An annual report shall be prepared.

Capacity Reservation: Any development permit application which includes a specific plan for development, including densities and intensities, shall require a concurrency review. Compliance will be finally calculated and capacity reserved at time of final action on a **design review** or **building permit** if no **design review** is required or enforceable developers agreement. Phasing of development is authorized in accordance with Rule 9J-5.0055. Applications for development permits shall be chronologically logged upon approval to determine rights to available capacity. A capacity reservation shall be valid for a time to be specified in the land development code; if construction is not initiated during this period, the reservation shall be terminated.

Public School Concurrency Review : Prior to the issuance of any development order for new residential development or redevelopment, public school facilities needed to support the development at adopted school LOS standards must meet the following requirements:

1. The necessary public school facilities and services are in place or under actual construction within three years after issuance of final subdivision or site plan approval, or the functional equivalent.
2. The necessary facilities and services are guaranteed in an enforceable development agreement, pursuant to Section 163.3220, F.S., or an agreement or development order issued pursuant to Chapter 380, F.S., to be in place or under actual construction not more than three years after issuance of a certificate of occupancy or its functional equivalent.

School concurrency approval for the development and anticipated students shall be valid for up to two (2) years, beginning from the date the application received final approval from the Town.

Project Impact or Demand Measurement: The concurrency management user's procedural guide (a supplement to the land development code) will contain the formulas for calculating compliance plus tables which provide generation rates for water use, sewer use, solid waste and traffic, by land use category. Alternative methods are acceptable to the Town Manager or designee thereof may also be used by the applicant. For example, traffic generation may be based upon the Institute of Transportation Engineer's "Trip Generation" manual.

Schedule of Capital Improvements by Category and Funding Sources

Tables 9-10 A-D make up the Town's schedule of Capital Improvements. Funding sources are shown where applicable.

**Table 9-10A
Stormwater Projects**

No Projects

**Table 9-10B
Wastewater and Potable Water Projects**

No projects

**Table 9-10C
FDOT Projects**

FDOT Projects							
Project Name	Location	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Indian Creek Bridge #876100 PD&E	91 st Street/ Surfside					\$1,515,001	\$1,515,001
Total Cost of FDOT Projects						\$1,515,001	\$1,515,001

Source: FY2018-2023 FDOT Work Program

**Table 9-10D
Gas Tax Projects**

Forecasted Municipal Transportation Funding (CITT)						
Capital Projects						
	2018	2019	2020	2021	2022	Total
Traffic Signal Loop Detectors	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
Harding Avenue Downtown Street Improvements	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
91 Street Improvement Project	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000
West Side Street Improvements	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000
Traffic & Pedestrian Management Program				\$ 95,000	\$ 95,000	\$ 190,000
Total Annual Municipal Transp. Source Funding	\$ 150,000	\$ 100,000	\$ 100,000	\$ 95,000	\$ 95,000	\$ 350,000
Funding Sources						
	2018	2019	2020	2021	2022	Total
Transit Surtax Proceeds	\$ 223,000	\$ 225,230	\$ 227,482	\$ 229,757	\$ 232,055	\$ 1,137,524
Balance	\$ 73,000	\$ 125,230	\$ 127,482	\$ 134,757	\$ 137,055	\$ 597,524

Note: Transit Surtax Proceeds listed above is only part of total required planned project funding.

Source: Town of Surfside Finance Department