

Comprehensive Plan

City of New Smyrna Beach, Florida

I. INTRODUCTION

PURPOSE

The purpose of the *City of New Smyrna Beach Comprehensive Plan* is to establish goals, objectives, policies, and general standards for the management of growth and the provision of services. This plan is intended to provide general guidelines for establishing more specific standards, ordinances, regulations, procedures, programs, and other tools for implementing the policies contained herein.

AUTHORITY

This *Comprehensive Plan* is adopted under the authority and requirements of the Local Government Comprehensive Planning and Land Development Regulation Act of 1985, as amended, Chapter 163, *Florida Statutes*.

ELEMENTS

Each element contained in this *Comprehensive Plan* addresses a topic or group of topics involved with the physical development of land within the City and its adjacent planning areas. The elements address the appropriateness of various kinds of land use, the impacts of those land uses on natural resources, the services needed for existing and future development, the fiscal capability of the City to provide those services, and a planned service delivery schedule. The format of each element provides a purpose for the element, level-of-service standards (where applicable), an inventory and analysis of existing conditions and deficiencies, a description of future needs, a listing of goals, objectives and policies, and a listing of planned improvements for inclusion in the Capital Improvements Element.

USE OF THE *COMPREHENSIVE PLAN*

The *Comprehensive Plan* is intended for use as a guide in the regulation of development proposals, and in the planning and budgeting of public services. It is intended for use by the City Commission, staff, advisory boards, land developers, homeowners, business people and others interested in or affected by land development. To determine compatibility of a proposed land development project with the *Comprehensive Plan*, the following steps should be followed:

1. Locate the parcel of land on the Future Land Use Map (Map II-5) and determine the land use designation.
2. Refer to the Land Development Regulations to determine the zoning districts allowed within that land use designation.
3. Review the permitted and conditional uses listed for those zoning districts in the Land Development Regulations.
4. If the proposed use is not listed, the project is likely not compatible, and an amendment to the *Comprehensive Plan* will be needed. Procedures for amendments are described in part E below.
5. If the proposed use is listed, the balance of the *Comprehensive Plan* should be reviewed to determine applicable policies, and the Land Development Regulations should be referenced to determine design standards, restrictions, and procedures for obtaining the appropriate development approvals.

It is recommended that the staff be consulted to assist with review of the *Comprehensive Plan* and with the processing of applications for development approvals. Pre-application conferences with the staff are strongly encouraged and may be required for certain types of projects.

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AMENDMENTS

The *Comprehensive Plan* may be amended by the City no more than two (2) times per year, consistent with Chapter 163, *Florida Statutes*. Applications for amendments will be collected and processed according to a schedule adopted by the Planning and Zoning Board.

PUBLIC PARTICIPATION

The City strives to promote and maximize public participation in the adoption of the *Comprehensive Plan*, the adoption of amendments, and the processing of land development proposals.

Public workshops, advisory committees, advisory teams, public surveys, legal advertisements, general notices, notices to adjacent property owners and open public hearings have all been used extensively in the preparation and adoption of this plan.

The City promotes and provides the opportunity for public input in the planning process. Public participation was encouraged in the adoption of the *Comprehensive Plan* and the *Land Development Regulations* and will continue to be encouraged when amendments are proposed to these land use controls.

Public notice is provided to real property owners through advertisement in the local newspaper of proposed annexations, amendments to the *Comprehensive Plan*, *Land Development Regulations*, and zoning changes. Thus, the general public is informed by newspaper advertisement of every proposed land use related amendment that will affect the use of their property.

Public hearings are held by the City Commission and Local Planning Agency for annexations, amendments to the *Comprehensive Plan* and *Land Development Regulations*, and zoning changes. No official action can be taken by the City Commission on these requests without holding a public hearing that has been advertised in the local newspaper. Members of the public attending these hearings may participate orally and/or by submitting written comments. Input provided by the public in oral and/or written form is responded to at the hearing and recorded in the official minutes of the hearing.

Legal advertisements are presented in the local newspaper notifying the general public of requests for special exception and variance actions as set forth in the *Land Development Regulations* and a public hearing is held by the Board of Adjustment. These requests affect the use of the subject property and indirectly may affect uses on adjacent properties and the quality of life in the surrounding neighborhood.

Workshop and ad hoc committees created by the City Commission or Local Planning Agency for matters involving the *Comprehensive Plan* and *Land Development Regulations* are open to the public.

MONITORING AND EVALUATION

The City maintains and follows procedures for the preparation of evaluation and appraisal reports, as required by the state. The procedures encourage citizen participation, provide for updating of data, contain measurable objectives, describe accomplishments to date, identify problems encountered, and provide for the updating of goals, objectives and policies as needed.

DATA SOURCES AND METHODOLOGIES

Available data, as provided by various local, regional, and state agencies, has been utilized and sources have been identified throughout this plan. Much attention has been

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given to the establishment of true goals and objectives for the community based on strong public input. Those goals and objectives were then translated into policies and standards dealing with land use, environmental protection, service delivery, and fiscal impact. Reviews were conducted to provide consistency with the plans of other local governments, the regional planning council, and the state. Additional public review was then provided, followed by a check on the internal consistency of the various plan elements prior to adoption.

II. FUTURE LAND USE ELEMENT

INTRODUCTION

The community of New Smyrna Beach has evolved over time in response to a variety of economic, social, physical, and political influences. The way people within the community use the land is a reflection of their attitudes and values. The manner in which the community develops in the future will be based on the community's commitment to current goals and objectives.

In order to understand the structure of the community it is important to understand how the physical and social components fit together. These are more easily described in terms of neighborhoods, major environmental limitations/opportunities, and the various user groups that may be external to the community. Map II-4, Existing Land Use, describes the location and distribution of land uses in the City of New Smyrna Beach in 2010. In addition to existing land use that has been documented by the Planning and Zoning Department, the existing zoning and the 1990 *Comprehensive Plan*, as amended, define distinguishable areas that lend themselves to the structure of New Smyrna Beach and help give us an understanding of the general areas that will be influenced as part of the Future Land Use Element.

NATURAL AND SOCIAL FEATURES

NATURAL FEATURES

Physiographically, New Smyrna Beach lies within the lower Atlantic Coastal Plain, and is characterized by four (4) significant features: the Atlantic Beach Ridge, the Indian River, the Silver Bluff Terrace, and the Atlantic Coastal Ridge.

The Atlantic Beach Ridge extends along the eastern shoreline in Volusia County, and is comprised of the barrier islands that separate the estuarine environment of the Indian River and mainland areas from the Atlantic Ocean. The barrier islands are constantly undergoing changes as a result of wind and wave action.

Between the Atlantic Beach Ridge and the mainland lies the Indian River. The river is an estuarine environment that has high biological productivity, and is critically important to the food chain for sport and commercial fishing. The fringe areas of the river have been subject to significant development pressure. The Indian River is also a component of the Florida Intracoastal Waterway extending north and south along the entire length of the state's eastern coastline.

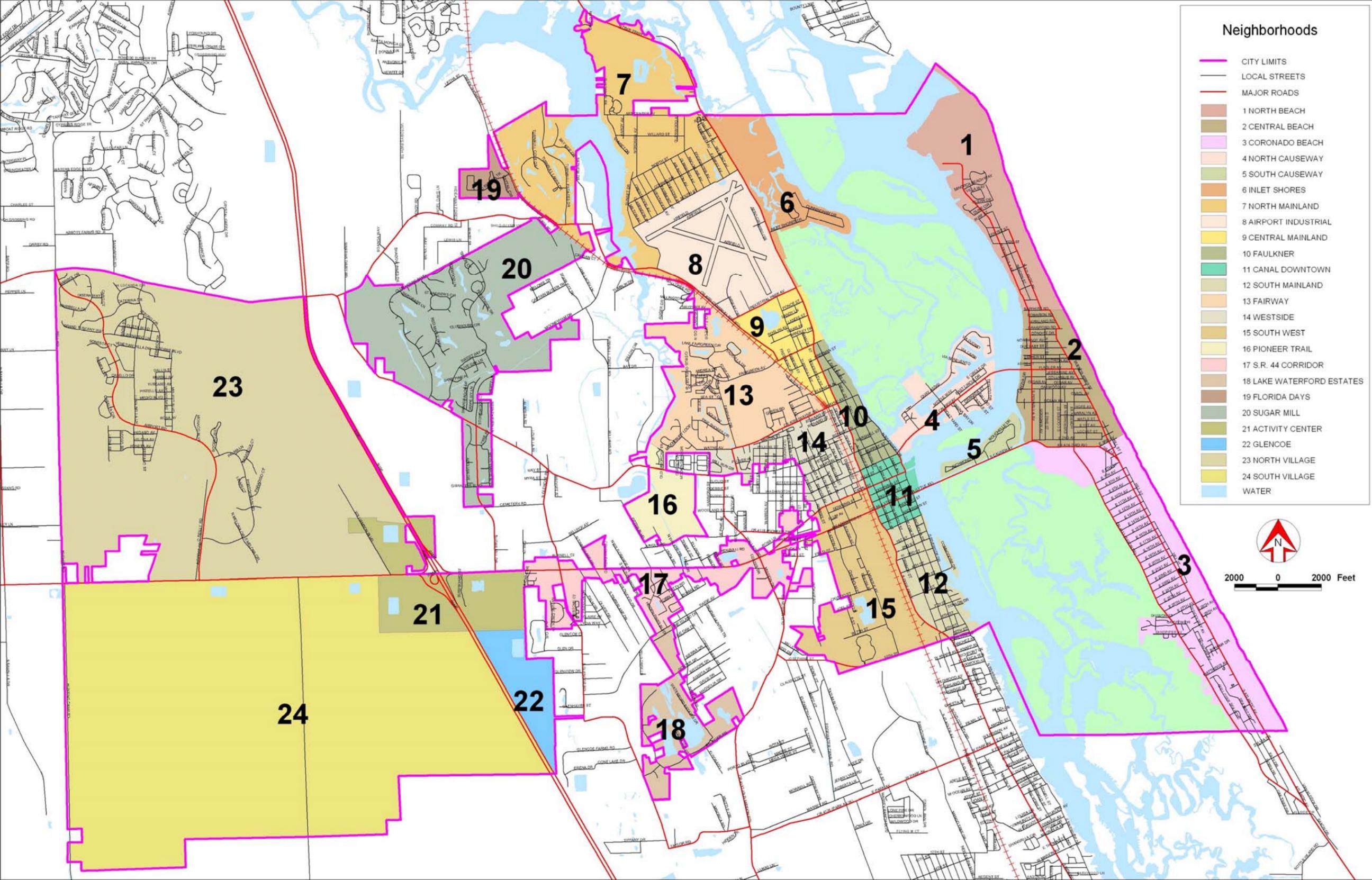
Immediately west of the Indian River is the Silver Bluff Terrace, which runs north and south, contains numerous shell beds, and varies in elevation from between five (5) and ten (10) feet above sea level. The terrace is a reasonably broad, flat area that extends back to the Atlantic Coastal Ridge.

The Atlantic Coastal Ridge generally parallels the Interstate 95 alignment. This ridge is a relic shoreline formed during an early geologic period when the ocean level was significantly higher than it is today. When the polar caps receded, the sea level was high for long periods of time, allowing waves to build dunes and form shoreline ridges. As the shoreline ridges developed, the ocean floor eroded, creating nearly level marine terraces. This was the process that created the Atlantic Coastal Ridge and the Silver Bluff Terrace.

COMMUNITY STRUCTURE

The settlement of New Smyrna Beach can be understood by looking at the different neighborhoods that comprise the City. There are 24 identified neighborhoods within the community, as shown on Map II-1, Neighborhood Map. Initially, 12 neighborhoods were identified in the Comprehensive Plan. However, as the City's boundaries have expanded through annexations, and as neighborhoods have evolved over time, 12 additional neighborhoods were created to better match the geographical limitations and

Map II-1 Neighborhoods Map



Resident perspectives that define neighborhood boundaries.

NORTH BEACH

Three significant developments have occurred in the North Beach area since the *1979 Comprehensive Plan* was completed. The first is the Smyrna Dunes park facility adjacent to the US Coast Guard station. The second project is the 640 unit Minorca residential development. The Minorca project contains a series of high-rise residential facilities and several thousand square feet of associated commercial space. The third project is the purchase of approximately 12.8 acres of undeveloped property generally bounded by the Atlantic Ocean on the east, Sapphire Road on the south, North Peninsula Avenue on the west and Lakewood Street on the north. The property is maintained as a park facility by the City of New Smyrna Beach.

The remainder of the North Beach area is predominately single-family housing, with some scattered duplexes, near the Flagler Avenue area. This area has developed over a long period of time, as evidenced by the variety of housing stock. There is very little developable land remaining in the North Beach area.

The North Beach Study by Gail Easley dated January 1996 provides data and analysis regarding the North Beach and is incorporated herein by reference as a supplement and part of the *Comprehensive Plan*.

CENTRAL BEACH

The Central Beach area includes the Flagler Avenue business district and the residential neighborhoods south to East 3rd Avenue. This area is connected to the mainland by the North and South Causeways, and contains a diverse mixture of uses, including public facilities such as the Utilities Commission, City of New Smyrna Beach facility on the North Causeway, City of New Smyrna Beach Administrative Office Building and a number of City parks and recreational facilities.

The Flagler Avenue corridor in the Central Beach area is the historic beachside business community. Several structures have recently undergone renovation, most notably the property southeast of the intersection of Flagler Avenue and South Pine Street. A new 112-room transient lodging facility is also proposed on the north side of Flagler Avenue, between North Peninsula Avenue and North Pine Street. Residents have expressed concerns about encroachment of non-residential uses into the surrounding residential neighborhoods and about concerns over the compatibility of new development with existing historic development. Flagler Avenue has a very narrow street right-of-way (40 feet), creating a very small-scale local beachside image. During weekends, holidays and special events, the Flagler Avenue business district often experiences significant parking problems. The Community Redevelopment Agency is in the process of adopting an update to its Master Development Plan that provides recommendations on how to address the parking issues on Flagler Avenue.

The area between Flagler Avenue and East 3rd Avenue east of Atlantic Avenue is highly developed, with mixed commercial and multi-family uses. Portions of this area are zoned B-4, Ocean Commercial zoning district, which is appropriate for transient lodging facilities on the beachside. Transient lodging facilities in the B-4 district are restricted by ordinance to 24 units per acre; however, hotels generally require a density of 50 units per acre. The City has created a new future land use designation ("Hospitality") that would allow transient lodging facilities of up to 75 units per acre. This designation, which is applied on a case-by-case basis, is currently prohibited from being applied to oceanfront properties. The City Commission is in the process of reviewing this issue.

Most basic service needs of the Central Beach area are met by a broad range of facilities within or immediately adjacent to the neighborhood. Businesses within or adjacent to this neighborhood include: banking, insurance, grocery, personal service facilities, restaurants, and entertainment complexes. Beachside fire protection is provided by a new fire station located on East 3rd Avenue.

Portions of the Central Beach area lie within the jurisdiction of the Community Redevelopment Agency. The Community Redevelopment Agency has completed a number of projects, most notably the Flagler Avenue Streetscape and the South Atlantic Avenue improvements. A facade guideline program was adopted in 1990 to encourage property owners to maintain their facilities in an appropriate style consistent with the character of Flagler Avenue. Future projects proposed by the Community

Redevelopment Agency are discussed in Section "D" of this element.

CORONADO BEACH

The Coronado Beach Neighborhood extends from East 3rd Avenue south to the City corporate limits. The predominant land use is single-family residential, occurring between South Atlantic Avenue and Saxon Drive in a number of repetitively long blocks running east and west. The area east of Atlantic Avenue contains a mix of single-family, duplex and multi-family residential development. Between 2006 and 2008, the City of New Smyrna Beach adopted a series of amendments to the future land use and zoning maps, which changed the future land use designation for a majority of the area east of Atlantic Avenue from High Density Residential to Medium Density Residential and the zoning from R-6, Multi-Family Residential to R-3A, Single-Family and Two-Family Residential. The City also adopted an ordinance reducing maximum allowed height on vacant properties zoned B-4 from nine (9) stories to four (4) stories.

Commercial development is centered at the north end of the neighborhood on East 3rd Avenue, and serves the entire beachside community. The largest commercial parcel is the Indian River Plaza Shopping Center. Other centers include the Beach Plaza Shopping Center, which is adjacent to the east side of Callalisa Creek. The Food Lion Shopping Center serves the area south of East 27th Avenue. The Coronado Beach Neighborhood may expand if the City annexes portions of the unincorporated areas extending south to the National Seashore Park. The Ocean View facility, located on South Atlantic Avenue, is the only health care facility east of the Indian River.

The Coronado Beach Neighborhood is the most heavily impacted by beach traffic. Expansion of South Atlantic Avenue to five (5) lanes has increased the traffic capability in the area. This, along with the high-rise bridge, has substantially improved traffic flow in the South Beach area. However, pedestrian safety issues have now become a concern particularly for residents crossing South Atlantic Avenue to access the ocean. City staff has been working with residents to identify improvements to enhance pedestrian safety in this neighborhood.

NORTH CAUSEWAY

The North Causeway Neighborhood, which connects the mainland to beachside New Smyrna Beach, provides several redevelopment opportunities, including the City-owned Administrative Office Building site and the former New Smyrna Beach High School site. A North Causeway study was completed in 2004. However, the recommendations contained in the study were never implemented.

The pavement within the North Causeway has been widened to three (3) lanes, with a center turn lane, which facilitates uninhibited traffic flow. There may be opportunities to replace the center turn lane with landscaped medians through coordination with the Florida Department of Transportation. There are frontage roads along portions of the causeway, which provide good access to developments along the corridor. While much of the North Causeway is developed, there are still some vacant parcels and opportunities for redevelopment. The Florida Wildlife Commission has obtained a Volusia County ECHO grant to demolish some buildings at the old high school site and to renovate the remaining buildings. The site will be used as a fish hatchery and will also house the Marine Discovery Center and Artists' Workshop.

The commercial areas along the north side of the causeway are separated from the single-family residential development to the north by a canal that connects to the Intracoastal Waterway. Periodically, traffic flow on the North Causeway is interrupted, due to the drawbridge, which must be raised to accommodate large boats traveling on the Intracoastal Waterway.

SOUTH CAUSEWAY

The South Causeway Neighborhood consists of an island located north of State Road A1A. The western half of the island has been developed with single-family residences, while the east half of the island contains the Bouchelle Island multi-family development. The Bouchelle Island project, which has been under construction for over 15 years, is almost entirely built-out, with the exception of approximately six multi-family buildings containing approximately 150-200 units. In recent years, the residents of the Bouchelle Island project have expressed concerns about compatibility, as new multi-family construction

has occurred within the development. Residents have also raised concerns about insufficient parking within the development.

The South Causeway has been completed since the time of the last Comprehensive Plan. It is a four (4) lane high-rise bridge and roadway that connects with the five (5) lanes on Atlantic Avenue. The North and South Causeways handle all traffic destined for the beaches, the unincorporated area south of the beaches, and the Canaveral Seashore Park.

INLET SHORES

The Inlet Shores Neighborhood, located on the east side of US Highway 1, north of Industrial Park Avenue, consists of two single-family subdivisions – Inlet Shores and Mangrove Estates. There are also approximately 5-10 single-family lots located within the neighborhood that are not part of either platted subdivision. Both the Inlet Shores and Mangrove Estates subdivision are substantially built out. Because of their proximity to the New Smyrna Beach Municipal Airport, noise from aircraft and limitations on heights of buildings are the primary concerns facing this neighborhood.

NORTH MAINLAND

The North Mainland area is located on the north edge of New Smyrna Beach, and forms the gateway to the City along both the Intracoastal Waterway and US Highway 1. The area encompasses the community of Islesboro, the Turnbull Bay Golf and Country Club subdivision, the Doris Leeper Preserve and the Atlantic Center for the Arts. There is substantial undeveloped property within the North Mainland area, and the City anticipates continued growth in this location. The community of Islesboro has developed slowly over several years, and still has considerable room for expansion. Consequently, future development in Islesboro is expected to continue on a parcel by parcel (or small project) basis.

Due to the North Mainland area's strategic location between the Indian River and Turnbull Bay ecosystems, the view coming south from Port Orange along US Highway 1 is spectacular. The wide open marshes provide clear views of the area, from the lighthouse at Ponce Inlet on the east to the estuarine environment at Turnbull Bay on the west. There is a significant heavily wooded piece of undeveloped property at the City corporate limits west of US Highway 1. The corridor into town is characterized by small commercial establishments along the west side of US Highway 1 adjacent to the community of Islesboro. In some cases, these small businesses were converted from former single-family dwelling units.

The Turnbull Estates Golf and Country Club Community began in the early 1990's and all approved phases are substantially built out. Two additional unapproved phases, on the north and south sides of Turnbull Bay Road, are anticipated to add approximately 200 additional multi-family dwelling units in the future.

The extensive coastal wetlands in the North Mainland area comprise a significant portion of the total area of the neighborhood. The Turnbull Bay drainage corridor bordering the neighborhood's western boundary receives drainage from a large land area to the south and west. It is essential that the Turnbull Bay area and the Indian River be protected from developmental impacts. In particular, development in this area should not restrict the natural flushing action of the wetlands, and should not occur in a manner that will be detrimental to the wetland environment.

The Atlantic Center for the Arts complex is located on the northeast corner of Sundance Trail and Art Center Avenue. Existing buildings include the administration building, a workshop, an amphitheater, performing arts theater, and artists' residences. The paving of Art Center Avenue, from US Highway 1 to Sunset Drive was completed during the previous planning period. Unincorporated land located adjacent to the north side of Art Center Avenue between the Atlantic Center and US Highway 1 has development potential.

This neighborhood has a limited amount of commercial uses. For shopping and personal services, the residents generally travel south to the New Smyrna Beach business districts or north to Port Orange. As this area continues to develop, additional demands for neighborhood level commercial services will increase. A new police/fire station is under construction on Industrial Park Drive, which will serve the area's fire protection needs.

The New Smyrna Beach Arterial Corridor Regulations apply to US Highway 1 from its intersection with Art Center Avenue to the northernmost corporate boundary.

AIRPORT INDUSTRIAL

The Airport at New Smyrna Beach began as a grass strip in the middle of an orange grove. In 1942, the strip was acquired by the United States Navy and was immediately developed into a military airfield. Navy operations began in 1944. After World War II, the Airport was given to the City of New Smyrna Beach by the US Government's War Assets Administration on April 10, 1947, becoming New Smyrna Beach Municipal Airport.

The New Smyrna Beach Municipal Airport is located on the west side of US Highway 1 on approximately 770 acres of land. The airport accommodates 180,000 annual aircraft operations and 190 based aircraft. The airport is bordered to the north by the Isleboro residential area, by an 86 acre industrial park fronting on Industrial Park Drive, a 30 acre City recreational facility fronting on Turnbull Bay Road, and a small commercial area fronting on US Highway 1. Major arterial roadways serving the area include Interstate 95 and Highway US 1. Interstate 95 passes north and south through Volusia County to the west of the Airport, and US 1 runs north and south through Volusia County to the east of the Airport. Both arterial roadways follow the general direction of the Atlantic Ocean shoreline. There are two entrances to the Airport property, one from US 1 on Skyline Drive and the other from Turnbull Bay Road via United Drive or Industrial Park Boulevard. Additionally, Airway Circle and South Street offer access to the southern and northern sides of the Airport, respectively. There are no on-airport roadways offering access from one quadrant of the airfield to another.

The recently drafted Economic Development Plan for the City of New Smyrna Beach identifies the municipal airport as one of ten primary economic development opportunities. In approximately 2004, an air traffic control tower was installed at the airport. As a result, air traffic at the airport increased, resulting in increased noise complaints from surrounding residential areas. In response, the City Commission created a Noise Abatement Committee, as a sub-committee of the Airport Advisory Board.

CENTRAL MAINLAND

The Central Mainland area is roughly bounded by Industrial Park Avenue on the north, the Indian River and US Highway 1 on the east, Wayne Avenue on the south and the FEC railroad corridor on the west. The area abuts the surrounding neighborhoods, including the Faulkner, Westside, Fairway and South Mainland areas.

Existing land uses include strip commercial development along US Highway 1 on the east side of the neighborhood; the City-maintained skate park, which was completed in 2009 on the north side of the neighborhood; light industrial and warehouse uses on the south and west sides of the neighborhood; and low density residential in the middle of the neighborhood.

While the residential area of the neighborhood is well established and substantially built-out, the commercial and industrial areas on the east, south and west sides of the neighborhood present possible redevelopment opportunities in the future.

FAULKNER

The Faulkner neighborhood is located between the Central Mainland, Westside, Canal Downtown and North Causeway Neighborhoods. This neighborhood is an older, highly urbanized area consisting primarily of single-family residential, with some duplex and multi-family residential on the south end of the neighborhood, and strip commercial development on the west side of the neighborhood, along US Highway 1. Single-family housing, the predominant land use, is developed in the heart of the community along the shoreline of the Indian River. This single-family housing is within an area currently included in a National Register Historic District.

Development along US Highway 1 consists mostly of strip commercial uses. In many cases, the uses have transitioned over the years from single-family residences as traffic has increased on the highway, and as demand for commercial facilities has made the area less desirable for residential uses. There is no recognized commercial center within this neighborhood. While there are a few newer commercial

facilities along US Highway 1, the overall commercial character is one of decline.

While this area fronts along the Indian River, just as the North Mainland area does, there is less pressure for development into the Indian River estuarine environment. This wetland area is sensitive to development, and should be protected from detrimental activities.

CANAL DOWNTOWN

The Canal Downtown Neighborhood is the historic traditional downtown of New Smyrna Beach. The neighborhood contains a mix of single-family, duplex and multi-family residential, although the majority of the neighborhood is developed with non-residential land uses. The historic downtown fabric is relatively intact, although fire and demolitions have created some gaps in the historic fabric. Located east of US Highway 1 and west of the Indian River, the area has struggled during the recent economic downturn, and has seen a significant increase in the number of vacant storefront. As of 2010, the Community Redevelopment Agency (CRA) is in the process of adopting an update to its Master Plan, which includes strategies for revitalizing and stabilizing this neighborhood.

The neighborhood, which contains the Bert Fish Memorial Hospital, a major employer in Southeast Volusia County, also is home to City and County offices. The neighborhood has two well-maintained and highly used public park facilities (Riverside Park and Old Fort Park) and offers multiple views of the Intracoastal Waterway. There is easy access to both the South and North Causeways from the Canal Downtown Neighborhood.

One particular issue of concern is the need to generate more activity at the street level and after normal business hours. Another area of concern relates to the need to direct residents and visitors from State Road 44 and US Highway 1 into the neighborhood and to clearly mark and provide parking for those visitors once they arrive. The Community Redevelopment Agency purchased land in the downtown area to relieve current parking shortages and a small parking facility has been constructed at the corner of Julia and Rush Streets. There is also a lack of connection between Hospital and Canal Street, with pedestrians having to cross State Road A1A/Lytle Avenue, which is a five-lane arterial roadway.

The draft CRA Master Plan Update identifies several opportunities for redevelopment and partnerships in the neighborhood, including the potential to work with the hospital on synergistic development opportunities such as supportive retail and residential; strategies to capitalize on the high daytime population from offices; and recommendations to create a stronger connection from downtown to the Waterfront.

Finally, the Florida Department of Transportation (FDOT) is in the process of designing improvements at the intersection of Canal Street and US Highway 1. The improvements, as currently conceived, would eliminate off-street parking on the westernmost block of Canal Street, east of US Highway 1. Additional turn lanes on US Highway 1, would create additional roadway, could potentially impact efforts by the CRA to beautify and increase pedestrian accessibility in this area, and could further enhance the physical and perceived separation between "East" Canal Street and "West" Canal Street.

SOUTH MAINLAND

The South Mainland area extends from Smith Street south to the City corporate limits, which is the boundary between New Smyrna Beach and Edgewater. This area includes the commercial strip along the east side of US Highway 1, the City's Parks and Recreation Department and City Gym, Utilities Commission pump station, the New Smyrna Beach Housing Authority offices and the Volusia County Regional Library.

The existing neighborhood that comprises the bulk of the area is one of the older neighborhoods in New Smyrna Beach and is substantially built-out. In 2010, the City completed an update to its historic structure survey in order to provide future recommendations for expansion of the National Register Historic District within this area. This single-family area is interrupted by scattered multi-family and office uses throughout. Another significant break in the land use pattern is the City utility yards and an abandoned building materials operation south of Smith Street. These uses produce a negative influence on the maintenance of nearby residential structures.

There is considerable traffic passing through the South Mainland area that is destined for the South Causeway and the beach areas. Construction of the new high-rise bridge has altered the circulation pattern in the area. Direct access from Riverside Drive to the causeway is no longer possible. Traffic is now directed to either Live Oak Street or Palmetto Street in order to access Lytle Avenue and ultimately the bridge.

Yacht Club Island is accessed from Riverside Drive by a narrow bridge, and contains the New Smyrna Beach Yacht Club and a number of single-family dwelling units.

Strip commercial development adjoins the east side of US Highway 1 from the State Road 44 overpass south to the Edgewater city limits. A concrete plant, construction material center, and several restaurants are located between US Highway 1 and the Florida East Coast Railway on the west side of US Highway 1.

FAIRWAY

The Fairway Neighborhood is bounded by the Florida East Coast railway and Turnbull Bay Road on the east and north, the municipal boundary on the west and Wayne Avenue on the south. Growth within this neighborhood resulted primarily from the attraction of the Fairgreen project. This project includes an 18 hole golf course, and is located just north of the existing municipal golf course. Fairgreen is a comprehensive residential planned community that includes approximately 21 acres of single-family homes, 65 acres of townhouses, and a golf course/clubhouse/restaurant facility. The overall land use is considered to be medium-density. This project is substantially built out.

In 2008, the City approved annexation of approximately 55 acres at the north end of the neighborhood. Although no applications have been submitted, policies were placed in the *Comprehensive Plan* that would limit the total number of new residential units to 132. A portion of the annexed acreage, adjacent to Turnbull Bay Road, is also proposed for industrial uses.

Turnbull Creek, which parallels the corporate limits of New Smyrna Beach, forms the west boundary of the Fairway neighborhood area. The creek drains a significant amount of acreage to the southwest, and should be protected as much as possible. The threat of water pollution resulting from surface water runoff is a major concern.

WESTSIDE

The Westside Neighborhood is a historically African-American neighborhood that is roughly bounded by Wayne Avenue on the north, US Highway 1 on the east, Canal Street on the south and the corporate city limits on the west. Nearly all of the neighborhood is currently experiencing some kind of urban deficiency, which affects the community's overall living environment. The most apparent deficiency is the existence of substandard housing. Accordingly, the Westside neighborhood has been identified as a target area for receipt of Community Development Block Grant (CDBG) Funds. The City is participating in the urban county CDBG program, and is applying funds to housing, public facility needs and social and economic development programs in this neighborhood. Specific housing needs and funding requirements are discussed in the Housing Element.

The City is currently in the process of working with neighborhood residents and stakeholders to develop a neighborhood plan. The plan would identify areas of concern, make recommendations as to strategies to address those concerns and present a plan for implementing those strategies. Almost half of the neighborhood is located within the Community Redevelopment Agency (CRA) district. The potential exists for partnerships between the City, the CRA, residents and other agencies, such as Bert Fish Medical Center, to provide or increase services within the neighborhood. In December 2009, the City Commission listed expansion of non-recreational services at the Babe James Community Center as their top priority over the next two fiscal years. The Babe James Community Center, which acts as a focal point for residents within the neighborhood, currently offers programs such as after school care and sports and provides meeting space for the community.

The area immediately north of Canal Street bounded by Washington Street on the north, Dimmick Street on the east, and Myrtle Avenue on the west has a number of commercial uses scattered throughout, as well as a number of vacant and boarded-up structures. This area was historically the commercial hub of the neighborhood and residents have expressed an interest in revitalizing and enhancing this commercial

area. Additionally, the neighborhood has strong connections to commercial areas on both Canal Street and US Highway 1. Approximately fifty-percent of the people living in the Westside Neighborhood own their homes. These residents must be assured that their homes will be protected from commercial encroachment, and that ample opportunity will be provided to upgrade and restore their homes (i.e., through the CDBG program or some other subsidy program for improving substandard housing conditions).

Approximately 75-85% of the land in the Westside Neighborhood has a future land use designation of High Density Residential. The majority of this high-density residential land is zoned R-5, Multi-Family Residential, which allows multi-family development of up to nine (9) stories or 95 feet in height. However, the existing development pattern within the neighborhood is more consistent with low- to medium-density residential. This mismatch between existing land use and zoning designations and the existing and desired development pattern is expected to be addressed in the final draft of the neighborhood plan.

Also related to the issue of land use and zoning is the issue of affordable housing. According to the CRA Master Plan Update (2010), this area of the CRA has historically had the lowest property values. As a result, the neighborhood has become a location where organizations that construct low- to moderate-income housing tend to purchase or obtain land and construct homes. Although the construction of low- to moderate-income housing in this neighborhood is being driven by market factors, it has raised a larger issue of how affordable housing can be provided throughout the entire City instead of being congregated within a specific neighborhood or geographical area.

SOUTHWEST

The Southwest area is bordered by State Road 44 on the north, US Highway 1 on the east, the community of Edgewater on the south, and unincorporated areas on the west. The predominant land use in this area is single-family residential. There are a number of houses that have been converted to multi-family use, particularly in the South Myrtle Avenue area. While a significant amount of vacant land exists in this area, this neighborhood has been one of the least active areas in terms of development.

The largest landowner of undeveloped property within this neighborhood is a subsidiary of the Florida East Coast Railroad. This subsidiary holds approximately 180 acres, which includes rail lines, a railroad round house and vacant land. This property currently has a future land use designation of Industrial and is zoned I-1, Light Industrial. In approximately 2007, the City, representatives of the property owner, residents and other community stakeholders held a series of visioning sessions to master plan the entire site. Although a plan was never completed, the City anticipates that this site will be developed in the future, although the specifics of that development are not yet known. To accommodate the vision that was partially developed during the visioning sessions a new future land use category of Industrial Mixed Use has been included in the *Comprehensive Plan* and applied to this property as part of the EAR-based amendments completed in 2010. The site is known to be contaminated and will require brownfield funds to mitigate the contamination on the property before development can occur.

A portion of 10th Street, from US Highway 1 to just west of the New Smyrna Beach High School, was widened from two lanes to four lanes in 2006/07. Widening of the remainder of 10th Street has not yet been scheduled for construction, although funds for engineering and design services is scheduled for FY 2011/12. 10th Street is the only access route for students at the New Smyrna Beach High School and Daytona State College campus. Because of its proximity to the existing middle school, high school and college campus, it is likely that the demand for future residential development in this neighborhood will increase once economic conditions improve.

The realignment of State Road 44 to connect with Lytle Avenue bisects the northern portion of the neighborhood. The Utilities Commission, City of New Smyrna Beach office/maintenance building and storage yard have been constructed west of Slaton Street between State Road 44 and Field Street.

PIONEER TRAIL

Single-family residential development, including zero (0) lot line residences, represents the principal types of land use in this neighborhood, although a significant portion of the land within this area of the City remains undeveloped. Turnbull Creek traverses the area in a north south orientation; and this

environmental feature, along with the semi-rural location, requires large lots, surface water retention areas, limited impervious surfaces, and a central sewer system rather than septic tanks.

STATE ROAD 44 CORRIDOR

The State Road 44 corridor is a collection of annexed land parcels containing vacant land, single-family dwelling units and a variety of commercial business establishments. Development is most heavily concentrated at the Mission Drive and Wallace Road intersections. Existing commercial uses include two (2) major shopping centers. Of these two shopping centers, one is displaying signs of decline, although exterior renovations were recently completed on a portion of the building. The second shopping center, which is located further west along State Road 44 is currently thriving. However, the proposed construction of a Super Wal-Mart store west of Interstate 95 will have significant impacts on the vitality of this center, which includes a smaller Wal-Mart store that will close once construction of the new building is complete. Wal-Mart, as well as a Publix supermarket, are the two anchors of this shopping center. No plan has been developed to address the issue of what will occur with the space within the shopping center that will be vacated by the existing Wal-Mart store.

A narrow piece of land, which was formerly a Florida East Coast Railway right-of-way, but which is currently owned by the Utilities Commission, City of New Smyrna Beach, is occupied by electric transmission lines and encroaches on the neighborhood.

Mission Drive was widened from two (2) lanes to four (4) lanes in 1998. This improvement extended from State Road 44 southward to intersect with Old Mission Road and continued to Josephine Street. Eventually, Josephine Street and 10th Street will be completely widened to four (4) lanes providing a four (4) lane improvement from Josephine Street easterly to intersect with US Highway 1. Thus, traffic will be able to move more freely to uses concentrated at the State Road 44 corridor. This is particularly important as the State Road 44 corridor experiences significant traffic congestion from out-of-town beach-goers, particularly during weekends and holidays.

Clustering commercial uses at this intersection of arterial and collector roads is preferable to strip commercial development because it shortens travel distances, reduces the number of driveways and turning movements, and increases shopping opportunities.

There is a considerable amount of property adjacent to the State Road 44 corridor with dense vegetation and trees that lends itself to natural landscaping. A primary consideration is to foster development that will be compatible with the existing four (4) lane facility and create an aesthetically desirable entrance into New Smyrna Beach. The City has adopted arterial corridor regulations for State Road 44 .

LAKE WATERFORD ESTATES

The Lake Waterford Estates Neighborhood is bounded by Paige Avenue on the north, and the incorporated city limits on the east, south and west. This neighborhood is developed primarily with large-lot single-family dwellings. A significant portion of the neighborhood is undeveloped and is likely to experience increased pressure for development once economic conditions improve. The neighborhood has access to State Road 44 via Eslinger Road/Old Mission Road and Glencoe Road.

The Lake Waterford Estates Planned Unit Development is the primary residential development within the neighborhood. Originally, developed in unincorporated Volusia County, the project still contains enclaves that were never annexed into the City. This creates issues with regard to the provision of solid waste and emergency services. The City should address this issue as it reviews annexation strategies throughout the City.

FLORIDA DAYS

The Florida Days Neighborhood consists of a single-family planned unit development. The subdivision was approved in 2007 and remains largely undeveloped. The project was designed to include neo-traditional design principles such as alleyways with rear garages. The neighborhood is bounded by Creekshore Trail on the east and the incorporated city limits on the south, west and north.

SUGAR MILL

The Sugar Mill Neighborhood is generally bounded by Turnbull Bay Road on the north and the incorporated city limits on the east, south and west. The neighborhood is comprised of residential and

agricultural uses. Two planned unit developments comprise the bulk of the residential units. A small neighborhood commercial node is located at the intersection of Pioneer Trail and Sugar Mill Drive. However, only a convenience store with gas pumps has been developed at this node.

The Sugar Mill Golf and Country Club Estates Planned Unit Development was originally developed in unincorporated Volusia County and annexed into the City in 1998. Although substantially built-out at the time of annexation, new development continues to occur, the most recent of which includes a proposal to construct an additional 104 single-family homes west of the existing development. Primarily single-family in nature, Sugar Mill Golf and Country Club Estates also includes some multi-family residential townhome units. This community is also served by a golf course and club house facility.

The Isles of Sugar Mill and Landings at Sugar Mill are located south of Pioneer Trail. The Isles of Sugar Mill, located on the west side of Sugar Mill Drive, is a 113-lot single-family development. This project is approximately 50% built out. Landings at Sugar Mill, located on the east side of Sugar Mill Drive, is a 170-unit townhome development, which is approximately 75% built out.

Historically, this area was agricultural and rural in nature. However, beginning in the 1970s with the development of the Sugar Mill Golf and Country Club Estates Planned Unit Development, the character of the area began to change. Residents have raised concerns about traffic on both Pioneer Trail and Sugar Mill Drive and the loss of character within the neighborhood. Prior to 2008, two new developments were proposed in this neighborhood, which would have added approximately 800-900 dwellings units. One of these developments is no longer active. However, the larger development, which is also adjacent to State Road 44, is currently pursuing development approvals through Volusia County.

SOUTHEAST VOLUSIA ACTIVITY CENTER

The Southeast Activity Center is an area intended for high intensity employment bases, office and industrial uses, commercial services, recreational facilities and housing supported by a major transportation node. The Interstate 95 and State Road 44 interchange serves as the transportation node for the activity center with the activity center occupying the four (4) quadrants surrounding the interchange.

In the northwest quadrant of the activity center, the Utilities Commission, City of New Smyrna Beach is constructed a sewage treatment facility that opened in late 1999. Site plan approval was granted in 2010 for a new 155,000-square foot Super Wal-Mart in the northwest quadrant. This retail facility is Phase I of a larger retail/office facility that will eventually consist of approximately 350,000 square feet of non-residential space. The only other development within this quadrant is a gas station, which is located in unincorporated Volusia County.

The northeast quadrant of the Activity Center Neighborhood is vacant and the majority of this area remains outside the City's limits. A planned unit development agreement was approved by the City Commission in 2008, which would allow industrial and/or multi-family development on this parcel. A second development proposal in this quadrant is currently under review by Volusia County, which, if approved, would allow approximately 600-700 residential units and retail, hotel and office uses.

The southeast quadrant, which is entirely within the city limits, is currently developed with a gas station. A six-lot commercial subdivision was approved by the City Commission in 2007. The project is intended to be developed with a mix of tourist commercial uses, including restaurants, a gas station, hotels and financial institutions. Although work was completed to install the required subdivision infrastructure, these improvements have not yet been accepted by the City and no development has occurred on the property.

The southwest quadrant, which consists of approximately 182 acres, is currently undeveloped.

GLENCOE

The Glencoe Neighborhood consists primarily of a vacant 127-acre tract of land. This property was approved for a 127-unit single-family development in 2006. However, the project was not built and the approvals have since expired. The area surrounding this neighborhood is located within unincorporated

Volusia County and is largely developed with single-family residential homes. The Southeast Volusia Humane Society, a tennis and racquetball club and utility facilities are also located within this unincorporated area.

NORTH VILLAGE

This neighborhood consists of the Venetian Bay Planned Unit Development, the Hampton Village Planned Unit Development, the Utilities Commission tract, the proposed Verano Planned Unit Development, a Florida Power and Light transmission and distribution station a single-family residence and a golf cart manufacturing facility. These areas were all annexed into the City after 1995. As annexations continue, it is expected that this neighborhood will grow to include the entire area west of Interstate 95 north to Pioneer Trail and west to Hunting Camp Road. Some urban development is expected in this area as a result of four (4) key trends. First is the provision of urban services and improved road access. Second is the continuing and aggressive spread of urban development along the Airport Road / Interstate 95 corridor moving south from City of Port Orange. Third is the demand for quality residential communities needed to support employment growth expected to occur in the Southeast Volusia Activity Center. Fourth is the demand for quality residential communities for those who are employed in the Orlando metropolitan area but desire to commute from the New Smyrna Beach area or maintain second homes here.

Development within this neighborhood will be directed into major residential projects with some self-contained commercial and employment opportunities. These projects will stress protection of major environmental assets through the maintenance of significant levels of open space. New urbanism principles will be stressed to give structure to the new development that is reflective of the assets of the older portions of the City. This concept is experiencing pressure from more conventional suburban-style development proposed on the north side of Pioneer Trail.

The Venetian Bay Planned Unit Development is approximately 50-60% built out. At total build out, the project will have 1,823 dwelling units and approximately 110,000 square feet of non-residential floor area. One of two multi-use buildings have been constructed within the Village Center, which currently includes such services as a restaurant, health club and a parcel shipping office. A second multi-use building has been approved by the City but has not yet been constructed. Two additional commercial sites are located at intersections of Airport Road and State Road 44 and at Airport Road and Pioneer Trail.

The Hampton Village Planned Unit Development is located on the west side of Pioneer Trail, between Venetian Bay and State Road 44. The approved development agreement for this project will allow construction of approximately 1,113 single-family, duplex and multi-family units. Although plans for the first two phases of development and the amenity center were approved in 2007, no development has occurred due to current economic conditions.

The proposed Verano Planned Unit Development is located in the northeast quadrant of the neighborhood. Although no approvals have been granted, the proposed project, if approved, would allow construction of an additional 1,044 single-family, duplex and multi-family units.

The other significant tract of land within this neighborhood is owned by the Utilities Commission City of New Smyrna Beach. This approximately 800-acre tract of land is largely undeveloped. The proposed Williamson Boulevard extension south to State Road 44 is anticipated to traverse the site. However, the final location of this road has not been approved by the Utilities Commission.

SOUTH VILLAGE

This neighborhood, which is generally bounded by Interstate 95 on the east, State Road 44 on the north and the corporate city limits on the south and west, consists of approximately 5,000 acres of vacant land. The primary existing use is silviculture and agriculture, although a significant portion of the neighborhood consists of wetlands and environmentally sensitive areas.

These areas were all annexed into the City after 1995. As annexations continue, it is expected that this neighborhood will grow to include the entire area west of Interstate 95 to Hunting Camp Road. Some urban development is expected in this area as a result of four (4) key trends. First is the provision of urban services and improved road access. Second is the continuing and aggressive spread of urban

development along the Airport Road / Interstate 95 corridor moving south from City of Port Orange. Third is the demand for quality residential communities needed to support employment growth expected to occur in the Southeast Volusia Activity Center. Fourth is the demand for quality residential communities for those who are employed in the Orlando metropolitan area but desire to commute from the New Smyrna Beach area or maintain second homes here. It is anticipated that in the future, both Airport Road and the Williamson Boulevard Extension will be constructed through this neighborhood, eventually connecting to State Road 442 in Edgewater.

Development within this neighborhood will be directed into major residential projects with some self-contained commercial and employment opportunities. These projects will stress protection of major environmental assets through the maintenance of significant levels of open space. New urbanism principles will be stressed to give structure to the new development that is reflective of the assets of the older portions of the City.

INFRASTRUCTURE

The facilities and services that are currently available to serve the existing land uses in the City are described in general terms below. More specific information is contained in subsequent elements of this plan.

As of April 2010, there are 1,751 undeveloped parcels within the City, and 136 units for which building permits have been issued but have not yet received certificate of occupancy approval. Additionally, 440,000 square feet of non-residential construction has been approved or permitted but not yet completed. Furthermore, many of these projects had their approvals extended under Senate Bill 360, which was approved by the Florida Legislature in 2009. Given the current economic conditions, it is likely that many of these project approvals will expire before conditions improve. The magnitude of this is such that no infrastructural demands will be at an unacceptable level-of-service.

Based on the analysis of the existing roadway network, there are no roadway segments operating in an unacceptable level-of-service.

There are limited areas of the City that do not have the capability of being served by central wastewater collection and disposal. The Utilities Commission, City of New Smyrna Beach operates one (1) wastewater treatment plant, located immediately west of Interstate 95 and north of State Route 44, with a rated capacity of 7.0 million gallons per day (mgd). This plant, which serves both the mainland and the beachside, has been in operation since 2000.

The Utilities Commission currently owns and operates one (1) water treatment plant located at 2640 Paige Avenue, immediately east of South Glencoe Road in unincorporated Volusia County. The area served by the water treatment plant is the same as that served by the wastewater treatment plant (i.e., all developed areas within the City limits, both on the beachside and the mainland, that are not on private wells, and scattered developments and individual customers in unincorporated areas of Volusia County near the City).

Over the years, New Smyrna Beach has had to continue seeking water supplies farther inland due to saltwater intrusion in its wells. In fact, the City's original Smith Street wellfield is no longer being used, due to this intrusion. Consequently, the Utilities Commission now operates three (3) wellfields. The water treatment plant wellfield currently has seven (7) wells, providing 3,230 gallons per minute (gpm). The Samsula wellfield has six (6) wells, providing 1,850 gpm. The State Road 44 / Pioneer Trail wellfield has six (6) wells, providing 2,770 gpm. Each of the wells at the sites range from 183 to 364 feet deep, drawing water from the Floridan Aquifer. Total permitted peak capacity for all three (3) wellfields is 10.5 mgd; the average capacity is 5.00 mgd.

The City has three (3) general categories of drainage areas. The older downtown area with older stormwater management systems that directly discharge into the Indian River; new subdivisions constructed after 1979 with effective stormwater management systems; and the remaining portion of the City which has no man-made drainage systems.

The older downtown drainage systems serve a relatively small portion of the City and perform generally well. These systems require maintenance because they are nearly 60 years old and have exceeded the

expected life by approximately 10 years. Because of the direct discharge nature of the systems, they have a relatively high impact upon adjacent natural resources.

All subdivisions developed since 1979 have excellent stormwater management systems that perform well at a very adequate level-of-service. These systems are generally in excellent condition, have an expected life of approximately 50 years, and have very little impact on adjacent natural resources.

The remaining portion of the City has no man-made drainage systems and thus has localized flooding problems during heavy rains. These areas also have a relatively high impact on adjacent natural resources. However, the City has an ongoing drainage program to lessen the flooding and impact on natural resources in these areas.

The City has completed a Stormwater Master Plan and has implemented a stormwater utility fee to pay for drainage improvements.

REDEVELOPMENT

Many portions of the City need redevelopment. Specific areas needing redevelopment include:

- Portions of the Central Mainland, Faulkner, Westside, Canal Downtown, South Mainland and Southwest neighborhoods that front along US Highway 1. This area of the City was impacted when US Highway 1 was relocated to the west of the traditional downtown area. The relocation, which required the acquisition of portions of existing platted land, created many remnant lots along the east and west sides of US Highway 1. These smaller commercial and residential lots should be combined to create more conventional-sized development parcels, which would allow adequate space to accommodate buildings, stormwater drainage facilities and landscaping.
- The Westside neighborhood, where sub-standard single-family homes on non-conforming lots should be rehabilitated or replaced, while maintaining the single-family character of the neighborhood. As of April 2010, the City and neighborhood residents are in the process of developing a neighborhood plan to identify resident concerns and to establish an implementation plan to address short-, intermediate- and long-range issues within the neighborhood.
- The South Beach Neighborhood, south of East 8th Avenue, particularly along Atlantic Avenue where older (some substandard) medium-density single-family, duplex and multi-family residences are located, should be redeveloped with medium-density single- and two-family residential uses to prevent the destruction of medium-density residential areas for the construction of high-density multi-family residential and commercial uses.
- The Central and South Beach Neighborhoods, north of East 8th Avenue, particularly along Atlantic Avenue where older (some substandard) medium-density single-family, duplex, and multi-family residences are located, should be redeveloped with high- or medium-density single-family, duplex, and multi-family uses;
- The Canal Downtown Neighborhood, which was historically the City's core downtown area. In recent years, since the construction of retail facilities west of US Highway 1, along State Road 44, this area has experienced an increase in the number of vacant storefronts and experiences very little activity outside normal working hours. As of April 2010, the City is in the process of hiring a consultant to prepare a form-based zoning code for this neighborhood, and the area immediately surrounding it. The goal is to craft regulations that encourage ground-floor activities within the storefronts, promote pedestrian activity, and create consistency and flexibility for redevelopment. Standards should be developed to ensure that new construction is consistent with the historical development pattern with regard to mass, building location and materials and to address real and perceived parking issues.
- The Florida East Coast (FEC) railroad property in the Southwest Neighborhood, should be the focal point of community visioning sessions for the future development of this approximately 180-acre parcel. While a community-wide vision process was begun in approximately 2008, the effort stalled for a variety of reasons and should be restarted.

- The North Causeway Neighborhood, which connects the mainland to beachside New Smyrna Beach, provides several redevelopment opportunities, including the City-owned Administrative Office Building site and the former New Smyrna Beach High School site. A North Causeway study was completed in 2004. However, the recommendations contained in the study were never implemented.
- The Central Beach Neighborhood along Flagler Avenue, where: (1) older commercial buildings should be rehabilitated, (2) single-family residences should be maintained, or converted into commercial structures, and (3) standards should be developed to ensure that new construction is consistent with the historical development pattern with regard to mass, building location and materials and to address real and perceived parking issues.

LAND USE CATEGORIES

Land use categories are useful for indicating the preferred future use (or uses) and maximum development densities and/or intensities for all lands within the planning area. Actual zoning districts permitted in each land use category are listed in the *City Land Development Regulations*. The land use categories and preferred uses applicable to the New Smyrna Beach planning area are presented below.

Parcels, which are currently undeveloped, are designated as “vacant” on the Existing Land Use Map. The Future Land Use Map is based on total buildout; therefore, no “vacant” lands are indicated. Many of the parcels of land designated as vacant have been skipped over in the traditional development pattern of the community. These parcels are suitable for infill development.

CONSERVATION

Maximum allowed Floor Area Ratio (FAR): 0.10

The general boundaries of those areas known to require environmental protection from development have been designated as conservation on the Future Land Use Map. Designations are based on the best information available. Owners of lands designated as conservation on the Future Land Use Map may petition the City to adjust the boundaries of the conservation zone based upon a qualified biologist’s determination of the boundaries made in accordance with §701.07 of the *Land Development Regulations*. The Planning and Zoning Department shall review the owner’s petition and automatically adjust the Future Land Use Map to correctly represent said area and upland buffer. The Local Planning Agency’s approval shall be required if the area to be changed is greater than five (5) acres. Environmentally sensitive areas shall include, but not be limited to, jurisdictional wetlands, wetland buffers, uplands included as part of designated environmental corridors, and public beaches.

FORESTRY RESOURCE

Maximum allowed density: Up to one [1] dwelling unit per 20 acres

Intent: This category should be applied to land that is suited or used for silviculture.

AGRICULTURE

Maximum allowed density: Up to one (1) dwelling unit per acre

Maximum allowed Floor Area Ratio (FAR): 0.10

Intent: This category includes those lands used for crop or livestock production or other uses of the natural resources such as excavation. This category shall also include low-intensity uses such as a large-lot single-family residential development and recreational uses.

RURAL

(up to one [1] dwelling unit per five [5] acres or up to one [1] dwelling unit per acre)

This category includes areas that may consist of agriculture land, undeveloped rural land, and large parcels of developed residential land. Areas designated with a Rural FLU category should be developed in a manner consistent with the retention of agriculture and rural lands, low-density residential and the

protection of environmentally sensitive areas. Strict limitation of development in rural areas contributes to the efficient growth and operation of public services and facilities, thus ensuring the most effective use of public resources. The natural features and constraints will be the primary determinants in deciding whether or not an area is suitable for rural type development.

The Rural FLU designation may allow smaller lot sizes in clusters to protect environmentally sensitive land and upland buffers but shall not allow increase in density. Smaller cluster lots shall be allowed provided the clusters have large perimeter buffers to give the appearance of rural land from adjacent parcels and there is legal assurance that the property not included in the fee simple cluster lots are owned in common by the fee simple lot owners and will not be subsequently developed.

The density shall be determined as follows: Vacant parcels of land in the vicinity of existing exempt or approved platted subdivisions on or before April 3, 1990, with lot sizes from 1 unit per acre to 1 unit per 5 acres or vacant parcels of land immediately adjacent to an urban FLU category may be developed with similar density or lot sizes but not less than one (1) unit per acre. Only that portion of a parcel(s) that is within 660 feet from the above described existing exempt or approved subdivision or urban FLU category boundary, as of the adoption date of the Rural FLU category, is considered "in the vicinity." Note: If a parcel that is "in the vicinity" is covered by more than fifty percent (50%) of the 660 feet extension, then the remaining portion of that parcel which is 10 acres or less is eligible for increased density.

Although the adjacency to the conditions described above allows for the potential of subdivisions with lots less than 5 acres in size, the actual lot size will be dependent upon the following: Compatibility of the proposed development will be viewed within the context of existing uses, public facility capacity in the area, suitability for wells and septic tank usage, and the natural features of the parcel in question, such as soils, vegetation, and floodplain. Vacant parcels or tracts of land that do not meet the preceding criteria or are in areas which have not been previously platted with lots less than 5 acres in size shall only be developed with lot sizes that are 5 acres or greater or in cluster developments at a density of no greater than one (1) unit per five (5) acres.

RESIDENTIAL ESTATE

Maximum allowed density: Up to one [1] dwelling unit per acre

Intent: This use is appropriate for areas within the City that are to maintain a semi-rural or very low-density character. This designation is appropriate where the character of the existing development is defined by large lots (typically one (1) acre or more); where the carrying capacity of the land suggests lower densities are warranted due to the presence of floodplain, wetlands, or other similar conditions; and where the future extension of public utilities may be limited. This classification is appropriate to allow stables and hobby farms.

LOW-DENSITY RESIDENTIAL

Maximum allowed density: Up to five [5] dwelling units per acre

Intent: This use is appropriate where a more suburban development pattern exists or is desired and where urban services are to be kept to a minimum.

MEDIUM-DENSITY RESIDENTIAL

Maximum allowed density: 5.01 to eight [8] dwelling units per acre

Intent: This use is intended to provide a buffer between low-density residential uses and more intense uses, such as high-density residential or commercial. It is also suitable at major intersections when adequate buffering from the highways can be provided.

HIGH-DENSITY RESIDENTIAL

Maximum allowed density:

8.01 to 12 dwelling units per acre on the barrier island

8.01 to 18 dwelling units per acre on the mainland

Intent: This use is intended for areas close to major intersections and commercial areas, where a slightly higher amount of residential trips can be allowed because they are relatively short (due to their proximity to shopping areas and major roads).

MIXED USES

Maximum allowed density:

8.01 to 12 dwelling units per acre on the barrier island

8.01 to 18 dwelling units per acre on the mainland

Intent: The Future Land Use map shows two (2) areas that are suitable for Mixed Uses.

Maximum allowed Floor Area Ratio (FAR) Beachside: 3.0

Maximum allowed Floor Area Ratio (FAR) Mainland: 6.50

Intent: The purpose of this land use designation is to promote the development of sustainable projects by providing maximum opportunity for innovative site planning for living, shopping, and working environments while insuring that development will occur according to appropriate population density, building coverage, improvement standards, and construction phasing, within the City's traditional downtown areas.

COMMERCIAL

Maximum allowed density:

8.01 to 12 dwelling units per acre on the barrier island

8.01 to 18 dwelling units per acre on the mainland

Up to 24 transient lodging units per acre

Maximum allowed Floor Area Ratio (FAR): 2.0

Maximum Allowable Percentage of Uses for Developments Using the Planned Unit Development Format:

Retail: 100%

Office: 100%

Residential: 25%

Industrial: 0%

Intent: This category is intended for the development of high quality business activities, including retail, hotel, office, financial institutions, and high-density residential. They should be confined to certain arterial and collector roads, and to the Flagler Avenue districts.

The State Road 44 corridor, particularly the undeveloped areas west of Old Mission Road, should be developed in a manner to protect adjacent residential neighborhoods from adverse impacts of unbridled commercial development. All properties along the north side of State Road 44, west of Eddie Road, and all properties along the south side of State Road 44, west of Hidden Pines Boulevard, shall be developed or redeveloped using the planned unit development format.

STATE ROAD 44 CORRIDOR PLANNED UNIT DEVELOPMENT

This category includes the area shown on the Future Land Use Map that shall be developed only as planned unit developments.

The State Road 44 corridor, particularly the undeveloped areas west of Old Mission Road, should be developed in a manner to protect adjacent residential neighborhoods from adverse impacts of unbridled commercial development.

The intent within this area is to foster high quality business activities, office, financial institutions, and housing of a density up to 18 units per acre, as well as other uses, which are compatible with the surrounding area. *Land Development Regulations* (including planned unit development zoning), as well

as the site plan review process, will determine whether a proposed use is suitable for a particular parcel.

HOSPITALITY

Maximum allowed density: Up to 75 transient lodging units per acre

Maximum allowed Floor Area Ratio (FAR): 3.0

Intent: Areas composed primarily of accommodations for short-term visitors. In addition, amusements and restaurants may be permitted on oceanfront parcels between Esther Street and East 8th Avenue. The floor area ratio shall not exceed 3 and the transient lodging density shall not exceed 75 units per acre. A limit on the maximum size of individual transient lodging rooms, for the majority of the rooms in a project, is established by the *Land Development Regulations*. In order to be eligible for the Hospitality future land use, the following conditions must be met:

- The present Future Land Use designation is not residential;
- The parcel is not located on the oceanfront;
- The parcel must be within or adjacent to an existing business district;
- The parcel must be located along an arterial or collector roadway;
- The business district in which the parcel is located must include such amenities as retail shopping, restaurants, entertainment venues, sporting venues, and other similar uses; and
- Shared parking must be available
- Hotel / hotel conference center shall be designed to meet the typical size standard of a "Transient Rental Accommodation" and limited to thirty percent (30%) of the total number of allowed hotel rooms for specialty rooms that may be oversized or deluxe units for marketing purposes.
- The proposed project must commit to development using a planned unit development zoning format.

INDUSTRIAL

Maximum allowed Floor Area Ratio (FAR): 2.0

Intent: This category is designed for activities predominantly connected with manufacturing, assembly, processing, packaging, research, or storage of products. Additional permitted uses in such areas include warehousing, wholesale activity, machine repair and construction that are not suitable for either residential or commercial districts. Adequate buffering should be provided from adjacent land uses; and transitional uses (such as office or commercial uses) should be provided between industrial and residential areas.

INDUSTRIAL MIXED USE

Maximum allowed density:

Up to 40 dwelling units per acre

Up to 75 transient lodging units per acre

Maximum allowed Floor Area Ratio (FAR): 6.50

Maximum Allowable Percentage of Uses for Developments Using the Planned Unit Development format:

Retail: 65%

Office: 75%

Residential: 65%

Industrial: 65%

Intent: The purpose of this land use designation is to promote the sustainable development or redevelopment land near railways and/or major highways and in close proximity to the Canal Downtown Neighborhood, by providing maximum opportunity for innovative site planning for living, shopping, and working environments. Areas designated as Industrial Mixed Use are intended to accommodate a mix of light industrial/research, office, retail and medium- to high-density residential uses. Areas designated as Industrial Mixed Use are required to develop using the planned unit development format.

SOUTHEAST VOLUSIA ACTIVITY CENTER

Maximum allowed density:

Up to 18 dwelling units per acre

Up to 60 transient lodging units per acre

Intent: An area planned to accommodate a range of activities from employment-based office and

industrial activities to retail and service commercial, tourist commercial, special uses generating regional tourism (excluding regional shopping malls), housing, public and civic and park and open space. This area is intended to be a high-intensity design-unified area that will contain a concentration of different urban functions supported by a major transportation node. Development in this area shall stress value-added employment with housing and other types of development as supporting activities. Additional development parameters are:

- Priority uses within the activity center shall include industrial uses in an industrial park setting, office development, tourist accommodations, residential development, and local service and retail commercial development.
- Retail development in the activity center shall exclude regional shopping malls.
- “Big box” retail uses shall be allowed only in a mixed-use development project west of Interstate 95 that includes at least one (1) of the residential, local service commercial, tourist commercial, office, or industrial type land uses listed in the distribution of uses table below. Non-“big box” retail uses shall be located adjacent to the street frontage and must meet the *New Smyrna Beach I-95 & SR44 Activity Center Design Guidebook* standards.
- “Big box” retail uses must be located a minimum of 660 feet from the State Road 44 right-of-way line.
- Distribution of land uses within the activity center shall conform to the percentages in the following table:

Land Use	Minimum Land Use Area	Maximum Land Use Area	Maximum Floor Area Ratio
Residential	10%	40%	N/A
Tourist Commercial	20%	60%	2.0
Local Service Commercial	10%	25%	2.0
Office	10%	25%	2.0
Industrial	10%	60%	1.0
Public and Civic	10%	None	1.0
Parks and Open Space	5%	None	0.5
Big Box Retail	0%	25%	2.0
General Retail	10%	25%	2.0

MARINA

Maximum allowed density:

Up to 24 transient lodging units per acre*

Maximum allowed Floor Area Ratio (FAR): 1.5

Intent: This category includes those lands currently in use as or planned for as marinas, or those zoned for such purposes. Tourist-related commercial uses, such as transient lodging, restaurants, and limited retail activities, also may be conditionally located on such lands, provided that the minimum total lot area is three (3) acres and that such uses are reviewed through a public hearing process specific to the property.

*The maximum permitted density for hotels shall be 24 dwelling units per acre, but may be increased through a conditional density bonus of up to one hundred percent (100%) based upon the preservation through deed or easement of (1) a minimum of twenty percent (20%) of the total useable land area for public access and/or public recreation and (2) that the public use area shall comprise at least forty percent (40%) of the total linear footage of shoreline available to the property.

RECREATION

Maximum allowed Floor Area Ratio (FAR): 0.50

Intent: This land use category includes park and recreation facilities owned by the City, as well as recreation facilities owned and/or operated by county, state and/or federal agencies. This category also includes privately-owned and/or operated golf courses.

PUBLIC GROUNDS AND BUILDINGS

Maximum allowed Floor Area Ratio (FAR): 1.0

Intent: This category includes facilities such as City Hall and other publicly owned buildings and facilities, excluding parks.

EDUCATIONAL

Maximum allowed Floor Area Ratio (FAR): 0.25

Intent: Public educational facility sites have been designated and mapped. These include elementary, middle and high schools within the planning area.

SUSTAINABLE COMMUNITY DEVELOPMENT

Intent: This area is recognized as having potential for urban development provided that specific conditions are met regarding the timing and content of urban projects. Development within this area is to be accomplished using a planned unit development format. These conditions are described in further detail below.

- i. Urban land uses may be permitted provided the following conditions are met. If all conditions are met, the urban project may be allowed a gross density of 1.5 dwelling units per acre. As an exception, additional density may be permitted to encourage additional residential development within the village core area. Residential uses such as living units over commercial and other non-residential uses, accessory living units intended to promote life cycle housing and adult residential accommodations (adult congregate living facility, nursing home, etc.) and affordable housing units may be considered for density bonuses.
- ii. Annexation into the City of New Smyrna Beach will be required as the City is best able to provide the full range of urban services.
- iii. The proposed development must be able to demonstrate that it can be built with all City services provided within the City's concurrency limits. The project must be serviced by City water and sewer and demonstrate that all stormwater, solid waste, recreation, transportation and public school facilities levels-of-service can be met. Utility design is to include a reuse water distribution system as well as potable water and sanitary sewer systems.
- iv. The proposed project must comply with the overall transportation plan for the area and provide road alignments consistent with the overall road network.
- v. The proposed project must demonstrate compliance with the following minimum design standards:
 - Each project is to contain a compact village or neighborhood center that includes mixed uses (residential, commercial, public, semi-public, recreation) and a mixture of housing types. The size of the village or neighborhood center will be guided by the application of the other design criteria. Once a village center is approved, adjacent projects may develop by integrating themselves into the established village core.
 - Overall project open space shall be 50 percent. A portion of the open space must be provided in the form of a village green or neighborhood common at a ratio of 200 square feet per dwelling unit. This green/common space may be provided at multiple sites if desired. Overall public open space, such as active parks, public plazas, village squares and similar sites, must range between three (3) and eight percent (8%) of the total project area.
 - A minimum of 60 percent of the project development is to be located within 3,000 feet of the village or neighborhood center. The 60 percent minimum will be based on a combination of housing, commercial development, community facilities, and public open space.
 - Provide for connectivity of pedestrian, bicycle and automobile networks within projects and between projects with the objective of reducing external trips affecting the arterial network.

- Single-family housing is to be constructed on a variety of lot sizes that are intermixed. Projects that provide for similar sized lots throughout are to be discouraged.
 - Commercial development is to be designed into the community centers. The ratio of commercial development to housing is 25-50 square feet of retail and 100-250 square feet of office and service commercial development for each dwelling unit.
 - Public use sites or civic spaces are to be provided at a ratio of 300 square feet per dwelling unit. These sites can include government offices or services, school sites churches, etc. Identification of a public use / school site shall be required if a proposed development creates a school availability shortfall.
 - Stormwater management design is to meet a 100-year three (3) day storm as the minimum design standard.
 - For projects in excess of 500 dwelling units, the project shall include a mix of housing types and cost ranges that provide for moderate and lower income housing sites. It is the intent to allow accessory living units to serve at least some of this function.
 - The development shall demonstrate that it can meet a minimum of 75 percent of the best development practices outlined in the book *Best Development Practices: Doing the Right Thing and Making Money at the Same Time* (Ewing, 1996).
- vi. A project assessment is to be submitted that evaluates the compatibility of the proposed project with surrounding land uses (noting measures to be taken to address any identified incompatibilities) and demonstrates how the proposed urban project will preserve or protect environmental resources as required by the goals, objectives, and policies of the *Comprehensive Plan*. The project assessment shall analyze the environmental system corridors established by Volusia County and other related environmental factors with the objective of minimizing or eliminating incursions through these natural corridors.
- vii. The proposed project must commit to development using a planned unit development zoning format.

LAND USE ANALYSIS

FUTURE TRENDS

This section of the Future Land Use Element summarizes the anticipated population growth, the ability to provide appropriate land uses for that anticipated growth, and the environmental limitations posed by natural conditions in the New Smyrna Beach area.

The basis for analyzing these future trends is to further define the future land use goals, objectives, and policies of the community and to modify certain existing land uses to bring them more into conformance with community expectations. The anticipated future land uses are based on a total buildout condition within the City, which assumes there will not be vacant land remaining.

POPULATION

Table II-1 shows the population of New Smyrna Beach, based on information developed by the Bureau of Economic and Business Research and the City of New Smyrna Beach Planning and Zoning Department. From this information it can be seen that the City current (2010) resident population is estimated to be 25,043. A slow growth trend is anticipated to prevail in the future, with an increase of 9,052 by year 2025, bringing the City resident population to 34,095. Also by 2025, there will be an estimated increase of 1,235 households over the current (2009) number of households (15,644), bringing the total to 16,879.

Table II-1 Resident and Seasonal Population

Year	Resident	Seasonal	Combined Total
2010	25,043	5,259	30,302
2015	28,664	6,019	34,683
2020	32,284	6,780	39,064
2025	34,095	7,160	41,255

Source: US Census Bureau, 2000; Bureau of Economic and Business Research, 2005; and Volusia County School Board

FUTURE LAND USE

Future land use is based on the relationship among the various existing parcels of land currently in use; the environmental limitations that various areas of the community have; the goals, objectives, and policies of the community; the relationship of vacant land to developed land; and the need to provide certain land uses for the community in the future. As discussed earlier, the population of New Smyrna Beach is projected to increase by 9,052 persons between 2010 and 2025. This represents a 36.1 percent increase. Assuming that the existing distribution of land uses in 2010 is sufficient for the community, the amount of land in the various future land use categories can then be projected for the year 2025, based in part on this existing distribution.

Table II-2, Existing Land Use for New Smyrna Beach, distributes the 21,476 acres within the City into eight (8) basic categories. Approximately 63 percent of the land area within the City corporate boundaries is either vacant or designated as conservation. Of this undeveloped area, approximately 30 percent will be available for development through the buildout period of the community. The 33 percent designated as conservation will, for the most part, remain undeveloped.

Table II-2 Existing Land Use, 2010

Land Use	Area	Percent
Conservation/Wetlands	7,084	33.0%
Recreation	309	1.4%
Agriculture	508	2.4%
Residential	3,208	14.9%
Commercial	1,200	5.6%
Industrial	156	0.7%
Public/Semi-Public	2,682	12.5%
Vacant Land	6,328	29.5%
Total	21,476	100.0%

Source: Volusia County Property Appraiser's Office, 2010

The largest developed land category within New Smyrna Beach is the residential category, comprising 3,208 acres. Based on the projected housing needs of the community detailed in the Housing Element in Table VI-14, no additional residential land will be required before 2025. However, based upon the potential for future passenger and intercity rail service along the FEC corridor, and to encourage infill development and redevelopment, staff is proposing to begin planning for a transit-oriented design (TOD) area on property owned by the Flagler Development Group (real estate arm of the FEC Railroad) within the traditional core of the City. Final build-out of this proposed TOD is not expected until after the 2025 planning horizon covered by this comprehensive plan.

The projected need for recreational land use by the year 2025 is 601 acres, based on the analysis in the Recreation and Open Space Element. This land is distributed throughout the City in a series of different facilities to serve the community.

Based on an anticipated 36.1 percent increase in population by the year 2025, Table II-3, Land Use Needs, shows the estimated amount of land area necessary for commercial and industrial lands. It is anticipated that the total amount of conservation land will not significantly increase or decrease over time; but will remain close to constant as different areas are added or removed from this type of land use. The Mixed Use designation on the Future Land Use Map has been aggregated into the Commercial category.

Table II-3 Land Use Needs (acres)

Land Use	Existing	Projected Need Based upon Future Growth	Shown on Future Land Use Map
Residential	3,208	4,347	8,039
Commercial	1,200	1,626	1,297
Industrial	156	211	608
Recreation	309	601	333

There are 281 acres that are used for recreation uses that are shown on the Future Land Use Map as Conservation (169), Medium-Density Residential (97), Public Grounds and Buildings (13), and Mixed Use (2). Source: City of New Smyrna Beach Planning and Zoning Department

Table II-4, Future Land Use for New Smyrna Beach, provides a breakdown of the various uses projected on the Future Land Use Map for land within the corporate boundaries of New Smyrna Beach. A comparison of Table II-3 with Table II-4 shows that there is sufficient land available to satisfy the needs of the community through the year 2025 for the following intensive land use categories: residential and industrial. Although the planning horizon of this comprehensive plan is 2025, it is the assumption of this planning effort that the year 2035 approximates the buildout condition for the community.

Table II-4 Future Land Use (acres)

Land Use	Area	Percent
Residential Estate	265	1.2%
Low-Density Residential	3,206	14.9%
Medium-Density Residential	1,047	4.9%
High-Density Residential	621	2.9%
Subtotal	5,139	23.9%
Conservation	7,181	33.4%
Recreation	333	1.6%
Forestry Resource	2,373	11.0%
Agriculture	928	4.3%
Mixed Uses	96	0.4%
Sustainable Community	3,165	14.7%
Commercial	566	2.6%
State Road 44 Corridor PUD	55	0.3%
Industrial	481	2.2%
Industrial Mixed Uses	127	0.6%
Southeast Volusia Activity Center	494	2.3%
Hospitality	2	0.0%
Marina	84	0.4%
Public Grounds and Buildings	292	1.4%
Educational	161	0.7%
Total	21,476	

Source: City of New Smyrna Beach Planning and Zoning Department

Even though 1,115 acres are shown as Commercial, State Road 44 Corridor PUD or Southeast Volusia Activity Center on the Future Land Use Map, the City imposes stricter control over the type of commercial uses developed, than outlined in the *Land Development Regulations*. There are eight (8) different commercial zoning categories, which each has their own particular regulatory and land use requirements. This same situation applies with other land use designations, such as Residential and Industrial, which also have multiple zoning districts. The residential districts are shown in Table II-5, along with their comparable land use designation.

Table II-5, Residential Zoning, provides a comparison of the various residential zoning districts currently existing in New Smyrna Beach. This table also shows the maximum density based upon development within each specific land use classification. In some cases, it may be possible to develop a particular type of housing at a lower density, and therefore satisfy a lower land use classification. An example of this would be development of duplex units in the R-4, Multi-Family Residential zoning district at a density of 8.5 dwelling units per gross acre, or less. This would be a medium-density project, as opposed to a high-density project.

Table II-5 Residential Zoning

Zoning District		Maximum-Density ¹ (dwelling units per acre)	Future Land Use Category ²
RE	Residential Estate	1.0	Residential Estate
R-1	Single-Family Residential	3.6	Low-Density Residential
R-2	Single-Family Residential	5	Low-Density Residential
R-2A	Single-Family Detached and Attached Residential	8.0	Medium-Density Residential
R-3	Single-Family Residential	7.6	Medium-Density Residential
	Two-Family Residential		
R-3A	Single-Family Zero Lot Line Residential	8	Medium-Density Residential
	Two-Family Residential		
	Two-Family Residential (east of Atlantic Avenue)		
R-3B	Single-Family Residential	7.6	Medium-Density Residential
R-4	Single-Family Residential	8.0 or 8.7	Medium- or High-Density Residential
	Two-Family Residential	11.6	High-Density Residential
	Multi-Family Residential	12.0 - 18.0	High-Density Residential
R-5	Single-Family Residential	8.0 or 8.7	Medium- or High-Density Residential
	Two-Family Residential	11.6	High-Density Residential
	Multi-Family Residential	12.0 - 18.0	High-Density Residential
R-6	Single-Family Residential	8.0 or 8.7	Medium- or High-Density Residential
	Two-Family Residential	11.6	High-Density Residential
	Multi-Family Residential	12.0 - 18.0	High-Density Residential
MH-1	Mobile Home Park		Medium-Density Residential
MH-2	Manufactured Housing Subdivision		Low-Density Residential
MU	Mixed Use (Central Business District)	12.0/18.0	Mixed Use
B-2	Neighborhood Business	12.0/18.0	Commercial
B-3	Highway Service Business	12.0/18.0	Commercial
B-4	Ocean Commercial	12.0/18.0	Commercial
B-5	Planned Shopping Center	12.0/18.0	Commercial
B-6	Medical-Professional	12.0/18.0	Commercial
B-6A	Limited Medical-Professional	12.0/18.0	Commercial
PUD	Residential Planned Unit Development	5.0 or 8.0 or 12.0/18.0	Low-, Medium-, High-Residential

Notes: ¹Maximum density may vary depending upon whether parcel requires subdivision with individual roads, etc.

²Land Use Density Ranges –Residential Estate: 1.0 du/gross acre; Low: 5.0 du/gross acre; Medium –8.0 du/gross acre; and High –12.0 or 18.0 du/gross acre

Sources: *City of New Smyrna Beach Planning and Zoning Department*

ENVIRONMENTAL LIMITATIONS

The most significant environmental limitations within the City of New Smyrna Beach are the estuarine environment associated with the Intracoastal Waterway, and the environmental limitations along the beachfronts. In addition, there are floodplain and soil limitations for certain types of development. The Indian River (i.e., the Intracoastal Waterway) and its associated estuarine environment is a major environmental limitation to development in New Smyrna Beach. This area accounts for 26.6 percent of the gross land area within the community. The Indian River environment falls within the area designated as conservation. The term “conservation” implies a management practice or process, which protects the long-term viability of a resource. From a land use perspective, this resource is renewable. In managing and protecting the Indian River system, the community should keep in the forefront the ultimate viability of the biological and natural systems of the area.

The Indian River system is undergoing change as a result of its renewable characteristics. In order for the City to protect this environment, it must have some flexibility in controlling development within the system. This flexibility will allow improvement or restoration of the Indian River system when the opportunity presents itself. Development limitations within the Indian River environmental system are controlled by the conservation land use classification and related City ordinances.

The primary limitation for soils is the inability to use septic tanks in a broad range of areas within the community. The Utilities Commission, City of New Smyrna Beach has been aggressive in supplying central wastewater treatment and disposal to all areas within the community. There are currently limited areas within the corporate boundaries of the City that are not served by central wastewater service. The secondary limitation for soils is the high groundwater table in many areas. Through proper engineering techniques, this limitation can be overcome on a site-by-site basis. It is important to understand that various restrictions may apply which could make a particular site more severely limited because of its

unique characteristics. These investigations must be considered on a site-by-site basis. The Volusia County Soils Atlas provides more detailed information on soils for New Smyrna Beach and the surrounding areas.

The majority of New Smyrna Beach is located within the 100 year floodplain, as identified on Map II-2, Flood Prone Areas. However, a large portion of the City which is located within the 100 year floodplain is undeveloped or sparsely developed. The areas within the jurisdictional wetlands, particularly the tidally influenced area between the barrier island and the mainland, will most likely never be developed. The upland areas within the 100 year floodplain will only be developed and redeveloped according to the Federal Emergency Management Agency (FEMA), National Flood Insurance Program, Flood Insurance Rate Map (FIRM), which requires a certain floor elevation. Most of the undeveloped 100 year floodplain areas is planned to be developed with low- and medium-density residential neighborhoods as the City expands to the west. The only major redevelopment area, which lies within the 100 year floodplain, is a portion of the Westside neighborhood. As redevelopment occurs there, fill will be required to conform to the National Flood Insurance Program.

FUTURE LAND USE MAP

Map II-4, Future Land Use, generally portrays land use in New Smyrna Beach at total buildout conditions. The future land uses reflect an understanding of the infrastructure capabilities of the community, the existing population base, and the projections for growth developed by the City of New Smyrna Beach Planning and Zoning Department. Extensive interviews were conducted to determine community desires and expectations for the various areas of the City. The land use map reflects the political, social, and economic forces that will continue to direct the growth of the community. Each of the neighborhoods previously described in the Community Structure section of this element is reassessed on the following pages in terms of projected future changes.

NORTH BEACH

The North Beach neighborhood is almost at a point of total buildout. The Inlet project has 587 of the approved 640 dwelling units. The existing undeveloped single-family lots will continue to be infilled until buildout is reached.

The North Beach area fronts along the Intracoastal Waterway, and must remain sensitive to the estuarine tidal environment of that area. Should any future development be proposed along the waterway, the property owner must make every effort to reduce adverse impacts on the estuarine environment, consistent with policies governing conservation areas. On the east side of the North Beach area is the Atlantic Ocean and the primary dune formation, which affords residential development a good line of defense against direct exposure to storm waves and tidal surges. These dunes, and the natural vegetation that serves to stabilize them, should be preserved and supplemented when possible. Similar preservation efforts should be accomplished in the Central and Coronado Beach areas as well.

CENTRAL BEACH

The Flagler Avenue / East 3rd Avenue area in the Central Beach neighborhood receives a large portion of the visitor traffic destined for the beach. The community has expressed a desire to retain the character and overall charm of the Flagler Avenue area, even if this means increased traffic congestion. Residents believe that widening of roads to accommodate increased traffic flows will reduce or destroy the existing aesthetic value of the Central Beach area, particularly in the Peninsula Avenue / Flagler Avenue / South Atlantic Avenue area north of East 3rd Avenue. It is also believed that most of the future increase in congestion will be due to the ever-increasing tourist and commuter traffic headed for the beach, rather than to any remaining residential development that might take place. Therefore, the general approach being taken by the community is to reduce the level-of-service in the area north of East 3rd Avenue, thus encouraging visitors to use the recently expanded East 3rd Avenue / South Atlantic Avenue corridor for traveling to and from the beach. This approach is also being applied in the North Beach area in the vicinity of Peninsula Avenue.

Roadway widening has been completed for South Atlantic Avenue between Flagler Avenue and East 3rd

Avenue. This widening will better accommodate traffic flow through the area, and will make development of the commercial sites along the beachfront more viable.

Residents have expressed concerns about encroachment of non-residential uses into the surrounding residential neighborhoods and about concerns over the compatibility of new development with existing historic development. Flagler Avenue has a very narrow street right-of-way (40 feet), creating a very small-scale local beachside image. During weekends, holidays and special events, the Flagler Avenue business district often experiences significant parking problems. The Community Redevelopment Agency is in the process of adopting an update to its Master Development Plan that provides recommendations on how to address the parking issues on Flagler Avenue.

Some concern has been expressed regarding the lack of hotel/motel facilities along the beachfront. Such facilities can be developed in the areas zoned B-4, Ocean Commercial; however, current City ordinances restrict development to a maximum density of 24 units per acre. The Future Land Use Map, along with the Land Use Classification system, clearly identifies the general commercial land uses and densities that will be allowed along the beachfront in the Central Beach area.

The area west of South Atlantic Avenue has been designated high-density residential for a distance of approximately 150 feet west of the west right-of-way of South Atlantic Avenue. This use is felt to be appropriate, due to the improvements to South Atlantic Avenue and the general character and use of the area adjacent to the beach. Additionally, there is a 45 foot height restriction on development west of South Atlantic Avenue.

CORONADO BEACH

The Coronado Beach area extends from East 3rd Avenue southward to the corporate limits of New Smyrna Beach. The southern portion of the peninsula tapers to a very narrow strip of land between the Atlantic Ocean and the Indian River. As a result, it interfaces with two (2) distinct environmental systems that are both equally fragile in their existence. Specific and careful attention must be paid to any construction adjacent to these environments. Several areas along Saxon Drive remain undeveloped, as evidenced by the many vacant single-family lots still remaining between South Atlantic Avenue and Saxon Drive. These areas will continue to develop in the future. The area east of South Atlantic Avenue will be appropriate for the perpetuation of the existing medium-density residential uses of single- and two-family dwelling units, for the purpose of providing adequate light and air in its close proximity to the Atlantic Ocean. The high-density uses west of South Atlantic Avenue will be restricted to a maximum depth of 150 feet, and a maximum height of 45 feet.

There is an undeveloped parcel of land immediately south of the Indian River Village shopping center that is classified as commercial.

There is a vacant commercial piece of property located at the Ocean Village shopping center at the intersection of South Atlantic and Matthews Avenues. This site has been designated as commercial on the Future Land Use Map, to further decentralize shopping facilities on the peninsula so that residents and users of the Coronado Beach area will have neighborhood commercial facilities within close reach.

The Coronado Beach area is the most heavily impacted by beach traffic. Residents have expressed concerns about crossing the five (5) lanes of South Atlantic Avenue to access the beach. The City needs to coordinate with Volusia County to implement traffic calming measures to make South Atlantic Avenue safer for pedestrians.

The Coronado Beach area may expand if the City annexes portions of the unincorporated areas extending south to the Canaveral National Seashore Park.

NORTH CAUSEWAY

The North Causeway Neighborhood, which is on both sides of State Road 44 connecting Washington Street on the mainland to Flagler Avenue on the beachside, provides several redevelopment opportunities, including the City-owned Administrative Office Building site, the former Food Lion shopping center, and the former New Smyrna Beach High School site. There are numerous vacant parcels and opportunities for redevelopment. The Wildlife Foundation of Florida, in partnership with the Fish and

Wildlife Conservation Commission and the City, has obtained a Volusia County ECHO grant to demolish some buildings at the former high school site and to renovate the remaining buildings. The Mosquito Lagoon Marine Enhancement Center will house the Marine Discovery Center and Artists' Workshop and eventually include a sport fish hatchery.

Periodically, traffic flow on the North Causeway is interrupted due to the drawbridge. Boat ramp parking demand exceeds available facilities and will need to be accommodated as vacant parcels are redeveloped.

SOUTH CAUSEWAY

The South Causeway Neighborhood, which is on both sides of State Road A1A connecting Lytle Avenue on the mainland to East 3rd Avenue on the beachside, will be built out upon completion of the development project currently under construction on the east end of Bouchelle Island.

INLET SHORES

The Inlet Shores Neighborhood, located on the east side of US Highway 1, north of Industrial Park Avenue, consists of two single-family subdivisions – Inlet Shores and Mangroves at Inlet Shores – is substantially built out. Because of their proximity to the New Smyrna Beach Municipal Airport, building and vegetation heights are regulated by FAA.

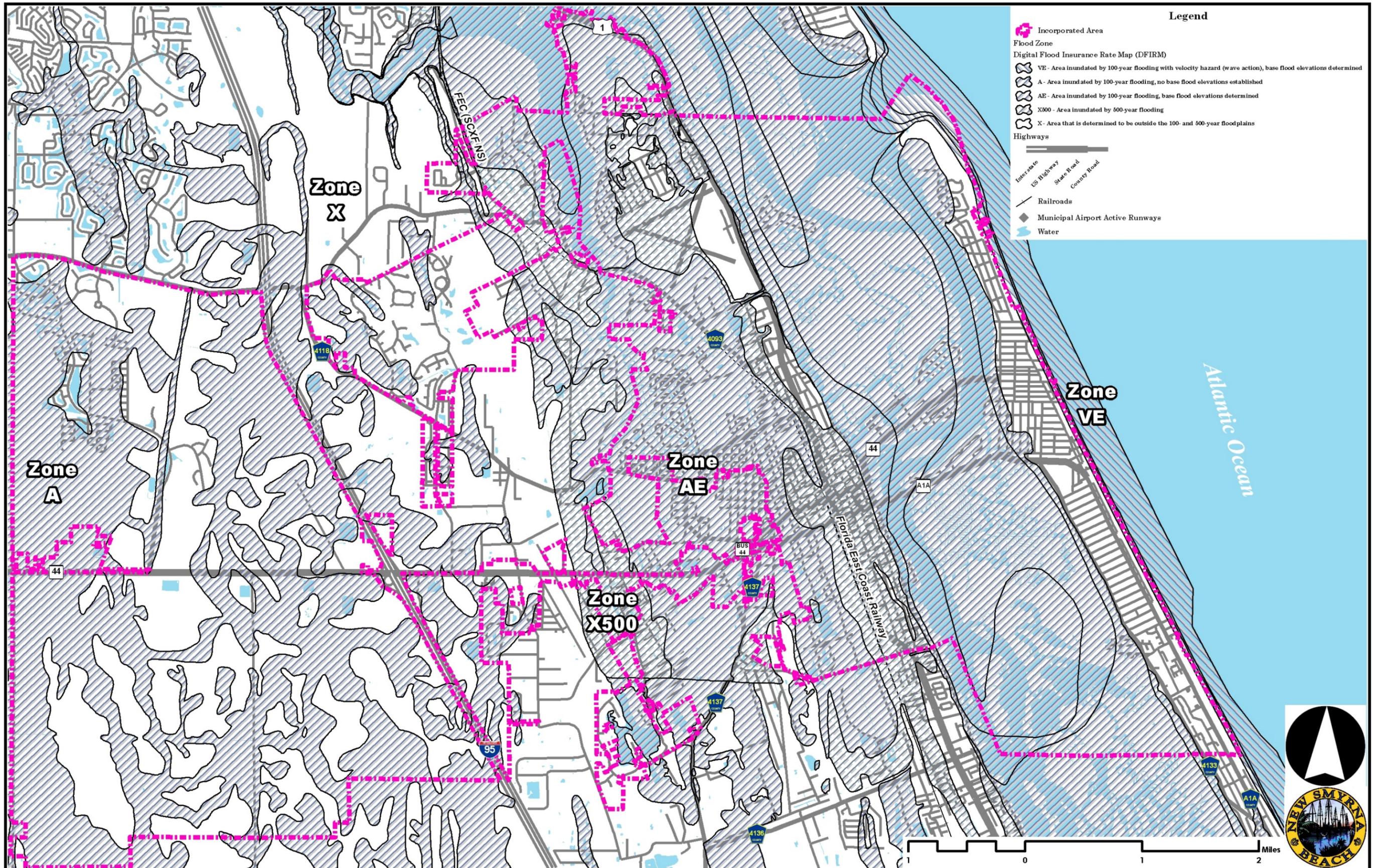
NORTH MAINLAND

The North Mainland area currently has a considerable number of undeveloped areas. However, it is expected that significant development will occur in this area over the next several years.

The Islesboro area will continue to develop slowly with moderately priced single-family units. This neighborhood has a very strong homeowners association, which has recommended that several community improvements be considered by the City. Included in these suggestions is construction of a boat ramp to Turnbull Bay opposite the west end of Willard Street. The recently completed Rocco Park, which includes playground facilities, has become a focal point for the community.

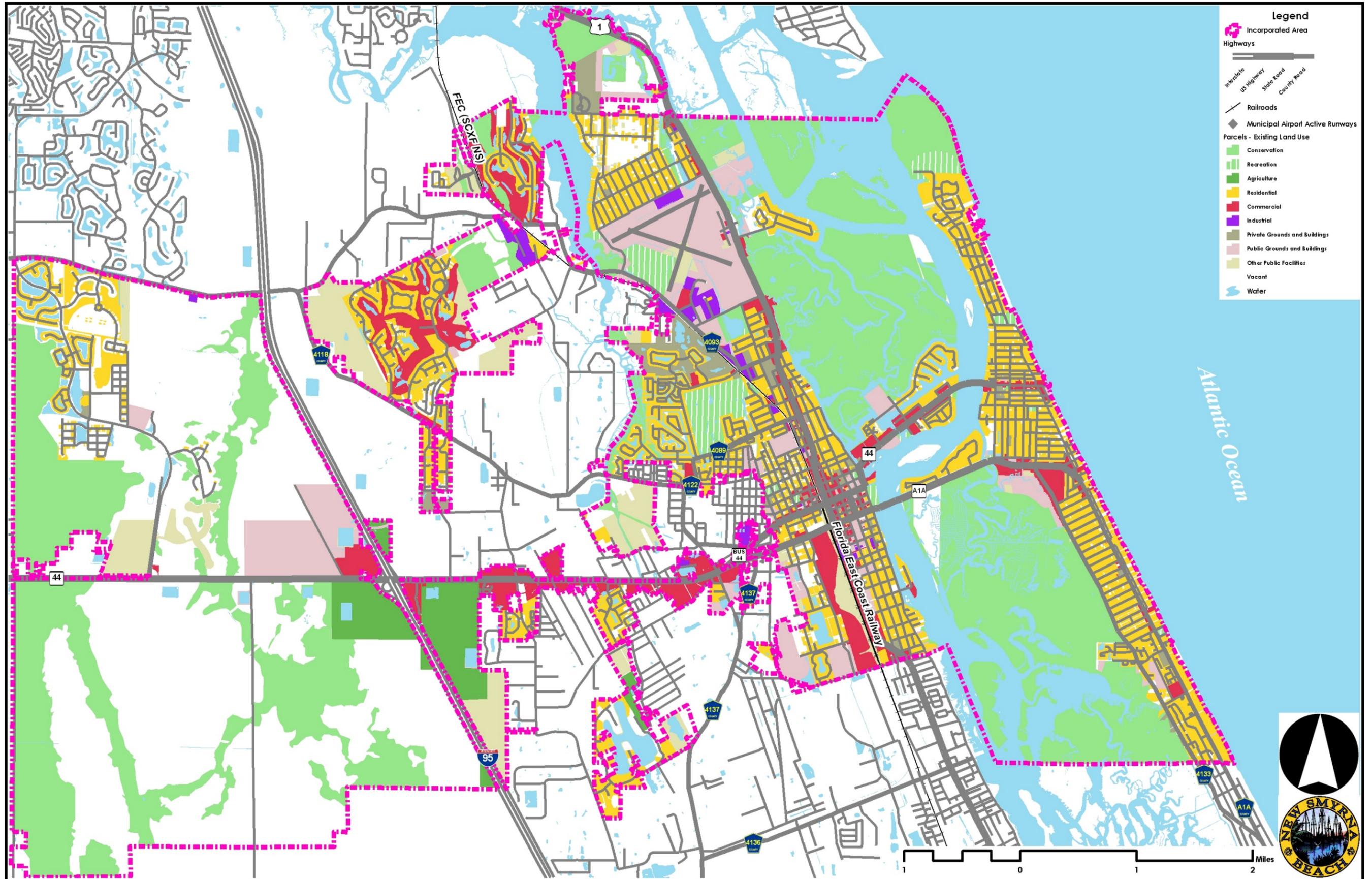
The area north of Islesboro has been classified as medium-density and low-density. The City would prefer to have this area developed under the preparation of a planned unit development master plan. This would allow the environmentally sensitive areas within the area to be incorporated and preserved in a better manner. As development expands into this area and future annexations to the north, new construction shall not be permitted unless central water and sewer service is available.

Map II-2 Flood Prone Areas



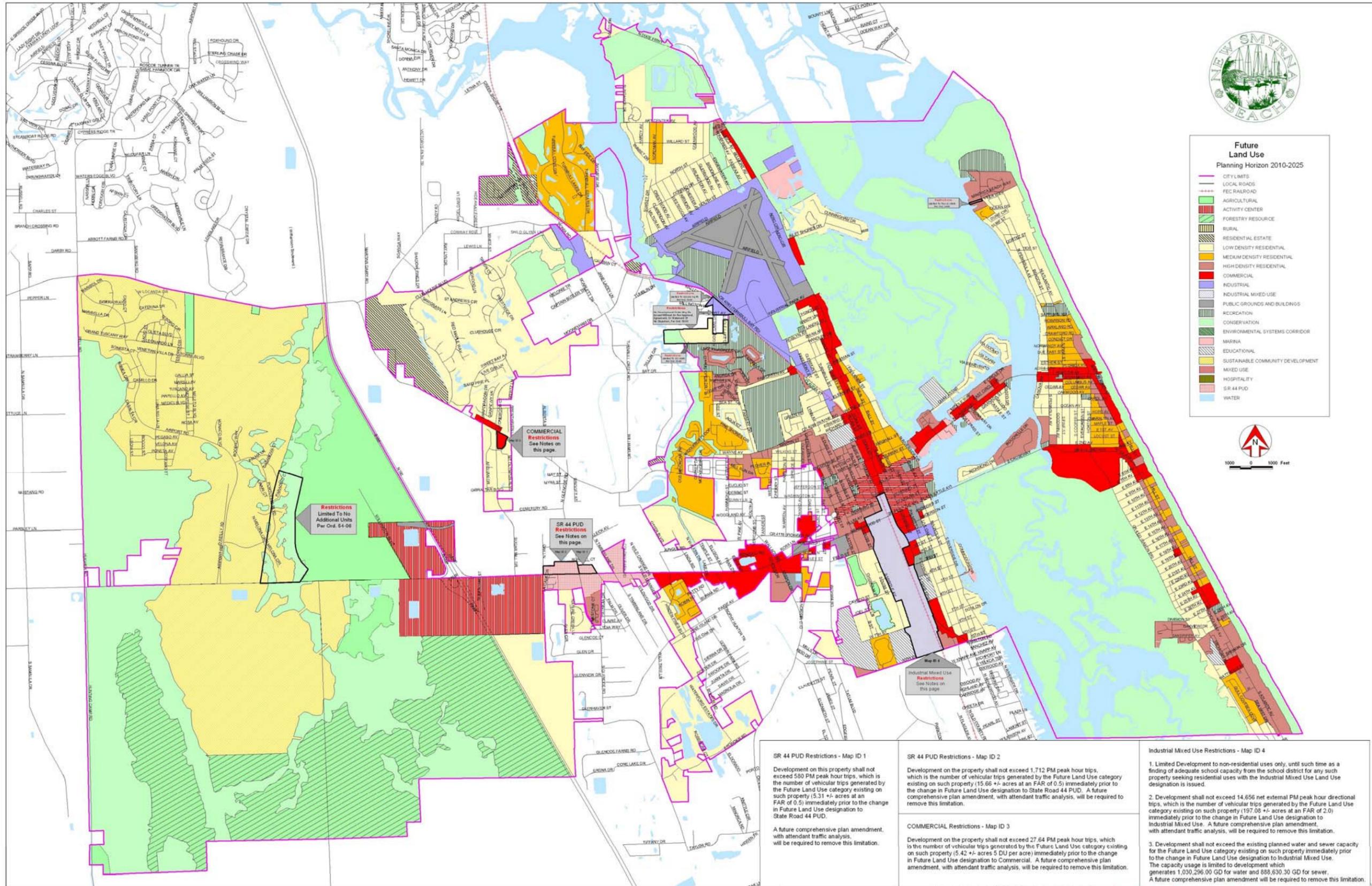
The data contained in this map is provided "as is" without warranty or any representation of accuracy, timeliness, or completeness. The burden for determining accuracy, timeliness, completeness, merchantability, and fitness for, or the appropriateness for, the use rests solely with the requester. The City of New Smyrna Beach makes no warranties, expressed or implied, as to the appropriate use of the data contained in this map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the data, including the fact that the data is dynamic and is in a constant state of maintenance, correction, and updates. Sources: Volusia County Growth and Resource Management and Volusia County Property Appraiser's Office. June 21, 2010

Map II-3 Existing Land Use



The data contained in this map is provided "as is" without warranty or any representation of accuracy, timeliness, or completeness. The burden for determining accuracy, timeliness, completeness, merchantability, and fitness for, or the appropriateness for, the use rests solely with the requester. The City of New Smyrna Beach makes no warranties, expressed or implied, as to the appropriate use of the data contained in this map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the data, including the fact that the data is dynamic and is in a constant state of maintenance, correction, and updates. Sources: Volusia County Growth and Resource Management and Volusia County Property Appraiser's Office. May 18, 2010

Map II-4 Future Land Use



The area adjacent to Turnbull Bay on the west has been established by Planned Unit Development Agreement to be developed in three (3) land use categories. The total project consists of 335.98 acres and 645 dwelling units. There are two- and multi-family phases that have not been implemented. An environmental assessment of the project area has been performed which includes information and analysis pertaining to site topography, soil survey, site vegetation, vegetative cover, wetlands limits and conclusions and recommendations. Properties, which have been identified as potential wetlands and would restrict the natural flushing of the wetlands, have been designated as conservation. Additional buffering requirements and minimum lot sizes have been incorporated into the agreement, as well as requirements for the extension and development of potable water, sewer, streets, and drainage. All drainage, as per the City Stormwater Management Regulations, will require retention and detention, as well as prohibit the direct discharge of runoff into the wetlands or estuary.

The light industrial property has been reconfigured adjacent to rail access and away from lands, which have been determined to be of a jurisdictional nature. In addition, further buffering requirements have been developed along with those infrastructure and drainage requirements previously detailed.

AIRPORT INDUSTRIAL

The 86 acre industrial park with shovel-ready lots along Industrial Park Avenue will continue to attract businesses that need through-the-fence access and shipping via truck routes. Additional areas may need to be designated in this neighborhood for industrial uses before this areas reaches build-out.

CENTRAL MAINLAND

The redevelopment of Canal Street (i.e., as more and more property owners renovate or replace their buildings) has increased the development potential for the downtown area. Recognizing that a combination of uses is essential in a central business area, the Future Land Use Map designates the area bounded by Washington Street, US Highway 1, Lytle Avenue, and Riverside Drive as a mixed-use area appropriate for commercial and high-density residential uses. The City *Land Development Regulations* define the restrictions placed on these various land uses.

The US Highway 1 corridor within the Central Mainland area has a number of operational deficiencies. Although the FDOT has omitted parking along the street, there are more curb cuts than are desirable on a principal arterial and intersection improvements are imminent. The City, in reviewing plans for new projects along US Highway 1, should minimize the number of curb cuts, and should consider shared off-street parking. Landscaping would also be an added benefit along US Highway 1. Upgrading of this corridor (through additional landscaping and restriction of turning movements and curb cuts will ultimately benefit traffic circulation and the aesthetic appeal along US Highway 1. While the residential area of the neighborhood is well established and substantially built-out, the commercial and industrial areas on the east, south and west sides of the neighborhood present possible redevelopment opportunities.

FAULKNER

The neighborhood generally associated with Faulkner Street is one of the older and highly urbanized areas. This area is currently built out. The portions of US Highway 1 that are within the Faulkner area have a number of operational deficiencies. Arterial traffic through the Faulkner/Riverside corridor is undesirable. The City should investigate ways to restrict through traffic in the residential portions of this neighborhood. There are portions of the historic Faulkner Street neighborhood that must be preserved, consistent with the direction set by the Historic Preservation Commission.

CANAL DOWNTOWN

The Community Redevelopment Agency has prepared an update to its master redevelopment plan, which includes strategies for revitalizing and stabilizing this neighborhood. One particular issue of concern is the need to generate more activity at the street level and after normal business hours. Another area of concern relates to the need to attract residents and visitors from State Road 44 and US Highway 1 into the neighborhood and to clearly mark and provide parking for those visitors once they arrive. There is also a lack of connection between Hospital and Canal Street, with pedestrians having to cross State Road 44 (Lytle Avenue), which is a four (4) lane principal arterial roadway.

The master redevelopment plan identifies several opportunities for redevelopment and partnerships in the neighborhood, including the potential to work with the hospital on synergistic development opportunities such as supportive retail and residential; strategies to capitalize on the high daytime population from offices; and recommendations to create a stronger connection from downtown to the waterfront.

The Florida Department of Transportation (FDOT) is in the process of designing operational improvements at the intersection of Business 44 (Canal Street) and US Highway 1. The improvements will add turn lanes on US Highway 1, creating a wider roadway and potentially impacting efforts to improve pedestrian accessibility and beautification in this area. On-street parking on the one (1) block of Canal Street, east of US Highway 1, may need to be eliminated. However, this improvement may enhance the physical and perceived separation between "East" Canal Street and "West" Canal Street. A balance of the benefits and impacts must be found to develop a "complete intersection."

SOUTH MAINLAND

The South Mainland area is an older residential neighborhood within the community that has been subject to a number of detrimental uses. This area has many of the same conditions related to US Highway 1 that exist in the Faulkner portion of the Central Mainland area. Additionally, there are utility commission operations that extend into the neighborhood along Smith Street, as well as the former Wickes Lumber Yard, which is classified industrial.

Three (3) blocks in the vicinity of Bert Fish Medical Center have been designated as a commercial area. The area between the hospital and US Highway 1 will eventually develop as a commercial area, and is so designated on the Future Land Use Map.

A portion of the old Live Oak Street school site adjacent to US Highway 1 includes a regional library, and the City is contemplating renovating part of the site for an overall City recreational complex. Such a facility would be a major benefit to the South Mainland area.

FAIRWAY

The Fairgreen project, a planned medium-density residential community located just north of the New Smyrna Beach Municipal Golf Course, is substantially built-out. East and south of the municipal golf course are several existing single-family areas, which will remain as such. In 2008, the City annexed approximately 55 acres at the north end of the neighborhood. Policies were placed in the *Comprehensive Plan* that the total number of new residential units would be limited to 132. A portion of the annexed acreage, adjacent to Turnbull Bay Road, is also proposed for industrial uses and is limited 120,000 square feet. The Turnbull Bay drainage corridor has a significant influence on property in the Fairway neighborhood. Development, which increases stormwater runoff into Turnbull Creek during periods of heavy rainfall, could potentially increase downstream flooding. This drainage corridor must be maintained and preserved, not only for its stormwater management characteristics, but also for its environmental sensitivity.

WESTSIDE

The Westside area is predominantly a residential area for the African-American community of New Smyrna Beach. Through discussions with community residents, it has been determined that preservation of the community structure is an important issue. A large number of these residents own their own single-family homes. They are interested in upgrading and maintaining their houses, and welcome the opportunity for additional homes to be constructed for ownership. Approximately 75-85 percent of the land area in the Westside Neighborhood has a Future Land Use designation of High-Density Residential. However, the existing development pattern within the neighborhood is more consistent with low- to medium-density residential. This mismatch between existing land use / desired development pattern and the Future Land Use designation is expected to be addressed in the neighborhood plan. With this in mind, the land use intensities in this area may be reduced on the Future Land Use Map. The maximum height permissible in the neighborhood will be 45 feet. These classifications permit continued development of single-family and duplex types of construction. All existing platted lots are developable within the area, regardless of their size, as long as they meet the appropriate zoning requirements.

According to the Community Redevelopment Agency master redevelopment plan, this area has

historically had the lowest property values. Therefore, the neighborhood has become a location where organizations purchase land to construct low- to moderate-income housing. Although the construction of affordable housing in this neighborhood is being driven by market factors, it has raised the issue of how affordable housing can be provided throughout the entire City instead of being congregated within a specific neighborhood or geographical area. This issue is directly related to the present High-Density Residential Future Land Use designation and the R-5, Multi-Family Residential zoning district.

The area extending one-half (½) block north of Washington Street from the Florida East Coast Railway right-of-way west to Myrtle Avenue, and south to the north edge of the commercial area along Canal Street has Future Land Use designations of Mixed Use, Commercial, and High-Density Residential. This Mixed-Use area differs from the one designated in the Central Mainland and Canal Downtown areas, in that it permits only those commercial facilities that are neighborhood in character and that are intended to serve only the Westside community. This Mixed-Use area also allows the existing neighborhood service facilities to continue in operation.

SOUTHWEST

This neighborhood is a predominantly single-family residential area to the west of the Florida East Coast Railway right-of-way, with some industrially designated land west of US Highway 1. There are several areas in this neighborhood that are currently undeveloped; however, with the recently completed wastewater collection facilities, the 10th Street expansion, and the recently constructed high school, this area should experience increased development activity.

The largest landowner of undeveloped property within this neighborhood is a subsidiary of Rail America. This subsidiary holds approximately 180 acres, which includes Florida East Coast Railway tracks, an intermodal freight facility, a locomotive maintenance facility, and vacant land. This property is anticipated to be developed in the future with a Future Land Use designation of Industrial Mixed Use. The site is known to be contaminated and will require funding to mitigate the contamination on the property before development can occur.

The area immediately south of State Road 44 lying between the industrial area and the Utilities Commission, City of New Smyrna Beach facility north of Field Street has been designated for high-density residential use. This is consistent with the similar land uses north of State Road 44. The rest of the area south of Field Street to the middle and high schools will remain low-density residential.

The south portion of this neighborhood along 10th Street is evolving into a public-use area with the presence of the Daytona State College New Smyrna Beach Campus, New Smyrna Beach Middle School, New Smyrna Beach High School, and places of worship. With the abundance of vacant unincorporated land and easy access to US Highway 1 and State Road 44, this area is suitable for low-intensity office and public uses. General retail and commercial activity should continue to be concentrated along the US Highway 1 and State Road 44 corridors. 10th Street west of South Myrtle Avenue is not proposed as a general-use commercial corridor.

PIONEER TRAIL

Single-family residential development, including zero (0) lot line residences, represents the principal types of land use in this neighborhood. The *Comprehensive Plan* recommends a continuation of this type of land use activity. Typical street systems in subdivisions include curvilinear streets and cul-de-sacs to promote visual enhancement and public safety by reducing traffic speeds and the frequency of through streets.

Turnbull Creek traverses the area in a north south orientation, and this environmental feature in combination with the semi rural location implies the need for large lots, surface water retention areas, limited impervious surfaces, and central sewer system (as opposed to septic tanks). These development considerations will reduce the likelihood of surface/groundwater contamination to the creek, and will decrease traffic generation in a suburban setting.

The old Atlantic Western Florida East Coast Railway (now abandoned) measures 100 feet in width, and is owned by the Utilities Commission, City of New Smyrna Beach. This serpentine passageway accommodates the main electric transmission line serving the City of New Smyrna Beach, and is internal

to the Pioneer Trail neighborhood. Recreational pursuits such as pedestrian walkways, bikeways, and jogging trails are permitted in this power line corridor, subject to approval by the Utilities Commission, City of New Smyrna Beach.

Pioneer Trail and Jungle Road provide excellent access to this area. Commercial needs are readily available to residents from two (2) nearby shopping centers on State Road 44 and a convenience store on Pioneer Trail.

Future neighborhood growth will further accelerate the existing need for a new elementary school site.

STATE ROAD 44 CORRIDOR

The State Road 44 corridor is primarily a collection of commercial and other high intensity land uses that have been annexed into the City during the past several years. This trend will continue as more pressure is exerted for additional commercial development along major arterials within the area. Given the buildout characteristics of US Highway 1, and the high volumes of traffic on State Road 44, major commercial development will likely continue to expand along the State Road 44 corridor.

Since the majority of State Road 44 lies within Volusia County, and is under the jurisdiction of the County Council, close coordination with the County is necessary to ensure that future growth on State Road 44 is consistent and compatible with the desires of the New Smyrna Beach community.

There is a considerable amount of property adjacent to the State Road 44 corridor with dense vegetation and trees that lends it to natural landscaping. A primary consideration is to foster development that will be compatible with the existing four (4) lane facility and create an aesthetically desirable entrance into New Smyrna Beach. The City has adopted Arterial Corridor Regulations, which govern development along State Road 44. These regulations were enacted to:

- ensure safe ingress to and egress from proposed development;
- reduce the number of indiscriminate driveways;
- control signage;
- provide landscape requirements; and
- control site development.

In addition, in order to manage the impacts of development on the pristine western gateway to the City of New Smyrna Beach, all land uses within the State Road 44 corridor, or within parcels that are partially within the corridor, shall be implemented by the use of planned unit development.

Although proper planning and growth patterns would ensure that much of the State Road 44 corridor would develop in a commercial manner via planned unit developments, retail uses should be clustered at intersections of arterial and collector roads to shorten travel distances, reduce the number of driveways and turning movements, and increase shopping opportunities. It is the intention to locate residential or office developments between retail clusters, in the event such are appropriate for the particular parcel.

The Commercial Future Land Use designation is somewhat a misnomer, because the intent within these areas should foster high quality business activities, including offices, banks, and housing. Housing should be allowed a specific place that is deep enough to make certain that the dwellings are set back far enough from State Road 44. Although, from a planning standpoint, any use submitted in the Commercial Land Use designation theoretically is allowable, the site plan review process will determine whether a proposed use is approved for a particular parcel.

LAKE WATERFORD ESTATES

A significant portion of the Lake Waterford Estates Neighborhood is undeveloped and is likely to experience increased pressure for development once economic conditions improve. The Lake Waterford Estates Planned Unit Development is the primary residential development within the neighborhood still contains unincorporated enclaves. This creates issues with regard to the provision of solid waste and public safety services. The City should address this issue as it reviews annexation strategies throughout the City.

FLORIDA DAYS

The Florida Days Neighborhood consists of a single-family planned unit development and remains largely undeveloped. The project was designed to include neo-traditional design principles, such as alleyways and rear garages.

SUGAR MILL

The Sugar Mill Neighborhood is comprised of residential and agricultural uses. Two (2) planned unit developments comprise the bulk of the residential units. A small neighborhood commercial node is located at the intersection of Pioneer Trail and Sugar Mill Drive. Although the Sugar Mill Golf and Country Club Estates Planned Unit Development is substantially built-out, there are proposals to construct an additional 200 single-family homes to the west and the 104 single-family homes to the east. Sugar Mill Gardens, The Isles of Sugar Mill, and the Landings at Sugar Mill will continue towards build-out. Residents have raised concerns about traffic on both Pioneer Trail and Sugar Mill Drive and the loss of character within the neighborhood.

SOUTHEAST VOLUSIA ACTIVITY CENTER

The designated activity center includes about 780 acres along State Road 44 both east and west of Interstate 95. Portions of the activity center are currently within the City and portions remain in unincorporated Volusia County, but eventually the entire activity center is expected to be within the City. This area is reserved for high-intensity commercial, industrial, and residential use to be developed using a planned unit development format. Service roads are required to provide access from the State Road 44 frontage throughout the activity center.

North of State Road 44, the activity center designation is to be applied to sewage treatment plant and electric generation facility now under development by the Utilities Commission, City of New Smyrna Beach. As additional land in this area is annexed, it will also be designated as Southeast Volusia Activity Center to the limits of the Volusia County designation.

Development within the activity center is to focus on value added employment opportunities with housing and other types of development as supporting activities. The priority given for development types in the activity center is:

- Industrial uses in an industrial park setting with interstate highway exposure.
- Office development for corporate offices or multi-tenant office park facilities.
- Tourist accommodations (hotel, restaurant, service station) in close proximity to the interchange.
- Special uses generating tourist or regional usage (excluding regional shopping malls)
- Residential development in individual complexes and mixed uses projects.
- Local service commercial to support housing as it develops.
- General retail such as discount shopping should be discouraged if such uses are not included in a mixed-use project. There are other locations in the community available to accommodate these uses if they are not developed within a mixed-use project. Allowing general retail uses within the activity center as part of a mixed-use project could reduce the ability of the activity center to accommodate the preferred value added types of employment.

The distribution of land uses within the activity center shall conform to the percentages in the following table:

Land Use	Minimum Land Use Area	Maximum Land Use Area
Residential	10%	40%
Tourist Commercial	20%	60%
Local Service Commercial	10%	25%
Office	10%	25%
Industrial	10%	60%
Public and Civic	10%	None
Parks and Open Space	5%	None
General Retail	10%	25%

GLENCOE

The Glencoe Neighborhood is an undeveloped 127-unit single-family development. The area surrounding this neighborhood is located within unincorporated Volusia County and is largely developed with single-family residential homes. The Southeast Volusia Humane Society, a tennis and racquetball club, and Utilities Commission, City of New Smyrna Beach facilities are also located within this unincorporated area.

NORTH VILLAGE

The North Village neighborhood consists of the Venetian Bay, Hampton Village, and proposed Verano planned unit developments, Utilities Commission, City of New Smyrna Beach facilities, and Florida Power and Light transmission facilities. The urban neighborhood with a mixed-use village center is substantially undeveloped, since more than 75 percent of the dwelling units and non-residential square footages remain to be built. Development is expected to continue in this area as a result of four (4) key trends; (1) the provision of urban services and improved road access; (2) the continuing and aggressive spread of urban development along the Airport Road / Interstate 95 corridor moving south from the City of Port Orange; (3) the demand for quality residential communities needed to support employment growth expected to occur in the Southeast Volusia Activity Center; and (4) the demand for quality residential communities for those who are employed in the Orlando metropolitan area but desire to commute from the New Smyrna Beach area or maintain second homes here.

Development within this neighborhood will be directed into major residential projects with self-contained commercial and employment opportunities in areas that have a Future Land Use designation of Sustainable Community Development. These projects will stress protection of major environmental assets through the maintenance of significant levels of open space. New urbanism principles will be stressed to give structure to the new development that is reflective of the assets of the pre-World War II portions of the City. This concept is experiencing pressure from more conventional suburban-style development proposed on the north side of Pioneer Trail.

The Venetian Bay Planned Unit Development will have 1,823 dwelling units and approximately 110,000 square feet of non-residential floor area. Two (2) additional commercial sites are located at the intersections of State Road 44 and Airport Road and at Pioneer Trail and Airport Road. The Hampton Village Planned Unit Development will have 1,113 single-family, duplex, and multi-family units. The proposed Verano Planned Unit Development was proposed to create 1,044 single-family, duplex, and multi-family units. The Utilities Commission, City of New Smyrna Beach has an 800-acre tract of land that is largely undeveloped but proposed for utility facilities. The proposed extension of Williamson Boulevard south to State Road 44 is anticipated to traverse the site, however, the final alignment has not been determined.

SOUTH VILLAGE

The South Village neighborhood consists of the South Village Planned Unit Development. The proposed urban neighborhood with a mixed-use village center has not been developed. Development is expected to continue in this area as a result of the same four (4) key trends as the North Village Neighborhood. The continuations of Airport Road and Williamson Boulevard south of State Road 44 will be the primary access for this neighborhood.

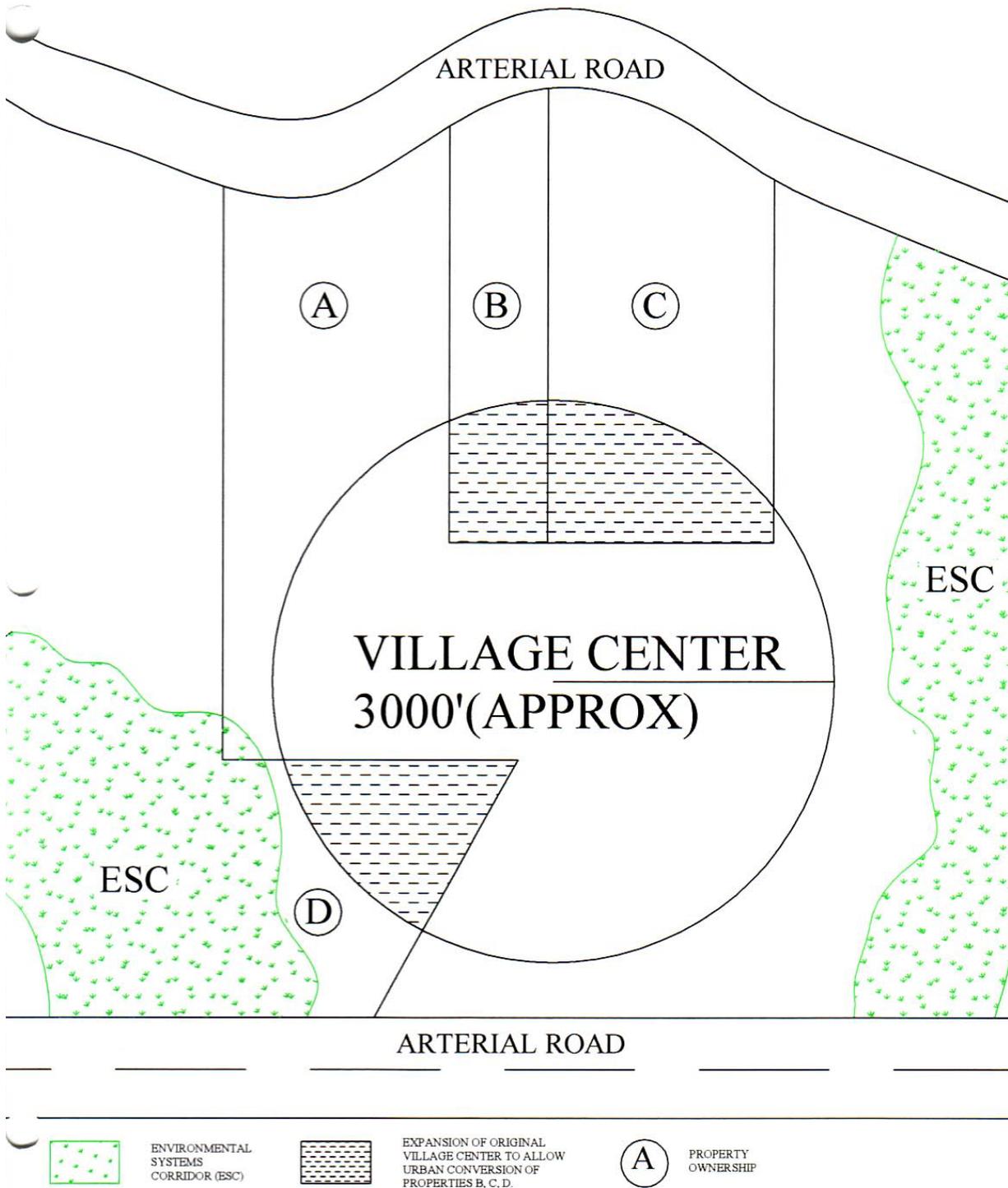
Development within this neighborhood will be directed into major residential projects with self-contained

commercial and employment opportunities in areas that have a Future Land Use designation of Sustainable Community Development. These projects will stress protection of major environmental assets through the maintenance of significant levels of open space. New urbanism principles will be stressed to give structure to the new development that is reflective of the assets of the pre-World War II portions of the City. This concept is a continuation of the development practice on the north side of State Road 44.

The South Village Planned Unit Development will have 1,995 dwelling units and approximately 249,375 square feet of non-residential floor area. There are uplands that have a Future Land Use designation of Forestry Resource that may be eligible to be designated Sustainable Community Development for the development of urban uses, complying with the criteria for the designation.

Figure II-1 provides a sketch illustrating how an approved village center can be used to support development on adjacent parcels.

Figure II-I Conceptual Village Center Expansion



GOALS, OBJECTIVES, AND POLICIES

GOAL 1: SUSTAINABILITY

Provide for development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

OBJECTIVE:

1. Energy Efficiency: Promote compact, mixed-use, and energy efficient development arranged to encourage pedestrians, bicycle and transit use, leading to a more sustainable community and a reduction in greenhouse gases (GHGs).

POLICIES:

- a. Explore various funding opportunities to assist in developing City GHGs emissions baseline data, in order to set GHG emission goals, to develop strategies to reduce climate change and to mitigate and adapt to its impacts.
- b. Promote technology to change and adapt the heating, cooling, insulation, ventilation, and lighting systems of structures to achieve greater energy efficiency.
- c. Encourage the maintenance, restoration and adaptive reuse of existing urban areas, including buildings, infrastructure and other assets, to reduce energy use and Vehicle Miles Traveled (VMTs).
- d. Encourage the production and use of energy generated from renewable resources.
- e. Encourage integration of passive solar design, green roofs, active solar and other renewable energy sources into development projects through the Land Development Regulations.
- f. Encourage urban design strategies that maximize use of renewable, sustainable, active and passive sources of energy design in architecture.
- g. The built environment and urban design should maximize natural areas and assets and incorporate Florida Friendly landscaping to reduce energy and water consumption.
- h. Encourage food production for local consumption in order to decrease the distance that food must travel, and consequently, GHG emission, by allowing farmers markets, community gardens, and other local food networks.
- i. Create, protect and manage systems of green infrastructure (i.e., urban forests, parks and open spaces, green roofs, natural drainage systems).
- j. The potential for reducing Vehicle Miles Traveled *VMTs) and GHG emissions should be considered in all location and investment decisions for public facilities.
- k. Promote the redevelopment of brownfield and grayfield sites to reduce distances between destinations and relieve pressures for Greenfield development.
- l. Support technology and business practices that enable people to reduce vehicle miles traveled form home to work, including creased flexibility for home office uses.
- m. Continue to provide educational materials regarding energy efficiency, sustainable design, and climate change that encourage community residents and business owners to invest in energy-efficiency improvements through community outreach efforts.
- n. Continue to encourage the incorporation of green building practices into development projects, including City-initiated projects.
- o. Encourage design techniques and materials that reduce heat absorption, thereby reducing the heat island effect.

OBJECTIVE:

2. Smart Growth: Future land use designations, requests for rezoning, and development approval shall be in accordance with the following principals of smart growth in order to maintain a sense of place and community.

POLICIES:

- a. Encourage development projects to include homes affordable to a diversity of income ranges.
- b. Ensure opportunities for meaningful stakeholder participation through all stages of planning and policy implementation.
- c. Utilize the City's website to notify stakeholders of proposed developments and opportunities within the City.
- d. Maintain a sense of community through the provision of public spaces and landscaping of parks, recreation areas and medians.
- e. Encourage a mix of land uses and expand housing choices by developing areas of infill or underutilized vacant land within the City.
- f. Encourage cluster development which promotes the efficient use of open space and reduces development costs, in areas where services and facilities exist or are planned.
- g. Expand transportation choices by ensuring an efficient network of roads, sidewalks, and bike paths that are safe for pedestrians, bicyclists and vehicular traffic.
- h. Encourage development at an appropriate scale, form and density/intensity to support more economical and efficient public bus transit service.
- i. Promote environmental protection, reduced natural resource consumption and energy management in the design and construction of buildings.

OBJECTIVE:

3. Coordinating Land Use and Transportation: The City will ensure that existing and proposed land uses are consistent with the transportation modes and services proposed to serve these areas.

POLICIES:

- a. Any required transportation improvements shall be implemented with minimal land use, social, and environmental disruption.
- b. The City shall, through enforcement of its *Land Development Regulations*, continue to ensure that the transportation facilities function safely and effectively by:
 - Limiting curb cuts on arterial roads, providing for common access points, and ensuring safe and convenient on-site and inter-parcel circulation.
 - Concentrating proposed commercial developments around major roadway intersections, and discouraging proposals that would increase the frontage of existing commercial strips.
 - Locating higher-intensity uses where transportation facilities can provide the most efficient access.
 - Incorporating "pedestrian-friendly" design principles in new development projects, as described in the Transportation element.
 - Implementing the Goals, Objectives and Policies of the Transportation Element.
- c. The land use pattern shall serve to minimize travel requirements, and shall encourage the increased use of public transit and an increase in walking and bicycling to support the City's multimodal transportation system.

OBJECTIVE:

4. Adequate Public Facilities: Base land use designations and development approvals on the accessibility to necessary infrastructure and public services.

POLICIES:

- a. Maintain land use patterns and planned intensities adjacent to public facilities with available capacity that maximize the public investment.
- b. Public facilities shall be located in order to maximize the efficiency of the services they provide, as well as minimize costs and potential environmental effects.
- c. Require that water supply, production facilities and Consumptive Use Permit capacity is available for new site plan and/or subdivision developments, prior to issuance of development orders.

OBJECTIVE:

5. Timing and location of Development: Future development will be directed into appropriate areas and at appropriate times according to the availability of municipal services.

POLICIES:

- a. Continue to require development to be located in areas where urban services are available or will be provided while maintaining the adopted level-of-service standards concurrent with the impacts of development as outlined in the Capital Improvements Element.
- b. Continue to require development interests to extend services to new developments at the developer's expense.
- c. The City shall promote local, regional, and state programs, investments, and development and redevelopment activities which encourage efficient development and occur in areas which will have the capacity to service new population and commerce.
- d. The City shall continue to guide the development of land in a way that maximizes the uses of existing public facilities, through the coordination of adequate public facilities, the use of impact fees, and other appropriate tools.

OBJECTIVE:

6. Impacts of Development: The City shall require impacts of development activities to be mitigated through design and performance standards.

POLICIES:

- a. The City shall work with relevant local, regional, and state agencies to update its development review procedures and mitigation performance standards, as needed.
- b. Require compatibility between commercial areas and adjacent lower intensity uses through the use of landscaping, open space buffering, and appropriate transitions of building scale, mass, and architectural design, while still providing adequate access between uses.
- c. Mitigate the visual and physical impacts of parking areas to surrounding residential development and public right-of-way with interior parking lot and perimeter landscaping.
- d. Ensure that the exterior treatment of buildings and other site structural components are aesthetically sensitive to that of the surrounding area.
- e. Require a compact and creative pattern of commercial development as compared

to inefficient incremental strip development through land use policy and zoning requirements.

- f. Utilize site design criteria that consider accessibility, aesthetics, internal function , and energy efficiency.
- g. Require landscape buffering along roads to respect both the impacts of traffic on land uses and the safety and enjoyment of motorists and pedestrians.
- h. Require pedestrian and other intermodal connections between developments where there is the potential for interaction between the uses.
- i. Where applicable, the City shall request that Florida Division of Forestry conduct a wildfire assessment as part of the development review process.
- j. Where applicable, new developments shall be encouraged to adhere to the fire safety standards outlined in the Florida Division of Forestry publication, "*Wildfire Mitigation in Florida*". These standards can significantly reduce the disastrous loss of life, property and resources resulting from wildfire in wildland/urban interface fire hazard areas.

OBJECTIVE:

7. Hurricane Evacuation: Coordinate the residential density of areas in the coastal zone and areas subject to coastal flooding with the Volusia County Evacuation Plan.

POLICIES:

- a. Requests to increase development density and intensity will not be permitted in areas that do not meet required standards for hurricane evacuation.
- b. Continue to coordinate with Volusia County Emergency Management Division to refine and enhance the hurricane evacuation plan.
- c. The City shall provide a coastal area population density report to the Volusia County Emergency Management Division as needed.
- d. Maintain citywide densities to ensure that beachside residents can be evacuated consistent with the Hurricane Evacuation Plan.

GOAL 2: GENERAL LAND USE PATTERN

To promote, protect and improve the public health, safety, and general welfare by ensuring consistency, economic viability, and stewardship of the natural environment, through appropriate land uses and land development regulations

OBJECTIVE:

1. Future Land Use Map: The City's continued growth shall be based upon the Future Land Use Map, which shall specify the desired development pattern for New Smyrna Beach through a land use category system that provides for the location, type, density, and intensity of development.

POLICIES:

- a. The Future Land Use Map shall contain the following categories, as described in this Element:
 - Conservation
 - Forestry Resource (up to 1 dwelling unit per 20 acres)
 - Agriculture (up to 1 dwelling unit per acre)
 - Residential Estate (up to 1 dwelling unit per acre)

- Low-Density Residential (up to 5 dwelling units per acre)
 - Medium-Density Residential (5.01 to 8 dwelling units per acre)
 - High-Density Residential (8.01 to 12 dwelling units per acre on the barrier island; 8.01 to 18 dwelling units per acre on the mainland)
 - Mixed Use (8.01 to 12 dwelling units per acre on the barrier island; 8.01 to 18 dwelling units per acre on the mainland)
 - Commercial (8.01 to 12 dwelling units per acre on the barrier island; 8.01 to 18 dwelling units per acre on the mainland; up to 24 transient lodging units per acre)
 - Hospitality (up to 75 transient lodging units per acre)
 - Industrial
 - Industrial Mixed Use (up to 40 units per acre; up to 75 transient lodging units per acre)
 - Southeast Volusia Activity Center (up to 18 dwelling units per acre; up to 40 transient lodging units per acre)
 - Marina (up to 24 transient lodging units per acre, which may be increased through a conditional density bonus of up to 100%)
 - Recreation
 - Public Grounds and Buildings
 - Educational
 - Sustainable Community Development (up to 1.5 dwelling units per acre, gross density)
- b. The land use plan shall provide for compatible land use transition through an orderly land use arrangement, proper buffering, and the use of appropriate physical and natural separators. Compatibility is defined as a condition in which dissimilar land uses can co-exist in relative proximity to one another in a stable fashion over time, such that neither use is unduly negatively impacted by the other.
- c. In addition to requirements within Florida Statutes and the Florida Administrative Code, the evaluation of amendments to the Future Land Use Map shall be guided by the following criteria and the Goals, Objectives, and Policies of this Plan. The criteria below are a general policy guide. Each amendment shall be reviewed on a case by case basis. Amendments are expected to be consistent with several, but not necessarily all, criteria and result in an overall positive impact.
- The changes in uses, density and intensity;
 - Furtherance of the City's vision;
 - Furtherance of the City's Sustainability Strategies;
 - The locational criteria for the proposed category and the adjacent categories;
 - The environmental suitability of the uses, densities, and intensities proposed;
 - The impact of the proposed land use on water quality and quantity, and the potential for flooding;
 - Furtherance of energy-efficient land use patterns and a reduction in vehicle miles traveled;
 - The impact on the City's transportation network;
 - The accessibility to necessary infrastructure and public services and an analysis of the availability of adequate public facilities based on the adopted level-of-service standards;

- The availability of water supply, Consumptive Use Permit capacity, and production facilities capacity based on the adopted level-of-service standards;
 - Whether the change reduces evacuation times beyond 12 hours; and
 - The discouragement of urban sprawl, measured against the indicators identified in 9J-5, F.A.C.
- d. When there are disputes to land use category boundaries on the Future Land Use Map, interpretations of these boundaries shall be made by the Administrative Official. The Administrative Official may adjust said boundaries within 660 feet, to accommodate property lines, rights-of-way, or easements, and to allow extension to major physical or man-made boundaries. Boundaries shall not be expanded in such a manner that they encroach into established residential areas. Appeals from the decision of any interpretations made by the Administrative Official shall be made through the Local Planning Agency, which shall determine consistency with the Plan.
- e. Southeast Volusia Activity Center Future Land Use Designation: The Southeast Volusia Activity Center future land use designation shall be applied to properties at the Interstate 95 and State Road 44 interchange. This area will serve a concentration of high intensity mixed uses development stressing value-added employment with housing and other types of development as supporting activities. Specific development parameters include:
- Priority uses within the activity center shall include industrial uses in an industrial park setting, office development, tourist accommodations, residential development, and local service and retail commercial development.
 - Retail development in the activity center shall exclude regional shopping malls.
 - “Big box” retail uses shall be allowed only in a mixed-use development project west of Interstate 95 that includes at least one (1) of the residential, local service commercial, tourist commercial, office, or industrial type land uses listed in the distribution of uses table below. Non-“big box” retail uses shall be located adjacent to the street frontage and must meet the *New Smyrna Beach I-95 & SR44 Activity Center Design Guidebook* standards.
 - “Big box” retail uses must be located a minimum of 660 feet from the State Road 44 right-of-way line.
 - Distribution of land uses within the activity center shall conform to the percentages in the following table:

Land Use	Minimum Land Use Area	Maximum Land Use Area	Maximum Floor Area Ratio
Residential	10%	40%	N/A
Tourist Commercial	20%	60%	2.0
Local Service Commercial	10%	25%	2.0
Office	10%	25%	2.0
Industrial	10%	60%	1.0
Public and Civic	10%	None	1.0
Parks and Open Space	5%	None	0.5
Big Box Retail	0%	25%	2.0
General Retail	10%	25%	2.0

- f. Sustainable Community Development Future Land Use Designation: The Sustainable Community Development future land use designation shall be applied to properties west of Interstate 95 and outside the Southeast Volusia Activity Center. Urban land uses may be permitted under this future land use designation, provided the following conditions are met. If all conditions are met, the urban project may be allowed a

gross density of 1.5 dwelling units per acre. As an exception, additional density may be permitted to encourage additional residential development within the village core area. Residential uses such as living units over commercial and other non-residential uses, accessory living units intended to promote life cycle housing and adult residential accommodations (adult congregate living facility, nursing home, etc.) and affordable housing units may be considered for density bonuses.

- vi. Annexation into the City of New Smyrna Beach will be required as the City is best able to provide the full range of urban services.
- vii. The proposed development must be able to demonstrate that it can be built with all City services provided within the City's concurrency limits. The project must be serviced by City water and sewer and demonstrate that all stormwater, solid waste, recreation, transportation and public school facilities levels-of-service can be met. Utility design is to include a reuse water distribution system as well as potable water and sanitary sewer systems.
- viii. The proposed project must comply with the overall transportation plan for the area and provide road alignments consistent with the overall road network.
- ix. The proposed project must demonstrate compliance with the following minimum design standards:
 - Each project is to contain a compact village or neighborhood center that includes mixed uses (residential, commercial, public, semi-public, recreation) and a mixture of housing types. The size of the village or neighborhood center will be guided by the application of the other design criteria. Once a village center is approved, adjacent projects may develop by integrating themselves into the established village core.
 - Overall project open space shall be 50 percent. A portion of the open space must be provided in the form of a village green or neighborhood common at a ratio of 200 square feet per dwelling unit. This green/common space may be provided at multiple sites if desired. Overall public open space, such as active parks, public plazas, village squares and similar sites, must range between three (3) and eight percent (8%) of the total project area.
 - A minimum of 60 percent of the project development is to be located within 3,000 feet of the village or neighborhood center. The 60 percent minimum will be based on a combination of housing, commercial development, community facilities, and public open space.
 - Provide for connectivity of pedestrian, bicycle and automobile networks within projects and between projects with the objective of reducing external trips affecting the arterial network.
 - Single-family housing is to be constructed on a variety of lot sizes that are intermixed. Projects that provide for similar sized lots throughout are to be discouraged.
 - Commercial development is to be designed into the community centers. The ratio of commercial development to housing is 25-50 square feet of retail and 100-250 square feet of office and service commercial development for each dwelling unit.
 - Public use sites or civic spaces are to be provided at a ratio of 300 square feet per dwelling unit. These sites can include government offices or services, school sites churches, etc. Identification of a public use / school site shall be required if a proposed development creates a school availability shortfall.
 - Stormwater management design is to meet a 100-year three (3) day storm as the minimum design standard.
 - For projects in excess of 500 dwelling units, the project shall include a mix of housing types and cost ranges that provide for moderate and lower income housing sites. It is the intent to allow accessory living units to serve at least some of this function.
 - The development shall demonstrate that it can meet a minimum of 75 percent of the best development practices outlined in the book *Best Development Practices: Doing the Right Thing and Making Money at the Same Time* (Ewing, 1996).

- viii. A project assessment is to be submitted that evaluates the compatibility of the proposed project with surrounding land uses (noting measures to be taken to address any identified incompatibilities) and demonstrates how the proposed urban project will preserve or protect environmental resources as required by the goals, objectives, and policies of the *Comprehensive Plan*. The project assessment shall analyze the environmental system corridors established by Volusia County and other related environmental factors with the objective of minimizing or eliminating incursions through these natural corridors.
- ix. The proposed project must commit to development using a planned unit development zoning format.
- g. Residential and hotel/motel densities shall be allowed as follows:
 - i. Districts allowing high-density, multi-family residential developments may have up to 18 dwelling units per acre on the mainland (west of the U.S. Army Corps of Engineers Intracoastal Waterway) and up to 12 units per acre on the beachside (east of the U.S. Army Corps of Engineers Intracoastal Waterway);
 - ii. Districts allowing medium-density residential developments may have up to 8 dwelling units per acre;
 - iii. Districts allowing low-density residential developments may have up to 5 dwelling units per acre;
 - iv. Districts allowing transient lodging uses, excluding the Southeast Volusia Activity Center and the Hospitality future land use designations, may have up to 24 transient lodging units per acre;
 - v. Within the Southeast Volusia Activity Center transient lodging uses may be allowed up to 40 transient lodging units per acre;
 - vi. The Hospitality future land use designation may allow up to 75 transient lodging units per acre only when the following conditions are met:
 - Amend the Future Land Use Map to designate an area Hospitality meeting the following criteria:
 - present Future Land Use is not residential;
 - As an exception, the Hospitality Future Land Use designation may be applied to oceanfront parcels provided the parcel is located between Esther Street and East 8th Avenue;
 - within or adjacent to an existing business district;
 - located along an arterial or collector roadway;
 - business district must include such amenities as retail shopping, restaurants, entertainment venues, sporting venues, and other similar uses; and
 - availability of shared parking
 - Hotel / hotel conference center shall be designed to meet the typical size standard of a "Transient Rental Accommodation" and limited to thirty percent (30%) of the total number of allowed hotel rooms for specialty rooms that may be oversized or deluxe units for marketing purposes.
 - The proposed project must commit to development using a planned unit development zoning format.
- h. Maximum allowable percentages by land use for mixed-use planned unit development districts shall be as follows:

LAND USE	RETAIL	OFFICE	RESIDENTIAL	INDUSTRIAL
Residential				
• Residential Estate				
• Low-Density Residential	15%	20%	100%	0%
• Medium-Density Residential				
• High-Density Residential				

LAND USE	RETAIL	OFFICE	RESIDENTIAL	INDUSTRIAL
Commercial	100%	100%	25%	0%
Mixed Use	75%	75%	50%	25%
Industrial	15%	25%	0%	100%
Industrial Mixed Use	65%	75%	65%	65%
Marina	15%	15%	50%	15%

- i. Establish and maintain *Land Development Regulations* that use a combination of maximum building coverage and maximum building height to establish a maximum floor area ratio (FAR) envelope for non-residential land use classifications. The equivalent floor area ratio requirements are as follows:

Land Use Classification	Maximum FAR
Commercial	2.00
Industrial	2.00
Industrial Mixed Use	6.50
Hospitality	3.00
Mixed Uses Beachside	3.00
Mixed Uses Mainland	6.50
Marina	1.50
Public Grounds and Buildings	1.00
Educational	0.25
Agriculture	0.10
Recreation	0.50
Conservation	0.10

OBJECTIVE:

- 2. Land Development Regulations: Future growth and development will be managed through the use of the Land Development Regulations, in a manner consistent with the Future Land Use Map and Comprehensive Plan.

POLICIES:

- a. The City's Land Development Regulations and Official Zoning Map shall be maintained to permit the use and development of land in accordance with the Future Land Use Map.
- b. The City shall keep on file a zoning matrix which links zoning districts to corresponding future land use categories. It shall be used as a guide when determining appropriate zoning for land and reviewing rezoning requests.
- c. The City shall refine and improve its regulatory techniques so that they allow and encourage the type of development that furthers the City's economic and sustainability goals.

OBJECTIVE:

- 3. To ensure that future development will be consistent with adjacent uses, natural limitations such as topography and soil conditions, the needs of the citizens of New Smyrna Beach, the Future Land Use Map, the availability of facilities and services, and the goals, objectives, and policies contained within this *Comprehensive Plan*.

POLICIES:

- a. Continue to enforce and update the New Smyrna Beach *Land Development Regulations* to promote quality development and ensure compatible land uses consistent with the Future Land Use Map.
- b. Provide, through the *Land Development Regulations*, for land use patterns that are compatible with topography and soil conditions.

- c. Continue to utilize and refine the interlocal agreement between the City and Volusia County for unincorporated future growth areas that assumes land use locations and the City's ability to apply development controls prior to development, consistent with the standards in effect in the City of New Smyrna Beach.
- d. Formalize and refine a cooperative planning program with Volusia County to evaluate land use and transportation issues within the City potential public service area.
- e. Enforce specific regulations in the *Land Development Regulations*, which address the development of property located in areas subject to seasonal or periodic flooding.
- f. The City shall apply development standards for the various densities of residential land use shown in the Future Land Use Plan. These densities shall be broken down into low-density residential (up to 5 dwelling units per acre [du/acre]), medium-density residential (5.01 to 8 du/acre), and high-density residential (8.01 to 18 du/acre).
- g. Support legal action against housing providers who show discrimination by basing availability on age, race, sex, or family size.
- h. Continue to streamline requirements for housing construction, to lower housing costs.

OBJECTIVE:

- 4. To provide adequate services and facilities for future development, at the adopted level-of-service standard. In order to maintain the adopted level-of-service standard, development orders, and permits will be conditioned on the availability of the public facilities and services necessary to serve the proposed development.

POLICIES:

- a. New Smyrna Beach shall continue to enforce *Land Development Regulations* that ensure adopted level-of-service standards are met, consistent with the intent of §163.3180, *Florida Statutes*.
- b. Annually update the capital improvement program to schedule the provision of future public services and facilities, including acquisition of needed lands that will be provided by the City, county, and other agencies, and demonstrating financial feasibility.
- c. Continue to enforce regulations that require that public facilities and services necessary for the support of proposed development and the maintenance of adopted level-of-service standards will be in place at the time a development permit is issued, or will be in place concurrent with the impacts of development.
- d. Maintain citywide densities to ensure that beachside residents can be evacuated consistent with the Hurricane Evacuation Plan.
- e. Through the concurrency management system, maintain the availability and accessibility of facilities indicated in this plan to be essential to maintenance of the health, safety, and welfare of the municipal residents.
- f. By December 2011 revise the population projections shown on Table II-1 to extend to the year 2030 and evaluate projected demand in comparison with the provision of facilities and services.
- g. Encourage managed growth and minimize impacts to City infrastructure and services by encouraging and allowing developers to voluntarily limit density, number of hotel/motel or dwelling units, square footage, and/or floor area ratios on newly-annexed property, or properties where changes to the Future Land Use designations are sought. Specific locations where limits are imposed on properties shall be noted on the Future Land Use Map and listed below. The following locations are limited in development beyond the designated future land use designation:
 - 1.33 acre parcel on the North Beach associated with City of New Smyrna Beach

Planning and Zoning Department Case No. CPA-7-03, having a Parcel No. 7405-00-00-0016 and approved with Ordinance No. 46-04 is limited to two (2) units;

- 160 acre parcel in the southeast portion of Venetian Bay associated with City of New Smyrna Beach Planning and Zoning Department Case No. CPA-5-04, having had a Parcel No. 7317-00-00-0031 and approved with Ordinance No. 26-05 is limited to zero (0) additional units; and
 - 46.017 acre parcels south of the intersection of Turnbull Bay Road (County Road 4093) and Whispering Pines Drive and north and west of Hidden Lakes Golf Club at 1140 and 1185 South Golf Lake Drive, 1240 Kenard Street, and 1984 Mayport Avenue associated with City of New Smyrna Beach Planning and Zoning Department case No. A-13-06, having had Parcel No. 7312-00-00-0078, 7312-00-00-0079, 7312-00-00-0083, 7312-00-00-0084, 7312-00-00-0090, 7312-00-00-0100, 7312-00-00-0101, 7312-00-00-0110, 7312-00-00-0149, 7312-00-00-0190, 7312-00-00-0480, and 7312-00-00-0490, and approved with Ordinance No. 58-09 is limited to 132 units; and 9.07 acre parcels south of the intersection of Turnbull Bay Road (County Road 4093) and Whispering Pines Drive at 1295 Kenard Street also associated with City of New Smyrna Beach Planning and Zoning Department case No. A-13-06, having had Parcel No. 7312-00-00-0020 and 7312-00-00-0320 approved with Ordinance No. 58-09 is limited to zero (0) units and industrial/commercial floor area to 120,000 square feet. Prior to any land development activity of these 55.087 acres, each application shall be reviewed and if required, approved by Federal Aviation Administration (FAA). No development order may be issued without an FAA approval, agreement, or statement of no objection.
- h. Require new development to provide facilities and/or pay its fair share toward improvements required to maintain the City's minimum levels-of-service.

OBJECTIVE:

5. Provide suitable land for utility facilities that support proposed development.

POLICIES:

- a. In the annual Capital Improvements Element update, identify necessary lands for utility facilities through the completion of long range planning for public facilities.
- b. In the annual Capital Improvements Element update, identify costs and schedules for acquiring needed sites, consistent with the capital improvement program.

OBJECTIVE:

6. To eliminate by year 2015 those existing land uses that are inconsistent with the community's character and Future Land Use Plan.

POLICIES:

- a. Continue the phasing out of land uses that are inconsistent with the Future Land Use Map.
- b. Enforce land development and zoning code requirements, and provide compliance schedules.
- c. Continue to develop a neighborhood involvement program for cleanup and improvement programs.
- d. Require all zoning to be consistent with the land use designations shown on the Future Land Use Map; rezone property as needed.

OBJECTIVE:

7. To implement land use patterns, utility service extensions, impact fees, and an annexation

methodology, which provide for orderly development and discourage urban sprawl.

POLICIES:

- c. The City will fulfill the obligations contained in the Water and Sewer Service Area Agreement by and between the City and Volusia County. Utility extensions will be constructed in a manner that will protect the environment and provide service to existing developments within the service area.
- d. Infill development in the service area will be encouraged through *Land Development Regulations*, voluntary development agreements, and interlocal agreements.
- e. Investigate the idea of increasing density in the traditional City core by allowing accessory living units or by allowing more units per acre in order to maximize efficient use of infrastructure.
- f. In accordance with the Water and Sewer Service Area Agreement, and with policies expressed in this plan, utility extensions will be used to direct infill within the service area, and to provide for economic extension costs to those receiving the service.
- g. By December 2011 work with the property owners, business owners and stakeholders to review existing regulations and complete an overall development concept for the area south of State Road 44. The development concept shall incorporate development principles and design guidelines included in the *Comprehensive Plan*. This overall development concept may be amended into the *Comprehensive Plan* to structure future site-specific development proposals.
- h. Future growth areas of the City within the boundaries identified by the Water and Sewer Service Area Agreement will be used to redirect major public developments, health facilities, commercial activity centers, and manufacturing away from Coastal High Hazard Areas, through *Land Development Regulations*, interlocal agreements, and statutorily regulated annexations.
- i. Annexations will be used to provide for the orderly, cost effective and concurrency based extension of services; to direct infill development; to protect those arterial, collector and local access roads leading to the City through the adoption and/or implementation of existing adopted regulations in accordance with policies identified in this plan; and to secure existing urban development areas in the service area which use and impact the level-of-service of municipal facilities without providing for economic support to maintain the level-of-service identified in this plan.
- j. Prior to the issuance of development orders, require new site plans and/or subdivisions to provide the roads, recreation facilities, potable water (including Consumptive Use Permit), sanitary sewer, drainage, and solid waste facilities, and services necessary to maintain the adopted level-of-service standards.

OBJECTIVE:

8. To use innovative land development techniques for future projects, which will implement policies identified in this plan, and which will provide for the funding of public impacts by development.

POLICIES:

- a. Utilize cluster development zoning to allow for mixed uses and unconventional development designs in those cases where the developer can demonstrate improved living environments, protection of natural resources, or increased efficiency of service delivery.
- b. Require new developments to provide necessary services and facilities, or to pay a fair share of the cost of those services and facilities.
- c. Implement zoning incentives, which will encourage the preservation of open green

areas in new development.

- d. Allow limited nonresidential uses (that are not inconsistent with the residential character of the residential planned unit development) on property designated as low-, medium-, or high-density residential provided the property is zoned planned unit development and the nonresidential use is approved by an agreement.
- e. Allow residential development in Mixed Uses, Commercial, and Marina land use designations, provided that total development on the site does not exceed the maximum allowable floor area ratio equivalent and total dwelling unit density does not exceed the limits allowed for high-density development.
- f. Encourage the development of mixed-use facilities, which are compact, pedestrian-scale, and make efficient use of utilities.

OBJECTIVE:

- 9. Continue to enforce and implement methods by which new development can provide a fair share of the cost of necessary infrastructure improvements.

POLICIES:

- a. Continue to implement a transportation impact fee that establishes an equitable assessment for needed roads and circulation improvements that result from new development.
- b. Review the transportation impact ordinance to determine whether new or existing businesses that are expanding and/or relocating to another existing non-residential site should be exempt from transportation impact fees.
- c. Continue to implement a parks and recreation impact fee that establishes an equitable assessment for needed parks and recreation improvements that result from new development.
- d. Continue to implement a stormwater management fee that provides funds for necessary stormwater system improvements.

GOAL 3: PUBLIC SCHOOL FACILITIES

Collaborate and coordinate with the Volusia County School Board to provide and maintain a public education system, which meets the needs of Volusia County's current and future population.

OBJECTIVE:

- 1. To ensure that schools locate in close proximity to urban residential areas to the maximum extent possible and to encourage schools to collocate with other public facilities such as parks, libraries, and community centers to the maximum extent possible.

POLICIES:

- e. Elementary or middle schools, and other similar low-intensity schools, shall be allowed in all land use categories except Industrial, Conservation and Forestry Resource. Elementary or middle schools, and other similar low-intensity schools, shall have direct access to an arterial or collector road, or at least two (2) local roads. High schools and similar high-intensity schools shall be allowed in all land use categories except Industrial, Conservation and Forestry Resource. High-intensity schools shall have direct access to an arterial or collector road. No new public schools shall be located in the aforementioned land use categories on the beachside or in Coastal High Hazard Areas on the mainland. The permitted land use activity is limited to primary educational functions. Any other proposed activities must comply with all policies of the *Comprehensive Plan* and local zoning regulations.

- f. All public schools located in a residential land use category shall be designed to minimize the impacts to adjacent neighborhoods through control of site aspects including traffic access, landscaping, buffers, site design, and similar issues. The State Requirements for Educational Facilities shall constitute the minimum standards for site design. The Interlocal Agreement shall specify a method for verifying compliance with the standards and a method for resolving other site concerns.
- g. Continue to coordinate the process on the siting of public schools with the Volusia County School Board through the interlocal agreement, which contains provisions for allowing community recreational uses on a school site.
- h. The City will provide the Volusia County School Board with the monthly agenda of the Local Planning Agency and allow the School Board an opportunity to respond in writing or in person to any of the agenda items at the scheduled meeting. In the event that a community college facility is established in the City, the governing community college board shall also be provided with the monthly agenda of the Local Planning Agency and shall be allowed an opportunity to respond in writing or in person to any of the agenda items at the scheduled meeting.
- i. All new public schools should collocate, when possible, adjacent to existing or proposed public facilities such as parks, libraries, and community centers.
- j. All City agencies, including the Planning and Zoning Department and the Parks and Recreation Department shall coordinate the planning of proposed parks, libraries, and community centers with the Volusia County School Board to ensure that the above objective is met.

GOAL 4: COMMERCIAL/INDUSTRIAL DEVELOPMENT

Provide for high-quality commercial and industrial development so as to maintain the economic health of the City, and to increase the job opportunities, per capita income and convenience for its residents.

OBJECTIVE:

1. Maintaining Land for Non-residential Uses: Ensure that the amount of land already designation for non-residential uses does not decrease.

POLICIES:

- a. Retain designated commercial and industrial development areas for their appropriate uses, unless such uses have been planned to be accommodated elsewhere.
- b. The City will plan for ways to connect and integrate commercial and industrial development when establishing or expanding nearby residential uses.
- c. High intensity development areas will be designated and protected from the encroachment of incompatible low intensity uses.

OBJECTIVE:

2. Location of Commercial Uses: Commercial development will be provided in sufficient and convenient locations to serve both resident and tourist populations.

POLICIES:

- a. Commercial uses will be located at roadway intersections, commercial nodes, and mixed-use centers, as defined in the Future Land Use Element.
- b. Require the size, location, and character of additional designated commercial development to be related to the population and market it is intended to serve, as follows:
 - i. Neighborhood Node: Generally designed to serve the convenience needs of neighborhood residents within a ±1-mile radius.

- ii. Community Node: Generally designed to serve the general shopping needs of residents within a ±2-mile radius.
- iii. Sub-Regional Node: Generally designed to serve the general and specialized shopping needs of residents and visitors within a ±4-mile radius.
- iv. Regional Node: Generally designed to serve the east central Florida market, with a mix of general, specialized, and highly specialized products, services and attractions.

OBJECTIVE:

- 3. Location of Industrial Uses: Industrial areas will be located and designed to effectively complete in attracting new industry.

POLICIES:

- a. The City will ensure appropriate transportation and infrastructure availability when designating industrial locations.
- b. Assure the extension of adequate utility services to areas designated for industrial development.
- c. Promote and provide public incentives and assistance to encourage the relocation and expansion of industrial businesses that provide high-value employment opportunities to local residents.
- d. The City shall develop policies and regulations to encourage the preservation of working waterfronts.

OBJECTIVE:

- 4. Design of Commercial and Industrial Developments: Commercial and industrial development will be designed to enhance access and circulation, and result in a positive and attractive built environment.

POLICIES:

- a. Traffic flows within commercial areas shall be designed with internal access, limited curb cuts, and interconnections between various sites to minimize impacts on the thoroughfare network; and adequate parking and safe and convenient traffic flow shall be required on all sites based on Code requirements and best design practices.
- b. The City will implement sign regulations requiring stringent, low-key signage programs to protect and enhance the City's visual image.
- c. The City will continue to require tree preservation and shall review and, if necessary, revise it landscaping requirements, to protect and enhance the City's visual image.
- d. The City will promote attractive, high-quality architectural design through the Land Development Regulations and by requiring architectural compatibility for multiple buildings within non-residential planned unit developments.
- e. The City shall promote pedestrian amenities in association with new construction and renovation/redevelopment, including, but not limited to, the provision of sidewalk and bike path connections, walk lights, benches, bus shelters and bicycle parking pursuant to the Land Development Regulations and applicable neighborhood plans.
- f. The City shall encourage non-residential land uses and site developments which have a greater potential to support mass transit within designated public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership.

OBJECTIVE:

- 5. Commercial Reinvestment Strategy: By 2013, the City shall develop a reinvestment strategy for older commercial properties in the City to ensure that over time these

properties remain viable and important contributors to the City's non-residential tax base.

POLICIES:

- a. Work with economic development organizations to develop a database of available redevelopment properties and market information to promote investment in redevelopment.
- b. The City shall develop an implement specialized zoning and development regulations for designated reinvestment areas.
- c. The City shall monitor the impacts of development regulations on small businesses to ensure that the special needs of small business operators are taken into account in the formulation of any new or revised City Codes or policies.
- d. The City shall work closely with the Southeast Volusia Chamber of Commerce to ensure communication with local business owners about City Code requirements and changes.
- e. The City shall develop a plan to acquire properties with waterfront access for private and public redevelopment.
- f. The City shall develop economic incentives in its economically distressed areas, redevelopment areas, and job creation zones, with a key focus to create value-added jobs, dependant upon available funding.
- g. As an alternative to new construction, the City shall continue to offer incentives for the rehabilitation and reuse of existing facilities, structures, and buildings in its redevelopment districts, dependent upon available funding.
- h. The City shall, in cooperation with state, regional, and local agencies, promote economic opportunities for its unemployed and economically disadvantaged residents.

OBJECTIVE:

6. Agriculture and Related Industries: The City shall promote and strive to maintain agriculture, food, forestry, horticulture, and related industries in agricultural areas outside the City, as well as appropriate urban agricultural activities and community gardens within the City.

POLICIES:

- a. As the City expands into rural areas, bonafide agricultural activities shall be protected through the use of the Agricultural future land use designation and an agricultural zoning designation.
- b. Allow a reasonable interim use of existing agricultural land by maintaining the Agricultural zoning classification on parcels designated for high intensity land uses on the Future Land Use Map until such time that development is proposed.
- c. The City shall work with Volusia County and adjacent jurisdictions to develop a system of incentives which encourage a separation of urban and rural land uses while protecting water supplies, resource development, and fish and wildlife habitats. These may include but are not limited to, a transfer of development rights program, implementation of the Environmental Core Overlay (ECO) map an policies an other appropriate tools.
- d. The City shall, in conjunction with relevant local, regional, and state agencies, promote the use of agricultural practices which are compatible with the protection of wildlife and natural systems.
- e. The City shall continue its water conservation efforts, including wastewater recycling and other appropriate measures, to ensure adequate water resources to meet agricultural and other beneficial needs.

- f. In accordance with the provisions of the Conservation Element, the City shall conserve soil resources to maintain the economic value of land for agricultural pursuits and to prevent sedimentation in state waters.
- g. The City shall continue to support the State's preferential property tax treatment for agricultural and conservation lands through the "greenbelt law".
- h. The City's transportation system shall provide adequate facilities for the economical transport of agricultural products and supplies between producing areas and markets.

OBJECTIVE:

- 7. The City will control strip commercial development through a series of techniques involving an analytical approach to development and the use of *Land Development Regulations*.

POLICIES:

- a. The City will, through the *Land Development Regulations*, implement a program of compact commercial growth (activity centers) along arterial roads. These commercial nodes will provide for the concentration of high intensity generating commercial development in clearly defined geographic areas at major transportation corridors, which will reduce the occurrence and frequency of access points and curb cuts, and which will provide for limited and controlled ingress and egress points to and from arterials.
- b. In areas along arterial corridors, between compact commercial growth areas (activity centers), where urban development has occurred in a leap frog and sporadic manner which has left isolated vacant small parcels of land which front on an arterial, the City will provide for less intense, highly restricted commercial professional office and/or residential development through the implementation of business planned unit development provisions of the *Land Development Regulations*. Such development will be further regulated by the adoption of corridor regulations, as has been adopted for State Road 44. These regulations will limit curb cuts and access points by requiring shared access drives and access to intersection roadways from corner lots. Large tracts of land will be required to provide for lateral access points and limited curb cuts. In addition, planned unit development regulations will be utilized on tracts of land with acreage, as determined by the *Land Development Regulations*.
- c. Encourage infill development through the implementation of *Land Development Regulations* and impact fees.
- d. Corridor regulations will be enforced and continually refined to provide for significant buffering, signage and land use controls on properties abutting the State Road 44 corridor within the City limits.
- e. Corridor regulations will be coordinated with Volusia County.
- f. Land use designations for future annexations will be coordinated with Volusia County, consistent with the policies identified above.

GOAL 5: RESIDENTIAL DEVELOPMENT AND NEIGHBORHOODS

Provide for residential development that creates neighborhoods of enduring quality, livability and character, that support an attractive and functional mix of living, working, shopping, and recreational activities, and maintain a living environment for citizens of all ages.

OBJECTIVE:

- 1. Create a residential land use pattern that accommodates a diverse housing mix that meets the life-cycle and socio-economic needs of City residents.

POLICIES:

- a. Residential land uses shall be established at a variety of densities in order to create a wide range of housing choices and costs. This variety shall be reflected on the Future Land Use

Map.

- b. New neighborhoods should be created to have defined centers and edges, with the center within ¼ mile from the edge. Neighborhood centers shall include a central gathering place in the form of a park, civic lawn, neighborhood commercial node, or other amenity.
- c. To help meet its goals for sustainable development, the City will encourage developers to pursue creative alternatives to conventional suburban development patterns, including innovative housing designs; clustering and conservation subdivision design; well-connected, gridded street networks; context-sensitive street configurations; alternative pavement types and widths; and compact mixed-use development.
- d. The City shall encourage residential land uses and developments which have a greater potential to support mass transit within designated public transportation corridors, with priority given to developments that will bring the greatest increase in transit ridership.
- e. The visual and physical impacts of multi-family development shall be mitigated with architectural and landscaping treatment standards.

OBJECTIVE:

- 2. Maintain and enhance the quality of existing neighborhoods through reinvestment strategies, conservation, planning efforts and redevelopment and renewal of blighted areas.

POLICIES:

- a. Continue to allow mixed types of residential dwelling units in older neighborhoods as a finally feasible alternative to commercial encroachment.
- b. Establish a building inspection program, along with continued code enforcement, to ensure the lasting viability of existing neighborhoods.
- c. Explore the possibility of developing licensing and inspection requirements for single-family homes used as rental properties.
- d. The City will use CDBG and SHIP funds, when available, and explore opportunities to establish other financial incentives, for investment in older, declining neighborhoods as part of an overall reinvestment strategy.
- e. The City will utilize public works and public utility projects as opportunities to improve the condition and appearance of older, declining neighborhoods through sensitive and appropriate design and retrofit.
- f. The City shall enforce development regulations and codes equally in all neighborhoods.
- g. The City shall investigate the idea of increasing density in the traditional city core by allowing accessory living units or by allowing more units per acre.
- h. The City shall continue to provide services and facilities to all neighborhoods in an efficient and cost effective manner.
- i. By 2012, the City shall establish a neighborhood coalition to provide residents with information and resources to establish neighborhood organizations; create gateways; and network with other residents regarding issues of concern.

OBJECTIVE:

- 3. Protect existing desirable neighborhoods from encroaching new development which is incompatible and inconsistent with the established character of the neighborhood.

POLICIES:

- a. By 2011, the City will identify and prioritize individual neighborhoods that require neighborhood level plans and shall establish a schedule for completion of these neighborhood level plans.
- b. Neighborhood level plans shall identify historical development patterns in order to draft and

OBJECTIVE:

5. In coordination with property owners, business owners and stakeholders, develop policies and regulations to guide and enhance future economic development and redevelopment, protect existing community assets and enhance programs and services within the Westside Neighborhood.

POLICIES:

- a. By 2011 the City shall complete and implement the recommendations of the Westside Neighborhood Plan.
- b. By December 2010, the City shall create a Community Development Block Grant (CDBG) economic advisory board to collect input from residents and to prioritize and rank projects eligible for CDBG funding.
- c. In partnership with the Community Redevelopment Agency and other public and/or private organizations, develop programs and incentives to encourage new businesses to open and/or to relocate to the neighborhood.
- d. In partnership with the Community Redevelopment Agency and other public and/or private organizations, continue to enhance the physical infrastructure within the neighborhood, including utility, streetscape and sidewalks.
- e. In partnership with the Community Redevelopment Agency and other public and/or private organizations, the City shall explore and develop programs, incentives and regulations to ensure that all neighborhoods provide adequate affordable housing.

OBJECTIVE:

6. In coordination with property owners, business owners and stakeholders, develop policies and regulations to guide and enhance future development and redevelopment within the Coronado Beach neighborhood.

POLICIES:

- a. By 2013 the City shall complete and implement the Coronado Beach Neighborhood Plan.
- b. Develop regulations to ensure that new development is compatible with existing neighborhood development patterns in order to protect neighborhood integrity and character.
- c. The City shall coordinate with Volusia County and the Florida Department of Transportation to establish traffic calming measure to make South Atlantic Avenue safe for pedestrians to cross during the day and in evenings. At a minimum, the City shall explore the possibility of lowering the speed limit and installing traffic calming devices.
- d. The city shall establish a landscaping, lighting, streetscape and traffic calming plan for South Atlantic Avenue and make necessary changes to the *Land Development Regulations* to create a gateway presence.
- e. The City shall establish regulations to waive any future paving requirements on Hill Street.
- f. The City shall not vacate any future portions of the Hill Street right-of-way and shall use every effort to re-acquire portions of the vacated Hill Street right-of-way whenever possible.
- g. The City shall coordinate with Volusia County to identify and infill gaps in the sidewalk system, particularly along the east side of South Atlantic Avenue.
- h. Code enforcement efforts shall be taken maintain and upgrade the area and to ensure that visual blight and safety issues caused by vacant and/or derelict properties are addressed in a timely manner.
- i. The City shall develop regulations to require non-residential uses to expand or be substantially improved without meeting code requirements addressing parking, access, screening, landscaping and buffers.

- j. The City shall analyze and identify streets that may contain excessive right-of-way widths and develop a program to qualify property owners to petition the City for a right-of-way vacation of unneeded rights-of-way.
- k. The maximum height within the neighborhood shall be limited to three (3) stories, 35 feet. Existing structures in excess of 35 feet shall be permitted to remain and, if destroyed, may be rebuilt at the existing height.
- l. In coordination with Volusia County and other public and/or private organizations, the City shall develop a program and associated regulations to create pocket parks and beautify street ends east of South Atlantic Avenue and Hill Street.
- m. The City shall develop a pattern book and design guidelines for renovation and infill residential development to maintain the character of the neighborhood and preserve many aspects of the development pattern.

GOAL 6: MIXED-USE DEVELOPMENT

Provide for mixed-use development that creates an attractive and functional mix of living, working, shopping, and recreational activities, provides for energy efficient land use patterns, compact development, urban infill and redevelopment, and supports a multi-modal transportation system.

OBJECTIVE:

- 1. Mixed Use Centers: Establish mixed-use centers, that are designed to be convenient, promote personal interaction, reduce travel distance, and conserve energy, to serve as an alternative to single-use, community-level commercial nodes in certain areas, such as at intersections of collector or higher-classified roads.

POLICIES:

- a. Mixed-use centers should include compact, mixed-use development, facilities and amenities for multi-modal transportation, and high-quality, pedestrian-scale building and site design.
- b. By the end of 2011, hold community input meetings with neighborhood residents, business owners and stakeholders near the FEC railroad property regarding the possibility of establishing mixed-use centers around certain intersections.
- c. By the end of 2011, hold community input meetings with neighborhood residents, business owners and stakeholders near the US Highway 1 Corridor regarding the possibility of established mixed-use centers around certain intersections.
- d. Based on a detailed analysis of physical and economic factors, as well as community input, the City should amend the Future Land Use Map and Zoning Map to establish mixed-use centers in the most appropriate locations on the FEC railroad property and along the US Highway 1 Corridor.

OBJECTIVE:

- 1. The City of New Smyrna Beach shall implement the Community Redevelopment Agency (CRA) Master Plan – 2010, which addresses six (6) main themes. Each theme will be accomplished by implementing the following policies.

POLICIES:

- a. Strengthen the Neighborhoods: The CRA shall partner with the City and other public and/or private organizations in order to:
 - Upgrade street and utility infrastructure;
 - Undertake corridor enhancement projects;
 - Develop design standards if applicable;
 - Provide incentives for the development of workforce housing;

- Provide opportunities for creation of new and expansion of existing arts programs and events; and
 - Develop grant programs to encourage investment within the redevelopment areas.
- b. Support the Main Streets: The CRA shall partner with the City and other public and/or private organizations in order to:
- Provide additional parking capacity in traditional core areas of the City;
 - Install streetscape improvements;
 - Assist business owners with implementing retailing “best practices”;
 - Institute a comprehensive wayfinding and signage program;
 - Promote redevelopment of key parcels within the redevelopment areas;
 - Hire a Mainstreet Coordinator;
 - Initiate an outreach campaign to Bert Fish Medical Center;
 - Market and promote events and businesses within the redevelopment areas; and
 - Recruit targeted businesses
- c. Create a Healthcare District: The CRA shall partner with Bert Fish Medical Center, the City and other public and/or private organizations in order to:
- Construct pedestrian enhancements to link the hospital with surrounding medical office, retail and residential uses;
 - Formalize and enhance parking;
 - Develop incentives for residential and office development surrounding the hospital; and
 - Promote and market the hospital and supporting medical services
- d. Broaden the Tourism Market: The CRA shall partner with the City, the Southeast Volusia Chamber of Commerce and other public and/or private organizations in order to:
- Brand “The Loop”;
 - Provide additional parking;
 - Develop a comprehensive wayfinding signage program;
 - Construct gateway enhancements;
 - Promote development of hotels in strategic locations; and
 - Develop incentives to encourage new development and redevelopment.
- e. Enhance the Blue and Green Infrastructure: The CRA shall partner with the City and other public and/or private organizations in order to:
- Reconstruct the seawall and construct other boardwalk park enhancements;
 - Enhance streetscapes;
 - Address drainage issues within the redevelopment area;
 - Examine and, if needed, establish fees for creation and maintenance of public parking;
 - Provide public access to the water; and
 - Promote events within the redevelopment areas
- f. Connect the Community: The CRA shall partner with the City and other public and/or private organizations in order to:
- Develop a comprehensive wayfinding signage program;
 - Install sidewalk and bike lane enhancements;
 - Beautify and, if possible, reconfigure, the area where Business State Road 44 and State

Road 44 divide;

- Install streetscape and landscaping enhancements within the Westside Neighborhood; and
- Develop and promote alternative forms of transportation

GOAL 7: NATURAL AND CULTURAL RESOURCE PROTECTION

OBJECTIVE:

1. To maintain a citywide natural resources protection program through the planning period.

POLICIES:

- a. The City will provide for the protection of environmentally sensitive lands and protection of their natural functions through the maintenance and enforcement of the City of New Smyrna Beach *Land Development Regulations*.
- b. On a case-by-case basis, prepare an environmental assessment of the conservation resources and determine specific designations for areas of environmental concern. Once the environmental-protection areas, including any associated uplands are determined by a qualified biologist or natural scientist, the conservation limits shall be mapped by a registered land surveyor.
- c. Land carrying a Volusia County designation of Environmental System Corridor that is annexed to the City shall be designated as Conservation land use on the City Future Land Use Map.
- d. Circumstances under which location by the City of a conservation boundary line will require a Future Land Use Map amendment.
 - i. Where the average scaled variance between the Future Land Use Map and site survey data is less than five hundred feet (500'), no plan amendment will be required. If the location results in a discernable change in the Future Land Use Map, the City will provide a notice to the Department identifying the revised boundary.
 - ii. Where the average scaled variance between the Future Land Use Map and site survey data exceeds five hundred feet (500') but involves an area of less than ten (10) acres, a small-scale plan amendment will be required.
 - iii. Where the average scaled variance between the Future Land Use Map and site survey data exceeds five hundred feet (500') and involves an area in excess of ten (10) acres, a large-scale amendment will be required.
 - iv. The land use designation for the lands identified as non-conservation land in accordance with i above shall be the same land use designation as the nearest adjacent non-conservation land use classification.
- e. Maintain and enforce appropriate development regulations, which protect conservation areas.
- f. Participate with the state and county in the acquisition/preservation of lands lying within the Indian River estuarine system.
- g. Implement policies detailed in the Conservation Element that provide incentives for the protection and enhancement of natural resources, such as beaches, wetlands, and trees, through the adoption of *Land Development Regulations*; a tree protection ordinance, a stormwater management ordinance, and a minimum wetlands standards ordinance.
- h. Implement policies detailed in the Coastal Management Element, which maintain, restore, and enhance the overall quality of the coastal zone environment. These policies should be implemented in coordination with the City *Land Development Regulations* and an effective concurrency management program, as well as with redevelopment of areas within the

Community Redevelopment Agency district.

- i. Maintain and enforce wetlands protection regulations adopted in the *Land Development Regulations*.
- j. The City will enforce Ordinance 97-89, Stormwater Management and Conservation Ordinance, and any future amendments thereto.

OBJECTIVE:

2. To maintain, enhance and promote the arts community and events within the City.

POLICIES:

- a. The City will partner with the Community Redevelopment Agency and other public and/or private organizations to promote arts events within the City.
- b. By December 2011, the City, in coordination with residents, business owners and representatives of the arts community, will establish an Arts Overlay District or Districts.

OBJECTIVE:

3. Continue to identify and protect significant historic resources within the City.

POLICIES:

- a. Support the efforts of the Historic Preservation Commission and the Southeast Volusia Historical Society to designate appropriate historic districts within New Smyrna Beach.
- b. Require the Historic Preservation Commission, at a meeting open for public comment, to review all applications for demolition of any structure having historical or archaeological significance. This shall be done in order to minimize the adverse impacts of future development on the City historical and archaeological resources.
- c. Continue to maintain the Historical and Archaeological Preservation Element to provide incentives for protection and restoration of potentially significant historic properties.
- d. Maintain and continually update the historical and archaeological survey of the City.
- e. Designate one (1) resource per year as a local landmark.
- f. Investigate the feasibility of preserving or rehabilitating all publicly owned historic resources, using the procedures, rules, guidelines, and standards of the US Department of Interior and the Florida Department of State, Division of Historic Resources.

III. TRANSPORTATION ELEMENT

PURPOSE

The purpose of the Transportation Element of the *City of New Smyrna Beach Comprehensive Plan* is to guide the City in developing a safe and efficient transportation system, based on the City's Future Land Use Plans, and consistent with the community goals and objectives as stated herein. Secondly, this element will help to ensure consistency among the transportation plans of New Smyrna Beach, Volusia County, and the State of Florida.

This element of the *City of New Smyrna Beach Comprehensive Plan* identifies a transportation system that is both technically sound and consistent with identified community goals and objectives. The remainder of this chapter consists of five (5) basic sections. The first section outlines the process and criteria used in developing a local transportation plan. The second section provides an inventory and analysis of the existing transportation system, and identifies the current deficiencies. The third section identifies roadway conditions that are expected to occur in the near future based on historical traffic growth and expected land development. Section four (4) outlines the community's goals and objectives for the local transportation system, setting forth the guidelines by which to plan future transportation improvements.

STANDARDS

Transportation planning decisions must be closely coordinated with land use decisions. The improvement of existing roads, and the construction of new facilities, acts to change overall travel patterns, which may affect immediate individual land use decisions, and may influence entire land use patterns. Therefore, the Transportation Element must be closely coordinated with development of the Future Land Use Element, reflecting the access and travel needs of any proposed new or revised land uses.

TRANSPORTATION PLANNING PROCESS

The methods used to develop the Transportation Element of the *City of New Smyrna Beach Comprehensive Plan* are part of a transportation planning process that should be a continuous effort. A general outline of this overall planning process is described by the following steps:

- a. Research previous transportation planning and analysis efforts;
- b. Identify and evaluate the current status of the transportation system;
- c. Identify community goals and objectives regarding transportation;
- d. Identify constraints imposed on the transportation system;
- e. Determine current and future transportation improvement needs;
- f. Propose alternative solutions;
- g. Evaluate and choose alternative solutions;
- h. Prepare a detailed implementation and funding plan;
- i. Implement the transportation plan; and
- j. Systematically review and update the transportation plan.

Steps "a" through "h" are embodied in the Transportation Element of the *Comprehensive Plan*, while steps "i" and "j" need to be standard policy of the City in order to implement an effective transportation planning process. This process needs to be ongoing and continuously recycling through the entire planning process in order to reflect constantly changing community needs.

TRANSPORTATION SYSTEMS PLANNING PRINCIPLES

In preparing alternative potential transportation systems to serve projected travel demand, a number of general items should be considered. The broad categories of factors influencing local transportation planning include:

- existing facilities
- current and future land uses being served

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- local terrain
- financing
- travel characteristics of the local population
- travel patterns dictated by the character of the areas around the local planning area

In designing the actual transportation system, it is important to maintain flexibility both by providing alternative routes and travel modes, and by allowing for additions and modifications to the system. The following principles should be kept in mind while preparing the transportation plan:

- Provide many alternative travel paths, while keeping traffic conflicts to a minimum;
- Maintain system continuity, providing smooth and logical traffic flow patterns;
- Reflect land use access requirements;
- Consider public transit services, bicycle travel, and pedestrian safety;
- Pay special attention to freeways and interchanges;
- Consider one-way street systems;
- Provide for traffic signal coordination;
- Provide for future modification and expansions; and
- Ensure environmental compatibility.

GOALS AND OBJECTIVES AS STANDARDS

The adopted community goals and objectives for the City of New Smyrna Beach, developed by the City and presented later in this element, act as local standards and criteria in the development of the New Smyrna Beach Transportation Plan. In particular, the objectives and policies present locally acceptable levels-of-service, right-of-way requirements, access provisions, and landscaping recommendations.

The subsequent analyses are based on generally accepted transportation analysis procedures and planning techniques. In addition, meetings were held with local staff and citizens to invite their opinions and comment. Specific criteria and definitions are presented in more detail in the portions of this element to which they are relevant. The final transportation plan is the result of a synthesis of the identified transportation-related needs and desires of the community of New Smyrna Beach.

EXISTING SYSTEM AND TRAFFIC CONDITIONS

The first step in evaluating where the City wants to go with its transportation system is to determine where they are currently, thereby establishing a starting point for future planning.

This portion of the Transportation Element for the New Smyrna Beach area consists essentially of an inventory and analysis of the existing roadway system. For convenience, definitions of traffic-related terms are provided prior to the presentation of technical data. The information that this report is based on was obtained from local and state agencies.

DEFINITIONS

In presenting the analysis and projections of existing and future traffic conditions in the New Smyrna Beach area, a number of technical terms and criteria specific to transportation planning are used. The following definitions apply to the methodology and procedures used in preparing the Transportation Element of the *City of New Smyrna Beach Comprehensive Plan*.

FUNCTIONAL CLASSIFICATION

Roads are classified into various categories based on the land use environment they are located in, and the travel purposes they serve. The functional classifications shown in Table III-1 (presented later in this section) were derived from the *Volusia Transportation Planning Organization (TPO) 2000-2010 Federal Functional Classification and Urban Boundary* map dated July 18, 2005. General categories of land use environment that roads may be located in are Rural and Urban; and the general categories of travel service are Limited and Controlled Access Highway, Arterial, and Collector functions. The terms are defined in the following paragraphs.

- Rural - A class of roadway facility that generally serves low-density rural and suburban

areas, where the distances between signals are two (2) miles or greater. These facilities lack full access control, and usually have some development fronting directly on the highway. Vehicles enter and leave the highway at unsignalized intersections, or at parking facilities and driveways.

- Urban - A class of roadway facility that generally serves higher density urban and suburban areas, where the signalized intersection spacing is two (2) miles or less. These facilities generally have many more access points than rural highways, with a great deal of development fronting directly on the highway. With more frequent turning movements to and from urban highways, and quite often the presence of roadside parking, these facilities have a much lower capacity than rural highways.

Facilities serving primarily residential and commercial areas are generally classified as urban in character. Although there is much less direct access to land abutting these highways, there tend to be more frequent intersection control devices and higher turning movement volumes at roadway intersections.

- Limited and Controlled Access Highways - Freeways and expressways represent the highest class of these highways. Such Highways are designed to carry high volumes of traffic at high speeds and levels-of-service as is practicable. Access is strictly limited to interchanges, which are carefully located and designed for maximum safety. Longer distance trips, including goods movement, use such facilities. Other highways are also designed to carry longer distance traffic between important activity and population centers, but these highways are designed with some measure of access control through limits on driveway locations and spacing of intersections.
- Arterial Roads - Primarily provide traffic movement services, serving longer distance trips and traffic traveling through a given area. Vehicles on these facilities generally operate at higher speeds; and there is not a great deal of direct access to abutting properties. Turning movements to and from these facilities occur primarily at roadway intersections.
- Collector Roads - Provide both land access and traffic circulation service within residential, commercial, and industrial areas. Their primary function is to move traffic from local roads and streets to the arterial highway system, while providing some direct access to abutting property. While not dominated by signalized intersection traffic controls, these facilities do tend to have more frequent intersection controls, such as stop and yield signs.
- Local Roads - These roads provide for direct access to abutting land and for local traffic movements.

LEVELS-OF-SERVICE

The quality of traffic operation on a roadway facility is measured in terms of levels-of-service (LOS). These levels-of-service are related to the operating characteristics of a facility and the amounts of traffic that can be accommodated. The various levels-of-service are defined by the 1985 *Highway Capacity Manual*, as follows:

- LOS "A" - Represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist is excellent.
- LOS "B" - In the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS "A." The level of comfort and convenience provided is somewhat less than at LOS "A," because the presence of others in the traffic stream begins to affect individual behavior.
- LOS "C" - In the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others

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in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level. This LOS is generally selected for design of new facilities.

- LOS "D" - Represents high-density, but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.
- LOS "E" - Represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle to "give way" to accommodate such maneuvers. Comfort and convenience are extremely poor, and driver frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.
- LOS "F" - Used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount, which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable.

These levels-of-service are related to facility type and traffic volume in the Florida Department of Transportation (FDOT) *2009 Quality/Level of Service Handbook*.

INVENTORY

Table III-1 provides a summary of the road system shown on Maps III-1 and III-2, listed by jurisdiction. Each road is broken up into segments that are continuous in character.

Map III-1 has been prepared to present a summary of the existing peak hour, peak direction levels-of-service in the New Smyrna Beach planning area for the year 2009). This map summarizes the current operating conditions of the major thoroughfares under consideration, freight rail lines, and intermodal terminals.

Map III-1 has been prepared to present the inventory of existing road system, including collector roads, arterial roads, and limited and controlled access facilities in the New Smyrna Beach planning area for the year 2009). This map summarizes the functional classification of the major thoroughfares under consideration.

Map III-3 illustrates the 2010 public transit system, including public transit routes, public transit terminals and transfer stations, and public transit trip generators and attractors.

Map III-4 identifies the significant bicycle and pedestrian ways.

Map III-5 displays the New Smyrna Beach Municipal Airport, including clear zones.

Map III-6 denotes the designated local and regional transportation facilities critical to the evacuation of the coastal population prior to an impending natural disaster.

Map III-7 provides a summary of the projected levels-of-service in the New Smyrna beach planning area for the year 2025.

Map III-8 provides an inventory of the existing and projected roadway system, including collector roads, arterial roads, and limited and controlled access facilities in the New Smyrna Beach Planning area for the year 2025.

EXISTING ROADWAY CONDITIONS

The New Smyrna Beach planning area contains essentially two (2) separate study areas: (1) a peninsula of land along the beachside of the Indian River and (2) the mainland areas that front on the Indian River. These two (2) areas are connected by State Road 44 (North Causeway) and State Road A1A (South

Causeway).

LOCAL TRAFFIC CHARACTERISTICS

The New Smyrna Beach roadway network must be able to support the demands for local traffic circulation and land access, as in other medium-sized communities. However, the network must also be able to support inter-city traffic between Daytona Beach and Titusville, and a large daily influx of beach-bound traffic.

Existing traffic conditions are summarized on Maps III-1 and III-2 and Table III-2. Depending upon the locally acceptable levels-of-service, as indicated in the goals and objectives portion of this element, these facilities may need to be improved.

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Table III-1 Roadway Right-of-Way and Functional Classification in Planning Area, 2010

1	A	B	C	D	E	F	G	H	I	J	K	L	M
	Roadway	Segment	2010 Number of Lanes	2010 Existing ROW ¹ (feet)	2010 Future ROW (feet)	2010 Functional Classification ²	2010 Acceptable Level-of-Service	2009 AADT	2007 Peak Hour Volume	2009 Level-of-Service	2009 Service Volume at Adopted LOS		
2	State Highways												
3	Interstate 95 / State Road 9	State Road 421 (Dunlawton Avenue) to State Road 44	4	350	400	Urban Interstate	C	37,432	3,597	C	59,800		
4	Interstate 95 / State Road 9	State Road 44 to South City Limits	4	350	400	Urban Interstate	C	32,000	3,075	B	59,800		
5	US Highway 1 / State Road 5 (North Dixie Freeway)	North City Limits to Industrial Park Avenue	4	128	Existing	Urban Principal Arterial	D	20,900	2,042	B	64,300		
6	US Highway 1 / State Road 5 (North Dixie Freeway)	Industrial Park Avenue to County Road 4093 (Turnbull Bay Road)	4	100	Existing	Urban Principal Arterial	D	11,600	1,133	C	36,700		
7	US Highway 1 / State Road 5 (North Dixie Freeway)	County Road 4093 (Turnbull Bay Road) to County Road 4089 (Wayne Avenue)	4	100	Existing	Urban Principal Arterial	D	26,000	2,540	D	36,700		
8	US Highway 1 / State Road 5 (North Dixie Freeway)	County Road 4089 (Wayne Avenue) to Business 44 (Canal Street)	4	100	Existing	Urban Principal Arterial	D	26,000	2,540	D	36,700		
9	US Highway 1 / State Road 5 (South Dixie Freeway)	Business 44 (Canal Street) to State Road 44 (Lytle Avenue)	4	100	Existing	Urban Principal Arterial	D	27,000	2,638	D	36,700		
10	US Highway 1 / State Road 5 (South Dixie Freeway)	State Road 44 (Lytle Avenue) to 10th Street / South City Limits	4	100	Existing	Urban Principal Arterial	D	27,000	2,638	D	36,700		
11	State Road A1A/South Causeway	State Road 44 (Live Oak Street) to South Peninsula Avenue	4	200	Existing	Urban Principal Arterial	D	30,000	2,931	B	36,700		
12	State Road 44A1A (East 3rd Avenue)	South Peninsula Avenue to County Road 4133 (Saxon Drive)	4	100	Existing	Urban Principal Arterial	D	26,000	2,540	D	36,700		
13	State Road 44A1A (East 3rd Avenue)	County Road 4133 (Saxon Drive) to East 26th Avenue	4	100	Existing	Urban Principal Arterial	D	18,300	1,788	B	34,865		
14	State Road 44	West City Limits to Airport Road	4	300	Existing	Urban Principal Arterial	D	18,200	1,778	B	45,400		
15	State Road 44	Airport Road to Williamson Boulevard	4	300	Existing	Urban Principal Arterial	D	18,200	1,778	B	45,400		
16	State Road 44	Williamson Boulevard to Interstate 95 / State Road 9	4	300	Existing	Urban Principal Arterial	D	18,800	1,837	B	45,400		
17	State Road 44	Interstate 95 / State Road 9 to Sugar Mill Drive	4	200	Existing	Urban Principal Arterial	D	25,500	2,491	C	36,700		
18	State Road 44	Sugar Mill Drive to Business 44 (Canal Street)	4	200	Existing	Urban Principal Arterial	D	25,500	2,491	C	36,700		
19	State Road 44	Business 44 (Canal Street) to South Myrtle Avenue	4	100	Existing	Urban Principal Arterial	D	22,000	2,149	C	36,700		
20	State Road 44 (Lytle Avenue)	South Myrtle Avenue to US Highway 1 / State Road 5 (South Dixie Freeway)	4	200	Existing	Urban Principal Arterial	D	22,000	2,149	B	36,700		
21	State Road 44 (Lytle Avenue)	US Highway 1 / State Road 5 (South Dixie Freeway) to State Road 44 (Live Oak Street)	4	100	Existing	Urban Principal Arterial	D	22,000	2,149	B	36,700		
22	State Road 44 (North Causeway)	State Road 44 (North Riverside Drive) to Barracuda Boulevard	2	200	Existing	Urban Minor Arterial	D	9,200	899	C	16,500		
23	State Road 44 (North Causeway)	Barracuda Boulevard to East End of Bridge	2	200	Existing	Urban Minor Arterial	D	9,200	899	C	16,500		
24	Business 44 (Canal Street)	State Road 44 to County Road 4118 (Pioneer Trail)	2	100	Existing	Urban Minor Arterial	D	12,200	1,192	D	16,500		
25	Business 44 (Canal Street)	County Road 4118 (Pioneer Trail) to US Highway 1 / State Road 5 (Dixie Freeway)	2	70	Existing	Urban Minor Arterial	D	12,500	1,221	D	16,500		
26	County Roads												
27	County Road A1A (South Atlantic Avenue)	East 6th Avenue to East 27th Avenue	4	100	Existing	Urban Principal Arterial	E	19,070	1,863	C	35,010		
28	County Road A1A (South Atlantic Avenue)	East 27th Avenue to South City Limits	4	100	Existing	Urban Principal Arterial	E	9,030	882	C	15,890		
29	County Road 4089 (Enterprise Avenue)	County Road 4118 (Pioneer Trail) to County Road 4089 (Halleck Street)	2	100	Existing	Urban Collector	E	6,970	681	C	12,710		
30	County Road 4089 (Halleck Street)	County Road 4089 (Enterprise Avenue) to County Road 4089 (Wayne Avenue)	2	50	Existing	Urban Collector	E	5,940	580	C	12,710		
31	County Road 4089 (Wayne Avenue)	County Road 4089 (Halleck Street) to US Highway 1 / State Road 5 (North Dixie Freeway)	2	60	Existing	Urban Collector	E	6,200	606	D	12,710		
32	County Road 4093 (Turnbull Bay Road)	County Road 4118 (Pioneer Trail) to Williams Road	2	50	Existing	Urban Collector	E	2,090	204	B	12,710		
33	County Road 4093 (Turnbull Bay Road)	Williams Road to United Drive	2	50	Existing	Urban Collector	E	3,480	340	B	12,710		
34	County Road 4093 (Turnbull Bay Road)	United Drive to Industrial Park Avenue	2	100	Existing	Urban Collector	E	4,030	394	B	12,710		
35	County Road 4093 (Turnbull Bay Road)	Industrial Park Avenue to Fairgreen Avenue	2	60	Existing	Urban Collector	E	3,460	338	B	12,710		
36	County Road 4093 (Turnbull Bay Road)	Fairgreen Avenue to US Highway 1 / State Road 5 (North Dixie Freeway)	2	60	Existing	Urban Collector	E	4,790	468	C	12,710		
37	County Road 4118 (Pioneer Trail)	Airport Road to Williamson Boulevard	2	66	120	Urban Collector	E	2,700	264	B	12,710		
38	County Road 4118 (Pioneer Trail)	Williamson Boulevard to County Road 4093 (Turnbull Bay Road)	2	66	120	Urban Collector	E	2,700	264	B	12,710		
39	County Road 4118 (Pioneer Trail)	County Road 4093 (Turnbull Bay Road) to Sugar Mill Drive	2	66	100	Urban Collector	E	2,050	200	A	12,710		
40	County Road 4118 (Pioneer Trail)	Sugar Mill Drive to Williams Road	2	66	100	Urban Collector	E	2,680	262	B	12,710		
41	County Road 4118 (Pioneer Trail)	Williams Road to Enterprise Avenue	2	66	100	Urban Collector	E	3,900	381	B	12,710		
42	County Road 4118 (Pioneer Trail)	Enterprise Avenue to Jungle Road	2	90	Existing	Urban Collector	E	9,410	919	A	12,710		
43	County Road 4118 (Pioneer Trail)	Jungle Road to Business 44 (Canal Street)	2	60	80	Urban Collector	E	2,080	203	C	12,710		
44	County Road 4133 (Saxon Drive)	State Road A1A (East 3rd Avenue) to East 16th Avenue	2	Prescriptive	Existing	Urban Collector	E	5,750	562	C	9,180		
45	County Road 4133 (Saxon Drive)	East 16th Avenue to East 27th Avenue	2	75	Existing	Urban Collector	E	3,160	309	B	9,180		
46	County Road 4133 (Saxon Drive)	East 27th Avenue to South City Limits	2	Prescriptive	Existing	Urban Collector	E	2,860	279	B	9,180		
47	County Road 4137 (Mission Drive)	County Road 4137 (Old Mission Road) to County Road 4137 (Old Mission Road) / Mission Drive	2	40	Existing	Urban Collector	E	800	78	A	9,180		
48	County Road 4137 (Old Mission Road)	State Road 44 to County Road 4137 (Mission Drive)	2	30	66	Urban Collector	E	738	72	A	9,180		
49	County Road 4137 (Old Mission Road)	County Road 4137 (Mission Drive) to Josephine Street	4	100	Existing	Urban Collector	E	13,630	1,332	C	9,180		
50	County Road 4137 (Old Mission Road)	Josephine Street to County Road 4136 (Park Avenue)	2	70	100	Urban Collector	E	8,040	786	D	9,180		
51	North Airport Road	County Road 4118 (Pioneer Trail) to Luna Bella Lane	2	100	Existing	Urban Local	E	0	0	N/A	unknown		
52	North Airport Road	Luna Bella Lane to State Road 44	2	100	Existing	Urban Local	E	0	0	N/A	unknown		
53	North Glencoe Road	County Road 4118 (Pioneer Trail) to State Road 44	2	30	Existing	Urban Local	E	1,240	121	A	9,180		
54	South Glencoe Road	State Road 44 to Paige Avenue	2	60	Existing	Urban Local	E	3,640	356	B	9,180		
55	South Glencoe Road / Taylor Road	Paige Avenue to County Road 4137 (Old Mission Road)	2	60	Existing	Urban Local	E	1,330	130	A	9,180		
56	Josephine Street	County Road 4137 (Old Mission Road) to Tatum Boulevard	2	60	120	Urban Collector	E	6,370	622	D	12,710		
57	Mission Drive	State Road 44 to County Road 4137 (Old Mission Road) / Mission Drive	4	80	Existing	Urban Collector	E	15,200	1,485	C	9,180		
58	Sugar Mill Drive	County Road 4118 (Pioneer Trail) to State Road 44	2	100	Existing	Urban Local	E	2,760	270	B	12,710		
59	Williams Road	County Road 4093 (Turnbull Bay Road) to Mooneyham Drive	2	100	Existing	Urban Local	E	1,270	124	A	9,180		
60	Williams Road	Mooneyham Drive to County Road 4118 (Pioneer Trail)	2	60	Existing	Urban Local	E	1,430	140	A	9,180		

Notes: N/A = Not Available

¹ New Smyrna Beach Plat Sheets; Daniel W. Cory, Florida Registered Surveyor #2027

² Federal Functional Classification

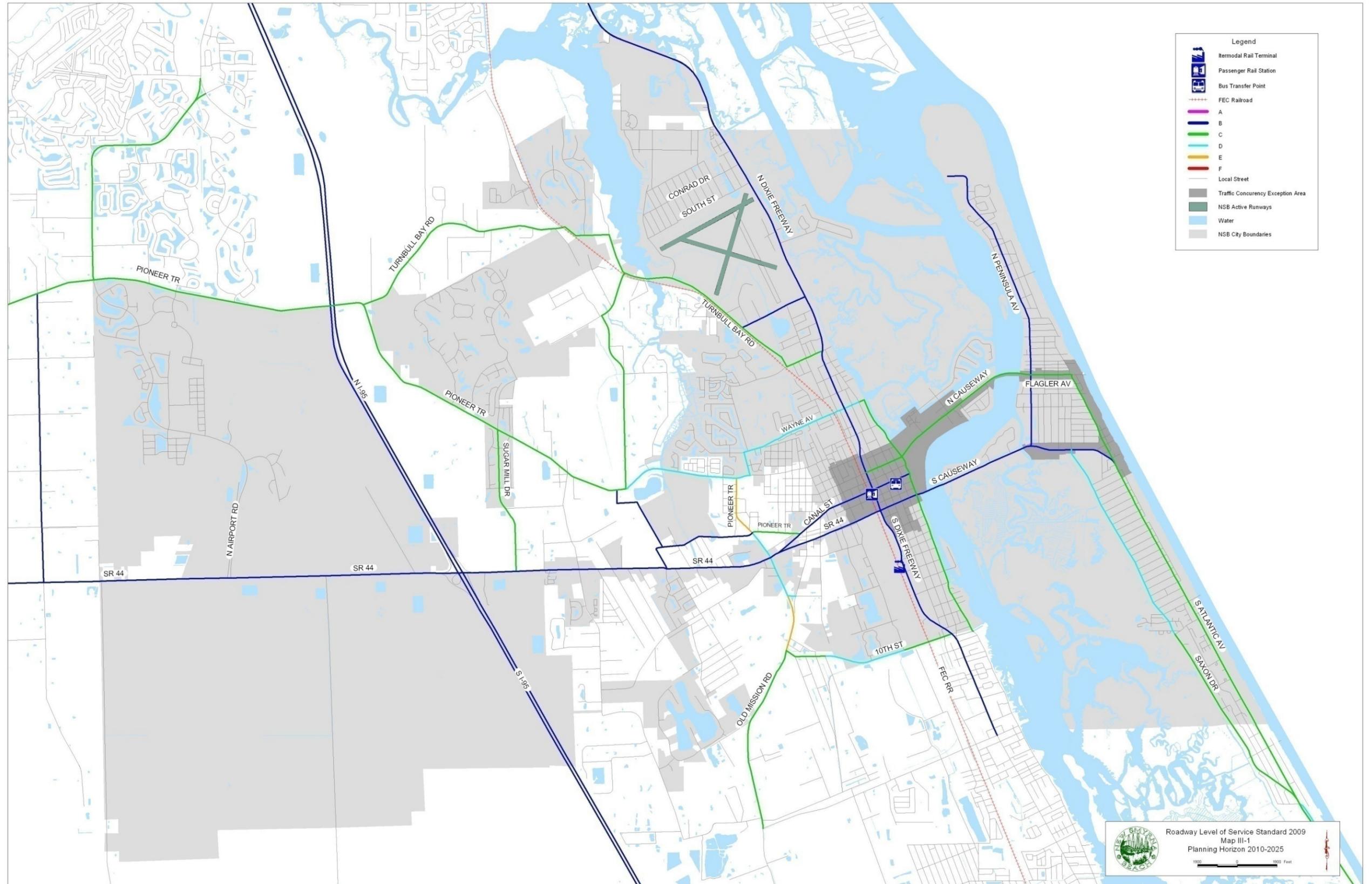
Source: Volusia Transportation Planning Organization (TPO) 2000-2010 Federal Functional Classification and Urban Boundary map, July 18, 2005

Table III-2 Existing Traffic Conditions, 2009

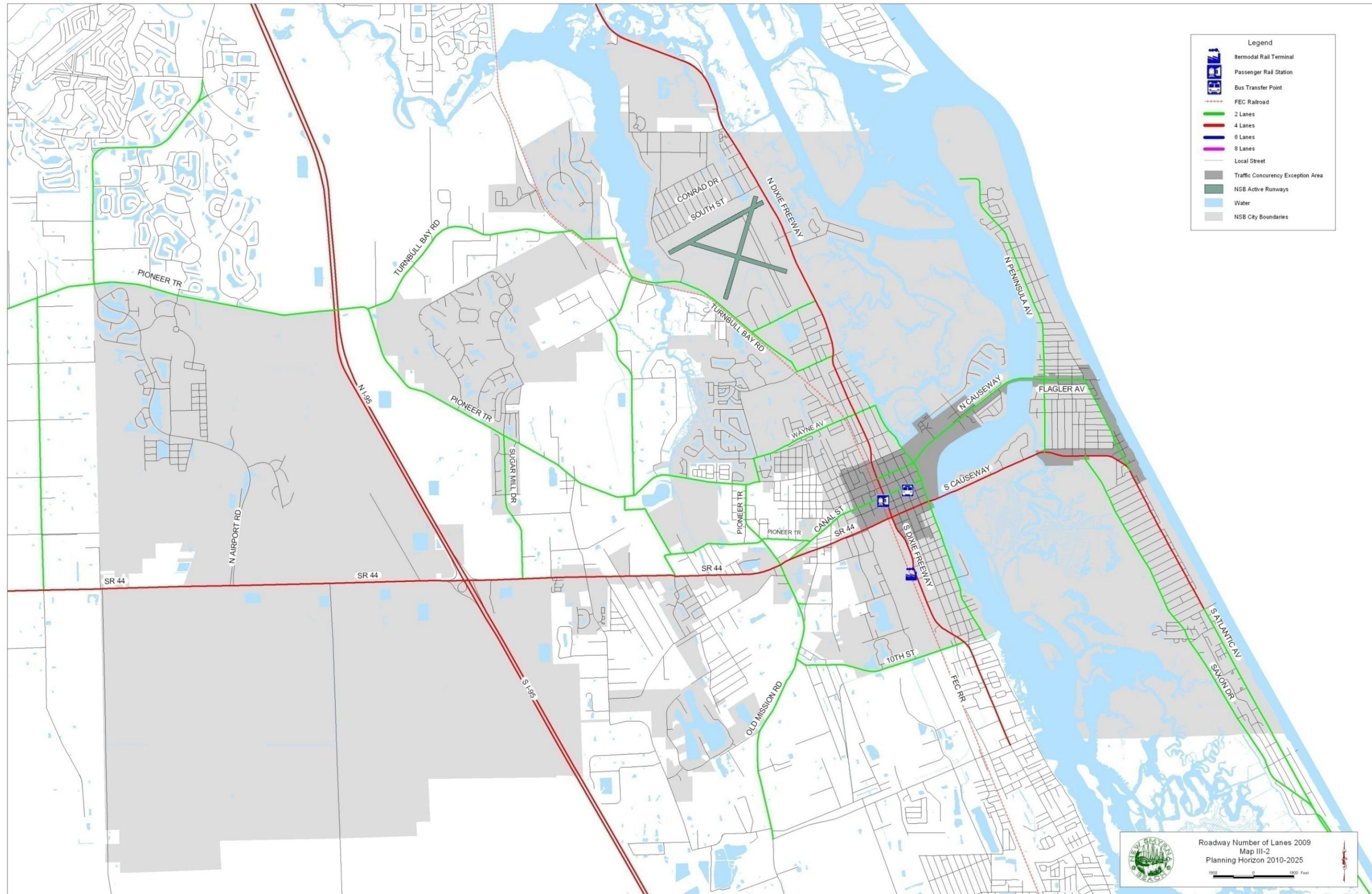
	A	B	C	G	H	I	J	K	L
	Roadway	Segment	Number of Lanes	Acceptable Level-of-Service	AADT	Peak Hour Volume	Level-of-Service		
2									
3									
4	State Highways								
5	Interstate 95 / State Road 9	State Road 421 (Dunlawton Avenue) to State Road 44	4	C	37,432	3,597	C		
6	Interstate 95 / State Road 9	State Road 44 to South City Limits	4	C	32,000	3,075	B		
7	US Highway 1 / State Road 5 (North Dixie Freeway)	North City Limits to Industrial Park Avenue	4	D	20,900	2,042	B		
8	US Highway 1 / State Road 5 (North Dixie Freeway)	Industrial Park Avenue to County Road 4093 (Turnbull Bay Road)	4	D	11,600	1,133	C		
9	US Highway 1 / State Road 5 (North Dixie Freeway)	County Road 4093 (Turnbull Bay Road) to County Road 4089 (Wayne Avenue)	4	D	26,000	2,540	D		
10	US Highway 1 / State Road 5 (North Dixie Freeway)	County Road 4089 (Wayne Avenue) to Business 44 (Canal Street)	4	D	26,000	2,540	D		
11	US Highway 1 / State Road 5 (South Dixie Freeway)	Business 44 (Canal Street) to State Road 44 (Lytle Avenue)	4	D	27,000	2,638	D		
12	US Highway 1 / State Road 5 (South Dixie Freeway)	State Road 44 (Lytle Avenue) to 10th Street / South City Limits	4	D	27,000	2,638	D		
13	State Road A1A (South Causeway)	State Road 44 (Live Oak Street) to South Peninsula Avenue	4	D	30,000	2,931	B		
14	State Road A1A (East 3rd Avenue)	South Peninsula Avenue to County Road 4133 (Saxon Drive)	4	D	26,000	2,540	D		
15	State Road A1A (East 3rd Avenue)	County Road 4133 (Saxon Drive) to East 6th Avenue	4	D	18,300	1,788	B		
16	State Road 44	West City Limits to Airport Road	4	D	18,200	1,778	B		
17	State Road 44	Airport Road to Williamson Boulevard	4	D	18,200	1,778	B		
18	State Road 44	Williamson Boulevard to Interstate 95 / State Road 9	4	D	18,800	1,837	B		
19	State Road 44	Interstate 95 / State Road 9 to Sugar Mill Drive	4	D	25,500	2,491	C		
20	State Road 44	Sugar Mill Drive to Business 44 (Canal Street)	4	D	25,500	2,491	C		
21	State Road 44	Business 44 (Canal Street) to South Myrtle Avenue	4	D	22,000	2,149	C		
22	State Road 44 (Lytle Avenue)	South Myrtle Avenue to US Highway 1 / State Road 5 (South Dixie Freeway)	4	D	22,000	2,149	B		
23	State Road 44 (Lytle Avenue)	US Highway 1 / State Road 5 (South Dixie Freeway) to State Road 44 (Live Oak Street)	4	D	22,000	2,149	B		
24	State Road 44 (North Causeway)	State Road 44 (North Riverside Drive) to Barracuda Boulevard	2	D	9,200	899	C		
25	State Road 44 (North Causeway)	Barracuda Boulevard to East End of Bridge	2	D	9,200	899	C		
26	Business 44 (Canal Street)	State Road 44 to County Road 4118 (Pioneer Trail)	2	D	12,200	1,192	D		
27	Business 44 (Canal Street)	County Road 4118 (Pioneer Trail) to US Highway 1 / State Road 5 (Dixie Freeway)	2	D	12,500	1,221	D		
28									
29	County Roads								
30	County Road A1A (South Atlantic Avenue)	East 6th Avenue to East 27th Avenue	4	E	19,070	1,863	C		
31	County Road A1A (South Atlantic Avenue)	East 27th Avenue to South City Limits	4	E	9,030	882	C		
32	County Road 4089 (Enterprise Avenue)	County Road 4118 (Pioneer Trail) to County Road 4089 (Halleck Street)	2	E	6,970	681	C		
33	County Road 4089 (Halleck Street)	County Road 4089 (Enterprise Avenue) to County Road 4089 (Wayne Avenue)	2	E	5,940	580	C		
34	County Road 4089 (Wayne Avenue)	County Road 4089 (Halleck Street) to US Highway 1 / State Road 5 (North Dixie Freeway)	2	E	6,200	606	D		
35	County Road 4093 (Turnbull Bay Road)	County Road 4118 (Pioneer Trail) to Williams Road	2	E	2,090	204	B		
36	County Road 4093 (Turnbull Bay Road)	Williams Road to United Drive	2	E	3,480	340	B		
37	County Road 4093 (Turnbull Bay Road)	United Drive to Industrial Park Avenue	2	E	4,030	394	B		
38	County Road 4093 (Turnbull Bay Road)	Industrial Park Avenue to Fairgreen Avenue	2	E	3,460	338	B		
39	County Road 4093 (Turnbull Bay Road)	Fairgreen Avenue to US Highway 1 / State Road 5 (North Dixie Freeway)	2	E	4,790	468	C		
40	County Road 4118 (Pioneer Trail)	Airport Road to Williamson Boulevard	2	E	2,700	264	B		
41	County Road 4118 (Pioneer Trail)	Williamson Boulevard to County Road 4093 (Turnbull Bay Road)	2	E	2,700	264	B		
42	County Road 4118 (Pioneer Trail)	County Road 4093 (Turnbull Bay Road) to Sugar Mill Drive	2	E	2,050	200	A		
43	County Road 4118 (Pioneer Trail)	Sugar Mill Drive to Williams Road	2	E	2,680	262	B		
44	County Road 4118 (Pioneer Trail)	Williams Road to Enterprise Avenue	2	E	3,900	381	B		
45	County Road 4118 (Pioneer Trail)	Enterprise Avenue to Jungle Road	2	E	9,410	919	A		
46	County Road 4118 (Pioneer Trail)	Jungle Road to Business 44 (Canal Street)	2	E	2,080	203	C		
47	County Road 4133 (Saxon Drive)	State Road A1A (East 3rd Avenue) to East 16th Avenue	2	E	5,750	562	C		
48	County Road 4133 (Saxon Drive)	East 16th Avenue to East 27th Avenue	2	E	3,160	309	B		
49	County Road 4133 (Saxon Drive)	East 27th Avenue to South City Limits	2	E	2,860	279	B		
50	County Road 4137 (Mission Drive)	County Road 4137 (Old Mission Road) to County Road 4137 (Old Mission Road) / Mission Drive	2	E	800	78	A		
51	County Road 4137 (Old Mission Road)	State Road 44 to County Road 4137 (Mission Drive)	2	E	738	72	A		
52	County Road 4137 (Old Mission Road)	County Road 4137 (Mission Drive) to Josephine Street	4	E	13,630	1,332	C		
53	County Road 4137 (Old Mission Road)	Josephine Street to County Road 4136 (Park Avenue)	2	E	8,040	786	D		
56	North Glencoe Road	County Road 4118 (Pioneer Trail) to State Road 44	2	E	1,240	121	A		
57	South Glencoe Road	State Road 44 to Paige Avenue	2	E	3,640	356	B		
58	South Glencoe Road / Taylor Road	Paige Avenue to County Road 4137 (Old Mission Road)	2	E	1,330	130	A		
59	Josephine Street	County Road 4137 (Old Mission Road) to Tatum Boulevard	2	E	6,370	622	D		
60	Mission Drive	State Road 44 to County Road 4137 (Old Mission Road / Mission Drive)	2	E	15,200	1,485	C		
61	Sugar Mill Drive	County Road 4118 (Pioneer Trail) to State Road 44	2	E	2,760	270	B		
63	Williams Road	County Road 4093 (Turnbull Bay Road) to Mooneyham Drive	2	E	1,270	124	A		
64	Williams Road	Mooneyham Drive to County Road 4118 (Pioneer Trail)	2	E	1,430	140	A		
70									
71	City Streets								
72	Business 44 (Canal Street)	US Highway 1 / State Road 5 (Dixie Freeway) to State Road 44 (Live Oak Street)	2	E	8,900	870	C		
74	State Road 44 (Canal Street)	State Road 44 (Live Oak Street) to State Road 44 (North Riverside Drive)	2	E	3,870	378	C		
75	State Road 44 (North Riverside Drive)	State Road 44 (North Causeway) to State Road 44 (Canal Street)	2	E	3,870	378	B		
79	Flagler Avenue	East End of Bridge to Peninsula Avenue	3	E	7,960	778	D		
80	Flagler Avenue	Peninsula Avenue to Atlantic Avenue	2	E	4,500	440	B		
82	South Atlantic Avenue	Flagler Avenue to Oakwood Avenue	3	E	3,760	367	B		
83	South Atlantic Avenue	Oakwood Avenue to Maralyn Avenue	3	E	3,760	367	B		
84	South Atlantic Avenue	Maralyn Avenue to 1st Avenue	3	E	3,760	367	B		
85	South Atlantic Avenue	1st Avenue to State Road A1A	3	E	3,760	367	B		
99	South Riverside Drive	State Road 44 (Canal Street) to Lytle Avenue	3	E	3,870	378	B		
104	10th Street	West City Limits to South Myrtle Avenue	4	E	6,860	670	B		
105	10th Street	South Myrtle Avenue to US Highway 1 / State Road 5 (South Dixie Freeway)	2	E	6,920	676	B		

Sources: Florida Department of Transportation and Volusia County Traffic Engineering

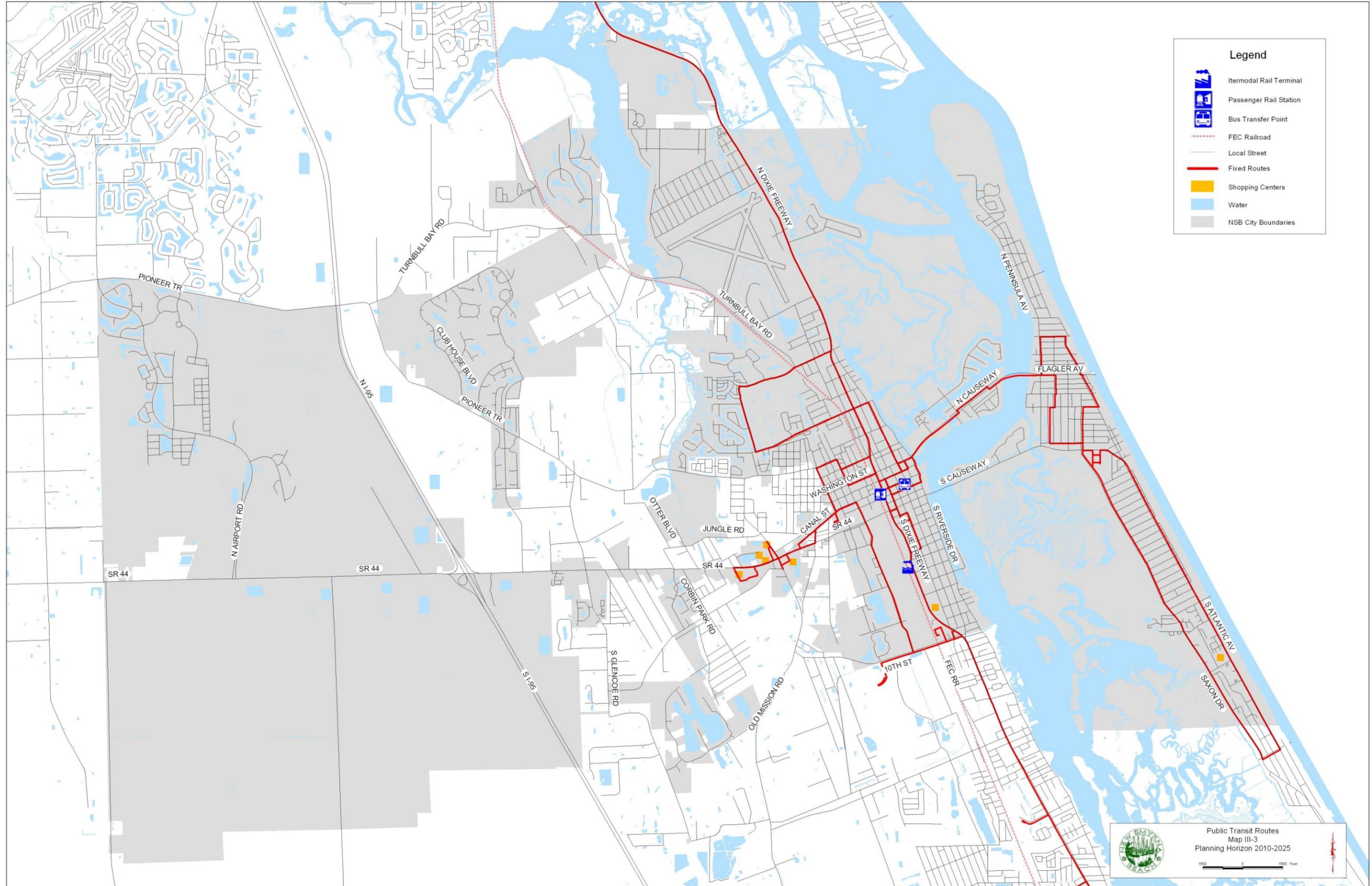
Map III-1 Year 2009 Existing Level of Service



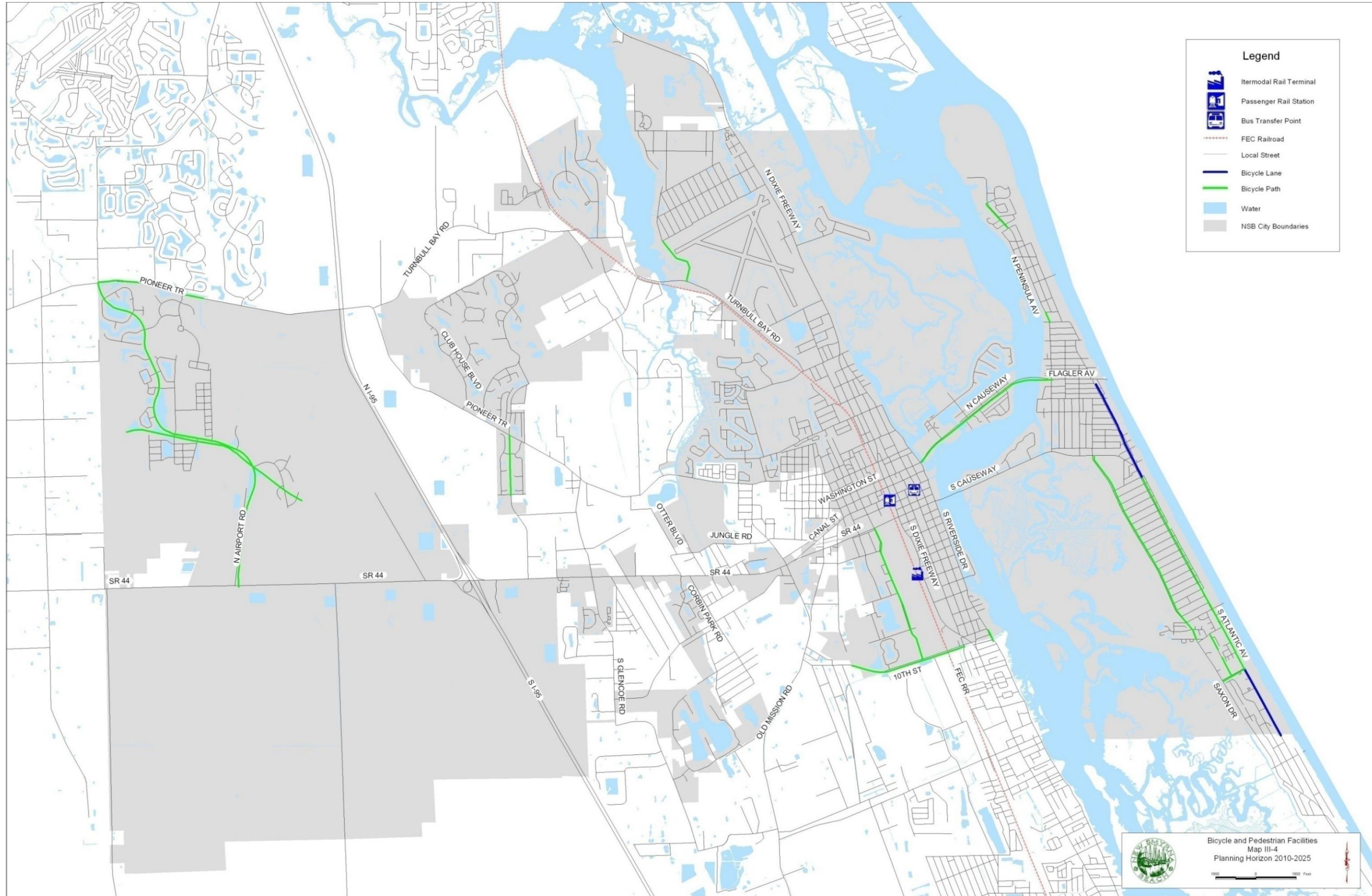
Map III-2 Year 2009 Existing Roadway Number of Lanes



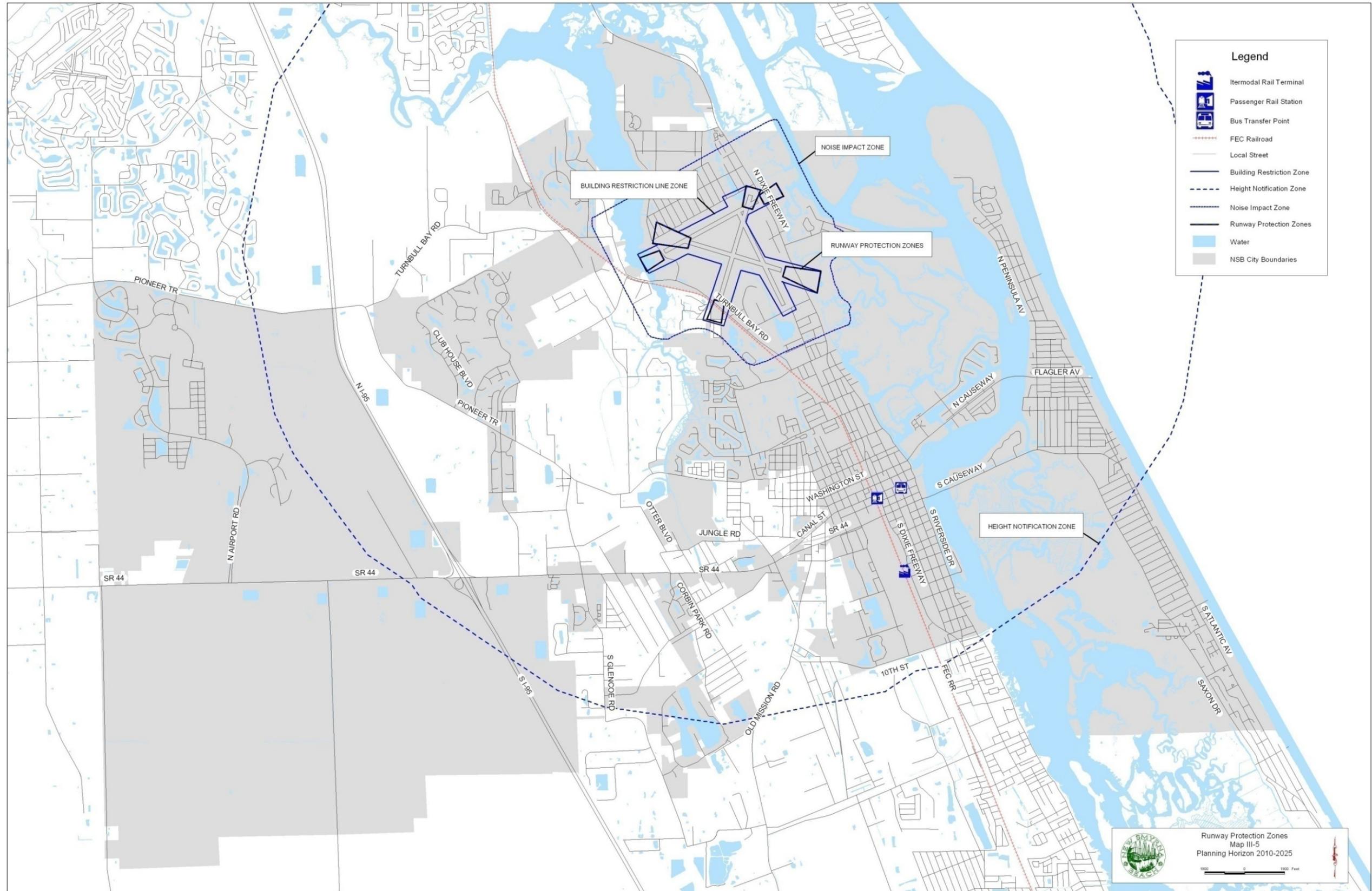
Map III-3Year 2010 Public Transit System



Map III-4 Year 2010 Bicycle and Pedestrian Ways



Map III-5Year 2010 New Smyrna Beach Municipal Airport Clear Zones



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TRAFFIC CRASH DATA

Traffic crash data is available from the local law enforcement agencies. To promote and implement transportation system improvements for all modes that minimize the occurrence of potential crashes that might result in the loss of health, life, and property, transportation plans should be developed with a priority consideration to transportation system improvements that prevent crashes, injuries, and minimize losses with the following actions:

- Properly maintain the various types of transportation facilities, including streets, intersections, buses, sidewalks, multi-use trails, transfer facilities, intermodal terminals, etc.
- Upgrade the street system to minimum width standards based on an overall system plan.
- Focus on high crash areas for transportation improvements.
- Minimize motor vehicle, truck, bus, train, bicycle, and pedestrian conflicts.

CURRENT ROADWAY DEFICIENCIES

No facilities in the New Smyrna Beach planning area currently carry volumes that are higher than the maximum level-of-service established for these facilities.

ROADWAYS WITH SPECIAL CHARACTERISTICS

Some roadways exist within the New Smyrna Beach City limits that the City considers roadways with special characteristics:

- Canal Street: Canal Street is a physically constrained facility due to the unavailability of right-of-way.
- Flagler Avenue: Flagler Avenue is a physically constrained facility due to the unavailability of right-of-way .
- Riverside Drive: Riverside Drive has been designated as a scenic drive from Wayne Avenue south to the south City limits.
- Faulkner Street: Faulkner Street has been designated as a historic drive from Tanglewood Avenue to Canal Street.
- Washington Street: Washington Street has been designated as a historic drive from US Highway 1 to Riverside Drive.
- Saxon Drive: Saxon Drive has been designated as a scenic drive from East 3rd Avenue south to the south City limits.
- State Road 44 (Lytle Avenue): State Road 44 (Lytle Avenue) is a physically constrained facility due to the unavailability of right-of-way from US Highway 1 to Live Oak Street.
- State Road A1A (South Causeway / East 3rd / South Atlantic Avenues): State Road A1A is a physically constrained facility due to the unavailability of right-of-way from Live Oak Street to the south City limit.

The City shall monitor traffic volumes and operating conditions on designated constrained, scenic, or historic facilities and, at the time the level-of-service on a constrained, scenic, or historic facility falls below the minimum acceptable level-of-service for that facility, the City may not allow further significant development of the facility unless acceptable, mitigative measures to the adverse traffic impact of the development are provided.

On City roads designated as constrained, scenic, or historic facilities, New Smyrna Beach shall not schedule improvements to increase the number of through lanes. On state or county maintained highways and roads designated as constrained, scenic, or historic facilities, the City shall coordinate with the FDOT and Volusia County to not schedule improvements to increase the number of through lanes.

FUTURE TRAFFIC CONDITIONS

In developing a transportation plan to meet the future needs of the City, it is necessary to determine where, and to what extent, deficiencies in the transportation system will exist. This portion of the Transportation Element presents the results of an analysis of expected future traffic conditions under the assumption that no further improvements are made to the system other than those currently programmed. These results will be used in subsequent sections to identify potential roadway improvements. Table XII-6 in the Capital Improvements Element summarizes the five (5) year programmed roadway improvements for New Smyrna Beach planning area.

FUTURE TRAVEL DEMANDS

The basic premise involved in projecting future roadway traffic conditions is that there is a stable relationship between travel demand (as indicated by traffic volumes) and socioeconomic activities in an urban area. The best indicators of socioeconomic activity in an area are population and employment. As the population and employment increase in a given urban area, the demand upon the local transportation facilities should increase accordingly. This method of deriving traffic projections from population and employment projections is usually conducted for an entire urban area by use of a computer-based traffic simulation model.

New Smyrna Beach is located within a Metropolitan Area Planning Boundary comprised of the entire Volusia County and a portion of Flagler County. The Volusia TPO currently maintains an extensive computer-based transportation planning process, in which the City actively participates. These countywide projections have been used extensively in projecting traffic volumes for the New Smyrna Beach area.

In 2006, the cities of New Smyrna Beach, Edgewater, Port Orange, and Volusia County participated in the *Southeast Volusia Regional Transportation Study*. This study identified needed roadway improvements through the year 2035. However, a financial plan could not be agreed upon amongst the study partners. Therefore, no official action has been taken on the part of the study partners to formally adopt the study. Data used to create Maps III-7 and III-8 has been obtained from the Volusia County Traffic Engineering department and is the same data incorporated into Volusia County's Comprehensive Plan.

FUTURE TRAFFIC CONDITIONS

As used in this context, the term "future traffic conditions" refers to those traffic conditions expected to exist during the horizon year on the programmed and planned roadway system. This roadway network, as shown in Maps III-7 and III-8 reflects the existing roads plus new roads and improvements to existing roads, and programmed and planned roadway improvements. The programmed improvements to the roadway system in the New Smyrna Beach area were included in state or local roadway programs adopted in 2009. Maps III-7 and III-8 also present the long-range traffic volume projections (as derived from land use projections for the year 2025) and the corresponding peak hour, peak direction level-of-service expected throughout the New Smyrna Beach planning area. These levels-of-service were determined using information from Volusia County Traffic Engineering and the Florida Department of Transportation (FDOT) *2009 Quality/Level of Service Handbook*.

REGIONAL DEMAND

Future traffic demands for New Smyrna Beach and Volusia County have been based upon population and employment projections. Like many other coastal communities, New Smyrna Beach also has an extremely high influx of non-city trips passing through the community destined for the beaches. The planning for this population segment rests with the inland areas, such as Orange and Seminole Counties. New Smyrna Beach is basically at the mercy of growth and travel demands for beach access from the inland areas of the state. This is evidenced by the fact that over 40,000 trips per day are projected for the North and South Causeways in 2015. Regardless of the controls placed upon growth within the City by the

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City, outside demands will continue to use a disproportionate share of major road capacity.

The City will be undertaking several initiatives to address the capacity of roads within the community. Two (2) programs include a regular traffic counting program and travel time studies on major State roads.

The traffic counting program will be implemented in cooperation with Volusia County and the FDOT. This will develop a database in order that the City can anticipate future capacity improvements required on the City street network.

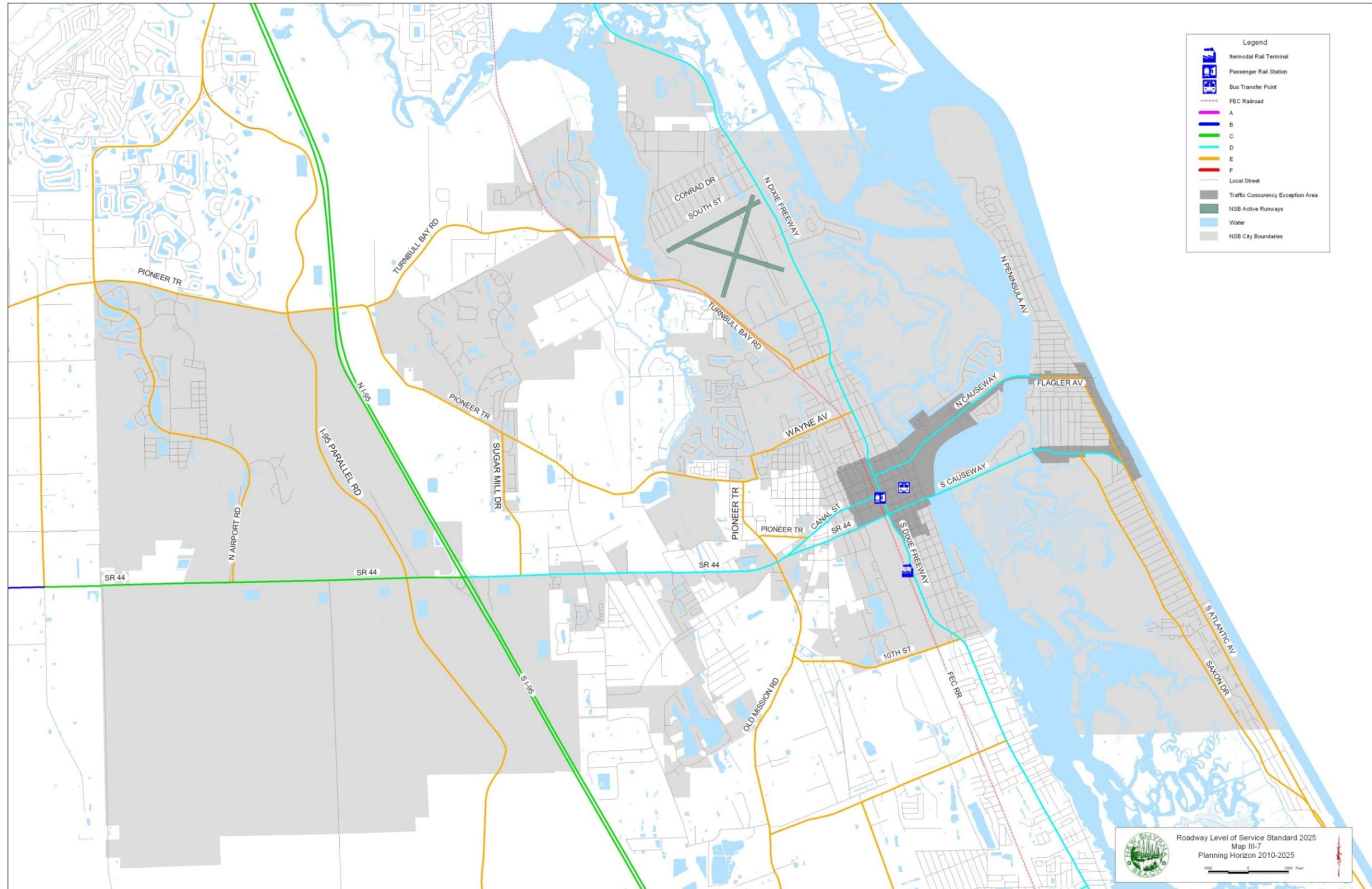
The travel time studies will look at the operating level-of-service for roadway corridors versus specific links as a determinant of system capacity. This will also be done in conjunction with Volusia County and the FDOT.

Table III-3 Programmed Roadway Improvements 2010-2025

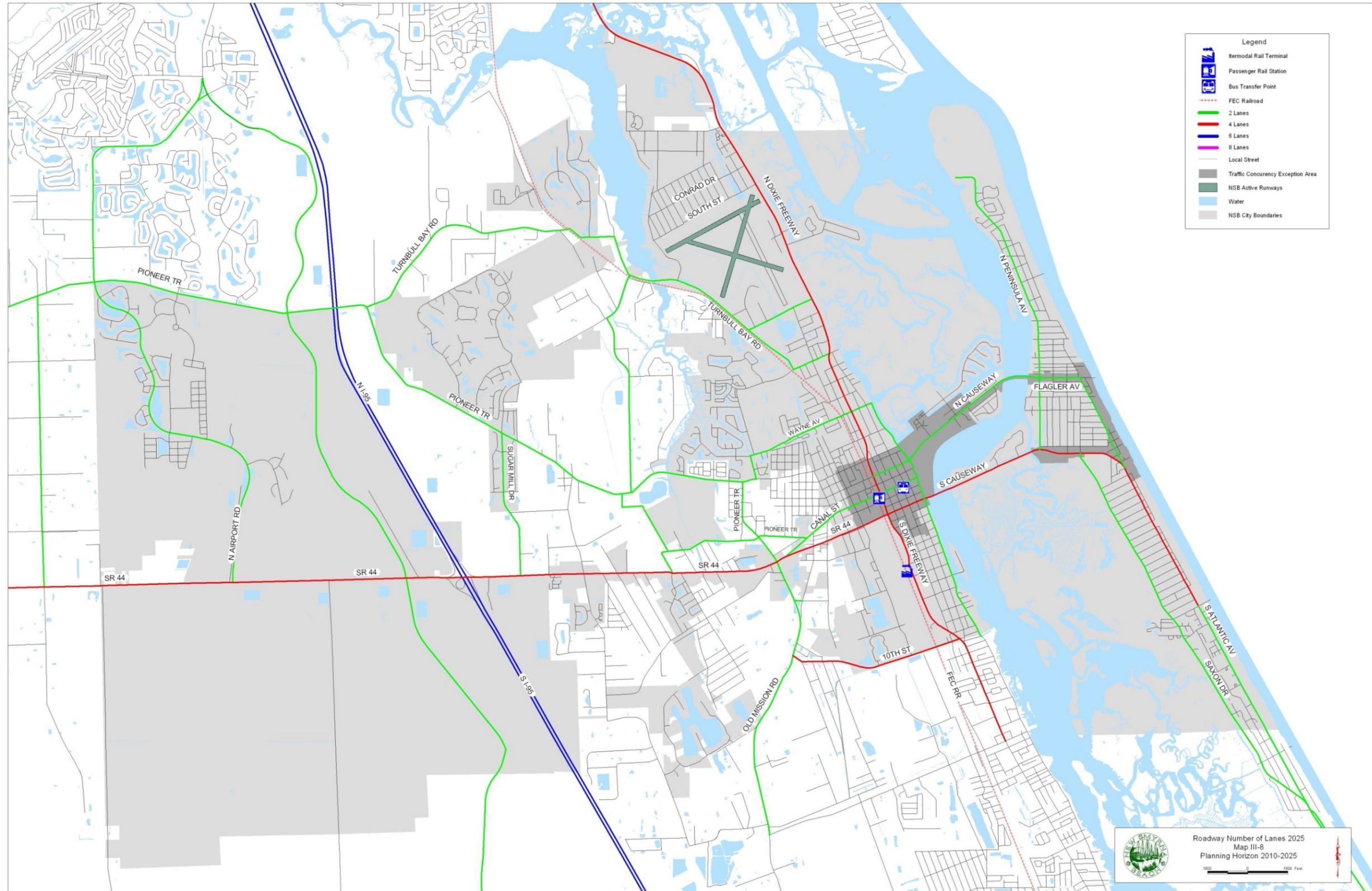
Project	From	To	Length (miles)	Cost (millions)	Construction Date	Comments
I-95 Widening to 6 Lanes	SR 400 (Beville Road)	SR 44	7.8	\$70.0	ROW - 2011	Construction 2031-2035
I-95 Widening to 6 Lanes	SR 44	Brevard County Line		\$1.34	ROW - 2011-2013	Project is not fully funded.

Source: Volusia County Transportation Planning Organization *2035 Long Range Transportation Plan*

Map III-7 Year 2025 Existing Plus Committed Traffic Conditions



Map III-8 Year 2025 Roadway Number of Lanes



GOALS, OBJECTIVES, AND POLICIES

MOBILITY / EFFICIENCY GOAL:

To provide for the development of a comprehensive transportation system for the movement of people and goods that safely, conveniently, and efficiently serves the travel needs in the New Smyrna Beach area, while protecting established neighborhoods, environmentally sensitive areas, and archaeologically / historically significant sites. This goal will be met by initiating the objectives and policies stated herein.

OBJECTIVE:

1. To guide the City in developing the future transportation system, the Transportation Element shall establish the preferred transportation plan within the City and the New Smyrna Beach planning area .

POLICIES:

- a. Alleviate traffic congestion and reduce travel time between geographical areas within the New Smyrna Beach planning area. The projected traffic circulation system demand through the year 2025 will be met by undertaking the projects listed in Future Traffic Conditions Table III-3.
- b. Preserve corridors for future transportation system development.
 - i. Designate a corridor alignment for a two (2) lane collector road with a minimum 130' right-of-way approximately parallel to Interstate 95 along the present power line corridor extending from Pioneer Trail to south City limit.
 - ii. Recommend to Volusia County and the Volusia County Transportation Planning Organization (TPO) that County Road 4118 (Pioneer Trail) / Wallace Road be planned as a four (4) lane facility from Airport Road to State Road 44. Alternate routes along this alignment may be considered so long as the impacts to the traffic network are equivalent.
 - iii. Designate corridor alignments connecting the Airport Road extension south of State Road 44 to an extension of the other proposed collector to create a potential network that could be expanded over Interstate 95 to connect to Park Avenue in Edgewater. Suggest this alignment for consideration as part of the TPO long-range plan updates.
 - iv. Require all development within the Southeast Volusia Activity Center to access State Road 44 via a network of service roads.
- c. Promote the use of alternative modes of transportation to reduce congestion and vehicle miles traveled (VMT) caused by single occupant vehicle (SOV) usage.
 - i. Work with the Volusia TPO to establish numerical indicators against which the achievement of the mobility goals of the community can be measured, such as modal split and automobile occupancy rates;
 - ii. Develop a safe usable pedestrian circulation system by providing sidewalks along all major streets adjacent to schools, between school sites and selected major streets, between school sites and parks or recreational areas, and add sidewalks, where necessary, to connect or complete either existing or proposed sidewalks in a manner that provides a complete pedestrian circulation system;
 - iii. Develop a safe bicycle and pedestrian transportation system with access to and within regional and community parks, all major public and private facilities, public transit, beach and river access areas, and other recreational facilities. Such provision should include bicycle parking at these locations, as well as at public, commercial, and service buildings, which is accessible;
 - iv. Include the construction of bicycle and pedestrian ways in conjunction with the

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construction, reconstruction, or changes in any state facilities, and assure that all transportation improvements address the needs of bicyclists and pedestrians and where bikeways and sidewalks are needed;

- v. Incorporate public transit, bicycle, and pedestrian considerations in the review of all site plans and plats;
 - vi. Promote developments designed to encourage non-motorized trips by providing efficient, convenient, and safe bicycle and pedestrian facilities;
 - vii. Increase information to the public regarding available transportation choices;
 - viii. Utilize Intelligent Transportation System technology applications to meet transportation system demands;
 - ix. Encourage the use of public transit; and
 - x. Create bicycle and pedestrian facilities, including multi-use trails and greenways, which tie the street system with greenway systems and major activity centers. Consider off-roadway travel corridors, such as drainage canal, railroad, and utility right-of-way property, as potential corridors.
- d. Continue to monitor and support the work of the Amtrak® /Florida East Coast Railway Corridor Project to re-establish intercity passenger rail service from New York to Florida's east coast communities with the objective of additional services in the corridor between Jacksonville and Miami, Florida.
 - e. Pursue Amtrak® for a commitment of a stop on the proposed re-establishment of intercity passenger rail service on the Florida East Coast Railway.
 - f. Maximize the useful life of existing facilities of the transportation system.
 - g. Work with VOTRAN to establish achieve a level-of-service for public transit of 15 minute service during peak-hour demand by 2020.

OBJECTIVE:

- 2. To implement programs to ensure that the long-range Transportation Plan supports, and is consistent with, the current and Future Land Use Plans of New Smyrna Beach.

POLICIES:

- a. Coordinate the Future Land Use Plan and Transportation Plan to encourage the location of high traffic-generating development adjacent to the arterial and collector network.
- b. Coordinate the Future Land Use Plan and Transportation Plan to minimize the disruptions of commercial and residential neighborhoods. Toward this end, the City has established a policy of not widening several roadways that are designated as constrained, scenic, or historic facilities.
- c. Coordinate the right-of-way needs with the Future Land Use Plan , as identified as part of the long-range Transportation Plan.
- d. Building setbacks and landscaping criteria will be considered in the location of new transportation facilities and the improvement of existing ones.
- e. The roadway network on the beachside of the Indian River will be planned and constructed in such a way as to encourage the preservation of the existing beach area community, and to discourage development of high-intensity land uses. Toward this end, the City has established a policy of not widening roadway facilities on the beach side of the river north of East 3rd Avenue.

OBJECTIVE:

3. To implement a Transportation Plan, which is consistent with county and state transportation plans, to the extent required by law.

POLICIES:

- a. Coordinate the planning and programming of local transportation improvements with Volusia County, FDOT, Volusia TPO, and the Volusia Council of Governments (VCOG).
- b. Adopt the *FDOT Five (5) Year Work Program* and *Volusia County Five (5) Year Road Program* as part of the short-range element of the New Smyrna Beach Transportation Plan.
- c. Update both the long-range and short-range elements of the Transportation Plan at established periodic intervals. The short-range element will be updated yearly in conjunction with the *Volusia TPO Year Transportation Improvement Program (TIP)*; and the long-range element will be updated at least at five (5) year intervals.
- d. Actively participate in the Volusia County TPO process, and with the Volusia Council of Governments.
- e. Provide all affected agencies with copies of the New Smyrna Beach Transportation Plan.
- f. Keep on file copies of the current plans of any agencies affecting transportation within the New Smyrna Beach planning area within the City Planning and Zoning Department.
- g. Request reviews from other agencies, which may be affected by new development proposals.

OBJECTIVE:

4. To maintain and create transportation facilities that operate in a safe and efficient manner while maintaining an aesthetically pleasing character.

POLICIES:

- a. Specific design and planning criteria for transportation facilities should meet or exceed those criteria published on the federal, state, and local level. These include the Florida Department of Transportation *Manual of Uniform Minimum Standards for Design, Construction and Maintenance of Streets and Highways*; and the American

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Association of State Highway and Transportation Engineers *Policy on Geometric Design of Highways and Streets, 5th Edition, 2002.*

- b. The minimum acceptable roadway operating conditions during peak hour will be LOS “C” on the Florida Interstate Highway System, LOS “D” on other state highways, and LOS “E” on minor arterials, collectors, local roadways, and all facilities located within a central business district. The central business districts shall be defined as follows:

Mainland: That area designated as Mixed Use on the Future Land Use Map including roads adjacent to areas designated as Mixed Use.

Beachside: The area bounded by an east west extension of Florida Street on the north and Jessamine Street on the south and the Indian River and Atlantic Ocean as west and east boundaries, respectively.

- c. Coordinate with the FDOT, the Volusia TPO, Volusia County, and the East Central Florida Regional Planning Council to designate the following facilities as constrained, scenic, or historic:

Road Name	From	To
Canal Street	US Highway 1	Riverside Drive
Flagler Avenue	Peninsula Avenue	Atlantic Avenue
Riverside Drive	Wayne Avenue	South City Limit
Faulkner Street	Tanglewood Avenue	Canal Street
Washington Street	US Highway 1	Riverside Drive
Saxon Drive	East 3 rd Avenue	South City Limit
State Road 44 (Lytle Avenue)	US Highway 1	Live Oak Street
State Road A1A (South Causeway / East 3 rd / South Atlantic Avenues)	Live Oak Street	South City Limit

- d. On City roads designated as constrained, scenic, or historic facilities, New Smyrna Beach shall not schedule improvements to increase the number of through lanes. The City shall monitor traffic volumes and operating conditions on designated constrained, scenic, or historic facilities and at the time the level-of-service on a constrained, scenic, or historic facility falls below the minimum acceptable level-of-service for that facility, the City may not allow further significant development of the facility unless acceptable, mitigative measures to the adverse traffic impact of the development are provided.
- e. New Smyrna Beach shall coordinate with the FDOT, the Volusia TPO, and Volusia County to not schedule improvements to increase the number of through lanes on state or county maintained highways and roads designated as constrained, scenic, or historic. Work with the state and Volusia County to develop access management plans that maximize roadway capacity and safety by minimizing median and curb cuts to effectively manage access to US Highway 1, State Road A1A, State Road 44, and County Road A1A, as dictated by adjacent land uses.
- f. Pursue improving the capacity of the existing traffic signal control systems, and maximizing the capacity of any new signal control systems, through the use of traffic signal interconnection and/or coordination where appropriate. Other Transportation System Management (TSM) techniques will be explored to improve the capacity of congested roadways.
- g. Continue to coordinate with the Volusia TPO to develop a bicycle facilities plan.
- h. Enforce building and landscape setbacks to preserve rights-of-way for needed roadway expansion.

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- i. Observe effective street signing procedures in accordance with criteria outlined in the *Manual of Uniform Traffic Control Devices*.
- j. Monitor crash data for major arterial thoroughfares.
- k. Use state grants, transportation impact fees, proportionate share agreements, and special assessments, when available, to upgrade deficient facilities.
- l. Develop regulations for the safe and efficient movement of pedestrians within all new development proposals and the redevelopment of sites.
- m. Establish a regular traffic counting program on the City major roadways in cooperation with Volusia County and the FDOT. This shall include those streets designated as constrained, scenic, or historic. The purpose of this program will be to adequately monitor traffic conditions so that the City can anticipate future capacity improvements required on the City street network.
- n. Work with Volusia County and the FDOT to establish a traffic operating conditions monitoring program for the major state roads running through the City (US Highway 1, State Road A1A, and State Road 44). This program will include travel time studies to determine actual peak-period operating levels-of-service. The purpose of these studies will be to accurately determine operating levels-of-service on these roadways; in addition, these studies will attempt to determine how much of the traffic volume increases on these state roadways is attributable to new development activity approved within the City of New Smyrna Beach.
- o. Implement the adopted long-term transportation concurrency management system to maintain adopted levels-of-service.
- p. Establish a Transportation Concurrency Exception Area (TCEA) coterminous with the Community Redevelopment Agency area to promote urban infill and redevelopment where opportunities for expansion or addition of new transportation corridors are limited. Development/redevelopment projects within the TCEA shall address their transportation impacts and mitigation through alternative methods, which will be examined and considered instead of the typical roadway capacity projects, consistent with the following strategies:
 - i. Prepare a plan by November 1, 2012, to support and fund mobility within the TCEA consistent with §163.3180(5)(a), *Florida Statutes*;
 - ii. Mitigating measure(s) shall advance the goals of adopted area or subject matter plans, such as community redevelopment agency master plans, neighborhood plans, corridor plans, bicycle and pedestrian plans, or transit development plans;
 - iii. Potential alternative mitigating measure(s) may include but not be limited to the following; operational and/or capital enhancements for Votran, participation in a transit pass program for employees, van pooling, or ride sharing programs, pedestrian improvements, bus shelter/stop improvements, bicycle improvements, lighting improvements, connectivity improvements, roadway/Intersection Improvements, streetscape improvements, enhancements to a traffic management system, creating parallel travel ways connecting adjacent development, financial contributions to implement actions consistent with this policy, and any other measures which increase mobility options and intermodal connections as may be approved by the City; and
 - iv. Any development or redevelopment project within the TCEA that impacts roadway segments or intersections outside the TCEA shall be subject to concurrency requirements for those impacts outside the TCEA.

OBJECTIVE:

5. To minimize the public sector capital outlay in the construction of new transportation

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facilities and the improvement of existing facilities.

POLICIES:

- a. Reserve and/or acquire rights-of-way required for future roadway widenings or new construction as early as reasonably possible; and require the dedication of the necessary right-of-way in the development approval process.
- b. Adopt and enforce ordinances requiring new development to provide needed rights-of-way, and develop an acquisition and funding program for rights-of-way to be acquired by the City.
- c. Require new development to provide facilities and/or pay its fair share toward transportation improvements.
- d. Require developers to provide paved roads, lighting, street trees, and sidewalks within all new developments.
- e. Monitor new development patterns and revise the Transportation Plan in a timely manner, as necessary. This may entail revising the schedule, and/or the content, of the improvement program at irregular intervals.
- f. Accept maintenance responsibility for any roads only with a concurrent shift in adequate maintenance revenues.

ENVIRONMENT GOAL:

Preserve and enhance the City of New Smyrna Beach's unique and natural environmental features by protecting the integrity of air, land, water, energy, cultural, and aesthetic resources.

OBJECTIVE:

1. To protect and preserve the character of the existing New Smyrna Beach central business districts and beachside areas, areas of historic and archaeological significance, and environmentally sensitive areas, while providing for safe traffic circulation.

POLICIES:

- a. Several City and state roadways have been designated constrained, scenic, or historic facilities and will not be widened as provided in Policy 4.c.
- b. Consider pedestrian and bicycle travel and safety in conjunction with vehicle operating efficiency.
- c. Vigorously discourage roadway construction that impacts areas of historic, archaeological, and/or natural significance.
- d. Require mitigation measures for roadway construction, which has a negative impact on historically, archaeologically, and/or environmentally sensitive areas, such as noise and water runoff.
- e. Initiate and support projects, programs, and services that conserve energy and reduce greenhouse gases.
 - i. Examine the *Land Development Regulations* to identify inconsistencies with the Smart Growth Principles and determine if separated land uses, low-density, large setbacks, parking regulations, and street design standards should be changed to reduce greenhouse gases;
 - ii. Require a bicycle parking ratio based on the number of automobile parking spaces for new and redevelopment projects; and
 - iii. Provide parking reductions for compact vehicles and motorcycle/scooter parking.
- f. Undertake and promote energy conservation programs in transportation.
- g. New or reconstructed roadways shall be designed to prevent and control soil erosion, minimize clearing and grubbing operations, minimize stormwater runoff, and avoid

unnecessary changes in drainage patterns.

- h. Encourage pedestrian and transit orientated land development designs that accommodate pedestrians, bicycles, and public transit by providing the community with travel alternatives other than the automobile.
 - i. Reduce large front yard setbacks;
 - ii. Provide pedestrian and bicycle facilities, including sidewalks, multi-use trails, bicycle racks or lockers;
 - iii. Accommodate public transit with route extensions, bus stops and shelters, turnarounds, and taller overhangs; and
 - iv. Place parking to the side or rear of building.

SAFETY GOAL:

Promote and implement transportation system improvements for all modes that minimize the occurrence of potential crashes that might result in the loss of health, life, and property.

OBJECTIVE:

- 1. Develop a Transportation Plan that gives priority consideration to transportation system improvements that prevent crashes, injuries, and minimize losses.

POLICIES:

- a. Properly maintain the various types of transportation facilities, including streets, intersections, buses, sidewalks, multi-use trails, transfer facilities, intermodal terminals, etc.
- b. Upgrade the street system to minimum width standards based on an overall system plan.
- c. Focus on high crash areas for transportation improvements.
- d. Minimize conflicts between and within roadways, public transit, rail, bicycle, and pedestrian facilities.

OBJECTIVE:

- 2. Maintain an adopted roadway plan and evacuation routes, which provide for safe and efficient evacuation of the population in emergency situations.

POLICY:

An emergency evacuation plan consistent with state and local guidelines will be adopted and maintained by the City of New Smyrna Beach.

ECONOMIC DEVELOPMENT GOAL:

Promote the balanced and sustained economic growth through the efficient movement of goods and people in a safe, energy efficient, and environmentally sound manner.

OBJECTIVE:

- 1. To give priority consideration to transportation projects and systems that facilitate local job creation and retention.

POLICIES:

- a. Promote efficient land-use patterns, appropriate commercial and industrial development locations, and redevelopment opportunities.
- b. Address truck accessibility and maneuverability to and within commercial and industrial areas.
- c. Collaborate on the *Volusia County Truck & Freight Study* and participate on the Goods Movement Advisory Committee (GMAC)

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- d. Give consideration of the true costs and benefits of providing the transportation facilities necessary to move goods.

ACCESSIBILITY GOAL:

Develop a transportation system that is reliable and accessible to all potential users.

OBJECTIVE:

1. To create a physical environment that supports access to public transit.

POLICIES:

- a. Improve accessibility to bus stops through the extension of sidewalks and the removal of architectural barriers in both new development and reconstruction projects.
- b. Improve the amenities available at bus stops through provision of benches, landscaping, shade trees, and shelters. Locations for improvements shall be coordinated with Votran.
- c. Assist Votran in improving the transfer site in the Canal Street central business district.
- d. Within existing and potential transit corridors, geometric design of intersections and driveways to major activity centers will be adequate to service standard transit vehicles.
- e. Assist Votran in identifying options for park-and-ride lots supporting express bus service.
- f. Work with Votran to establish bus service in higher-density areas and encourage higher-density development and redevelopment in support of public transit.
- g. Work with the Volusia TPO to establish numerical indicators against which the achievement of the accessibility goals of the community can be measured, such as modal split and annual transit trips per capita.
- h. Consider the needs and requirements of system users, specifically transportation disadvantaged persons.
- i. Follow the *Votran Transit Development Design Guidelines* for bus stops, bus shelters, new developments, and redevelopment of sites.

OBJECTIVE:

2. To support the provision of public transit service and its coordination with other modes of transportation.

POLICIES:

- a. Continue to support transit service at the policy and technical levels of the TPO.
- b. Assist Votran in the distribution of schedules and literature about transit services by making this information available at the various City facilities.

Assist Votran in generating public involvement by hosting meetings, assisting in surveys and other similar efforts.

VII. SANITARY SEWER, POTABLE WATER, SOLID WASTE, DRAINAGE, AND NATURAL GROUNDWATER AQUIFER RECHARGE ELEMENT PURPOSE

The purpose of this element is to describe the existing sanitary sewer, solid waste, drainage, and potable water facilities and services in the New Smyrna Beach planning area, to correlate these facilities and services to future land use projections, and to adopt a ten (10) year water supply facilities plan as required by the 2005 amendments to the Local Government Comprehensive Planning and Land Development Regulation Act of 1985 (Growth Management Act), Chapter 163, *Florida Statutes*. It is also the purpose of this element to describe the existing natural groundwater aquifer recharge system in the planning area, and to correlate this system to future land use goals and objectives within the planning area.

STANDARDS

The information presented in this element applies to the New Smyrna Beach planning area, and is correlated with the future land uses shown on the Future Land Use Map. Most of the information presented in this element was supplied by the City of New Smyrna Beach Planning and Zoning Department and the Utilities Commission, City of New Smyrna Beach, an agency “created and made part of the government of the City of New Smyrna Beach” (City of New Smyrna Beach Charter, Chapter 15). The Utilities Commission, City of New Smyrna Beach holds permits for water supply and wastewater for a service area that encompasses an area larger than the corporate limits of the City of New Smyrna Beach. Therefore, the population projections and demands on sanitary sewer and potable water vary slightly from the solid waste, drainage, and natural groundwater aquifer sub-sections of this element.

EXISTING CONDITIONS

SANITARY SEWER

As defined by Rule 9J-5, *Florida Administrative Code*, sanitary sewer facilities are “structures or systems designed for the collection, transmission, treatment, and disposal of sewage, and includes trunk mains, interceptors, treatment plants, and disposal systems.”

The Utilities Commission, City of New Smyrna Beach (hereinafter referred to as the Utilities Commission) is the entity having operational responsibility for the sanitary sewer system serving most of the developed areas within the City limits, as well as some unincorporated areas of Volusia County near the City. Areas within the City that are not served by the central sewer system have their own septic tanks.

WATER RECLAMATION FACILITY

The Utilities Commission currently owns and operates one (1) wastewater treatment plant, permitted as a Class A advanced wastewater treatment facility now referred to as the Water Reclamation Facility (WRF). The WRF is located on approximately 600 acres immediately west of Interstate 95 and north of State Road 44, serving the beachside and the mainland. The WRF is an advanced treatment facility which limits effluent discharge to the Indian River Lagoon pursuant to its permits in compliance with the Indian River Lagoon Act of 1990.

1. Geographic Service Area – The WRF serves all developed areas within the City limits (both on the beachside and the mainland) that are not on private septic tanks. The Utilities Commission also serves scattered developments and individual customers in unincorporated areas of Volusia County near to the City.

An Interlocal Agreement is currently in effect with the cities of Edgewater (south of New Smyrna Beach) and Port Orange (north of New Smyrna Beach) by which all parties have agreed not to encroach on each other’s potential sanitary sewer service connections in unincorporated areas of Volusia County. It has been further agreed that the municipality that is best able to provide the service at the time it is needed may serve new development in fringe areas. Such connections will be decided on a case-by-case basis, subject to the approval of both municipalities involved.

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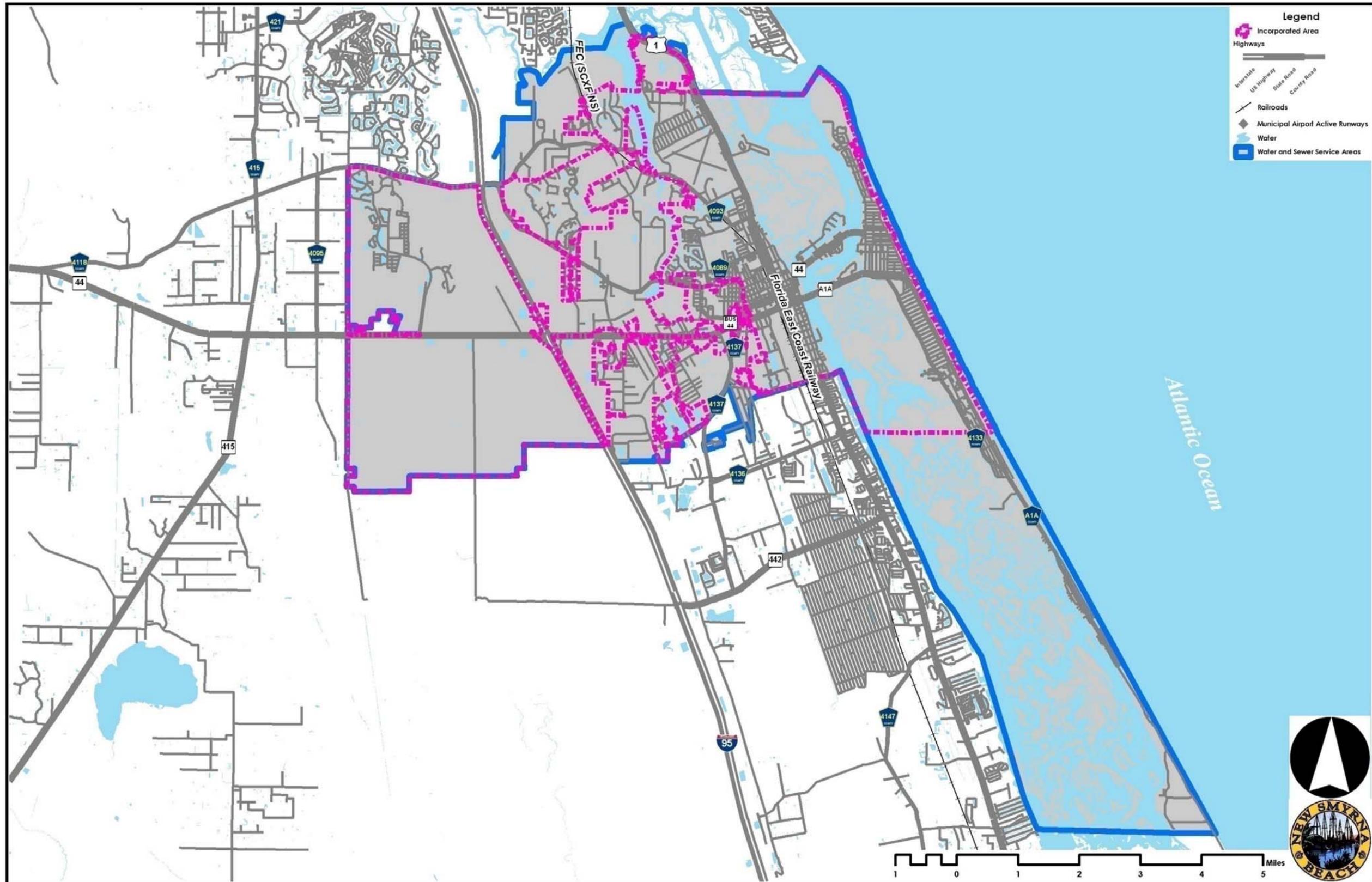
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New Smyrna Beach has negotiated an agreement with Volusia County whereby the Utilities Commission provides service to certain “service areas” near the City. These service areas are shown on Map VII-1 on the following page.

2. Types of Adjacent Land Use – Existing land uses adjacent to the WRF include the Interstate 95 right-of-way to the east and vacant City owned properties on the north, south, and west.

The WRF has little, if any, impact on these adjacent land uses. The WRF is protected by a land buffer owned by the Utilities Commission; in fact over 600 acres of undeveloped lands exist to the north, west and south of the WRF; this Utilities Commission property is bordered on the east by Interstate 95. Natural vegetation including a pond is existing in all directions from the WRF. As far as a buffer is concerned the Utilities Commission’s significant sized property provides excellent separation from other land uses and there are few complaints. However, should operational events result in complaints, the Utilities Commission’s staff will resolve as quickly as possible.
3. Types of Land Uses Served – The major land use served by the WRF is residential. The plant also serves a significant amount of commercial land use, particularly along the North Causeway between the beachside and the mainland; on both sides of Flagler Avenue on the peninsula heading toward the beach; in the downtown area on the mainland; along both sides of US Highway 1 and State Road 44 on the mainland; and along both sides of State Road A1A on the beachside. Two (2) significant industrial areas are also served: the New Smyrna Beach Municipal Airport north of the City on the west side of US Highway 1, and the railroad yard / warehouse / manufacturing strip along the west side of US Highway 1 south of Lytle Avenue and north of 10th Street.
4. Design Capacity – The Utilities Commission operates one (1) WRF with a rated capacity of 7.0 million gallons per day (mgd) that has been in operation since 2000.
5. Current Demand and Level-of-Service – According to the Utilities Commission, average daily flow at the WRF is 4.18 mgd. Maximum daily flow is 5.18 mgd. This information is based on the latest available data for Fiscal Year 2009 (October 1, 2008 through September 30, 2009). These flows are serving a current population of approximately 47,068, based on the population projections from GIS Associates, Inc, 2010. Historical wastewater flows for Fiscal Years 2000 through 2009 are shown in Table VII-1. The established wastewater level-of-service (LOS) is 207 gpd per equivalent residential unit (ERU).
6. Plant Performance – The WRF uses a 5-Stage Bardenpho Biological Nutrient Removal Activated Sludge Facility. The 5-Stage Bardenpho process is an activated sludge process which utilizes fermentation, first anoxic, aerobic, second anoxic, and re-aeration treatment zones to achieve nitrogen and phosphorous reduction. Upland sand filters are provided for reduction of total suspended solids. The treatment product is disinfected and discharged to a public access reclaimed water distribution system or a permitted surface discharge point in the Indian River Lagoon. The Utilities Commission effluent discharge concentrations to the Indian River Lagoon were established by permit #FL0172090, issued September 19, 2003, and which expires June 2014. The plant is well maintained, and structures, components, and equipment are in good condition. Daily operation and maintenance and preventive maintenance are performed with the assistance of computerized schedules. In addition, regularly scheduled training sessions are held for plant operators and maintenance technicians.

Map VII-1 Water and Sewer Service Areas



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7. Impact on Adjacent Natural Resources – Operation of the WRF has had no known impact on adjacent natural resources. The Utilities Commission has extensive groundwater monitoring wells around the WRF and at least once per year a photo record is made of the adjacent wetlands to be certain operations are not impacting the natural resources. Records are maintained and reported as required by various permits.

Table VII-1 Historical Wastewater Flows, Fiscal Years 2000-2009

Fiscal Year Ending September 30	Accounts	Average Daily Flow (mgd)	Peak Month Average Daily Flow (mgd)	Peak Average Ratio (mgd)	Average Daily Flow Per Account (gd)
2000	14,940	3.37	4.16	1.23	226
2001	15,452	4.11	7.72	1.88	266
2002	15,832	4.30	4.36	1.20	229
2003	16,589	3.72	5.06	1.32	231
2004	17,239	3.59	4.81	1.33	210
2005	17,933	3.81	4.93	1.36	202
2006	18,243	3.30	4.22	1.21	191
2007	18,775	3.12	3.83	1.23	166
2008	23,716	3.40	4.40	1.30	143
2009	19,772	4.18	5.18	1.27	207
Average				1.30	207

Source: Utilities Commission, City of New Smyrna Beach

COLLECTION SYSTEM

There are more than 90 lift stations serving the New Smyrna Beach area. All the lift stations are equipped with Supervisory Control and Data Acquisition (SCADA) telemetry, and are monitored and controlled for the wastewater reclamation facility by the Utilities Commission. The New Smyrna Beach wastewater collection system currently comprises approximately 137 miles of gravity sewer lines and 34 miles of force mains ranging in size from three (3) to twelve (12) inches in diameter. Access is provided to the collection lines by 2,610 manholes.

The collection system has had three (3) major expansions. In 1981, sewer lines were extended to five (5) previously unserved areas within the City; in 1984, lines were extended into the unincorporated south beachside area, providing service to the many condominiums in that location and allowing phase-out of the package plants formerly providing wastewater treatment; and in 1999, a relocated and expanded WRF was placed in a central location to serve the service area. The system is continually and incrementally expanded to provide service to additional customers.

Steps have also been taken in recent years to reduce the amount of infiltration/inflow (I/I) in the system. Periodic television inspection is conducted throughout the system, and in areas where excessive I/I is detected, a specially equipped truck is dispatched to clean and grout the pipes.

The Utilities Commission completed a pilot study in 2002, which included closed circuit video inspection of a limited number of suspected inflow and infiltration areas. The report concluded that a majority of the sewer lines studied showed signs of deterioration. Based upon the Utilities Commission's review of the findings, the Utilities Commission determined a full scale I/I assessment should be implemented.

EFFLUENT DISPOSAL

The Utilities Commission WRF is an advanced wastewater treatment facility. Currently, chlorine gas is used as a disinfectant. Upgrading the plant to Sodium Hypochlorite (NaOCl) disinfection would require the addition of nearly 10,000 gallons of storage in three (3) 3,300 gallon tanks. All chlorinated effluent not used as reclaimed irrigation is dechlorinated prior to discharge into the Indian River Lagoon. Discharge flows come directly from the reuse distribution system and are dechlorinated at the outfall facility.

The wastewater treatment facility uses a 5-Stage Bardenpho biological nutrient removal process. The process is an activated sludge process which uses fermentation, first anoxic, aerobic, second anoxic, and re-aeration treatment zones to achieve nitrogen and phosphorous reduction. Upflow sand filters are provided for reduction of total suspended solids. The treated product is disinfected and discharged to a public access reclaimed water distribution system or a permitted surface discharge point in the Indian River Lagoon.

The Utilities Commission advanced WRF has a history of regularly meeting its discharge compliance requirements. A review

of regulated effluent parameters has shown that the operating permit for the wastewater treatment plant on average has not exceeded any parameters. Levels have exceeded single sample concentrations on various occasions. The single sample excursions show that the biological system is somewhat docile in how it reacts to changes. Through advanced wastewater treatment, extensive use of re-use water, and limits on effluent disposal, the plant is in compliance with the Indian River Lagoon Act of 1990. For FY 2009, reuse was at 96 percent based on a 12 month average.

SEPTIC TANKS

Few wholesale areas in the City are served by septic tanks; however, a limited number of individual homes and businesses do use them. There is no readily available information regarding the exact number of septic tanks currently in use in the New Smyrna Beach area. It is acknowledged that some older sections of the City did have neighborhoods served by septic tanks prior to installation of the central sanitary sewer system. It is also acknowledged that septic tanks are in use in developed portions of unincorporated Volusia County near the City that fall under the sanitary sewer service area.

The existing septic tank systems are generally performing well, with a normal number of repair permits being issued for failing systems that are unable to be served by the central sanitary sewer system. If any problems do exist, they probably occur in areas where the drainfield beds are subject to inundation and/or saturation, which deprive the sewage-treating bacteria of oxygen and results in the formation of solids on the drainfield.

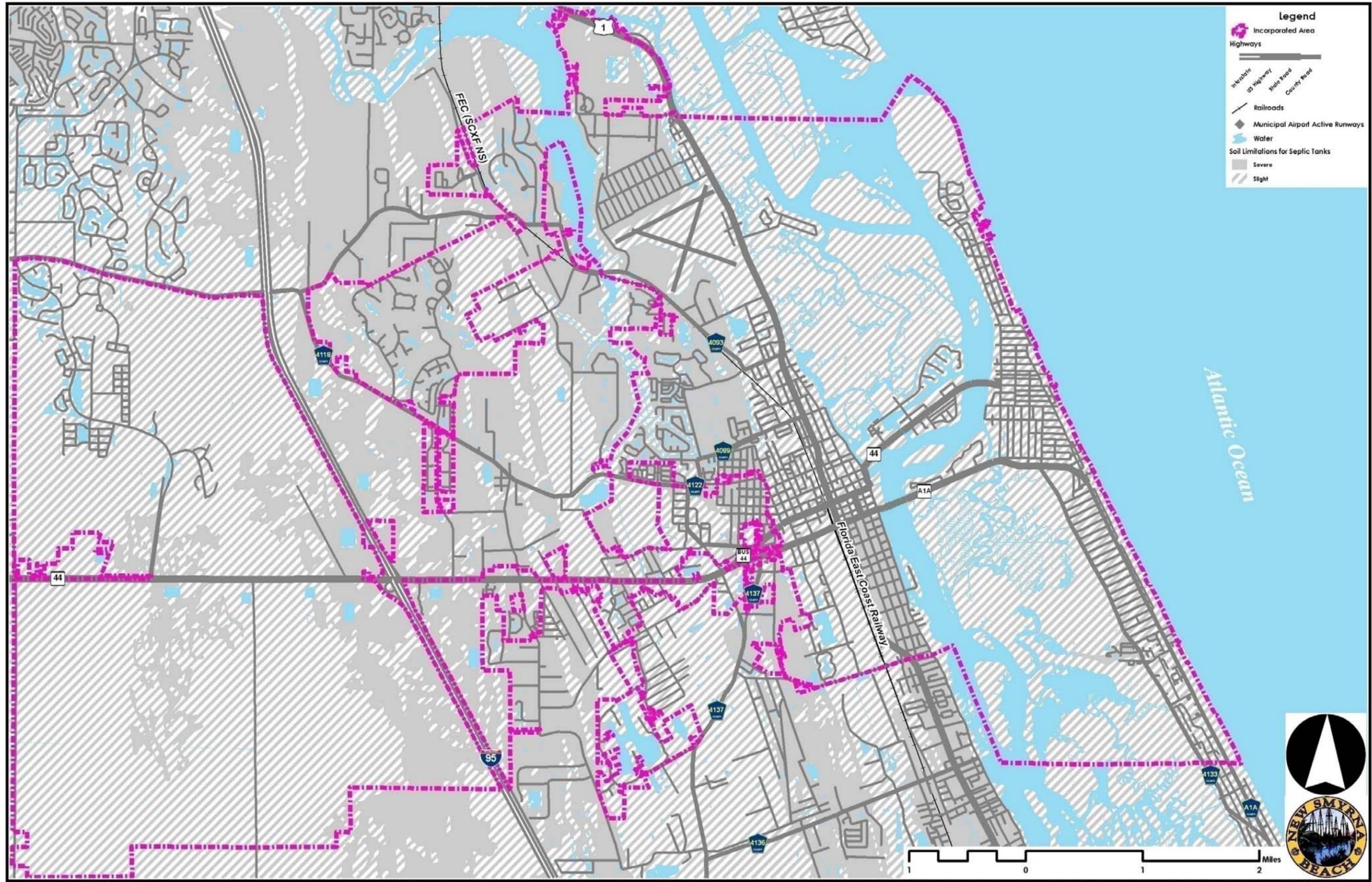
There are no apparent rules or regulations governing the pump-out of septic tanks. Consequently, it is assumed that an unknown number of tanks are not being pumped out, and that subsequent solids buildup has caused some drainfields to fail.

In 2001, the United States Department of Agriculture, Natural Resources Conservation Service completed a soil survey of Volusia County, including New Smyrna Beach. The survey included the suitability of soils for the use of septic tanks. There are three (3) categories of septic tank suitability of soils, as follows:

1. Slight limitation designation indicates that site features are generally favorable for septic tank use and limitations are minor and easily overcome;
2. Moderate limitation designation indicates that site features are unfavorable for septic tank use but limitations can be overcome by special planning and design; and
3. Severe limitation designation indicates that site features are so unfavorable or difficult to overcome that major soil reclamation, special designs, or intensive maintenance is required.

The majority of soils in the City have slight limitations for septic tank use. The locations of soils having severe and slight limitation for septic tank use are shown on Map VII-2. No soils within the City are designated as moderate. Most of the septic tanks within the City are located on the mainland and in soils with severe limitation for septic tank suitability. These areas are fairly undeveloped; as development progresses, the areas are being served by the central sewer system. Because there are so few areas served by septic tanks and the number of lots is becoming fewer, the impact on natural resources is minimal.

Map VII-2 Soil Limitations for Septic Tanks



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SLUDGE DISPOSAL

According to the Utilities Commission, approximately 24,500 wet tons, or 1,000 dry tons, of wastewater sludge is disposed annually. This translates to approximately 2.68 dry tons per day. Based on the average daily flow of 3.9 mgd in Fiscal Year 2006 (the last complete 12 month period for which data is available), approximately 980.42 dry tons of sludge were disposed during that year.

Currently, the WRF uses rotary drum thickeners and lime addition to stabilize and dewater residuals (sludge). The United States Environmental Protection Agency (EPA) Part 503 regulations govern the processes for reduction of pathogens. Part 503 establishes criteria for Class 'A' and Class 'B' biosolids handling. Generally, Class 'A' biosolids may be land applied without permits or subsequent monitoring requirements. Class 'B' sludge is a digested sludge product which has restrictive land application requirements. Land application sites receiving Class 'B' biosolids are permitted and monitored. Sludge generators contributing to Class 'B' land application sites retain liability for the product and the manner in which it is handled. After dewatering, the sludge is hauled off-site for land spreading. The percent solids of the disposed sludge varies from four to eight percent (4-8%).

IMPACT ON ADJACENT NATURAL RESOURCES

Operation of the wastewater treatment and disposal facilities has had no known adverse impact on adjacent natural resources. This is also true of the landscaping operation by which the treated wastewater sludge is disposed.

POTABLE WATER

As defined by Rule 9J-5, *Florida Administrative Code*, potable water facilities are "structures designed to collect, treat, and distribute potable water, and include water wells, treatment plants, storage reservoirs, and distribution mains." This Potable Water sub-element implements the Water Supply Facilities Work Plan which is intended to strengthen the link between this *Comprehensive Plan* and the regional water supply planning process as required by 2005 amendments to the Growth Management Act. The Work Plan projects potable water demand for the planning horizon of this *Comprehensive Plan* and identifies sources of water that will be used to meet the projected demand. The Work Plan takes into account water conservation, re-use, and alternative sources of water identified as options by the St. Johns River Water Management District Water Supply Plan, as it may be updated from time to time.

The Utilities Commission is the entity having operational responsibility for the water system serving the developed areas within the City limits, as well as some unincorporated areas of Volusia County near the City.

WATER TREATMENT PLANT

The Utilities Commission currently owns and operates one (1) water treatment plant located at 2640 Paige Avenue, immediately east of South Glencoe Road in unincorporated Volusia County.

1. Geographic Service Area – The area served by the water treatment plant is the same as that served by the WRF (i.e., all developed areas within the City limits, both on the beachside and the mainland, that are not on private wells, and scattered developments and individual customers in unincorporated areas of Volusia County near the City).

The Interlocal Agreement (previously mentioned on page VII-1) also applies to potential water service areas. In addition, the Utilities Commission has a finished water interconnect with the City of Port Orange on Pioneer Trail and one with the City of Edgewater on 10th Street by which the Utilities Commission can provide or receive water on an emergency basis.

The proportional capacity of the potable water system allocated to the City and the county is 78.8 percent and 21.2 percent, respectively.

2. Types of Adjacent Land Use – The existing land uses adjacent to the UCNSB Glencoe water treatment plant are primarily Low-Density Residential. To date, there are no known impacts on these adjacent land uses due to plant operations. However, the chlorine gas system is subject to federal risk management guidelines. The Utilities Commission has prepared a Risk Management Plan for storage and handling. An element of the plan requires public notification for residents and businesses within close proximity of the plant. As development moves closer to the plant, safer disinfection options may need to be considered. These options include:

- Bulk Liquid Sodium Hypochlorite (NaOCl)

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- On-site NaOCl generation
- Ozonation

The first two (2) options are compatible with the existing treatment processes and could be implemented without major plant modifications. Use of NaOCl, also known as bleach, has safety advantages over chlorine gas and it is relatively simple to deliver, store, and inject. The primary disadvantage is cost. Chemical costs associated with NaOCl are approximately 10-20 percent higher than chlorine gas.

3. Types of Land Uses Served – The major land use served by the UCNSB Glencoe water treatment plant is residential. The plant also serves a significant amount of commercial land use, particularly along the North Causeway between the beachside and the mainland; on both sides of Flagler Avenue on the peninsula heading toward the beach; in the downtown area on the mainland; along both sides of US Highway 1 and State Road 44 on the mainland; and along both sides of State Road A1A on the beachside. Two (2) significant industrial areas are also served: the New Smyrna Beach Municipal Airport north of the City on the west side of US Highway 1, and the railroad yard / warehouse / manufacturing strip along the west side of US Highway 1, south of Lytle Avenue and north of 10th Street.
4. Design Capacity – The UCNSB Glencoe water treatment plant was built in 1977 at a design (peak) capacity of 6.2 mgd and was expanded in the early 1990's to 10.368 mgd. Raw water transmission limitations limit maximum capacity to 9.0 mgd. The facility has room for potential expansion to 12.4 mgd.
5. Current Demand and Level-of-Service – According to the Utilities Commission, current peak-day demand at the UCNSB Glencoe water treatment plant is 6.45 mgd. Average daily demand is 4.60 mgd. This information is based on the latest available data for Fiscal Year 2009 (October 1, 2008 through September 30, 2009). This demand is serving a current population of approximately 47,000, based on the population projections prepared for the City of New Smyrna Beach Water Supply Work Plan (*Quentin L. Hampton Associates, Inc., 2010*). Historical water demand for Fiscal Years 2000 through 2009 is shown in Table VII-2. The potable water level-of-service (LOS), defined as gallons per day per equivalent residential unit (ERU), over 10 years from 2000 to 2009 has averaged 245 gpd/ERU. For planning purposes, the established potable water LOS is 240 gpd/ERU.
6. Plant Performance – The UCNSB Glencoe water treatment plant uses a process consisting of aeration, lime softening, pH adjustment, filtration, fluoridation, and disinfection with a chlorine solution. It has received numerous awards, including the FDEP Best Operated Water Plant, Class A Category, in the St. Johns River Water Management District (1980, 1981, 1984 and 1986), and the American Waterworks Association's "Award of Recognition for Best Class A/B Water Plant in the State of Florida" (1985 and 1986). The plant is well maintained, and structures, components, and equipment are in good condition. Daily operation and maintenance and preventive maintenance are performed with the assistance of computerized schedules. In addition, regularly scheduled training sessions are held for plant operators and maintenance technicians.
7. Impact on Adjacent Natural Resources – Operation of the UCNSB Glencoe water treatment plant has had no known impact on adjacent natural resources.

Table VII-2 Historical Water Demand, Fiscal Years 2000-2009*

Fiscal Year Ending Sept. 30	Total Accounts	Residential Units* (ERU)	Total Avg Daily Demand (mgd)	Peak Day Demand (mgd)	Total Treated Water Production (MG)	Avg Daily Flow Per Residential Unit* (gpd/ERU)
2000	17,935	16,500	4.82	7.06	1,764	292
2001	18,569	17,083	4.54	5.96	1,657	266
2002	19,521	17,959	4.73	6.62	1,726	263
2003	19,978	18,380	4.78	7.2	1,745	260
2004	20,900	19,228	4.53	7.12	1,658	236
2005	21,261	19,548	4.43	6.07	1,617	227
2006	22,765	20,336	4.77	6.93	1,741	235
2007	23,388	20,832	4.93	6.51	1,799	237
2008	23,995	21,464	4.64	6.68	1,698	216
2009	23,835	21,344	4.60	6.45	1,679	216

*Residential master meters, representing 326 ERU's, make up five (5) of the Residential Accounts. Therefore, the Residential Units exceed the Residential Accounts which are a portion of the Total Water Accounts. Level-of-service (LOS) is defined as total ADF per ERU.

Source: Utilities Commission, City of New Smyrna Beach

The Florida Department of Environmental Protection requires water treatment plants to perform "Capacity Analysis Reports." This authority is established in Rule 62-600.405, *Florida Administrative Code*. This report allows a community to evaluate existing plant processes and establish a schedule for future expansion.

WATER SUPPLY

Currently, the City has sufficient water supply through the Consumptive Use Permit (CUP) #8747, the latest revision of which was issued by the St. Johns River Water Management District (SJRWMD) on January 10, 2006, and facilities to meet projected demand through 2020 according to population and water demand projections for the utility service area in the City's 2010 Water Supply Work Plan. The Utilities Commission has identified a number of strategies to meet this demand including water conservation, re-use, and development of alternative water supply. It annually reviews its facilities and needs and coordinates with the SJRWMD in the regular update of the District Water Supply Plan. The Utilities Commission updates its five (5) year capital improvement plan on an annual basis and changes to that plan are incorporated into the Capital Improvements Element of this *Comprehensive Plan*.

Over the years, New Smyrna Beach has had to continue seeking water supplies farther inland due to saltwater intrusion in its wells. In fact, the City's original Smith Street wellfield is no longer being used, due to this intrusion. Consequently, the Utilities Commission now operates the following three (3) wellfields:

1. Glencoe (water treatment plant), about three (3) miles inland;
2. Samsula, approximately seven (7) miles farther west; and
3. Western (near the intersection of State Road 44 and Pioneer Trail (County Road 4118))

The Glencoe wellfield near the UCNSB Glencoe water treatment plant currently has seven (7) wells, providing 2,890 gallons per minute (gpm). The Samsula wellfield has six (6) wells, providing 2,455 gpm. The Western wellfield, near the intersection of State Road 44 and Pioneer Trail, has six (6) wells, providing 2,175 gpm. Each of the wells at the sites range from 183 to 364 feet deep, drawing water from the Floridan Aquifer. Each well also has a pump house and a fence surrounding it. Ten (10) of the wells have auxiliary engines for emergency pumping in the case of power failure. According to the Utilities Commission, the cone of influence for saltwater intrusion has been reduced at the Glencoe wellfield due to increased use of the Samsula and Western wellfields and less pumping at the Glencoe wellfield. In year 2010, total permitted peak capacity for these three (3) wellfields is 9.49 mgd; the average capacity is 6.20 mgd. The current CUP provides for annual increases in average day and peak day withdrawals to a maximum of 7.13 mgd and 10.91 mgd, respectively, for the Glencoe (WTP), Samsula, and Western (SR-44 / Pioneer Trail) wellfields combined. In addition, the proposed Central wellfield is permitted through the CUP to supply 1.20 mgd AADF and 1.84 mgd peak day with no annual increases.

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Well Data

Well #	Wellfield	Year Built	Depth	Production (gpm)
1	Glencoe	1956	210'	300
2	Glencoe	1958	201'	300
3	Glencoe	1958	210	300
4	Glencoe	1966	abandoned	
5	Glencoe	1966	183'	250
6	Glencoe	1972	216'	540
7	Glencoe	1976	200'	600
8	Glencoe	1976	183'	600
9	Samsula	1981	225'	275
10	Samsula	1981	312'	445
11	Samsula	1981	249'	500
12	Samsula	1981	249'	435
13	Samsula	1981	190'	400
14	Samsula	1986	300'	400
15	Western (SR-44 / Pioneer Trail)	1993	253'	485
16	Western (SR-44 / Pioneer Trail)	1993	252'	180
17	Western (SR-44 / Pioneer Trail)	1993	250'	400
18	Western (SR-44 / Pioneer Trail)	1993	253'	500
19	Western (SR-44 / Pioneer Trail)	1993	364'	360
20	Western (SR-44 / Pioneer Trail)	1993	250'	250

Water quality and well levels within the wellfields has remained relatively consistent with some increase in chlorides over the past ten (10) years. The Utilities Commission withdraws approximately 40% of its supply from the Glencoe wellfield, 30% from the Samsula wellfield, and 30% from the Western wellfield. The primary constraints limiting the groundwater withdrawals are defined in the CUP as revised by the SJRWMD on January 10, 2006, which will expire on February 9, 2020. Compared to the prior CUP, allocation requests were increased and five (5) new wells were approved for construction.

Table VII-3 Permitted Groundwater Withdrawal Limits (Annual and Maximum Daily)

	Total Permitted Groundwater Withdrawals		Individual Wellfield Limits: Permitted Max AADF (mgd)					Individual Wellfield Limits: Permitted Max Day ADF (mgd)				
	Max Annual Groundwater Withdrawals (MG/yr)	Max Annual Average Daily Flow (mgd AADF)	Glencoe	Samsula	Western	Central (Future)	Total	Glencoe	Samsula	Western	Central (Future)	Total
2006	2,036.7	5.58	2.64	1.58	1.58	1.2	7.00	4.04	2.42	2.42	1.84	10.72
2007	2,204.6	6.04	2.68	1.6	1.6	1.2	7.08	4.1	2.45	2.45	1.84	10.84
2008	2,416.3	6.62	2.73	1.63	1.63	1.2	7.19	4.18	2.49	2.49	1.84	11.00
2009	2,602.5	7.13	2.78	1.66	1.66	1.2	7.30	4.25	2.54	2.54	1.84	11.17
2010	2,785.0	7.63	2.82	1.69	1.69	1.2	7.40	4.31	2.59	2.59	1.84	11.33
2011	2,941.9	8.06	2.88	1.72	1.72	1.2	7.52	4.41	2.63	2.63	1.84	11.51
2012	3,040.5	8.33	2.93	1.75	1.75	1.2	7.63	4.48	2.68	2.68	1.84	11.68
2013	3,040.5	8.33	2.98	1.78	1.78	1.2	7.74	4.56	2.72	2.72	1.84	11.84
2014	3,040.5	8.33	3.03	1.81	1.81	1.2	7.85	4.64	2.77	2.77	1.84	12.02
2015	3,040.5	8.33	3.08	1.84	1.84	1.2	7.96	4.71	2.82	2.82	1.84	12.19
2016	3,040.5	8.33	3.14	1.87	1.87	1.2	8.08	4.8	2.86	2.86	1.84	12.36
2017	3,040.5	8.33	3.19	1.9	1.9	1.2	8.19	4.88	2.91	2.91	1.84	12.54
2018	3,040.5	8.33	3.25	1.94	1.94	1.2	8.33	4.97	2.97	2.97	1.84	12.75
2019	3,040.5	8.33	3.25	1.94	1.94	1.2	8.33	4.97	2.97	2.97	1.84	12.75
2020	3,040.5	8.33	3.25	1.94	1.94	1.2	8.33	4.97	2.97	2.97	1.84	12.75

Source: Consumptive Use Permit #8747, St. Johns River Water Management District (SJRWMD), 2006

The installed well production capacity with one of the largest wells out of service is 6,920 gpm (9.97 mgd). The permitted maximum treatment capacity at the UCNSB Glencoe water treatment plant is 10.368 mgd. To date, the plant has not operated

above 50 percent of capacity for average day demand. In order to maintain average well operating times at 12 hours a day or less, a capacity factor of at least 2.0 is necessary. Current capacity exceeds existing average demand by a factor of more than 2.0, allowing for wells to be operated, approximately 12 hours per day or less.

To keep all utility agencies from regularly exceeding the CUP, the SJRWMD has safeguards in place. In any calendar year, if the actual volume of water withdrawn equals or exceeds 95 percent of the amount of water allocated for use by the permit, then the Utilities Commission shall submit a report to the SJRWMD by the following February 15th that explains why the withdrawal of water exceeded this threshold. The report must include a breakdown of the population currently being served by the utility agency, an updated projection of anticipated population that will be served for the following year, an evaluation as to whether the utility agency anticipates whether it will be able to meet the water needs of the revised projected population without violating the allocations set forth in this permit, and a corrective action plan setting actions that the utility agency intends to take if the evaluation indicates that allocations will be exceeded during the following year. Also, the report evaluates the effect of the following on the volume of water withdrawn by the Utilities Commission:

1. Climatic shortfalls (drought);
2. Greater than anticipated growth in the service area;
3. Inefficient usage within the service area; and/or
4. Other factors.

If utility agencies regularly exceed the CUP, the SJRWMD and possibly the Department of Environmental Protection would impose a moratorium on new water hookups throughout the utility agency’s service area.

In addition to groundwater pumping capacity, the Utilities Commission must also consider raw water transmission capacity as a constraint. The UCNSB Glencoe water treatment plant receives 60 percent of the raw water from an existing 20 inch transmission main from the Samsula and Western (State Road 44 / Pioneer Trail) wellfields. Existing raw water transmission main capacity is capable of delivering approximately 9.0 mgd to the UCNSB Glencoe water treatment plant, which is adequate for the near term. However there is no redundancy. If this transmission main is damaged, or taken out of service for maintenance, the service area could immediately lose more than one-half (½) of the water production capacity. The Utilities Commission has completed a finished water interconnect with the City of Port Orange and one with the City of Edgewater, which can provide up to 2.0 mgd capacity, but is inadequate to sustain demand for an extended period.

STORAGE FACILITIES

No elevated storage facilities exist within the service area. All potable water storage facilities of significant volume are listed below.

Storage Capacity	
Location	Capacity (mg)
Smith Street	1.35
South Beachside	1.00
Glencoe Water Treatment Plant	2.72
East 3 rd Avenue	0.80
Total	5.87

An acceptable standard of engineering practice per “10 State Standards” requires a water provider to have available storage capacity equal to one-half the average day demand. The actual available (i.e. useable) storage capacity is approximately 75% of the nominal storage capacity as listed above. Therefore approximately 4.40 MG of storage capacity is actually available, which is suitable for an average daily demand of up to 8.80 mgd. With the largest tank out of service, approximately 2.90 MG of actual storage can support an average daily demand of up to 5.80 mgd.

DISTRIBUTION SYSTEM

The existing distribution system consists of approximately 290 miles of transmission mains and distribution pipes ranging in size from less than 2 up to 24 inches in diameter, along with four (4) master pump stations with a total capacity of 14.26 mgd. A schedule of main and pipe sizes is as follows:

Size (inches)	Length (feet)
2 (or smaller)	250,164
3	8,416

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4	36,797
6	569,647
8	325,526
10	75,877
12	208,134
14	700
16	26,659
18	5,770
24	7,163
Total	1,538,651

Source: Utilities Commission, City of New Smyrna Beach

SLUDGE DISPOSAL

According to the Utilities Commission, the quantity of water lime sludge disposed is 1.95 dry tons per day per million gallons of treated water. Based on the average daily demand of 4.60 mgd in Fiscal Year 2009, approximately 3,274 dry tons of sludge were disposed.

Before disposal, the sludge is dewatered in lagoons, followed by on-site stockpiling at the UCNSB Glencoe water treatment plant. For final disposal, the sludge is hauled off-site for land spreading to the following sites:

Site Name	Address	County
Dear Park	6254 Kempfer Road	Brevard
Charles Cowart	County Road 305	Flagler
Henry	County Road 305	Flagler
Shelley's	6505 West Jones Avenue	Orange
Deseret	13754 Deseret Lane	Osceola
Shane's Pl.	3360 South Kenansville Road	Osceola
Yeehaw	South Kenansville Road	Osceola
Killbee	Old Mims Road	Seminole
Cowart	County Road 305	Volusia
Durrance	County Road 305	Volusia
Lukas Ranch	1731 Pell Road	Volusia

The percent solids of the disposed sludge is approximately 40 to 50 percent. The land spreading operation has had no known adverse impact on adjacent natural resources.

DRAINAGE

Most of New Smyrna Beach is low, flat, and poorly drained, thereby lending itself to a number of drainage problems of various magnitudes. These problems are further intensified by the Indian River tidal level (i.e., flooding is worse during high tide than at low tide). When too much rainfall occurs during high tide, water backs up in the natural drainage systems that outfall to the Indian River, as well as in their tributaries, and prevents sufficient discharge flow. Consequently, the City is continually exploring ways to improve both natural drainage features and manmade facilities within its jurisdiction in order to protect the public health, safety, and welfare from the adverse impacts of flood conditions. In particular, the City developed a master plan for each drainage basin. This and other objectives will be discussed in the Future Conditions section of this element, as well as in the Goals and Objectives section.

Depending upon the facilities developed, and their location, operational responsibility may rest with either private property owners, the State of Florida, Volusia County, or the City of New Smyrna Beach.

NATURAL FEATURES

New Smyrna Beach lies within the Silver Bluff marine terrace formed during the last glacial age (Pleistocene area). Elevations range as follows:

- 0 to 5 feet above mean sea level (msl) in the Indian River marshland and Turnbull Creek/Bay area.
- 5 to 10 feet above msl in the flat terrace area comprising most of the City.
- 10 to 15 feet above msl in the ridge/dune area of the beachside, and along US Highway 1 and the Florida East Coast Railway on the mainland.

The soils underlying the New Smyrna Beach area consist mostly of quartz sand, with small amounts of clay and fine to medium shell. (Specific mapping of these soils is available from the United States Department of Agriculture, Natural Resources Conservation Service.) These soils are moderately to poorly drained, and have only moderate percolation characteristics. Consequently, much of the rainfall from locally heavy storms runs off into surrounding surface water bodies and the numerous naturally occurring depressions scattered throughout the area.

The primary drainage basin for New Smyrna Beach is the Indian River, which receives as much as 40 to 50 percent of the runoff from a heavy rainfall. The remainder is either retained in local depressions, percolates into the ground, or evaporates.

The primary north-south drainage artery is Turnbull Creek bisecting the City, and the primary east-west arteries are: Murray Creek / Redland Canal adjacent to the northern City limit; the Wayne Avenue and Canal Street drainage systems toward the center of the City; and the Gabordy Canal at the southern City limit. There are also five (5) secondary drainage arteries: two (2) on the mainland and three (3) on the beachside. All of these drainage arteries, primary and secondary, eventually flow into the Indian River, except for Turnbull Creek, which flows into the Halifax River just north of the Ponce de Leon Inlet.

Existing land use adjacent to the primary drainage basin (i.e., the Indian River) is mostly residential with some commercial, particularly along the navigable portion of the river. There are also a few recreation sites located on the mainland and the North Causeway. The entire non-navigable portion of the river (i.e., the marshlands) is classified as conservation area.

The primary impact of the various land uses adjacent to the Indian River and the drainage arteries, particularly the development associated with the residential and commercial land uses, has been stormwater runoff from streets, parking lots, and other types of impervious surfaces. Contained in this runoff are various types of pollutants (such as grease and oil from streets and parking lots), which have a detrimental impact on the water quality of the receiving streams. In addition, as more development occurs, more pervious land areas are claimed, resulting in additional runoff and more potential for flooding in low-lying areas.

MAN-MADE DRAINAGE SYSTEMS

Man-made drainage systems in New Smyrna Beach include curbs and gutters, street inlets, storm sewer pipes, underground culverts, open channels (such as swales, ditches and canals), retention ponds, and detention facilities. These systems are designed to handle locally heavy and frequent rainfalls that occur during the normal rainy seasons, as well as more severe but less frequent rainfalls such as the five (5) and ten (10) year storm events. The primary discharge point for these systems is the Indian River.

Overflow from seldom occurring rainfalls, such as the 25, 50, and 100 year storm events, is handled by surface water bodies, including Turnbull Creek, the Indian River, and the man-made canal systems.

The City has three (3) general categories of drainage areas. The older downtown area with older stormwater management systems that directly discharge into the Indian River; new subdivisions constructed after 1979 with effective stormwater management systems; and the remaining portion of the City which has no man-made drainage systems.

The older downtown drainage systems serve a relatively small portion of the City and perform generally well. These systems require maintenance because they are nearly 60 years old and have exceeded the expected life by approximately 10 years. Because of the direct discharge nature of the systems, they have a relatively high impact upon adjacent natural resources.

All subdivisions developed since 1979 have excellent stormwater management systems that perform well at a very adequate level-of-service. These systems are generally in excellent condition, have an expected life of approximately 50 years, and have very little impact on adjacent natural resources.

The remaining portion of the City has no man-made drainage systems and thus has localized flooding problems during heavy rains. These areas also have a relatively high impact on adjacent natural resources. However, the City has an ongoing drainage program to lessen the flooding and impact on natural resources in these areas.

FLOOD-PRONE AREAS

According to Florida Department of Environmental Protection (FDEP) criteria, low-lying areas zero (0) to seven (7) feet above msl are considered to be flood-prone areas. As previously mentioned, the flat terrace area comprising most of the City is approximately five (5) to ten (10) feet above msl. Consequently, a major part of the City is flood-prone, particularly the areas adjacent to the Indian River, along the beach, where tidal surge would be a significant factor during a hurricane, and west of Interstate 95. Existing land uses in the flood-prone areas are primarily residential and commercial, along with some recreation and industrial uses.

STORMWATER MANAGEMENT

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The City's existing Stormwater Management and Conservation Ordinance requires that post-development stormwater runoff rates and volumes must approximate pre-development conditions and that precautions must be taken to prevent erosion, sedimentation, and flooding. In particular, the ordinance requires that:

1. On-site retention shall be provided for no less than one and one-half (1½) inch of runoff from all roofed, paved, and other impervious areas caused by or resulting from the project.
2. The peak discharge rate and total runoff volume leaving the developed or redeveloped site for a 25 year storm of 24 hours duration shall be limited to 110 percent of the pre-development or pre-redeveloped peak discharge rate and total discharge volume.
3. Stormwater runoff shall be subjected to "best management" practices prior to discharge into natural or artificial drainage systems. Best management shall mean a practice or combination of practices determined by the City Engineer to be the most effective practical means of preventing or limiting the pollution generated by the project to a level compatible with Florida water quality standards found in Rule 17-3, *Florida Administrative Code*.
4. Runoff computation shall be based on the most critical situation and conform to acceptable engineering practices using rainfall data and other local information applicable to the affected area.
5. No site development or alteration shall cause siltation of wetlands, pollution of downstream wetlands, reduction in the natural retention or filtering capabilities of wetlands, or reduction in the elevation of the existing water table.
6. No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.
7. Site development or alteration activities shall include construction or installation of such water retention facilities, settling structures, and flow attenuation devices as may be necessary to insure that the foregoing standards and requirements are met.
8. Design of water retention or detention structures and flow attenuation devices shall be subject to the approval of the City Engineer.
9. In subdivisions and on parcels where stormwater retention meeting current standards is not provided, filling of low lots shall not be allowed within required yard areas except that a minimum amount of fill may be allowed for:
 - a. A driveway and up to five (5) feet on either side of the driveway; and
 - b. No more than six (6) inches of fill may be allowed within the required yard areas provided an adequate drainage scheme is constructed to not allow stormwater onto adjacent lots. Construction techniques allowed to elevate the first floor of a structure include use of stem wall and pier foundations.

The City has a Flood Damage Prevention Ordinance, which is required by §166.021, *Florida Statutes*. The Ordinance requires that the flood stage elevations remain constant before and after development within the floodplain. In addition, the Ordinance requires building floor elevations to be elevated above the base flood elevation as indicated on the National Flood Insurance Program, Flood Insurance Rate Map (FIRM). Finally, the Ordinance requires that buildings constructed along the Atlantic Ocean withstand wave action.

The positive aspects of the Ordinance are that life, property, and the functions of nature are preserved. Also, building costs in the long run are lowered because the need for reconstruction is reduced or eliminated. However, initial building costs are usually higher when construction is in compliance with the Ordinance.

This Ordinance has a weakness in that developments containing a large percentage of impervious area will be under designed while developments having low percentage of impervious areas and good soil conditions tend to be over designed. The strength of the Ordinance is that surface and ground water is protected due to the filtering of stormwater. Also, the negative impacts of flooding such as the breeding of vermin, safety hazards, and costly cleanup are avoided with proper stormwater management.

NATURAL GROUNDWATER AQUIFER RECHARGE

Rule 9J-5, *Florida Administrative Code*, defines aquifer recharge areas as "land or water areas through which groundwater is recharged." Recharge areas are one (1) of two (2) types, primary or secondary, and are described below.

PRIMARY RECHARGE AREAS

Primary recharge areas are those which recharge aquifers used for public drinking water supplies, or which have the proper combination of elevation and soils to potentially serve this purpose. The aquifer from which New Smyrna Beach draws its

drinking water is the Floridan Aquifer. The potentiometric surface of this aquifer (in which recharge could occur) is 30 to 35 feet above msl, which is higher than the elevation of most of the City (which is five [5] to ten [10] feet above msl). Consequently, there are no primary recharge areas in New Smyrna Beach.

SECONDARY RECHARGE AREAS

Secondary recharge areas are those that replenish the uppermost surficial aquifer, which generally occurs five (5) to ten (10) feet below the ground surface. Recharge of the surficial aquifer is via percolation of rainfall. Consequently, the aquifer does not supply large quantities of water; and what water it does supply is not of sufficient quality for drinking. However, the surficial aquifer in New Smyrna Beach provides some prevention of lateral saltwater intrusion; and some residents pump water from it for irrigation purposes.

Areas of New Smyrna Beach in which the surficial aquifer occurs include the Atlantic Coastal Ridge on the beachside and the US Highway 1 / Florida East Coast Railway area on the mainland. Existing land uses in these areas are a mixture of residential and commercial, with some industrial uses in the US Highway 1 / Florida East Coast Railway area. The impact these land uses have on the aquifer’s recharge areas is primarily that of stormwater runoff from impervious surfaces (streets, parking lots, sidewalks, etc.). However, the natural function of the recharge areas has not been adversely impacted; and the natural filtering ability of the soil tends to mitigate any major impact from oil, grease, or other pollutants contained in the runoff.

SOLID WASTE

Rule 9J-5, *Florida Administrative Code*, defines solid waste as “sludge from a waste treatment works, water supply treatment plant, or air pollution control facility; or garbage, rubbish, refuse, or other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from domestic, industrial, commercial, mining, agricultural, or governmental operations.” Based on this definition, the types of solid waste generated by New Smyrna Beach include: water and wastewater sludge, and garbage, rubbish, refuse and other discarded material. Collection and disposal of these wastes is described below.

WATER SLUDGE

Sludge generated by the UCNSB Glencoe water treatment plant is dewatered in lagoons, followed by on-site stockpiling at the UCNSB Glencoe water treatment plant. For final disposal, the sludge is hauled off-site for land spreading to the following sites:

Site Name	Address	County
Dear Park	6254 Kempfer Road	Brevard
Charles Cowart	County Road 305	Flagler
Henry	County Road 305	Flagler
Shelley's	6505 West Jones Avenue	Orange
Deseret	13754 Deseret Lane	Osceola
Shane's Pl.	3360 South Kenansville Road	Osceola
Yeehaw	South Kenansville Road	Osceola
Killbee	Old Mims Road	Seminole
Cowart	County Road 305	Volusia
Durrance	County Road 305	Volusia
Lukas Ranch	1731 Pell Road	Volusia

WASTEWATER SLUDGE

Sludge generated by the WRF is aerobically and thermophillically digested, then dewatered by thickening only (no mechanical dewatering is employed). Treated influent is mixed with return activated sludge and then enters one (1) of two (2) process trains, each consisting of a fermentation basin, first anoxic zone, aerobic zone, second anoxic zone, and a re-aeration basin. Each train has a 3.5 mgd capacity. After dewatering, the sludge is hauled off-site for land spreading at the same sites described above for water sludge.

GARBAGE, RUBBISH, REFUSE

Since 2001, the New Smyrna Beach Public Works Department has contracted with private interests to collect garbage, rubbish, refuses, and other discarded material from residential, commercial, industrial, and governmental sources within the City limits. Collection from all sources other than residential are classified as commercial pickups.

Refuse/solid waste collection is mandatory for all residents and businesses within the City limits. Pickups are made twice each

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week for residential customers, and daily for commercial accounts. Once collected, the refuse/solid waste is hauled to the Volusia County Landfill for final disposal. The Volusia County Landfill (Tomoka Farms Road Landfill) is a 3,400 acre site, with 400 acres currently active accepting approximately 1,300 tons of solid waste per day. The City of New Smyrna Beach is responsible for disposing of approximately 40-45 tons per day in the County Landfill. Thus, the City of New Smyrna Beach, having approximately 4.7 percent of the County population (2009 City population of 23,449 and 2009 County population of 495,890), only generates approximately 3.2 percent of the solid waste disposed of in the landfill.

FUTURE CONDITIONS

SANITARY SEWER

Future planning for the New Smyrna Beach sanitary sewer system is designed to provide sufficient wastewater collection, treatment and disposal services for meeting projected flows for the planning period. The system improvements that will be required are contained in the *Utilities Commission, City of New Smyrna Beach Wastewater & Reclaimed Water System Facility Plan* (Quentin L. Hampton Associates, 2006).

WATER RECLAMATION FACILITY (WRF)

The Utilities Commission operates one (1) wastewater treatment plant, known as the Water Reclamation Facility (WRF), with a rated capacity of 7.0 mgd. Based upon the referenced population and flow projections future average daily wastewater flows will be sufficient through 2025 as shown on Table VII-4. The treatment plant will be serving an estimated 26,278 accounts in 2020 and 29,848 accounts in 2025. .

The WRF will continue to be operated and maintained at its current high level of performance and upgraded as necessary to meet existing and any future EPA/FDEP treatment and discharge requirements. Plant operators and maintenance technicians will continue to receive regularly scheduled training; and the computerized operation and maintenance and preventive maintenance programs will continue to be used and improved.

Table VII-4 Wastewater Flow Projections (Average Daily Demand)

Fiscal Year Ending September 30	Accounts	Average Daily Flow (mgd)	Peak Month Average Daily Flow (mgd)	Peak Average Ratio (mgd)	Average Daily Flow Per Account (gd)
2010	20,369	3.46	5.48	1.30	207
2015	23,136	3.62	6.23	1.30	207
2020	26,278	3.83	7.07	1.30	207
2025	29,848	4.05	8.03	1.30	207
2030	30,594	4.24	8.23	1.30	207
2035	34,418	4.41	9.26	1.30	207

Sources: Utilities Commission, City of New Smyrna Beach Wastewater & Reclaimed Water System Facility Plan, *Quentin L. Hampton Associates, 2006*; and Utilities Commission, City of New Smyrna Beach Water System Report, *Quentin L. Hampton Associates, 2005*

COLLECTION SYSTEM

Several collection system improvements are contained in the *Utilities Commission, City of New Smyrna Beach Five (5) Year Plan Capital Improvement Program FY 2009 to 2013*. The Utilities Commission five (5) year capital improvement program is updated annually and addresses needs of the Collection System.

EFFLUENT DISPOSAL

Due to the expanding wastewater reuse system, the City will continually rely less on effluent disposal through the existing outfall and rely more on effluent disposal through land irrigation. The WRF has a history of regularly meeting its discharge compliance requirements. A review of regulated effluent parameters has shown that the operating permit for the WRF on average has not exceeded any parameters.

SEPTIC TANKS

The City requires that new development must hookup to the central sanitary sewer system. Existing buildings must connect to sanitary sewer lines within one (1) year when such line is available.

There are several small areas that are served by septic tanks within the City. However, once sewerage becomes available to

these areas, the septic tanks must be abandoned and the property is required to be served by the central sanitary sewer system. The term “available” means a sanitary sewer line is within 100 feet of the lot line.

SLUDGE DISPOSAL

According to the Utilities Commission, future wastewater sludge disposal volumes are projected as follows:

Wastewater		
Year	Sludge Volume	Flow (Average Daily)
2010	1,090 dry tons	3.46mgd
2015	1,230 dry tons	3.62mgd
2020	1,400 dry tons	3.83mgd
2025	1,600 dry tons	4.05mgd

These volumes are based on a sludge generation rate of 0.58 dry tons per day per million gallons of treated wastewater. The United States Environmental Protection Agency (EPA) Part 503 regulations govern the processes for reduction of pathogens. Part 503 establishes criteria for Class ‘A’ and Class ‘B’ biosolids handling. Generally, Class ‘A’ biosolids may be land applied without permits or subsequent monitoring requirements. Class ‘B’ sludge is a digested sludge product which has restrictive land application requirements. Land application sites receiving Class ‘B’ biosolids are permitted and monitored. Sludge generators contributing to Class ‘B’ land application sites retain liability for the product and the manner in which it is handled. Sludge disposal currently consists of hauling the sludge off-site for land spreading. However, the Utilities Commission is aware that alternative disposal methods may have to be investigated sometime during the overall planning period. There are several sludge processing alternatives being considered by the Utilities Commission. They are as follows:

1. Composting – Composting involves controlled aerobic degradation or decomposition of organic waste materials to produce a commercially valuable end product. The resulting product can be beneficially used as soil amendment or mulch. Composting results in an additional 20 to 30 percent reduction in the volatile solids content of anaerobically digested biosolids. The primary drawbacks to composting are: space requirements, material handling, and odors. Space required to allow for curing and windrowing is considerable. Given annual rainfall depths in Florida, curing/windrowing areas must be covered. Screening, blending, and windrowing compost heaps require significant labor.
2. Thermal Drying – Thermal drying reduces the water content of dewatered biosolids through accelerated evaporation caused by heating. The process produces granules or soil-like material that normally contains less than 10 percent moisture. The product can be used as fertilizer and amendment on agricultural land, golf courses, parks, and as potting material used in horticulture. The material can also be used as fuel for generating heat and power. Thermal drying options are as follows:
 - a. Direct Rotary Drum Drying – Direct rotary drum drying technology evaporates water from biosolids through direct contact with a stream of hot air or gas as the biosolids are conveyed through a rotating drum. This technology is the predominant drying technology used in the United States.
 - b. Indirect Dryers – There are a number of different indirect dryer configurations. However, they all use conduction of heat from metal surfaces for drying. Indirect dryers can use paddles, disks, and screw conveyors to mix the material and deliver heat. Indirect dryers are widely used in food, petrochemical, and pharmaceutical industries and have been installed for municipal biosolids drying applications. There are advantages and disadvantages to using direct or indirect dryers.
 - i. Advantages
 - Relatively low land/space requirement
 - Can be automated to reduce material handling using front-end loads, which may reduce labor costs and safety issues.
 - Odor potential is low since the facility is entirely enclosed and only a small air volume from the process requires scrubbing due to internal air recirculation
 - Greatly reduced volume of final product and elimination of the need for amendments reduces hauling traffic
 - ii. Disadvantages
 - Requires use of natural gas or other fuel source, thus is expensive
 - The process is mechanically complex
 - Expansion of the facility in small increments is not economical. However, increased

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- production can be achieved by increasing hours of operation
 - Product may be odorous when re-wetted if not adequately stabilized before drying
 - Special precautions are required to prevent fires and explosions
- 3. Chemical Stabilization – There is a wide range of chemical stabilization options available that use alkali and other chemical treatment processes. These processes can be grouped into three (3) categories that reflect their key differences:
 - a. Neat-alkali processes – These processes use a high-quality time product such as quick lime;
 - b. Fly ash and waste alkali processes – These processes use low-quality, but frequently cheaper, alkaline waste products such as fly ash from cement kilns; and
 - c. Neutralization processes – These processes use an alkali with sulfuric acid to produce a product with a neutral pH.

Odor control is a significant concern with chemical stabilization processes. The high pH and temperature associated with the process lead to volatilization of ammonia and volatile organic compounds that should be controlled. Ammonia emissions from high-pH processing of biosolids are generally higher than from composting facilities due to the pH difference between the two (2) processes. Some products that have solids content below forty percent are difficult to market and handle.
- 4. “Cannibal” Solids Reduction Process – An alternative process, which may prove viable for the Utilities Commission, is a proprietary system marketed under the trade name. It uses a combination of solids separators and side stream processes to remove inert materials and biologically reduce sludge volumes.

GEOGRAPHIC SERVICE AREA

The Utilities Commission has recently expanded its geographic service area. The major areas of expansion have been to the west of Interstate 95, north and south of State Route 44, as well as other properties east of Interstate 95 within the corporate limits and adjacent areas in unincorporated Volusia County.

The service area extends as far north as Spruce Creek, as far west as State Road 415, and as far south as the line negotiated with the City of Edgewater, generally aligned with 10th Street, near the New Smyrna Beach / Edgewater boundary.

The City should enact Chapter 180, *Florida Statutes*, which would allow the City to declare a service area that extends up to a five (5) mile radius beyond the incorporated area. Currently, the Western wellfield (near the intersection of State Road 44 / Pioneer Trail) is further than five (5) miles from the western boundary of the City. However, if the City decides to annex land west of the existing borders, passage of a Chapter 180 ordinance would allow the City to exercise some control of the land in which the Western (State Road 44 / Pioneer Trail) wellfield is located.

FUTURE LAND USES SERVED

Future land uses served by the WRF will be as described in the Future Land Use Element, and as depicted on the Future Land Use Map (Map II-4) for the City of New Smyrna Beach. Service into unincorporated areas will be consistent with the Future Land Use Element of the *Volusia County Comprehensive Plan*.

IMPACT ON ADJACENT NATURAL RESOURCES

The improvements and modifications planned for the Utilities Commission’s sanitary sewer system will have no known adverse impact on adjacent natural resources.

POTABLE WATER

Many of the improvements that will be required for meeting future potable water needs (see Table VII-5) in the planning period are contained in the *Utilities Commission, City of New Smyrna Beach Water Plan* (Quentin L. Hampton Associates, 2005). This plan will be continually monitored and modified to provide for new and additional equipment and facilities as demands dictate during the planning increments.

WATER TREATMENT PLANT

The Utilities Commission increased the Glencoe water treatment plant peak-flow capacity from 6.2 to 10.368 mgd in the early 1990’s. Improvements associated with this increase included: aeration facilities, yard piping, site work, lime softening unit, sludge piping, filtration expansion, fluoridation modification, high-service pumping station, 2.0 mg ground storage reservoir, sludge handling facilities, and electrical/instrumentation systems. However, current plant capacity can only be met by the well output and raw water transmission limitations limit maximum capacity to 9.0 mgd.

The UCNSB Glencoe water treatment plant will continue to be operated and maintained at its current high level of performance to meet existing and any future EPA/FDEP treatment requirements. Plant operators and maintenance technicians will continue to receive regularly scheduled training; and the computerized operation and maintenance and preventive maintenance programs will continue to be used and improved.

WATER SUPPLY

The Utilities Commission operates 19 wells, with five (5) new wells to be added in the near future. The Glencoe wellfield near the Glencoe water treatment plant currently has seven (7) wells, providing 2,890 gpm. The Samsula wellfield has six (6) wells, providing 2,455 gpm. The Western wellfield near the intersection of State Road 44 and Pioneer Trail has six (6) wells, providing 2,175 gpm. Each of the wells at the sites range from 183 to 364 feet deep, drawing water from the Floridan Aquifer. Ten (10) of the wells have auxiliary engines for emergency pumping in the case of power failure. Table VII-5 indicates the projected water demands and additional capacity requirements.

Table VII-5 Potable Water Wellfields Capacity Projections and Requirements

Fiscal Year Ending Sept. 30	Residential Units* (ERU)	Total Avg Daily Demand (mgd)	Total Peak Day Demand (mgd)	Total Treated Water Production (MG/yr)	Avg Daily Flow Per ERU* (gpd/ERU)
2010	21,294	4.68	6.55	1,710	220
2015	22,280	5.35	7.49	1,952	240
2020	23,583	5.66	7.92	2,072	240
2025	24,957	5.99	8.39	2,186	240
2030	26,113	6.27	8.77	2,288	240
2035	27,148	6.52	9.12	2,378	240

*The Residential Units exceed the Residential Accounts which are a portion of the Total Water Accounts as a result of five (5) historic master meters representing 326 units. Level-of-service (LOS) is defined as total ADF per ERU.

Source: City of New Smyrna Beach Water Supply Work Plan, *Quentin L. Hampton Associates, Inc., 2010*

Water quality and well levels within the wellfields has remained relatively consistent with some increase in chlorides over the past ten (10) years. The Utilities Commission withdraws approximately 40 percent of its water from the Glencoe wellfield near the Glencoe water treatment plant and approximately 60 percent from the Samsula and Western (State Road 44 / Pioneer Trail) wellfields, combined. The primary constraints limiting the groundwater withdrawals are defined in the Consumptive Use Permit (CUP) #8747, as revised by the St. Johns River Water Management District (SJRWMD) on January 10, 2006, which will expire on February 9, 2020. Compared to the prior CUP, allocation requests were increased and five (5) new wells were approved for construction. In order to maintain average well operating times at 12 hours per day or less, a capacity factor of at least two (2) is necessary. A tabular listing of permitted withdrawals was detailed previously in Table VII-3, above.

The CUP permits increasing annual average withdrawals up to the year 2012, when it plateaus at 8.33 mgd until the year 2020 and increasing maximum daily average withdrawals up to the year 2018, when it plateaus at 12.75 mgd. Therefore, the existing wellfields plus the five (5) additional wells at the proposed Central wellfield are permitted to withdraw enough water to meet the projected water demand through the year 2020. Raw water transmission constraints limit maximum capacity at the Glencoe treatment plant to 9.0 mgd. Therefore, there is an insufficient supply to accommodate the full treatment capacity of 10.368 mgd. Thus, the UCNSB Glencoe water treatment plant capacity exceeds the production and transmission capacity from the wellfields. Additionally, the future Central wellfield, which will consist of five (5) new wells with a total of 1,500 gpm additional groundwater pumping capacity, will be installed northwest of the interchange of Interstate 95 and State Road 44. A Lower Floridan Aquifer test well and a reuse augmentation well with a capacity of 350 gpm have already been installed in the vicinity of the future Central wellfield.

In addition to groundwater pumping capacity, the Utilities Commission must also consider raw water transmission capacity as a constraint. The UCNSB Glencoe water treatment plant receives 60 percent of the raw water from an existing 20 inch transmission main from the Samsula and Western (State Road 44 / Pioneer Trail) wellfields. Existing raw water transmission main capacity is adequate. However there is no redundancy. If this transmission main is damaged, or taken out of service for maintenance, the service area could immediately lose more than one-half (½) of the water production capacity. The Utilities Commission has two (2) completed water interconnects with the cities of Port Orange and Edgewater, which can provide up to two (2) mgd capacity, and is inadequate to sustain demand for an extended period. In order to provide operation redundancy, the Utilities Commission should pursue the following:

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1. Additional finished water interconnects
2. Alternative water supplies
3. A secondary raw water main

The Utilities Commission formerly participated in the “Water Facilities Plan” developed by the Water Authority of Volusia (WAV). WAV officially terminated in September 2009, nevertheless strategies developed under WAV are considered as potential alternative water supplies by the City of New Smyrna Beach.

ALTERNATIVE WATER SUPPLY

Currently, SJRWMD has not identified groundwater deficits associated with future aquifer withdrawals from the wellfields through the year 2020. SJRWMD has the legislative authority to limit Consumptive Use Permit holders based on cumulative groundwater withdrawals and the potential effect upon spring flows. Therefore, future regional groundwater deficits may be assigned countywide, not on a utility by utility basis. In the event that this occurs, the Utilities Commission needs to be prepared to meet future demands not only for the residents of New Smyrna Beach, but also for their customers in unincorporated Volusia County. Some of the alternative sources, which may be considered by the City, are as follows:

1. Artificial Recharge – The Floridan Aquifer is largely constrained by naturally occurring recharge to the Floridan Aquifer and secondary impacts to the surficial aquifer. Secondary impacts to the surficial aquifer (i.e., lowering of the water table) have the potential to alter adjacent wetland hydroperiods and create unacceptable wetland impacts. To date, this does not appear to have occurred.

In order to assure adjoining property owners and regulatory agencies that wetland hydroperiods are maintained, a piezometric monitoring program is required. The monitoring plan consists of shallow monitoring wells. Water levels in wetlands adjacent to wells are continuously monitored and compared to levels in ‘reference’ wetlands.

If levels in “pumped” wetlands are consistently lower than levels in “reference” wetlands, the City is obligated to reduce pumping from adjoining well sites. Another option is artificial recharge. Artificial recharge could involve land application of reclaimed water in wetlands to offset withdrawals. This option entails permitting hurdles with respect to FDEP effluent disposal regulations.

2. Brackish Groundwater – may be withdrawn from the Lower Floridan Aquifer without affecting the Upper Floridan Aquifer. The Lower Floridan Aquifer is hydraulically separated from the Upper Floridan Aquifer by hard, dense dolomite and layers of chalky, low permeable limestone, which acts as a confining layer.

Wells completed in the Lower Floridan Aquifer could be treated using membrane processes or blended with water from the Upper Floridan Aquifer. If used as blend wells, the amount of water from this source would be limited by an acceptable blend ratio, which would maintain a safe concentration level below the Drinking Water Standard for Chlorides and Sulfates of 250 mg/L. This blend ratio would depend on the final use of the finished water. For finished potable water, the blend would need to be between 150 and 200 mg/L.

The brackish water of the Lower Floridan Aquifer could also be treated using membrane treatment technology to produce high quality drinking water or lower quality irrigation water. The primary problem in developing brackish water membrane treated water supply is concentrate disposal. The most common concentrate disposal method is deep well injection. This method has been used in both southeast and southwest Florida. However, the occurrence of an injection zone has not been proven in Volusia County.

3. Surficial Aquifer – The surficial aquifer is a semi-confined zone overlying the Floridan Aquifer. This water-bearing zone is the source bed for recharge to the Upper Floridan Aquifer (UFA), however, confining layers separating the surficial aquifer from the Upper Floridan Aquifer limit recharge potential throughout most of Volusia County. Therefore, the majority of water in the surficial aquifer is lost to evapotranspiration, or runoff within the drainage ditches.

It is possible to withdraw significant quantities of water from the surficial aquifer without reducing the volume of water recharged to the UFA. Additionally, artificial recharge and recharge enhancement to the surficial aquifer may be accomplished far easier than increasing recharge to the Upper Floridan Aquifer.

The preferred method for water withdrawal from the surficial aquifer is via horizontal wells. Horizontal wells consist of shallow, less than 25 feet deep, linear drainage pipes connected to a submersible pump. A horizontal wellfield could be developed near the existing wells without impacting recharge to the Upper

Floridan Aquifer. Water from the horizontal wells could be blended with raw water from the western wells or treated independently via a low-pressure membrane process.

A relatively wide range of water quality from the surficial aquifer, as well as variable quantity (rainfall dependent) has made surficial supply less popular than Upper Floridan water. Additionally, the UCNSB Glencoe water treatment plant may require modifications to treat shallow aquifer water, if this option is used.

4. Conservation and Re-use – The Utilities Commission sees water conservation and re-use as important components of its alternative water supply. Through public information on water saving devices and lawn irrigation rules, customers have cut back on wasteful water use. Through expansion of water re-use facilities, non-potable water can be used for irrigation thus cutting back on the need for potable water.
5. Desalinization – Demineralization of seawater, or water from coastal estuaries, is widely practiced around the world. Treatment costs are significantly higher than for any of the previously described sources.

Another drawback relates to concentrate disposal. Due to the relatively high total dissolved solids concentration of the source water greater than 1,500 mg/L, the volume and concentration of brine is extremely high. Currently, there are no seawater demineralization facilities with permitted surface water discharges in east central Florida. The most common methodology for the referenced brine product is deep well injection. Unfortunately, the presence of an adequate confining zone is unproven in Volusia County.

Zero-liquid discharge technology, including flash evaporation and disposal of highly concentrated mineral sludge as solid waste, is a relatively new technology for membrane treated concentrate disposal. Increased energy and industrial solid waste disposal costs are anticipated to be significant with this alternative.

An alternative disposal method is ocean outfall. However, current FDEP regulations dictate that ocean outfalls must extend offshore to a point where the prevailing water depth is a minimum of 90 feet. In Volusia County, this translates to a distance approximately 30 miles offshore. A sub-aqueous pipeline of this length is currently cost prohibitive. As a result of these factors, seawater demineralization is the most costly treatment option at this time.

6. Lower Floridan Aquifer Water Supply – The Utilities Commission has notified SJRWMD of its election to develop the Lower Floridan Aquifer as its alternative water supply project for inclusion on the District Water Supply Plan. The Utilities Commission has applied for a CUP (Station ID 406433) for a brackish water test well to collect data for feasibility of this project. The Lower Floridan Aquifer Water Supply Program, which includes aquifer storage and recovery for potable and irrigation needs, is the primary and feasible alternative water supply source option. This methodology is accepted and used elsewhere in Florida and is well-suited to meet the unique environmental and upper Florida recharge characteristics of this immediate geographical area.

If sufficient rainfall occurs, additional or supplemental sourcing from the surficial aquifer and artificial recharge for blending or storage may also be potentially used as a secondary and supplemental methodology, but such sources are not considered as reliable for drought conditions. Conservation, efficiency improvements, and educational programs remain as an integral part of the Lower Floridan Water Supply Program. Preliminary examination and studies for application of this system by the Utilities Commission have been made and satisfied in accordance with §373.0361(8)(b), *Florida Statutes*, and other applicable provisions of §373.0361.

The proposed location of the Alternative Water Supply source will be the from the Lower Floridan Aquifer beneath the 800+ acre property owned by the Utilities Commission located northwest of Interstate 95 and State Road 44. The initial proposed withdrawal will be 1.2 mgd.

The Utilities Commission has provided and will participate in the development of updates to the SJRWMD water supply assessment, District Water Supply Plan, and other water supply development-related initiatives facilitated by the SJRWMD.

DISTRIBUTION

Several distribution system improvements are contained in the Utilities Commission five (5) year capital improvement program. The Utilities Commission five (5) year capital improvement program is updated annually and addresses needs of the distribution system.

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STORAGE

All potable water storage facilities of significant volume within the service area are listed below.

Storage Capacity	
Location	Capacity (mg)
Smith Street	1.35
South Beachside	1.00
Glencoe Water Treatment Plant	2.72
East 3 rd Avenue	0.80
Total	5.87

An acceptable standard of engineering practice per “10 State Standards” requires a water provider to have available storage capacity equal to one-half the average day demand. The actual available (i.e. useable) storage capacity is approximately 75% of the nominal storage capacity as listed above. Therefore approximately 4.40 MG of storage capacity is actually available, which is suitable for an average daily demand of up to 8.80 mgd. With the largest tank out of service, approximately 2.90 MG of actual storage can support an average daily demand of up to 5.80 mgd. Therefore, there is sufficient storage capacity through the planning period, however additional system storage should be on-line by year 2031 to provide redundancy should one tank be unavailable. Storage capacity affects not only flowrate and tap pressure for customers but also the available water for fire flow requirements.

SLUDGE DISPOSAL

According to the Utilities Commission, future water lime sludge disposal volumes are projected as follows:

Potable Water		
Year	Sludge Volume	Water Flow (Average Day)
2010	3,334 dry tons	4.68 mgd
2015	3,806 dry tons	5.35 mgd
2020	4,029 dry tons	5.66 mgd
2025	4,263 dry tons	5.99 mgd
2030	4,461 dry tons	6.27 mgd
2035	4,637 dry tons	6.52 mgd

These volumes are based on a sludge generation rate of 1.95 dry tons per day per million gallons of water treated. There are no immediate plans to use a different method of sludge disposal, which currently consists of dewatering in lagoons followed by on-site stockpiling, with final disposal via off-site land spreading.

GEOGRAPHIC SERVICE AREA

The Utilities Commission’s proposed service area for potable water is the same as the sanitary sewer service area. Please refer to the discussion of the proposed sanitary sewer service area for details.

FUTURE LAND USES SERVED

Future land uses served by the UCNSB Glencoe water treatment plant will be as described in the Future Land Use Element, and as depicted on the Future Land Use Map (Map II-4) for the City of New Smyrna Beach. The service areas in unincorporated Volusia County will be served consistent with the Future Land Use Element of the *Volusia County Comprehensive Plan*.

IMPACT ON ADJACENT NATURAL RESOURCES

The improvements and modifications planned for the potable water system will have no known adverse impact on adjacent natural resources.

DRAINAGE

The City will continue to maintain existing, and construct new, drainage systems for handling runoff from frequently occurring (2, 5, and 10 year) and seldom occurring (25 and 50 year) storm events. The City will also ensure that new drainage systems are designed to protect the functions of natural groundwater recharge areas and natural drainage features.

The City completed a technical study in support of adoption of a utility facility service fee. The study determined the design capacity of the City's drainage facilities; current facility demand; current level-of-service; projected demand for the initial planning increment, as well as the projected build out of the community; and adequacy of the current level-of-service.

New Smyrna Beach also intends to establish interlocal agreements with other municipalities and governmental entities regarding development of master plans for drainage basins that extend across jurisdictional boundaries.

NATURAL GROUNDWATER AQUIFER RECHARGE

As noted previously in the Existing Conditions section of this element, there are no primary aquifer recharge areas within New Smyrna Beach, which replenish the Floridan Aquifer from which potable water supplies are drawn. However, there are some secondary recharge areas within the City, which replenish the surficial aquifer that occurs five (5) to ten (10) feet below the ground surface.

The City intends to develop specific regulations or programs governing future land use and development in identified secondary aquifer recharge areas, in order to protect and maintain their natural function.

SOLID WASTE

New Smyrna Beach plans to continue using its current method and schedule of collecting and disposing of refuse/solid waste.

Portions of the Volusia County landfill have not been allocated for the municipalities served; instead, capacity analysis is based on population figures for both the incorporated and unincorporated areas of the county.

The Volusia County Landfill (Tomoka Farms Road Landfill) is a 3,400 acre site, with 400 acres currently active accepting approximately 1,300 tons of solid waste per day. There is 4,422,418 cubic yards of disposal capacity remaining. The City of New Smyrna Beach is responsible for disposing of approximately 40-45 tons, or 3.2 percent of the solid waste disposed of, in the County Landfill per day. Thus, the City of New Smyrna Beach, having approximately 4.5 percent of the County population (2006 City population of 22,732 and 2006 County population of 503,844), only generates approximately 3.2 percent of the solid waste disposed of in the landfill.

According to Volusia County's Solid Waste Manager, the Volusia County landfill is a 100+ year landfill. Approximately 12 percent of the landfill has been filled to date. This estimated capacity is based on five (5) assumptions:

1. The permitted height of the landfill is 192 National Geodetic Vertical Datum (NGVD).
2. The county will achieve 30 percent reduction of the solid waste stream, as mandated by the Solid Waste Management Act of 1988, which requires recycling.
3. Yard trash will be mulched.
4. Debris from demolition and construction projects will be segregated.
5. 200 of the additional 1,780 acres purchased for the landfill will be used as a buffer for a recycling and processing center.

The annual per capita solid waste capacity utilization was determined based on the historic filling rate of the landfill of the service area of the landfill during the past five (5) years. The projected level rate of Class I landfill utilization was estimated to be 0.91 cubic yards per person per year. Capacity analysis by the county is calculated on a generation rate of 6.4 pounds per capita for the county overall, which is considerably higher than the rate for New Smyrna Beach and other municipalities. This higher rate is used because land clearing, demolition, and construction debris constitutes a considerable portion of the solid waste disposed of at the county landfill. For additional information, please refer to the *Volusia County Comprehensive Plan*.

The average amount of refuse generated in New Smyrna Beach per day is approximately 127,326 pounds, or, estimated 63.6 tons per day for the year 2005. With an estimated 2009 City population of 23,449 year round residents and 4,924 seasonal residents (50 percent demand) and an estimated disposal rate of 45 tons per day, the current level-of-service provided by the county landfill is 4.9 pounds per person per day $(127,326 \text{ pounds} / [23,449 + (4,924)(0.5)] \text{ persons} = 4.9 \text{ pounds/person/day})$.

The solid waste generated by residents of the City of New Smyrna Beach in 2010 and 2015 will reach 144,749 pounds per day and 165,678 pounds per day, respectively, based upon the population projections in Table II-1 of the Future Land Use Element.

Private interests have handled the solid waste since 2001. The City no longer maintains a transfer station.

Also, in regard to the solid waste generated by the UCNSB Glencoe water treatment plant and WRF (i.e., sludge), the Utilities Commission intends to continue its current method of disposal, as previously described in this element. The service area for solid waste management will expand as the City annexes more land. It is uncertain how much land will be annexed in the next several years. However, the service area boundary is proposed to be Spruce Creek on the north, the area beyond Interstate 95

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on the west, to the line negotiated with the City of Edgewater generally aligned with 10th Street, near the New Smyrna Beach / Edgewater boundary, and the unincorporated beach area to the southeast.

GOALS, OBJECTIVES, AND POLICIES

SANITARY SEWER GOAL:

To develop, operate, and maintain an environmentally sound, economically efficient wastewater collection, treatment and disposal system for meeting current and future needs of New Smyrna Beach and unincorporated areas near the City. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs (and the City's ability to meet those needs) become better established.

OBJECTIVE:

1. To monitor and evaluate existing facilities on an annual basis to insure maximum use and efficiency.

POLICIES:

- a. Continue to operate and maintain the WRF within its design capacity to meet average day and peak-day flows, and continue to provide a level of treatment acceptable to the Florida Department of Environmental Protection (FDEP).
- b. Continue to maintain a staff of qualified treatment plant operators, and ensure they receive regularly scheduled training and instruction regarding state-of-the-art operation procedures and the latest state and federal guidelines and regulations.
- c. Continue to operate and maintain existing collection lines and transmission mains within their design capacity to meet average-day and peak-day flows.
- d. Continue to produce a treated effluent, which meets or exceeds current Environmental Protection Agency (EPA) and FDEP discharge requirements.

OBJECTIVE:

2. To maintain a five (5) year schedule of capital improvement needs to correct existing facility deficiencies.

POLICIES:

- a. Use the Utilities Commission five (5) year capital improvement program and annual work program to establish priorities for correcting any facility deficiencies.
- b. Continue to maintain an adequate staff of qualified maintenance personnel to correct any immediate problems, deficiencies, or equipment failures, and to ensure that all equipment is properly serviced, maintained, and upgraded.
- c. Ensure that all maintenance personnel receive training and updating at regular intervals regarding state-of-the-art equipment and maintenance procedures.

OBJECTIVE:

3. To coordinate extension of, or increase the capacity of, wastewater facilities to meet future average day and peak-day flows without contributing to urban sprawl, in compliance with the Future Land Use Element and adopted Interlocal Service Area Agreement.

POLICIES:

- a. Continue to modify the Utilities Commission five (5) year capital improvement program, as needed, to provide for new and additional equipment/facilities as demands increase; and continue to monitor implementation of the program over the planning increments.
- b. Use 207 gpd per equivalent residential unit (ERU) as a general standard for service flow. (An ERU represents a nominal usage of 207 gallons of wastewater per day, or 0.941 times the nominal potable water usage per ERU.) The WRF design average daily flow is 7.0 mgd, and the peak flow is 15.0 mgd. All system capacities are designed for peak flow. The relationship between water and wastewater flow has been determined by analyzing historical customer account records for water sales, and recorded

flows at the WRF. Presented below is the ERU Determination Schedule for the Utilities Commission's system.

ERU Determination Schedule

- Category I – Dwelling units – 1 unit is equivalent to 1 ERU, with a minimum requirement of 1 ERU per unit.
 - Category II – Retail and Churches – A value of 1 ERU shall be applied to every 2,000 square feet of building floor space, with a minimum requirement of 1 ERU per structure.
 - Category III – Commercial – A value of 1 ERU shall be applied for each restroom facility with a minimum of 1 ERU per establishment.
 - Category IV – Institutional/Recreational Facilities – A value of 1 ERU is applicable for every 1,000 square feet of building floor space, with a minimum requirement of 1 ERU per establishment.
 - Category V – Manufacturing and Storage – 1 ERU is applicable for the first 2,000 square feet of building floor space. For area in addition to the initial 2,000 square feet, a rate of 1 ERU per 4,000 square feet is applicable. A minimum of 1 ERU per structure is required.
 - Category VI – Food Service – A value of 2.5 ERU per 1,000 square feet of building floor space is applicable, with a minimum requirement of 2.5 ERUs per establishment.
 - Category VII – Special Uses – 1 ERU should be added to the total facility use calculations for sanitary facilities (i.e., restrooms) for employee and customer use.
 - Category VIII – Individual Cases – These facilities must be considered on an individual, “case by case basis.”
- c. The New Smyrna Beach City Commission must approve any expansion of the sanitary sewer facility service area, and shall approve such expansion only if it is consistent with the Interlocal Utilities Agreement with Volusia County.
- d. Prior to the issuance of development orders, require new site plans and/or subdivisions to provide the sanitary sewer infrastructure and services necessary to maintain the adopted level-of-service standards.

OBJECTIVE:

4. To discourage urban sprawl by maximizing use of existing facilities.

POLICIES:

- a. Continue to permit package treatment plants only as an interim facility, and only until such time as wastewater flows warrant full connection to the public system.
- b. Continue annual monitoring, reporting, and updating of the Utilities Commission five (5) year capital improvement plan and the annual budget to meet the adopted level-of-service standards.

OBJECTIVE:

5. To reduce negative impacts on surface and groundwater from treated wastewater effluent.

POLICIES:

- a. Provide wastewater treatment to conform to the requirements of the Surface Water Improvement and Management Act.
- b. Investigate alternatives to surface water discharge of treated wastewater effluent.
- c. Severely limit the use of package wastewater treatment plants, as described in Policy 4.a. above.
- d. Limit the use of septic tanks to areas suitable for their use, as determined by the Volusia County Health Department.
- e. Continue to comply with the Surface Water Improvement and Management (SWIM) plans adopted by the SJRWMD and the National Estuary Program of the EPA.

OBJECTIVE:

6. To eliminate discharge of secondary treated effluent into the Indian River by the year 2015 by continuing to expand its wastewater reuse program for irrigation throughout the City.

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POLICIES:

- a. Continue to enforce land development regulations requiring new subdivisions to install reclaimed water mains if reclaimed water is available within 500 feet of the subdivision.
- b. By 2020, require existing commercial and residential developments to install reuse water supply lines when reclaimed water is available or will be available for use.
- c. By 2020, develop policies and incentives to encourage retrofitting existing development with connections to a reuse system, to supply uses that do not require potable water.
- d. Investigate alternatives to surface water discharge of treated wastewater effluent.
- e. Proceed in the phased implementation of policies recommended by SJRWMD to encourage usage of reclaimed water, as follows:
 - i. Continue to require installation of meters for new individual connections to the reuse system.
 - ii. Continue to use reclaimed water for irrigation and other non-potable needs in public areas owned by the City, where reclaimed water is available.

OBJECTIVE:

7. To reduce the detrimental effects of on-site wastewater treatment systems on surface and groundwater.

POLICY:

Continue to require residents to abandon on-site wastewater treatment systems, in order to provide wastewater treatment that conforms to the requirements of the Florida Department of Health.

OBJECTIVE:

8. To improve the collection, storage, and WRF capability to maintain system performance.

POLICIES:

- a. Modify the existing power distribution facilities at the WRF to incorporate an automatic transfer switch.
- b. Add a new 800 KW generator at the WRF to serve the high service pump station.

POTABLE WATER GOAL:

To develop, operate, and maintain an environmentally sound, economically efficient potable water treatment and distribution system capable of meeting current and future needs of New Smyrna Beach and unincorporated areas near the City. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs (and the City's ability to meet those needs) become better established.

OBJECTIVE:

1. To monitor and evaluate existing facilities on an annual basis to insure maximum use and efficiency.

POLICIES:

- a. Continue to operate and maintain the Glencoe wellfield near the UCNSB Glencoe water treatment plant, the Samsula wellfield, and the Western wellfield near the intersection of State Road 44 and Pioneer Trail to meet average day and peak-day demands and established fire flow requirements.
- b. Continue to operate and maintain the UCNSB Glencoe water treatment plant to meet average day and peak-day demands and established fire flow requirements, and to maintain satisfactory water pressure. Also continue to provide a level of treatment that complies with state and federal safe drinking water standards.
- c. Continue to maintain a staff of qualified treatment plant operators, and ensure they receive regularly scheduled training and instruction regarding state-of-the-art operation procedures and the latest state and federal guidelines and regulations.
- d. Continue to operate and maintain water storage facilities to provide adequate capacity for meeting peak-day demands and fire flow requirements.
- e. Continue to operate and maintain existing distribution lines, and upgrade the distribution system where

necessary to meet future demands, as well as continue to provide sufficient water pressure to service area customers.

- f. Make water distribution system improvements to the extent possible to allow the water service area to maintain current ISO (Insurance Service Organization) fire ratings.

OBJECTIVE:

- 2. To provide adequate public potable water sources and facilities commensurate with growth to meet the needs of the city.

POLICIES:

- a. The Utilities Commission, City of New Smyrna Beach shall adopt a ten (10) year Water Supply Facilities Work Plan and support documentation that is coordinated with the most recently adopted SJRWMD Water Supply Plan to address water supply facilities necessary to meet existing and projected demand within the service area.
- b. Establish priorities for correcting any existing facility deficiencies, using the Utilities Commission five (5) year capital improvement plan and annual work program, which shall be incorporated into the Capital Improvement Element of this *Comprehensive Plan*.
- c. Continue to maintain a staff of qualified maintenance personnel to correct any immediate problems, deficiencies, or equipment failures, and to ensure that all equipment is properly serviced and maintained.
- d. Ensure that all maintenance personnel receive training and updating at regular intervals regarding state-of-the-art equipment and maintenance procedures.
- e. Adopt the following water supply strategies consistent with the Water Supply Facilities Work Plan:
 - i. Continue to use ground water supplies to meet projected potable water demands consistent with provisions of the CUP;
 - ii. Continue to implement a waste-water re-use program designed to significantly reduce effluent discharge into the Indian River Lagoon and make non-potable water available for irrigation purposes;
 - iii. Continue to implement a water conservation program to reduce potable water demand; and
 - iv. Identify and pursue alternative water sources to augment current sources for water supply. UCNSB shall initiate a program whereby ranking of Alternative Water Sources (AWS) considered to be viable and practical is updated within 18-months of any revisions to the New Smyrna Beach Water Supply Work Plan or the SJRWMD District Water Supply Plan. This ranking is to include such elements as the estimated capital costs (e.g. permitting and construction) and the estimated lifecycle operating costs in \$/1,000-gal of finished water, the expected lead time required for permitting and construction and expected production quantity of each listed AWS. The UCNSB shall dedicate CIP funds for construction of the top-ranked item on the list to satisfy potential water supply deficits. In the event that the projected water supply deficit identified in the most recent New Smyrna Beach Water Supply Work Plan or SJRWMD District Water Supply Plan exceeds the expected quantity of the top-ranked item, funds shall be programmed in the CIP for the number of highest-ranking AWS project items required to meet the projected deficit.
- f. Require that all new development which is located within the Utilities Commission service area shall comply with the Potable Water policies and level of service standards.
- g. Ensure that adequate water supplies and facilities are available and in place to support new development prior to a certificate of occupancy being issued. As part of this process, prior to issuing a building permit the City will consult with the Utilities commission of New Smyrna Beach to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the City of a certificate of occupancy.
- h. Develop alternative water supplies that will be needed in addition to or instead of groundwater needed to meet water supply demands in the future. The Utilities Commission shall provide an annual status

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report to the SJRWMD which shall document all activities taken to develop alternative water supplies including planning, design, permitting, financial and project schedule. The UCNSB will timely develop or use other AWS project options should the Lower Floridan Aquifer (LFA) project option prove to be infeasible.

OBJECTIVE:

3. To coordinate extension of, or increase the capacity of, potable water facilities to meet future average day, peak-day, and fire flow demands/requirements without contributing to urban sprawl, in compliance with the adopted Interlocal Service Area Agreement and the Future Land Use Element.

POLICIES:

- a. Use 240 gpd per residential unit as the general standard for service demand. Peak flow shall be the standard for capacity design, with a peak day factor of 1.40 and a peak hour factor of 3.00, each applied to annual average daily flow (AADF).
- b. The New Smyrna Beach City Commission must approve any expansion of the potable water facility service area, and shall approve such expansion only if it is consistent with the Interlocal Utilities Agreement with Volusia County.
- c. Upgrade the UCNSB Glencoe water treatment plant, distribution, and storage in order to maintain system performance and increase capacity to meet development needs.
 - i. Modify the following two (2) transfer pump systems:
 1. Replace the Smith Street pump station with a new pump station that allows full utilization of storage capacity and must have emergency power;
 2. Rehabilitate the storage tank at Smith Street; and
 - ii. Improve the lime softening process by performing the following upgrades:
 1. Replace plant softeners, submerged gears, and troughs;
 2. Rebuild or replace softener drives; and
 3. Rehabilitate lime silo and electrical / instrumentation equipment.
- d. Prior to the issuance of development orders (building permits, site plans and/or subdivisions) ensure that the potable water (including Consumptive Use Permit) infrastructure and services necessary to maintain the adopted level-of-service standards are available and in place to support new development prior to a certificate of occupancy being issued. As part of this process, prior to issuing a building permit the City will consult with the Utilities commission of New Smyrna Beach to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the City of a certificate of occupancy.
- e. The New Smyrna Beach City Commission shall evaluate the benefits of enacting *Florida Statute* Chapter 180, which would allow the City to declare a service area that extends up to a five (5) mile radius beyond the incorporated area.

OBJECTIVE:

4. To coordinate efforts to conserve potable water on an annual basis.

POLICIES:

- a. Continue to comply with water conservation policies adopted by the SJRWMD and continue to enforce the SJRWMD landscape irrigation rule. A selection of those policies, including water conservation policies associated with the CUP, are presented below:
 - i. Continue to use an inclining block rate structure.
 - ii. Continue to implement public education and outreach programs.
 - iii. Continue to provide water-efficient landscaping information and/or demonstration garden.
 - iv. Continue to prohibit new master meters serving more than one residence.
 - v. Implement by 2015 expedited permitting procedures for clustered developments.
 - vi. Implement by 2020 regulations to allow recycled treatment process water for on-site irrigation.

- vii. By 2020, begin conducting indoor and outdoor water audits.
 - viii. Continue to require all service connections to be metered
 - ix. By 2020, adopt regulations that require the installation of water-saving plumbing devices.
 - x. Implement by 2020 incentive programs to replace inefficient landscapes, plumbing devices, and appliances.
- b. Adopt and enforce restrictions on irrigation consistent with rules of the Volusia County Minimum Environmental Standards, and continue to enforce the SJRWMD landscape irrigation rule.
 - c. Continue to lower system pressures when conditions require emergency conservation.
 - d. Continue distribution of flow restrictors for fixtures, upon request.
 - e. Require developments to conserve potable water supplies through the use of gray water systems, wastewater reuse, waste recovery systems, and non-potable water supplies and continue to require installation of reuse supply lines where reclaimed water is available or will be available for use.
 - f.
 - g. f. Adopt by 2013 landscape water conservation regulations that provide landscape and irrigation standards and continue to promote and encourage the use of low impact development techniques.
 - h. g. Strive to reduce projected demand for potable water by 10 percent by 2020.
 - i. h. Continue to promote and encourage the use of low impact development techniques.

DRAINAGE GOAL:

To provide a safe, environmentally sound stormwater management and drainage system within New Smyrna Beach. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs (and the City's ability to meet those needs) become better established.

OBJECTIVE:

- 1. To continue to provide stormwater management and drainage facilities to accommodate runoff from frequently occurring and seldom occurring storm events. The City's annual budget program and development regulations will be used to accomplish this objective.

POLICIES:

- a. Maintain existing, and develop new, minor drainage systems for handling runoff from frequently occurring (2, 5, and 10 year) storm events, consistent with the Future Land Use Element.
- b. Maintain existing, and develop new, drainage systems and regulated floodways for handling seldom occurring 25 and 50 year storm events.
- c. Ensure that all new stormwater management and drainage facilities are limited to 110 percent of the present discharge rate and total discharge volume leaving the site for a 25 year storm of 24 hours duration and comply with existing City, state, and federal stormwater management ordinances and regulations.
- d. Ensure that all new detention facilities are designed to handle the minimum stormwater requirements described in the City's stormwater ordinance.
- e. Regulate land uses and require design of drainage systems and developments to reduce non-point pollution and protect the function of natural groundwater recharge areas and natural drainage features. The following actions shall be required to reduce non-point pollution:
 - i. Follow proper pesticide and fertilizer application practices.
 - ii. Use pervious materials to reduce the amount of impervious areas.
 - iii. Properly maintain motor vehicles to prevent accumulation of pollutants that eventually run off into surface waters and the groundwater.
 - iv. Stabilize sloping yards with appropriate vegetation to prevent erosion, and to filter runoff.

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- v. Prohibit direct discharge of stormwater into any surface water body. All discharges shall be filtered using natural or man-made vegetative buffers.
- vi. Require contractors to use erosion control devices during development and road construction.
- vii. Ensure that developments do not contain excessive and unnecessary impervious areas, such as parking lots.
- f. Acquire property or easements to ensure continued proper maintenance of system wide drainage facilities located on privately owned lands.
- g. Deny approval of any developments that impact water resources, unless they conform with local or regional comprehensive water basin management plans and Rule 17-25, *Florida Administrative Code*.
- h. Continue implementing the New Smyrna Beach stormwater drainage management program, which addresses retrofitting and improvement of inadequate existing drainage systems throughout the City.
- i. Require property owners to maintain stormwater management systems in accordance with the City's stormwater management requirements.

OBJECTIVE:

- 2. To monitor and evaluate existing drainage facilities during the next planning increment to insure maximum use and efficiency.

POLICIES:

Adopt interlocal agreements with other municipalities and governmental entities regarding development of master plans for drainage basins that extend across jurisdictional boundaries.

OBJECTIVE:

- 3. To implement improvements that: (1) correct existing facility deficiencies, (2) coordinate the extension of, or increase in, capacity of drainage facilities to meet future needs, and (3) maximize the use of existing drainage facilities, thus discouraging urban sprawl.

POLICIES:

- a. Implement the comprehensive stormwater facility analysis addressing those improvements needed to correct existing facility deficiencies, extensions, or increases in capacity in order to meet future needs. Implement the recommendations of the study by plan amendment.
- b. Update the utility stormwater service fee by October 1, 2015, based on the analysis of the stormwater facility study.
- c. Require all new development and redevelopment to meet the performance and design standards of the City Stormwater Management and Conservation Ordinance, unless specifically exempted or until such time as amended or replaced as a result of completion of Policy 3.a. above.
- d. Implement changes or modifications to the City's Stormwater Management and Conservation Ordinance by amendment to the *Comprehensive Plan*.
- e. Comply with the stormwater requirements of the St. Johns River Water Management District.
- f. Comply with the Surface Water Improvement and Management (SWIM) plan adopted by the SJRWMD and the National Estuary Program of the Environmental Protection Agency. The Swim Act requires water management districts to protect the ecological, aesthetic, recreational, and economic value of the State's water bodies, keeping in mind that water quality degradation is frequently caused by point and non-point source pollution, and that degraded water quality can cause both direct and indirect losses of aquatic habitat. Stormwater outfalls will be retrofitted to improve water quality of discharge into the Indian River.
- g. Prior to the issuance of development orders, require new site plans and/or subdivisions to provide the drainage infrastructure necessary to maintain the performance and design standards.

NATURAL GROUNDWATER AQUIFER RECHARGE GOAL:

To protect the function of secondary aquifer recharge areas within New Smyrna Beach. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs (and the City's ability to meet those needs) become better established.

OBJECTIVE:

1. To continue to implement City regulations and programs to protect the function of natural groundwater recharge areas.

POLICIES:

- a. Restrict yard watering especially during times of drought.
- b. Educate residents regarding proper yard fertilizing and care techniques.
- c. Continue to promote and encourage the use of low impact development techniques through the following:
 - i. Regulate the amount of impervious surface allowed on a lot.
 - ii. Allow pervious materials to be used in parking lot and other surface-covering construction.

SOLID WASTE GOAL:

To ensure that a safe, environmentally sound, and efficient solid waste collection and disposal system will be provided for New Smyrna Beach. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs (and the City's ability to meet those needs) become better established.

OBJECTIVE:

1. To ensure collection of solid waste on a regular basis and in a safe, efficient manner, and to insure that adequate transfer facilities are available for disposal of solid waste collected within the City.

POLICIES:

- a. Ensure that refuse/solid waste is collected regularly, and that collections occur no more than 7 days apart.
- b. Encourage safe disposal of hazardous waste by promoting "amnesty days" for collection of hazardous wastes by the county and other agencies.
- c. Use 7.3 pounds per capita per day as a general standard for service demand.
- d. Evaluate existing facilities and coordinate improvements to existing facilities, and to support new growth by implementing improvements outlined in the Capital Improvements Element.

OBJECTIVE:

2. To coordinate extension of, or increase the capacity of, solid waste facilities to meet future needs in compliance with the Future Land Use Plan.

POLICIES:

- a. Monitor Volusia County landfill operations as they pertain to adequate existing and future capacity.
- b. Participate in the state of Florida's solid waste recycling program.
- c. Cooperate with Volusia County in developing a permit tracking system. This system shall provide information on development and building activity within New Smyrna Beach. This information will be used by Volusia County to determine whether an area wide level-of-service is being maintained for the purposes of waste management.
- d. Monitor Volusia County's future analysis to determine when the landfill will have to be expanded to meet future demands. Currently, only 400 of the 3,400 acres at the Tomoka Farms Road Landfill are being used
- e. Prior to the issuance of development orders, require new site plans and/or subdivisions to provide the

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solid waste facilities and services necessary to maintain the adopted level-of-service standards.

OBJECTIVE:

3. To continue to assist in reducing the amount of solid waste disposed of in the county landfill.

POLICIES:

- a. Continue to maintain and expand the recycling program citywide.
- b. Continue an ongoing public education program for recycling and proper solid waste management.

VI. HOUSING ELEMENT

PURPOSE

The purpose of the Housing Element is to provide guidance to the City to develop appropriate plans and policies to meet identified or projected deficits in the supply of housing for moderate-income, low-income, and very-low-income households, group homes, foster care facilities, and households with special housing needs. The Housing Element contains goals, objectives, and policies to address local government activities as well as provide direction and assistance to the efforts of the private sector.

The supply of housing is controlled by many outside factors. The private sector and the market place are primarily responsible for the maintenance and development of the housing stock. Local government can control certain aspects of the delivery system, such as the provision of public housing, land use, urban design requirements, adequate public infrastructure and enforcement of building codes, but the primary provider for housing units is the private sector.

Beginning around 2003, the housing market was characterized by rapid increases in the value of real property, until it reached unsustainable levels relative to incomes and other economic elements. This "housing bubble" peaked in approximately 2005-2006. The collapse of the housing bubble caused the values of securities tied to housing prices to plummet thereafter, damaging financial institutions globally. Questions regarding bank solvency (ability to pay debts), declines in credit availability, and damaged investor confidence had an impact on stock markets around the world, which suffered large losses during 2008. Economies worldwide slowed in late 2008 and 2009 as credit tightened and international trade declined. As of May 2010, the housing market was still uncertain. Housing costs and lending practices are still in flux. Therefore, an data and analysis regarding housing cost and affordability will need to be revisited after the market stabilizes.

STANDARDS

It is the City's intention to ensure that overall housing standards be of the highest level possible; that all existing City housing codes are observed and enforced; that effort is made to identify and eliminate existing substandard housing conditions; and that effort is made to comply with any federal, state, or county housing rules, regulations and guidelines that may apply to housing within the City.

EXISTING CONDITIONS

This section discusses current housing types and conditions in New Smyrna Beach. Also discussed are: the number of housing developments currently using federal, state, and local subsidies; the number of group homes and mobile home parks licensed by the Florida Department of Health; the number of historically significant housing structures or neighborhoods; and the number and type of new housing units currently under construction. The information presented herein is based on information from the United States Census American Community Survey, 2006-2008 3-Year Estimates (ACS) and data provided by the City of New Smyrna Beach, the New Smyrna Beach Housing Authority, the Bureau of Economic and Business Research (BEBR), and Volusia County.

CURRENT HOUSEHOLDS

Based on research performed by BEBR, the resident population of New Smyrna Beach in April 2009 was 23,449 (see Table VI-1). ACS and the City's Building Department's records indicate a total of 15,644 housing units in the City (either occupied or unoccupied), including 9,903 single-family residences, 5,526 multi-family residences, and 215 mobile homes. The Volusia County School Board's population projections are included as Table VI-1.

Table VI-2 shows the number of housing units within the City by type, based on ACS data. According to ACS, approximately 52% of the dwelling units within the City are single-family detached homes.

Table VI-3 shows the number of vacant and occupied units, based on ACS data and Building

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Department records. According to the ACS, the City has a total vacancy rate of 34.2%. Of that total, 19.7% of rental properties are vacant and 6.3% of non-rental houses were vacant. The remaining 8.2% of the units are presumed to be seasonal housing, or belonging to “snowbirds”, those who only occupy the house for less than half a year.

Table VI-4 shows the age of housing units in the City by the year they were built. As indicated, 70.1% of the housing stock in the City is 30 years old or older, and 73.7% is 20 years or older. The median value of all dwelling units in 2000 was \$119,600. According to the ACS, the median value of a dwelling unit in 2006 was \$264,100. However, this figure was derived at the peak of the housing bubble. The median value of such a property today is considerably less than the ACS figure. Table VI-5 shows the value of occupied units in New Smyrna Beach and Volusia County.

Table VI-1 City of New Smyrna Beach Population Estimates and Projections 2005-2025

2005	2010	2015	2020	2025
22,025	25,043	28,664	32,284	34,095

*Based on the School Board’s population projections through 2025

Sources: U.S. Census; Bureau of Economic and Business Research

Table VI-2 Number of Housing Units by Type

	Estimated Number of Units
TOTAL:	15,644
1 Unit/Detached	8,202
1 Unit/Attached	1,584
2 Units	439
3 or 4 Units	738
5 – 9 Units	668
10 – 19 Units	940
20 – 49 Units	959
50 or More Units	1,899
Mobile Home	215

Source: American Community Survey 2006-2008

Table VI-3 Vacant and Occupied Housing Units

	Number of Units	Percentage of Units
TOTAL	15,644	100%
Occupied Housing Units	10,294	65.80%
Vacant Housing Units	5,350	34.20%
Homeowner Vacancy Rate	986	6.30%
Rental Vacant Rate	3,082	19.70%

Sources: American Community Survey 2006-2008; City of New Smyrna Beach Building Department

Table VI-4 Age of Housing Units

Year Constructed	Estimated Number of Units	Percentage of Units
TOTAL	15,644	100%
2005 or later	503	3.2%
2000 – 2004	1,545	9.9%
1990 – 1999	1,869	11.9%
1980 – 1989	3,863	24.7%
1970 – 1979	3,817	24.4%
1960 – 1969	1,365	8.7%
1950 – 1959	1,814	11.6%
1940 – 1949	328	2.1%
1939 or earlier	540	3.5%

Source: American Community Survey 2006-2008

Table VI-5 Value of Owner-Occupied Units

Value	Number of Units	Percentage of Units
Less than \$50,000	289	3.8%
\$50,000 – \$99,999	261	3.4%
\$100,000 - \$149,000	637	8.3%
\$150,000 - \$199,000	1,023	13.4%
\$200,000 – \$299,000	2,136	28.1%
\$300,000 - \$499,000	2,151	28.2%
\$500,000 - \$999,999	888	11.6%
\$1,000,000 or greater	245	3.2%
Median Value	\$264,100	

Source: American Community Survey 2006-2008

Mobile home parks are not a significant part of the City's present housing inventory. There are four (4) mobile home parks providing a total capacity of approximately 215 units. The parks, their capacity, and their general locations are as follows:

Ocean Air Estates	1320 North Dixie Freeway	45 units
Redlands	2228 North Dixie Freeway	52 units
Whitebird Motel and Mobile Home Park	1100 North Dixie Freeway	49 units
Sugar Mill Mobile Home Park	2590 State Road 44	69 units

There are two (2) mobile home subdivisions within the City: Mill Run (36 unit capacity) and Turnbull Plantation (46 unit capacity). Both subdivisions are located off Pioneer Trail approximately 1.5 miles west of Dixie Freeway. Turnbull Plantation, despite being zoned for mobile home development, has been primarily developed with site-built single-family detached homes. The City has no mobile home condominiums or cooperatives.

The monthly costs of owner-occupied and renter-occupied housing are shown in Tables VI-6 and VI-7, respectively. These figures are based on American Community Survey 2006-2008 3-Year Estimates data, and include real estate taxes and insurance for each dwelling unit.

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Table VI-6 Monthly Housing Costs, Owner-Occupied, 1990

Monthly Housing Cost	Percentage of Owner-Occupied Units
Less than \$200	0.0%
\$200 - \$299	0.0%
\$300 - \$399	0.4%
\$400 - \$499	1.9%
\$500 - \$599	3.7%
\$600 - \$699	4.6%
\$700 - \$799	2.8%
\$800 - \$899	9.1%
\$900 - \$999	4.1%
\$1,000 - \$1,249	15.4%
\$1,250 - \$1,499	9.7%
\$1,500 - \$1,999	18.4%
\$2,000 or more	29.8%
Median Monthly Housing Costs	\$1,454

Source: American Community Survey 2006-2008

Table VI-7 Monthly Housing Costs, Renter-Occupied

Monthly Rent	Number of Units	Percentage of Units
TOTAL OCCUPIED PAYING UNITS	2,471	100%
Less than \$200	0	0%
\$200 - \$299	103	4.2%
\$300 - \$499	88	3.6%
\$500 - \$749	494	19.9%
\$750 - \$999	1,010	40.9%
\$1,000 - \$1,499	644	26.1%
\$1,500 or more	132	5.3%
Median Rent	\$892	
No rent paid	185	Not included in total number of units

Source: American Community Survey 2006-2008

HOUSEHOLD SIZE AND NUMBER

According to American Community Survey 2006-2008 figures, 35.3% of the occupied households in New Smyrna Beach consisted of one (1) persons; 43.9 consisted of two (2) persons; 12.3% consisted of three (3) persons; and 8.5% consisted of four (4) or more persons.

HOUSEHOLD INCOME

Based on American Community Survey 2006-2008 figures, the estimated median household income in 2008 in New Smyrna Beach was \$44,744 annually. Low income (defined as 80 percent of median income) was \$35,795, and very low income (defined as 50 percent of median income) was \$22,372.

Approximately 1,307 (12.7%) of the total occupied households were considered to be low-income families, and about 2,100 (20.4%) of the total occupied households were very low-income families. The ratio of income to housing costs (i.e., the amount of annual income spent on monthly rent or mortgage) for renter- and owner-occupied units, as reported in the American Community Survey, is shown on Table VI-8 and Table VI-9.

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Table VI-8 Ratio of Housing Costs as a Percentage of Household Income, Owner- and Renter-Occupied Units

Income	Housing Costs	Percentage of Household Income
Less than \$20,000	Less than 20 percent	0.00%
	20 to 29 percent	0.00%
	30 percent or more	10.30%
\$20,000 to \$34,999	Less than 20 percent	0.00%
	20 to 29 percent	1.30%
	30 percent or more	9.40%
\$35,000 to \$49,999	Less than 20 percent	1.80%
	20 to 29 percent	2.40%
	30 percent or more	11.60%
\$50,000 to \$74,999	Less than 20 percent	7.50%
	20 to 29 percent	8.90%
	30 percent or more	9.20%
\$75,000 or more	Less than 20 percent	15.60%
	20 to 29 percent	8.20%
	30 percent or more	11.40%
	Zero or negative income	2.50%

Source: American Community Survey 2006-2008

Table VI-9 Ratio of Housing Costs as a Percentage of Household Income, Owner- and Renter-Occupied, By Occupancy

Occupancy	Percentage of Expenses vs. Income	Total Number of Units	Percentage of Units
Housing Units With a Mortgage		3,812	100%
	Less than 20%	973	25.5%
	20.0% - 24.9%	467	12.3%
	25.0% - 29.9%	346	9.1%
	30.0% - 34.9%	354	9.3%
	35.0% or greater	1,672	43.9%
	Not computed	96	-
Housing Units Without a Mortgage		3,722	100%
	Less than 10%	1,198	32.2%
	10.0% - 14.9%	638	17.1%
	15.0% - 19.9%	572	15.4%
	20.0% - 24.9%	248	6.7%
	25.0% - 29.9%	322	8.7%
	30.0% - 34.9%	107	2.9%
	35.0% or greater	637	17.1%
Not computed	0	-	
Occupied Units Paying Rent		2,451	100%
	Less than 15.0%	118	4.8%
	15.0% - 19.9%	307	12.5%
	20.0% - 24.9%	135	5.5%
	25.0% - 29.9%	305	12.4%
	30.0% - 34.9%	367	15.0%

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Occupancy	Percentage of Expenses vs. Income	Total Number of Units	Percentage of Units
	35.0% or greater	1,219	49.7%
	Not computed	205	-

Source: American Community Survey 2006-2008

EXISTING HOUSING CONDITIONS AND PROGRAMS

STANDARD AND SUBSTANDARD HOUSING

Substandard and standard units are locally defined as follows:

1. Substandard – A housing unit that is lacking complete plumbing for exclusive use.
2. Standard – All housing units having plumbing for exclusive use. According to data from the American Housing Survey 2006-2008, there were no houses in New Smyrna Beach lacking complete plumbing for exclusive use.

Some substandard housing in the City is located in the Westside neighborhood. This neighborhood's owner-occupancy rate is approximately 50%. Nearly all of the Westside neighborhood is currently experiencing some kind of urban deficiency, which affects the community's overall living environment. Habitat for Humanity, as well as Volusia County, have constructed many new houses in the City's Westside neighborhood during the planning period. Additionally, many of the homes in extremely poor condition have been torn down, or are approved for demolition. A Westside Neighborhood planning process is currently underway, to identify infrastructure improvements, as well as social and economic programs that are needed during the planning period.

According to the American Community Survey 2006-2008, the City as a whole was found to have, 58 units lacking complete kitchens; 328 units were without telephone service, although this may partly be a function of the advent of the cellular phone; and 130 are considered overcrowded.

Notes:

1. Units lacking complete plumbing are defined as lacking some or all of the following facilities: hot and cold piped water inside the structure, a flush toilet, and a bathtub or shower inside the structure for the exclusive use of the occupants.
2. Overcrowding is defined as units having more than 1.01 persons per room, excluding bathrooms, garages, and other non-living areas.

HOUSING ASSISTANCE

The number of assisted housing units in New Smyrna Beach totals 326. These assisted units constitute the major concentration of assisted housing in southeastern Volusia County. The New Smyrna Beach Housing Authority operates the inventory using a variety of housing programs. Table VI-10 depicts the number of government subsidized renter-occupied housing developments, their location, and capacity. There have been no new offerings of assistance in recent years, and none are presently planned.

Table VI-10 Housing Developments Using Federal, State, or Local Subsidies

Development Name	General Location	Number of Units	Subsidy Program
Herbert E. Donnelly Homes	1101 South Dixie Freeway	12	Conventional ¹
Greenlawn Terrace	600 Greenlawn Street	34	Conventional ¹
Live Oak Homes	Milford Street	40	Conventional ¹
Enterprise Homes	Greenlawn Street	40	Conventional ¹
New Smyrna Beach Apartments	10th Street	100	Section 8 - existing ²
Greenbriar Village	Milford Street	100	Section 8 - existing ²
Total		326	

Notes: ¹Units owned and managed by the local Housing Authority

²Units owned by private owners and leased by the Housing Authority to low- and moderate-income families. A rent subsidy is provided

Source: New Smyrna Beach Housing Authority

FLORIDA DEPARTMENT OF HEALTH-LICENSED HOUSING FACILITIES

Housing facilities licensed by the Florida Department of Health include group homes (such as nursing homes, retirement homes, orphanages), mobile home parks (including mobile home condominiums, cooperatives and subdivisions), and other types of housing for elderly, handicapped, and other disadvantaged citizens. Such facilities currently existing in New Smyrna Beach are shown on Table VI-11.

Table VI-11 Group Homes Licensed by the Florida Department of Health

Name	Address	Capacity
Guardian Home II ALF LLC	902 West Canal Street	8
Smyrna West ALF	301 Milford Place	16
Tiffany on the River	402 N. Riverside Drive	6
Sweet Bay Living	Sugar Mill Estates	6
Fairgreen ALF	1150 Wayne Avenue	40
Hospice of Volusia/Flagler	1020 Claudia Street	2
St. Alphonsus Villa	318 N. Riverside Drive	20
Oceanview Nursing Home	2810 S. Atlantic Avenue	239
TOTAL		337

CURRENT HOUSING CONSTRUCTION ACTIVITY

New housing construction activity in New Smyrna Beach since 1996 is shown in Table VI-12. Annual construction averaged 232.2 units between 1996 and 2009. Construction activity peaked between the years 2003 and 2007, and new housing starts have slowed considerably since the housing market bubble collapsed.

Table VI-12 Annual Housing Construction Activity, 1996-2009

Year	Single-Family Units Constructed	Multi-Family Units Constructed
1996	90	18
1997	101	9
1998	125	26
1999	128	27
2000	112	30
2001	95	136
2002	118	118
2003	173	480
2004	207	163
2005	331	260
2006	158	175
2007	110	149
2008	92	59
2009	80	37
TOTAL	1,920	1,687

Source: New Smyrna Beach Building Department

FUTURE CONDITIONS

PROJECTED POPULATION

Based on the Volusia County School Board's population projections, the resident population in New Smyrna Beach is expected to increase as follows:

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Table-VI-13 Population Projections 2010-2025

Year	Estimated/Projected Population	Increase/(Decrease)
2010	25,043	
2015	28,664	14.5%
2020	32,284	12.6%
2025	34,095	5.6%

Source: Volusia County School Board

ANTICIPATED NUMBER OF HOUSEHOLDS AND HOUSING UNITS

The need for future housing is determined by the anticipated population that will need to be served, household size and income, as well as local, state and national housing trends and economic forecasts. At best, forecasting housing needs is a delicate balance weighting existing trends and future needs, while estimating the ability and willingness for a community and its construction industry to address these needs. In New Smyrna Beach, the construction of new housing is for the most part controlled by the private sector. Therefore, the City has limited influence on new housing construction. The City can provide a range of residential land use densities and zoning districts, and by maintaining the public infrastructure and sufficient capacity for growth, and by streamlining the review and permitting process.

Table VI-14 highlights the projected housing needs for New Smyrna Beach through the year 2025. The demand for housing units was projected by dividing the population estimate (permanent residents) by the average number of persons per household for the City, or 2.02 persons, according to the 2000 U.S. Census. It is important to note that the population projections were developed in 2006, prior to the recession that began in 2008. Based on the current economic conditions, the City is not anticipating to actually achieve growth at this rate, especially in the short-term. It is also important to note that housing demand is dynamic and is affected by many influences, including market conditions, household income, and inflation. Therefore, the projected housing demand should only be used for planning level analyses.

Table VI-14 Projected Housing Demand, 2010 –2025

Year	Population Estimate	Projected Housing Demand (Units)
2010	25,043	12,398
2015	28,664	14,191
2020	32,284	15,982
2025	34,095	16,879

Sources: Volusia County School Board population projects; U.S. Census Bureau 2000 household size data

Single-family detached housing makes up approximately 53% of all new housing stock. The remaining 47% of new units constructed are either multi-family developments, duplex units, townhomes or mobile homes. Table VI-15 details the anticipated number of housing units, by type, that will be needed to meet anticipated growth.

Table VI-15 Anticipated Number of Housing Units by Type

	2010	% of Total	2015	2020	2025
TOTAL UNITS (EXISTING)	15,644	100%	-	-	-
TOTAL UNITS NEEDED (FUTURE)	-	-	14,191	15,982	16,879
1 Unit/Detached	8,202	52.4%	7,437	8,375	8,844
1 Unit/Attached	1,584	10.1%	1,434	1,614	1,705
2 Units	439	2.8%	397	447	473
3 or 4 Units	738	4.7%	667	751	793
5 – 9 Units	668	4.3%	610	687	726
10 – 19 Units	940	6.0%	851	959	1,013
20 or More Units	2,858	18.3%	2,597	2,925	3,089
Mobile Home Units	215	1.4%	199	224	236
TOTAL	15,644	100%	14,191	15,982	16,879

Sources: American Community Census 2006-2008; U.S. Census 2000

ANTICIPATED LAND REQUIREMENTS

Based on the acreage within the Future Land Use categories shown in Table VI-16, below, there is adequate land in the City to meet the housing needs for both single-family and multi-family development through the year 2025.

Table VI-16 Future Land Use Acreages and Density

Future Land Use Category	Acres	Maximum Units Allowed Per Acre ¹	Maximum Number of Potential Units
Low Density Residential	3,206	5	16,030
Medium Density Residential	1,047	8	8,376
High Density Residential ¹	621	18 mainland 12 beachside	7,452

1. Maximum number of potential units calculated using 12 units/acre maximum density
Source: New Smyrna Beach Planning Department

IMPACT FEES

Impact fees are a major cost associated with the price of housing. Since local ad valorem taxes, gas taxes, and other available means of raising revenue have not kept up with infrastructure needs to serve new growth, impact fees and other user fees are an additional source of funding. The collection of impact fees is an effort to have new growth pay its fair share of new or expanded public facilities needed to serve the new development. The City of New Smyrna Beach collects impact fees for fire/rescue, transportation, recreation, water and sewer, and also assesses a stormwater drainage utility fee. The County also collects a transportation impact fee on all residential and commercial construction within the City, and a school impact fee on all residential development. These are costs that cannot be deferred and impact fees are often seen as the fairest way to allocate the costs associated with new growth.

PRIVATE SECTOR CONSTRUCTION INDUSTRY AND HOUSING DELIVERY SYSTEM

The private sector construction industry is expected to provide new housing units to meet virtually all projected needs within the planning area.

The extremely complex private housing delivery system involves the coordination of numerous professionals, businesses, and industries, including: developers, home manufacturers, mobile home producers, contractors, land owners, real estate brokers, title companies, architects, engineers, surveyors, lawyers, lending institutions, mortgage companies, building material manufacturers and distributors, insurance companies, planners, consultants, and zoning and building code officials.

Main areas of concern to the delivery system are:

- Available land

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- Utilities and impact fees
- Qualifying purchasers and mortgage interest rates
- Zoning and subdivision approval
- Environmental regulations
- Building code inspections
- Construction financing

Based on existing and projected population figures for New Smyrna Beach, there is adequate land available to meet the City's projected housing needs through 2025.

AVAILABILITY AND COST OF LAND

The price of land within the City has become one of the greatest contributors to the increased cost of housing. New Smyrna Beach is a desirable place to live, and this has driven up the cost of land. Another factor are interest rates. The City can be more flexible by allowing smaller lot sizes, and possibly reducing some impact fees, but ultimately, the cost of land is driven by market demand and there is little that can be done by the City to control this factor.

ZONING, DEVELOPMENT APPROVALS, AND ENVIRONMENTAL REGULATIONS

One element of housing costs over which the City has some control is the cost of review and compliance with local development regulations. The City has developed requirements and procedures that streamline the development process and remove any unnecessary delays, while still protecting the public interest. The City has zoning classifications that can accommodate different types of housing, such as apartments, townhouses, zero-lot line units, and mobile homes, and has flexibility for new commercial and residential building types through the Planned Unit Development process.

The City has developed regulations for development and construction that are objective and which inform the developer upfront about requirements and procedures that need to be met in order to develop within the City. The City has also developed plan review checklists in an effort to help developers of property understand exactly what is required of them. All of these measures save time and expense for meeting the City's development requirements.

The majority of the environmental regulations, such as those affecting stormwater retention, are mandated at the federal, state and local levels. There are other local environmental controls such as the City's Tree Preservation Ordinance, and wetlands protection policies. The City will also strive to enhance energy efficiency in the design and construction of new housing and encourage the use of renewable energy resources. Such policies and requirements ultimately help create better neighborhoods, which increase in value over the long term. The City continues to review local requirements in an effort to balance the need for affordable housing against its responsibility to protect the community's quality of life.

OTHER FUTURE CONSIDERATIONS

Other issues that will be addressed by the City of New Smyrna Beach for meeting future housing needs are discussed below.

PROVISION OF SUPPORTING INFRASTRUCTURE

Supporting infrastructure components include paving, drainage, stormwater management, and water and sewer facilities. In addition to requiring developers to construct on-site and off-site improvements to mitigate impacts associated with a specific development project, the City will also continue to use the Capital Improvements Element and the Transportation Element, to ensure that adequate services for existing and future residential units will be available.

PROVISION OF HOUSING FOR LOW- AND MODERATE-INCOME HOUSEHOLDS

As a result of the economic recession, housing affordability has increased and is expected to remain more affordable for some time into the future. It will be important to reevaluate the affordability of housing after the market stabilizes. However, by maintaining the existing stock of older homes and continuing to provide sites for a variety of housing types and densities, the City should be able to meet the need for affordable units. Furthermore, Habitat for Humanity and Volusia County continue to construct housing affordable to low- and very-low income residents.

The City will continue to provide housing assistance to low- and moderate-income families by:

1. Encouraging Volusia County and the New Smyrna Beach Housing Authority to support and cooperate with other private and non-profit groups and organizations involved in housing assistance programs.
2. Publicizing the various types of housing assistance programs available from the New Smyrna Beach Housing Authority.
3. Directing CDBG funds toward areas of greatest need.
4. Encouraging private developers to construct housing units priced for low- and moderate-income families.
5. Encouraging the development of group and foster-care facilities as community residential alternatives ~~and to~~ institutionalization.

The City additionally will encourage private developers to construct low- and moderate-income housing by:

1. Considering full or partial waving of permitting or impact fees for affordable housing;
2. Permitting subdivisions under certain conditions to utilize common lot or zero (0) lot line products to allow the use of smaller lots by eliminating set backs on one (1) or more sides of the lot;
3. Providing incentives to mixed-use projects, such as an increased number of units or increased floor area ratio, in exchange for the inclusion of affordable housing units; and
4. Providing increased densities in appropriate areas to ensure feasibility of developing affordable housing.

PROVISION OF ADEQUATE SITES FOR LOW- AND MODERATE-INCOME HOUSING AND MOBILE HOMES

The City will continue to classify land uses in a manner, which ensure that adequate and suitable sites are available for the development of low- and moderate-income housing units, including mobile homes, to meet future needs. This land should be available in all areas of the City, to avoid clustering of low- and very-low income residents.

PROVISION OF ADEQUATE SITES FOR GROUP HOMES AND FOSTER CARE FACILITIES

The City will provide land classifications that allow for the development of group homes and foster-care facilities, and will encourage the private acquisition and development of suitable sites in the areas of residential character by providing group homes and foster-care facilities licensed or funded by the Florida Department of Health.

ELIMINATION OF SUBSTANDARD HOUSING CONDITIONS

The City will ensure that efforts are made to eliminate substandard housing conditions in New Smyrna Beach by:

1. Strictly enforcing existing housing codes and developing new codes as needed.
2. Enforcing a policy of demolishing dilapidated, unsafe structures, and assisting in relocating families or individuals.
3. Utilize Community Development Block Grant (CDBG) funds to establish a home repair program and maintenance program.

GOAL, OBJECTIVES, AND POLICIES

GOAL:

To provide adequate, safe, energy-efficient, and affordable housing for existing and future residents, and to maintain sound, viable residential neighborhoods. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs (and the City's ability to meet those needs) become better established.

OBJECTIVE:

1. To ensure that adequate, affordable housing is made available to, or provided for, low- and moderate-income families and individuals, financially disadvantaged citizens, senior citizens, handicapped citizens, or others with special housing needs, for both the existing population and the anticipated population growth by year 2025.

POLICIES:

- a. The New Smyrna Beach Planning and Zoning Department will coordinate with both public agencies and private enterprises engaged in providing housing, to ensure maximum effectiveness and avoid duplication of effort in operating and maintaining housing programs.
- b. Continue to promote available housing assistance programs, including those specifically affecting housing for the handicapped.
- c. Publicize the various types of housing assistance programs available from the New Smyrna Beach Housing Authority.
- d. Ensure that CDBG funds are used to provide housing in target areas having the greatest need for financial assistance.
- e. Encourage private developers to construct housing priced for low- and moderate-income families by providing innovative development regulations such as reduced floor area requirements (e.g., 850 square feet instead of 950 square feet).
- f. Assist the New Smyrna Beach Housing Authority with its housing programs by providing potential roles and responsibilities to carry out in conjunction with the goals and objectives of this *Comprehensive Plan*.
- g. Encourage, via development regulations and promotional campaigns, the development of community residential alternatives to institutionalization, such as group homes and foster-care facilities located in areas of residential character and licensed by the Florida Department of Health.
- h. Encourage local banks to provide matching funds for contributions received for home improvements.
- i. Assist the private sector and non-profit housing providers to achieve an annual target of ten (10) low- and moderate-income housing units using the available housing programs from the County, State, and Federal sources.
- j. Consider full or partial waiver of permit fees and/or impact fees for developers providing affordable housing.
- k. The City will explore opportunities to establish financial incentives for investment in older, declining neighborhoods, as part of an overall reinvestment strategy.

OBJECTIVE:

2. To require future development of new housing that is compatible with the land uses identified on the Existing and Future Land Use Maps, and with other elements of the overall *Comprehensive Plan*.

POLICIES:

- a. Carefully monitor and enforce the development approval and building permit process to ensure that new housing is constructed in areas designated for residential development and other compatible land uses, as indicated on the Existing and Future Land Use Maps.
- b. As a part of development review, ensure that new housing developments are compatible with the Transportation Element, in that the new housing does not encroach upon needed rights-of-way for new roads or widening and improvements to existing roads.
- c. Ensure that efforts are made to locate low- and moderate-income housing (including housing for the handicapped) in areas near shopping/employment centers and public transportation facilities by advising housing agencies and groups and by reviewing their plans for new housing.
- d. Carefully monitor and enforce the development approval process to ensure that negative environmental impacts of new housing are minimal, and that new housing developments are not constructed in wetlands, aquifer recharge areas, or areas known to be habitat for threatened or endangered species, without proper mitigation.
- e. Develop neighborhood plans for all neighborhoods. This may include rezoning neighborhoods which have development patterns that are inconsistent with the existing zoning designation.
- f. Revise the R-5 zoning district maximum height allowed to a height more compatible with the surrounding neighborhoods.

OBJECTIVE:

3. To continue to identify and eliminate substandard housing units in New Smyrna Beach, and to assist in the structural and aesthetic improvements of existing standard housing.

POLICIES:

- a. Ensure that existing City housing and building codes are observed and enforced through the issuance of permits and inspections, and that new codes are adopted as needed and required.
- b. Enforce a policy of demolishing dilapidated, unsafe structures, and of providing adequate compensation and relocation assistance (or relocation housing) to displaced families or individuals as state or federal funding becomes available.
- c. Enforce landscaping ordinances and tree ordinances to help improve community appearance and value.
- d. Continue to conserve, rehabilitate, and/or demolish housing according to the Florida Building Code

OBJECTIVE:

4. To continue to support programs which will help to provide adequate sites which meet on-going low- and moderate-income housing production needs.

POLICIES:

- a. Encourage the acquisition of housing sites in various parts of the City, in order to widen the geographical distribution of such housing, and to provide a range of location choices.
- b. Apply for available governmental (i.e., subsidized) funding for acquiring such sites, as determined necessary for meeting identified needs.
- c. Research the possibility of establishing a land trust through the Community

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Redevelopment Agency, or another private organization.

OBJECTIVE:

5. To assist the private sector in providing suitable sites in residential areas for group homes and foster-care facilities licensed and/or funded by the Florida Department of Health, to meet the needs of persons requiring such housing.

POLICIES:

- a. Follow adopted state requirements, which establish principles and criteria guiding the location of group homes and foster-care facilities in appropriate urban areas, to allow de-institutionalization and to foster non-discrimination.
- b. Using development regulations and public programs, promote the availability and acquisition of adequate sites (including sites in areas of residential character) for State-licensed and/or funded group homes and foster-care facilities.
- c. Provide informational support to assist in pursuing governmental (i.e., subsidized) funding for acquiring such sites.

OBJECTIVE:

6. To continue to provide adequate infrastructure to support existing and future housing units, including mobile homes, group homes, and foster-care facilities.

POLICIES:

- a. Using the Capital Improvements Element, private sector investment, and impact fees, to provide adequate water, sewer and drainage services and facilities to existing and future residential units. Any rehabilitation efforts conducted under the CDBG program should be coordinated with the provision of these services and facilities.
- b. Using the Transportation Element, the Capital Improvements Element, development regulations, and the annual budget, secure needed rights-of-way to widen and pave existing streets and construct new roadway facilities associated with housing development and improvements.
- c. Using the Recreation and Open Space Element, the Capital Improvements Element, development regulations and the annual budget, provide and maintain recreational facilities that are easily accessible to residential neighborhoods.
- d. Continue to provide and maintain police and fire protection services.
- e. Annually review the capital improvement program to determine infrastructure improvements that can be made with funds from the CDBG program.
- f. Continue to provide technical and physical assistance to the New Smyrna Beach Housing Authority.

OBJECTIVE:

7. Uniform and equitable treatment for persons displaced by local government programs will be consistent with §421.55, *Florida Statutes*, by ensuring relocation housing is available prior to displacement.

POLICIES:

- a. Prior to persons being displaced by public action, the City shall determine availability of affordable and reasonably located standard housing, and ensure that those persons being displaced are made aware of its availability.
- b. Annually monitor the Future Land Use Element to ensure the availability of lands with a variety of residential use designations.
- c. Continue to maintain zoning regulations that provide for a wide range of lot sizes and

dwelling types.

- d. Use public programs to identify available relocation housing prior to displacing any residents.

OBJECTIVE:

8. To continue to coordinate all housing efforts with other affected governmental entities.

POLICIES:

- a. Monitor housing programs to ensure compliance with the rules, regulations, and guidelines promulgated by regulatory agencies.
- b. Where appropriate, continue to coordinate development and redevelopment activities with:
 - Volusia Growth Management Commission
 - Adjacent municipalities
 - Volusia County
 - State agencies (such as the Florida Department of Transportation)
 - Volusia County School Board
 - New Smyrna Beach Housing Authority

OBJECTIVE:

9. To conserve the existing housing, rehabilitate substandard housing, and demolish dilapidated housing through the programs listed in the policies below.

POLICIES:

- a. The City will continue to focus CDBG expenditures on housing rehabilitation in eligible neighborhoods.
- b. The City will encourage the rehabilitation of rental properties through any possible aid program available, in accordance with the *City of New Smyrna Beach Land Development Regulations*.

OBJECTIVE:

10. Enhance energy efficiency in the design and construction of new housing and encourage the use of renewable energy resources.

POLICIES:

- a. Enhance the energy efficiency of housing through resource efficient green building and sustainable development practices.
- b. Encourage installation of renewable energy systems by homeowners.
- c. Encourage the incorporation of green building practices into development projects.
- d. Provide educational materials regarding energy efficiency, sustainable design, and climate change that encourage community residents and business owners to invest in energy-efficiency improvements.
- e. Promote conservation techniques such as Federal Energy Star Standards, as consistent with the requirements of the Florida Building Code.
- f. Encourage building orientation that maximizes energy efficiency and fosters the use of alternative energy sources where appropriate, such as solar or small wind energy systems, to reduce the demand for electricity and reduce greenhouse gas emissions.
- g. Encourage appropriate placement of trees and shrubs on a development site to reduce cooling loads by taking advantage of evapotranspiration and shade.
- h. Maximize natural areas and assets and incorporate Florida Friendly landscaping into development projects to reduce energy and water consumption.
- i. Continue to promote and encourage the use of low impact development techniques.

VIII. COASTAL MANAGEMENT ELEMENT

This element was prepared by Volusia County in cooperation with all coastal municipalities within the county. The following introduction is excerpted from the Volusia County Coastal Management Element. The technical database and analysis for the county element is contained in eight (8) background reports. The specific goals, objectives, and policies for New Smyrna Beach follow the Volusia Coastal Management Element "Introduction" and "Coastal Resources".

INTRODUCTION

"With its abundance of scenic resources, recreational opportunities, waterways and beaches, and natural habitat, coastal Volusia County and its 10 municipalities will continue to experience rapid growth from migration and natural increase. The historical development pattern has resulted in the destruction of critical wildlife habitat and native vegetation, the lowering of water quality, and the degradation or removal of beach and dune systems. If these resources are to be conserved in the future, development must be carefully and deliberately orchestrated.

The Coastal Management Element is one of the critical parts of the overall *Comprehensive Plan* that each municipality and the County must prepare in accordance with State legislation. The purpose of the Element is to "plan for and where appropriate restrict development activities where such activities would damage or destroy coastal resources, and protect human life and limit public expenditures in areas that are subject to destruction by natural disaster" (Rule 9J-5.012, *Florida Administrative Code*).

Within the context of the *Comprehensive Plan*, the Coastal Management Element has a special status. Although it must be integrated into and consistent with all the other elements of the Plan, the Coastal Management Element not only addresses the protection of coastal resources, it also addresses other related issues of land use, traffic circulation, public access, and public services, facilities, and infrastructure.

Volusia County and the coastal municipalities have cooperated in the preparation of this element. Early on, the County and coastal communities recognized that coastal issues and resources should be coordinated with a systems approach. Environmental systems such as estuaries, watersheds, or wildlife habitat, and manmade systems like traffic circulation or drainage structures, do not start or stop at political boundaries.

Although the Coastal Management Element is included in the *Volusia County Comprehensive Plan*, the inventory, analysis, and the goals, objectives, and policies (GOPs) have been structured to be broad based so that each community can choose to adopt all or part of the element into their individual comprehensive plans. An individual municipality can rearrange the goals, objectives, and policies to suit their particular need.

The central concept of the Element is to promote consensus among and between coastal communities so that common problems can be identified and common solutions proposed and implemented. The intent is to emphasize cooperation in implementing and achieving the goals, objectives, and policies. It is not the intent of the County to mandate certain requirements through this Element beyond their statutory authority. Rather, the approach taken is to stress intergovernmental coordination through the use of interlocal agreements, the continuation of the Technical Steering Committee and a set of consistent goal, objective, and policy statements.

Rule 9J-5, *Florida Administrative Code*, does require the inclusion of specific GOPs in order to be in compliance with Chapter 163, *Florida Statutes*. These have been included in the Coastal Management Element and each local government must incorporate them into their respective Plans. They may be modified to fit the needs of a particular jurisdiction. Some cities may be more restrictive. In other cases, the GOPs are specific to Volusia County rather than to the cities.

The coastal study area was established to include all areas of Volusia County seaward of the St. Johns River Basin. Approximately 450.5 square miles of the County is included within this study area. The study area boundary distinguishes the coastal zone from the western portion of the County, which is

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hydrologically tied to the St. Johns River Watershed. It ranges from between four (4) and 16 miles wide to approximately 50 miles long, and is bounded to the east by the Atlantic Ocean, to the west by the watershed boundary as determined by the United States Geological Survey (USGS) Hydrologic Unit Map of Florida, to the north by Flagler County, and to the south by Brevard County.

Six (6) distinct primary watersheds were identified within the study area boundary:

1. Tomoka River North
2. Tomoka River South
3. Halifax River
4. Mosquito Lagoon / Indian River North
5. Indian River South
6. Spruce Creek

The Coastal Management Element is separated into several discrete sections or sub elements. Technical background reports and analyses were prepared resulting in an extensive database. This database, along with a series of workshops and meetings with the public, the County Council and the Coastal Management Technical Steering Committee, were used to formulate the goals, objectives, and policies, as well as the Coastal Area Plan. The major sections are:

- Coastal Resources
- Land Use
- Water Quality
- Beach and Dune Systems
- Coastal Hazards
- Public Access
- Public Services
- Intergovernmental Coordination

COASTAL RESOURCES

The Volusia County Coastal Area is a complex, dynamic natural system comprised of barrier islands, estuarine and river systems, and mainland watersheds. The watershed is considered the basic ecosystem unit for evaluating the combination of natural and man-induced characteristics. Watershed energy flow is affected by biological and physical influences. The physical forces such as tidal fluctuations, rainfall, heat energy, winds, and sunlight form the basic energy sources that determine the composition of the biological community as well as soil and water characteristics.

The hydrologic boundaries between watersheds serve as complex biophysical membranes. They naturally divide the landscape into a mosaic of distinct units, each possessing a physical/chemical integrity defined by topography and drainage. At the same time, these membranes are also permeable. Each watershed, upon closer examination, is itself partitioned into a mosaic of natural habitats and cultural land uses which often transcend hydrological boundaries. Through biological transport, cultural activities, and atmospheric processes, energy and matter are constantly exchanged across watershed boundaries. Within each watershed there is also a systematic partitioning of physical/chemical resources by competing animals and plants.

Although Volusia County has been fortunate in acquiring environmentally sensitive lands and waters for conservation, past practices of land use and development have degraded or destroyed critical natural resources. The Coastal Management Element is a coordinated effort to identify, evaluate and manage these resources as interconnected systems - utilizing watersheds as the basic management unit.

Each of the habitats represented within the natural systems are interdependent, and therefore, future management plans should consider the linkage of these systems. Plans must conserve the variety of interconnected habitats, not permitting their individual isolation and envelopment by urbanization or agriculture. Since organisms and materials move between different types of habitats (i.e., seagrasses and mangroves), terrestrial and marine communities cannot be defined simply by their physical boundaries. The effectiveness of efforts to protect one community type may be diminished by failing to protect neighboring

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communities or habitats as well as adjacent watersheds. When such efforts fail, the loss of native habitats causes a direct and proportional loss of fish and wildlife. This has already happened in parts of the coastal area.

The coastal wetlands remain generally intact. However, the interface of remaining native uplands with these shoreline areas has all but disappeared throughout most of the coastal zone. Upland habitats, such as coastal scrub, may not have a high number of animal species present, but may have a high proportion of species not found elsewhere (i.e., high endemism). Such areas are considered valuable for maintaining biological diversity. Without immediate institution of a balanced resource management plan, the future Volusia County coastal zone will consist of completely urbanized lands with a fringe of saltmarsh and mangroves. Gone will be the functioning native lands, their floral and faunal constituents, and the contribution attributable to the natural systems.

The coastal wetlands are dominated by 15,196 acres of salt marsh and 1,265 acres of mangrove remaining intact outside the urban centers on the estuary. Freshwater wetlands are dominated by 44,006 acres of forested habitats generally occurring within the interior of the coastal zone, west of the estuary. The coastal wetlands are currently afforded some degree of regulatory protection by the U.S. Army Corps of Engineers (aided by the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and National Marine Fisheries Service), Florida Department of Environmental Protection (FDEP), St. John's River Water Management District (SJRWMD) and the County. The protective measures generally afforded by these agencies are limited only to wetlands. However, the County does regulate upland buffer areas adjacent to wetlands.

The coastal zone contains a variety of native upland habitats including:

- pine flatwood (18,046 acres)
- pine-mesic oak (7,112 acres)
- temperate hardwoods (5,517 acres)
- coastal scrub (5,267 acres)
- palmetto prairie (5,159 acres)
- cabbage palm (4,112 acres)
- rangeland (2,736 acres)
- sand pine (2,493 acres)
- sand live oak (2,368 acres)
- long leaf pine - xeric oak (985 acres)
- live oak (602 acres)

As with the wetland habitats, these upland communities provide habitat to a wide range of flora and wildlife species including many species listed as endangered, threatened, or endemic.

The Coastal High Hazard Area (CHHA) for the Comprehensive Plan is depicted by Map VIII-1 within this Element. The 2010 East Central Regional Evacuation Study prepared by the East Central Florida Regional Planning Council served as the basis for identification of the CHHA. The CHHA is defined as the area below the elevation of the category 1 storm surge line as established by a Sea, Lake and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

The CCHA is a component of the broader Hurricane Vulnerability Zone (HVZ). The entire City of New Smyrna Beach is contained within the HVZ. The HVZ evacuation plan is based on and is effective for category 3 or greater hurricanes.

The Saffir/Simpson Hurricane Scale categorizes hurricanes into 5 different types of storms. A Category 1 storm has winds of 74-95 mph, with storm surges of 4-5 feet above normal. A Category 2 storm has winds of 96-110 mph, with storm surges of 6-8 feet above normal. A Category 3 storm has winds of 111-130 mph, with storm surges of 9-12 feet above normal. A Category 4 storm has winds of 131-155 mph, with storm surges of 13-18 feet above normal. A Category 5 storm has winds greater than 155 mph, with storm surges greater than 18 feet above normal.

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GOALS, OBJECTIVES, AND POLICIES

GOAL 1:

Conserve, protect, and manage the coastal resources of New Smyrna Beach, including the wetland and upland ecosystem, so as to maintain and enhance native habitats, floral and faunal species diversity, water quality, and natural surface water characteristics.

OBJECTIVE:

1. New Smyrna Beach will continue to regulate and monitor the long-term protection and enhancement of selected natural upland and wetland habitats and water quality. The primary means of accomplishing this objective will be through the retention of interconnected hydro-ecological systems where the wetlands and uplands function as a productive unit resembling the original landscape.

POLICIES:

- a. The Volusia County Environmental Management Division (EMD), in connection with the Environmental and Natural Resources Advisory Committee, will be responsible for developing management plans and standards that protect and conserve natural systems within the coastal area. From these plans and standards, New Smyrna Beach will review and adopt the ones that are appropriate for the City.

The Volusia County EMD will identify all hydro-ecological corridors in the New Smyrna Beach watershed, using the Coastal Management Element Natural Resource database. Environmental management corridors will integrate the critical habitats listed below to the maximum extent possible as an interconnected system.

Native Uplands	Wetlands
Palmetto Prairie	Natural streams, ponds, sloughs, creeks,
Coastal Scrub	rivers, estuaries, and beach shorelines
Pine Flatwood	Wetland Hardwoods
Longleaf Pine Xeric Oak	Bay Swamps
Sand Pine	Mangrove Swamps
Pine Mesic Oak	Mixed Wetland Hardwoods
Oak Pine Hickory Cypress Pine Cabbage Palm	Wetlands Forested
Live Oak	Mixed Freshwater Marsh
Cabbage Palm	Saltwater Marsh
Sand Live Oak	Wet Prairies
Mixed Hardwoods and Conifers	

- b. New Smyrna Beach will prepare development review standards to be incorporated into the development review process, which will minimize long term and cumulative impacts on coastal habitat by requiring site specific analysis during the review process.
 - i. The City will prepare standards for habitat mitigation on public and private lands. These standards will identify situations where mitigation may be acceptable (e.g., non forested wetland or mangrove swamp creation), unacceptable (e.g., endangered species habitat impacts), or problematic (e.g., experimental or unproven). In all cases, the proposed mitigation plan should be designed and the project monitored by a qualified professional. The mitigation plan should include the following:
 - A statement of mitigation goals and objectives.
 - Watershed and adjacent habitat evaluation.
 - Geohydrological analysis.
 - Detailed construction plans, planting plans, and maintenance schedules.
 - A long-term management plan for the created habitat in the watershed in which it is located to avoid inappropriate future land uses surrounding the created or enhanced habitat, which may alter the habitat's character or eliminate it

- completely.
- The removal of exotic or nuisance vegetation.
 - Monitoring methodology to evaluate the degree of success obtained.
 - Proper contracted supervision by a qualified expert.
 - A detailed budget and cost estimates.
 - The entity responsible for undertaking maintenance and a long-term management plan with available funding required to ensure future success.
- ii. For all habitat mitigation plans, programs or activities, the City should identify quantifiable, realistic goals, maintain direct supervision through the construction and monitoring process, utilize a minimum of flexibility for minor or insignificant post-construction modifications and if problems or failures result, be able to enforce permit conditions.
- c. Prior to November 1, 2015, *Land Development Regulations*, which require an environmental impact assessment, shall be adopted, to include assessment for sensitive native flora and fauna habitat and a determination of their presence on sites within the City as part of the building permit and site plan review process, as applicable. The assessment shall be submitted, reviewed, and approved prior to the issuance of a development order for areas that contain active uplands or wetlands identified by this element.
- d. The County Charter provisions relating to the beach delegate the sole authority and responsibility of all beach regulations, beach operations, beach access, and beach maintenance to the County of Volusia. The City is preempted on all matters, except licensing, by the Charter. The County levies beach tolls and ad valorem taxes to fund all beach related expenses.
- The City will continue to assist Volusia County by abiding by the provisions of the County Charter. The City would, if it had the legal authority, prohibit the man made destruction or removal of the existing primary oceanfront sand dune and the dune vegetation.
- e. New Smyrna Beach will ensure compliance with standards for mitigation by either adopting, or allowing Volusia County to enforce, standards adopted by the county.
- f. The City will continue to support the acquisition of lands/areas proposed under the Volusia Forever Program, the process and evaluation of which is provided by the applicable Volusia County Resolution. The City may also recommend prioritization and inclusion of lands/areas within the City's incorporated boundaries based on, but not limited to, the following criteria:
- i. Rarity of habitat in corridor or watershed.
 - ii. Utilization of habitat/property by wildlife, particularly protected species (fauna and flora).
 - iii. Strategic location in corridor or along shoreline.
 - iv. Groundwater recharge area.
 - v. Surface water storage area.
 - vi. Recreation value (i.e., canoeing, fishing, hunting, swimming, nature study, hiking, and camping).
 - vii. Funding sources and inter-agency joint acquisition programs.
- g. New Smyrna Beach will support and sponsor the plan prepared by the county for estuarine and oceanfront shoreline habitat reclamation and protection projects. Projects target identified shorelines where reclamation and/or restoration is required to offset impacts from existing upland development, including stormwater discharges, bulk heading, dumping, and land clearing. Reclamation will include, but not be limited to:
- i. Removing debris and toxic materials.
 - ii. Stabilizing shorelines.
 - iii. Creating wetland habitat such as mangrove and salt marsh.

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- iv. Dune restoration.
- v. Relocating or eliminating stormwater / domestic waste and effluent.
- vi. Maintenance of stormwater facilities and retrofitting where needed.
- h. New Smyrna Beach will assist the EMD in maintaining a central clearinghouse for environmental and natural resources studies and recommendations by both public and private organizations.
- i. The Volusia County EMD will periodically update the Florida Land Use Cover and Forms Classification System maps and database of the Coastal Management Element Natural Resources Summary Report to reflect changing conditions.
- j. The EMD will provide periodically specific reports and updates to the County on the status of natural resources. The report will focus on the adequacy of land use and development regulations and management plans to protect and enhance the natural systems. Adjustments shall be made in the regulatory process whenever deficiencies are noted.
- k. Development adjacent to estuarine and riverine shoreline areas shall maintain a buffer zone to protect or conserve the canopy, understory, and ground cover of natural upland vegetation and wetlands.
- l. Development in habitat areas listed by the State of Florida and US Fish and Wildlife Service as Endangered, Threatened, or Species of Special Concern shall not adversely impact the listed species.
- m. The city will continue to enforce the County- and State- adopted beachfront lighting restrictions, as they relate to sea turtle nesting.
- n. The City will continue to support the adopted Manatee Protection Plan.
- o. The City, through interlocal agreements with Volusia County and other coastal cities within the County, shall coordinate with the other units of local government to ensure adequate sites for water dependent uses, to protect living marine sources, to reduce exposure to natural hazards and to ensure public access.

OBJECTIVE:

- 2. Discourage the location of new development in the Coastal High Hazard Areas by limiting new public expenditures in these areas.

GOAL 2:

To conserve, protect, and restore coastal resources by managing growth and land use so as not to damage or destroy those resources.

OBJECTIVE:

- 1. Establish land use regulations that provide for the location, extent, and distribution of land uses consistent with the protection of coastal resources.

POLICIES:

- a. Land uses which have significant adverse impact on coastal resources to the point where they would cease to be viable as a result of the proposed land use shall be appropriately regulated. An environmental impact assessment shall be prepared and reviewed for land uses proposed in critical habitat areas.
- b. Designated natural resource areas, significant environmental or ecological features, critical wildlife habitat, environmental system corridors, or conservation areas shall be protected through a variety of mechanisms, including buffer zones, restoration, limiting density and intensity, conservation easements, acquisition, density transfers, transfer of development rights (TDRs), purchase of development rights or land exchanges.
 - c. The priority for new development shall be in areas of urban infill in order to contain sprawl,

use existing developable lands, maximize the provision of urban services and facilities, and protect remaining coastal habitat.

- d. Continue to monitor development standards for appropriate densities, intensities, and buffer zones.
- e. Develop regulations for resource protection, and location of development adjacent to aquatic and natural preserves, wildlife refuges, and environmental system corridors, to protect the natural character, scenic value, and public benefit of these areas.
- f. Prior to 2015, New Smyrna Beach shall undertake a zoning evaluation program to identify, review, and prepare recommendations for lands zoned for development, which are inconsistent or incompatible with the protection or conservation of coastal resources.
- g. Utilize innovative or alternative zoning districts or techniques to protect coastal resources. Such techniques could include overlay districts, floating zones, bonus ordinances, performance standards, fast tracking of development applications, quality development programs, transferable development rights, planned unit developments, or other incentive based methods.
- h. Cooperate and coordinate with local governments, state agencies, and special districts in developing consistent standards, criteria, and Land Development Regulations for protection of coastal resources.

OBJECTIVE:

2. Priorities for shoreline land use shall be given to water dependent uses over water related land uses, and shall be based on type of water dependent use, adjacent land use, water quality, impact on critical habitat, and impact on coastal resources.

POLICIES:

- a. When reviewing applications for zoning, plan amendments, or development orders, shoreline land uses shall have the following priorities:
 - i. Water dependent uses such as fish, shellfish and wildlife production, protection, and conservation of coastal and natural resources, recreation, public access, marinas and navigation, and water-dependent utilities and industry, which do not create a significant adverse impact upon the waters or land use.
 - ii. Water enhanced uses such as recreation, certain utilities, commerce, and industrial uses.
 - iii. Low-density residential.
 - iv. Non-water dependent or related activities such as intensive urban residential, non-water dependent industry and commerce.
 - v. Of lowest priority are those uses which are non-water dependent, non-water enhanced which result in a reduction of coastal resources.
- b. The first priority for providing new slips is for the expansion of existing marinas, and to new areas for marinas using the criteria in Policy 2.c. below.
- c. Adopt standards for marina siting or expansion as part of *Land Development Regulations*, to include the following criteria, and with priority given to expansion of existing marinas:
 - i. Consistency with provisions included in the Manatee Protection Plan for Volusia County.
 - ii. Marinas shall be located in areas where the least dredging and maintenance are required.
 - iii. Sufficient upland areas shall be made available to accommodate needed support facilities such as adequate parking, dry storage, work areas, stormwater management facilities, and other non-water dependent uses.
 - iv. Marinas and docking facilities shall be located in areas that require minimal or no dredging or

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- filling to provide access by either canal, channel, or road.
- v. The marina areas and navigation access channels shall not be dredged to depths greater than necessary to prevent prop dredging.
- vi. When possible, marina basins shall be located where there is an existing basin and access channel and adequate depths to accommodate the proposed use. A minimum of four (4) feet below mean low water shall be required.
- vii. Facilities shall be designed to maximize or improve water circulation patterns.
- viii. Any buffer zones established by Florida Department of Environmental Protection (FDEP) Shellfish Environmental Assessment Section shall be maintained.
- ix. Marinas shall not be permitted in areas where approved or conditionally approved shellfish harvesting would be severely impacted and/or sections closed to shellfish harvesting.
- x. Marinas should be discouraged in areas that have been determined by FDEP and USFWS to be critical to the survival of the endangered manatee. These areas may include, but are not limited to, manatee sanctuaries, feeding areas or areas that have been identified in manatee recovery plans.
- xi. Sewer pump out service and facilities shall be available and accessible to all boat slips constructed or renovated inside marinas.
- d. New or expanded marina facilities shall utilize dry storage to the fullest extent possible, in addition to wet slips.
- e. The City shall consider utilizing the dock facility slip allocation identified in the Manatee Protection Plan as a tool to stimulate high-quality, employment intensive waterfront development.

OBJECTIVE:

3. Consistent with the Historic Preservation Chapter of the *Code of Ordinances*, protect and preserve historic and archaeological resources.

POLICIES:

- a. Include historic and archaeological resources in land acquisition programs for open space, recreation, preservation, or conservation.
- b. Continue to enforce appropriate standards, regulations, and guidelines for the protection of historic and archaeological resources.
- c. Nominate eligible historic and archaeological resources to the National Register of Historic Places.
- d. Utilize, as feasible, incentive-based techniques for historic and archaeological preservation, such as building code relief, TDRs, tax relief, or waiving of certain zoning requirements (setbacks, lot coverage, parking, etc.).
- e. New Smyrna Beach shall cooperate in establishing historic preservation commissions, conducting surveys and studies, developing standards, regulations and guidelines, adopting historic preservation ordinances, and developing historic and archaeological preservation programs.
- f. Areas identified as having a high redevelopment probability shall be evaluated for appropriate land uses, eliminating unsafe conditions, and restoring coastal resources.
- g. Redevelopment activity shall not result in increasing hurricane evacuation times above the clearance time identified in the Volusia County Coastal Management Element.
- h. Redevelopment should be viewed as an opportunity to restore beach and dune systems, improve visual appearance, incorporate landscaping and buffer areas, improve traffic circulation, and upgrade stormwater management systems.

GOAL 3:

To protect, enhance, and improve the quality of the estuarine environment throughout New Smyrna Beach.

OBJECTIVE:

1. To support Volusia County's efforts to monitor and improve estuarine water quality through an ongoing water quality sampling and monitoring program, establishing base line conditions, and identifying standards as parameters to measure changes in water quality.

POLICIES:

- a. The City will support Volusia County's ongoing water quality sampling and monitoring network for the coastal area. The data shall be evaluated on an annual basis to detect possible problems, and to determine where corrective action is needed.
 - i. The City will continue to support the Volusia County water sampling program regarding point and non point sources and facilities, through which potential water quality problems are identified and are regularly and periodically inspected.
 - ii. Permits issued by the Health Department for individual septic tank systems shall include a nomenclature system so that the information can be retrieved and evaluated by basin, sub-basin, and jurisdiction.
 - iii. In coordination with the Utilities Commission, City of New Smyrna Beach, and Volusia County Health Department, areas presently using septic tank systems within the coastal area shall be quantified and delineated on City maps. Prior to 2015, a ranking system shall be established which will identify the priority of areas to be incorporated into public sewage treatment systems. Criteria to be used in the ranking systems shall include:
 - Soil type
 - Water table level
 - Proximity to aquatic preserves and outstanding Florida waters
 - Proximity to open shellfish harvesting areas
 - Proximity to other water bodies
 - Density of septic tank systems
 - Areas known or suspected to be impacting surface or ground water quality
 - Proximity to existing or planned public wastewater treatment systems
 - iv. Upon completion of the identification of the priority areas to be incorporated into public sewage treatment systems, adopt in conjunction with the Health Department, regulations and criteria restricting future placement of septic systems in these areas.
- b. Continue to upgrade existing sewage treatment plants. As additional sewage treatment plants are constructed, and/or existing plants are expanded, a concerted effort and commitment shall be made to utilize the highest level of treatment possible; or alternative methods of effluent disposal, such as reuse and land spreading / spray irrigation, should be used to reduce nutrient loadings to the rivers and estuaries.
- c. Incorporate best management practices into development regulations that limit the amount of sediment reaching all surface waters. These practices shall be used in agriculture, silviculture, construction, dredge, and fill operations, and stormwater management systems. Incorporate erosion and sediment control provisions as part of the development review process.
- d. The construction of future stormwater management systems, and the redesign of existing systems, shall consider the timing of discharge of fresh water to the estuary, the hydroperiod of the wetlands, and the potential loadings. Stormwater systems should be designed to gradually release water via sheet flow through natural or constructed wetlands.
- e. The use of pipes, ditches, and canals which transport large volumes of fresh water rapidly to the estuaries shall be prohibited.
- f. The Master Stormwater Management Plan, which was most recently revised in 2004, will continue to be implemented and prioritized. The plan shall address specific and cumulative impacts to prevent estuarine pollution, and to control surface water runoff.

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- g. Continue to implement recommendations in the Master Stormwater Management Plan, which provides for the maintenance or restoration of the desired seasonal base flows and water quality.
- h. The prepared management plans, water quality studies, and sampling programs will be coordinated with Volusia County, St. Johns River Water Management District (SJRWMD), and FDEP.
- i. The findings and recommendations from the Surface Water Improvement and Management (SWIM) program, last updated in 2002, will be incorporated into the plans and regulations of the City of New Smyrna Beach.
- j. The City will incorporate pertinent recommendations of the Volusia Council of Governments' Action Plan to implement the 2008 Water Quality Plan.
- k. New Smyrna Beach shall continue its commitment to improve and enhance water quality and estuarine conditions through intergovernmental cooperation by a variety of mechanisms, such as:
 - i. Continuation of the Coastal Management Technical Steering Committee.
 - ii. Participation in ad hoc or other special technical advisory committees.
 - iii. Exchange of data and information among and between the county and the municipalities within the county.
 - iv. Presentations and discussions with the Volusia Council of Governments.
 - v. Updating data in cooperation with FDEP and SJRWMD.
 - vi. Notification of proposed programs, development regulations, or activities that address water quality.
 - vii. Participation in the SWIM program.
 - viii. Support and assistance to Volusia County in establishing and maintaining the water quality sampling and monitoring program.

GOAL 4:

Protect, enhance and restore the functioning of the beach and dune systems, and prohibit development activities that would damage or destroy such systems.

OBJECTIVE:

- 1. Work with Volusia County to maintain standards to minimize the impacts of structures and development on beach and dune systems and, where necessary, initiate dune restoration programs.

POLICIES:

- a. Actively participate with the Bureau of Beaches and Coastal Systems concerning the Coastal Construction Control Line (CCCL) and the City's Coastal Construction Setback Line (CCSL) to implement the following criteria:
 - i. For non-seawalled open-ocean coast, the CCCL and CCSL should be located behind the landward base of the foredune ridge. The foredune ridge should be allowed to expand landward. A buffer between the landward base of the foredune ridge and building construction should be established.
 - ii. For seawalled coast, the CCCL and CCSL should be drawn behind the bulkhead line in accordance with the 100-year storm surge.
- b. Protection of property threatened by beach erosion should be encouraged by employing "soft engineering techniques" such as sand nourishment, the development of new sand dunes, or the enhancement of existing or historical dunes rather than "hard erosion control" such as bulkheads and seawalls.
- c. After the designation of the new CCCL, prohibit the construction of new seawalls, except for the following conditions: (1) replacement of existing seawalls, consistent with Policy 1.h. below; (2) in an emergency event to protect public health and safety (if approved by FDEP); and (3) to fill in small

- gaps (less than 250 feet) between existing seawalls.
- d. Where seawalls are permitted, require them to comply with a county wide uniform construction code that specifies minimum design criteria- and includes provisions that the seawalls be engineered to withstand a 100 year storm event.
 - e. Discourage the man-made destruction or removal of existing dunes and dune vegetation.
 - f. Structural development along beaches fronting the Atlantic Ocean shall enhance and not further degrade the coastal beach and dune system.
 - g. A dune system shall be developed and vegetated with suitable materials to bury all new, and/or reconstruction or replacement seawalls and bulkheads within the City. Standards for the maintenance and restoration of dune areas are maintained by FDEP.
 - h. Prior to 2020, the City will perform an analyses of allowance or prohibition of reconstruction or replacement regulations pertaining to existing hard erosion control structures along the oceanfront that are damaged by storm events, except for maintenance and care of public navigational structures (such as Ponce de Leon Inlet) and structures which are needed to protect evacuation routes and public facilities and utilities.
 - i. As part of the coastal resource function, participate with Volusia County in the exchange of information, and monitor data collected by FDEP, the US Army Corps of Engineers, the Florida Sea Grant College, universities, and other appropriate agencies.
 - j. In cooperation with the FDEP, assist Volusia County in the development of information and education programs to inform citizens on how the coastline works. Provide technical assistance to land owners, citizens, and community interest groups.
 - k. Utilize state and federal grants and community resources to implement beach and dune restoration projects, such as civic association and community group involvement, "Adopt a Dune" programs, private donations, or other similar techniques.
 - l. Incorporate dune restoration projects and revegetation into public improvement projects, such as park and recreation facilities on or adjacent to the beach.
 - m. Prepare interlocal agreements with Volusia County and the State of Florida for the funding and development of beach maintenance and restoration programs and projects.
 - n. Sands dredged from the Ponce de Leon Inlet should be used to stem beach erosion. If determined not to cause any long-term damage, FDEP should be requested to permit the placement of the dredged sands in the longshore transport zone (surf zone).
 - o. Work with Volusia County to develop strategies for responding to sea level rise, including:
 - i. Analysis of the estimated sea level rise and its effects on estuaries, wetlands, barrier islands, and uplands.
 - ii. Identification of structures and areas of possible risk.
 - iii. Determination of additional data and research needed.
 - iv. Assistance from state and federal agencies.
 - v. Analysis of Volusia County environmental buffer requirements and whether dune buffers should be required.
 - vi. Evaluation of locating public facilities in areas projected to be affected by rising sea level.
 - vii. Consideration of the effects on potable water sources, saltwater intrusion, septic systems, wastewater treatment facilities, and the water table.

GOAL 5:

Lessen the impact of a destructive storm on human life, property, public facilities, and natural resources.

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OBJECTIVE:

1. Evacuation of Population. Maintain the clearance time for the evacuation of the population in the Hurricane Vulnerability Zone at 6 hours, based on a level-of-service standard "D" during time of hurricane or any category storm.

POLICIES:

- a. Land use plan amendments in the Hurricane Vulnerability Zone shall strive to reduce, and shall not increase, the clearance time for evaluation of the population in the Hurricane Vulnerability Zone above 6 hours.
- b. Assess the impact of new development on the hurricane evacuation network to ensure it will not increase clearance time for evacuation of the population in the Hurricane Vulnerability Zone above 6 hours.
- c. Ensure adequate roadway capacity to facilitate the evacuation of residents in the Hurricane Vulnerability Zone. The City shall continually maintain the New Smyrna Beach Emergency Preparedness Plan and Evacuation Routes Plan, after FEMA training and in conjunction with the Volusia County Plan to maintain the hurricane evacuation time period below 6 hours.
- d. Future roadway improvements shall minimize the impact of flooding and storm damage on evacuation route facilities.
- e. Evacuation routes shall be designated in such a way as to distribute traffic demand to provide optimum utilization of available roadway facilities. This will include the redistribution of a portion of the traffic from the North Causeway to the Harris Saxon Bridge.
- f. Volusia County shall coordinate the Peacetime Emergency Plan and evacuation plan with the New Smyrna Beach plan to ensure the orderly evacuation of the population in the Hurricane Vulnerability Zone.

OBJECTIVE:

2. Shelter for Population. In cooperation with the American Red Cross, New Smyrna Beach shall designate hurricane evacuation shelters to protect the population in the Hurricane Vulnerability Zone.

POLICIES:

- a. New Smyrna Beach, in cooperation with the American Red Cross, shall designate hurricane emergency shelter facilities to accommodate at least 23 percent of the population in the Hurricane Vulnerability Zone, based on the appropriate standards.
- b. New hurricane emergency shelter space shall not be located in the Hurricane Vulnerability Zone.
- c. In cooperation with the American Red Cross, existing hurricane emergency shelters, which are located in life threatening areas susceptible to flooding during a hurricane, shall be replaced as replacement facilities can be identified and agreements secured.

OBJECTIVE:

3. Mitigation of Property Damage. Adopt land development regulations governing development in the Hurricane Vulnerability Zone and the Coastal High Hazard Areas that minimize danger to life and property.

POLICIES:

- a. If constructed, all public facilities in the Hurricane Vulnerability Zone shall be flood proofed to ensure minimum damage from storms and hurricanes.
- b. The City will continue to enforce regulations that provide for: setbacks in areas of critical erosion; conservation and enhancement of dunes and vegetation; flood proofing of utilities; and appropriate requirements for structural wind resistance and floodplain management.
- c. All development in the Hurricane Vulnerability Zone shall be consistent with the federal flood hazard requirements.

OBJECTIVE:

4. By 2020 the City will develop and adopt a Post Disaster Relief Plan.

POLICIES:

- a. The Post Disaster Relief Plan shall include: identification of land areas that should not be reconstructed; abandonment and/or relocation of buildings; rebuilding of public facilities; and reconstruction with structural modification.
- b. The Post Disaster Relief Plan shall also identify structures in the Coastal High Hazard Areas that might be of some use for public access to coastal beaches and waterways, and shall make recommendations for acquisition when post disaster opportunities arise. It shall establish guidelines for determining priorities for the acquisition of storm damaged property in the Hurricane Vulnerability Zone.
- c. The Post Disaster Relief Plan shall establish principles for repairing, replacing, modifying, or relocating public facilities in the Hurricane Vulnerability Zone.
 - i. The *Land Development Regulations* may establish procedures to document actual uses, densities, intensities, and compliance with regulations in effect at the time of construction, through such means as photographs, diagrams, plans, affidavits, permits, appraisals, and tax rewards.
- d. The New Smyrna Beach Emergency Preparedness Plan for post disaster relief provides for disaster assessment by utilizing immediate repair and cleanup actions, as well as the provision of temporary housing and the provision of individual assistance. These efforts shall be coordinated with Volusia County and other coastal cities. Any development activities shall be consistent with the Hazard Mitigation section of the Emergency Preparedness Plan, until such time as the Post Disaster Redevelopment element of the Emergency Preparedness Plan is adopted.

OBJECTIVE:

5. Public Expenditures. New public expenditures shall be prohibited that will subsidize development inside the Coastal High Hazard Areas, unless it is consistent with policies specifically identified in the Coastal Management Element or cross reference to another appropriate element and included in the Capital Improvements Element.

POLICIES:

- a. The Coastal High Hazard Area is defined as the area below the Category 1 hurricane storm surge line as established by the Sea, Lake, and Overland Surges (SLOSH) storm surge model, pursuant to §163.3178(2)(h), *Florida Statutes*, and shown on Map VIII-1.
- b. Public facilities may be constructed within the Coastal High Hazard Areas when the public facility construction falls into one of the following categories:
 - i. The public facilities are required to meet minimum level-of-service standards.
 - ii. The public facility improvements are required to meet regulatory mandates resulting from changes in laws or rules.
 - iii. The public facilities are part of the adopted Community Redevelopment Agency redevelopment plan.
 - iv. The public facility improvements are essential to support other *Comprehensive Plan* policies.
 - v. The public facility will provide service on a par with other neighborhoods in the City.
- c. Prior to the development of public facilities in the Hurricane Vulnerability Zone, it shall be determined that there are no other feasible sites outside that area.
- d. If constructed, all public facilities in the Hurricane Vulnerability Zone shall be flood proofed to ensure minimum damages from storms and hurricanes.
- e. When public facilities within the Coastal High Hazard Areas are proposed for renovation or

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expansion, relocation shall be considered as an option.

OBJECTIVE:

6. Population Concentrations: The City shall direct population concentrations away from the Coastal High Hazard Areas by limiting infill development to the currently established *Comprehensive Plan* limits and by acquiring significant undeveloped parcels when feasible.

POLICY:

When feasible, the City shall work with County and State agencies to acquire undeveloped parcels that have significant environmental assets.

GOAL 6:

Maintain and improve public access to the sovereign lands of the coastal management area through the provision of coastal beach access facilities, fishing piers, boat ramps, and marinas.

OBJECTIVE:

1. Coastal Beach Access Facilities. In the areas of unincorporated Volusia County (except Ormond by the Sea) and the coastal cities of Ponce Inlet and Oak Hill, coastal beach access facilities (vehicular beach ramps, walkways, or walkovers) shall be provided at no greater than 1/2 mile intervals, except for the area north of Bass Drive and the area in Canaveral National Seashore. In the area of the coastal cities of Daytona Beach, Daytona Beach Shores, Ormond Beach, New Smyrna Beach, and in unincorporated Ormond by the Sea, coastal beach access facilities shall be provided every 1/4 mile, on the average. Volusia County shall be responsible for the actual provision, maintenance, and operation of these facilities.

POLICIES:

- a. Work with Volusia County on signage and traffic control measures for the causeways and State Road A1A will be implemented to divert traffic away from areas that are suffering capacity problems.
- b. The priority for new pedestrian access shall be pedestrian walkovers or other alternatives that do not harm the dune system.
- c. Volusia County shall improve coastal beach access facilities to better accommodate handicapped persons. VOTRAN shall be encouraged to provide additional routes and stops at coastal beach access facilities, as well as more equipment on the buses, to accommodate wheel chairs and the needs of the handicapped.
- d. The County of Volusia has the sole authority and responsibility of all beach regulations, beach operations, beach access, and beach maintenance. The City is preempted on all matters, except licensing. The County levies beach tolls and ad valorem taxes to fund all beach related expenses.

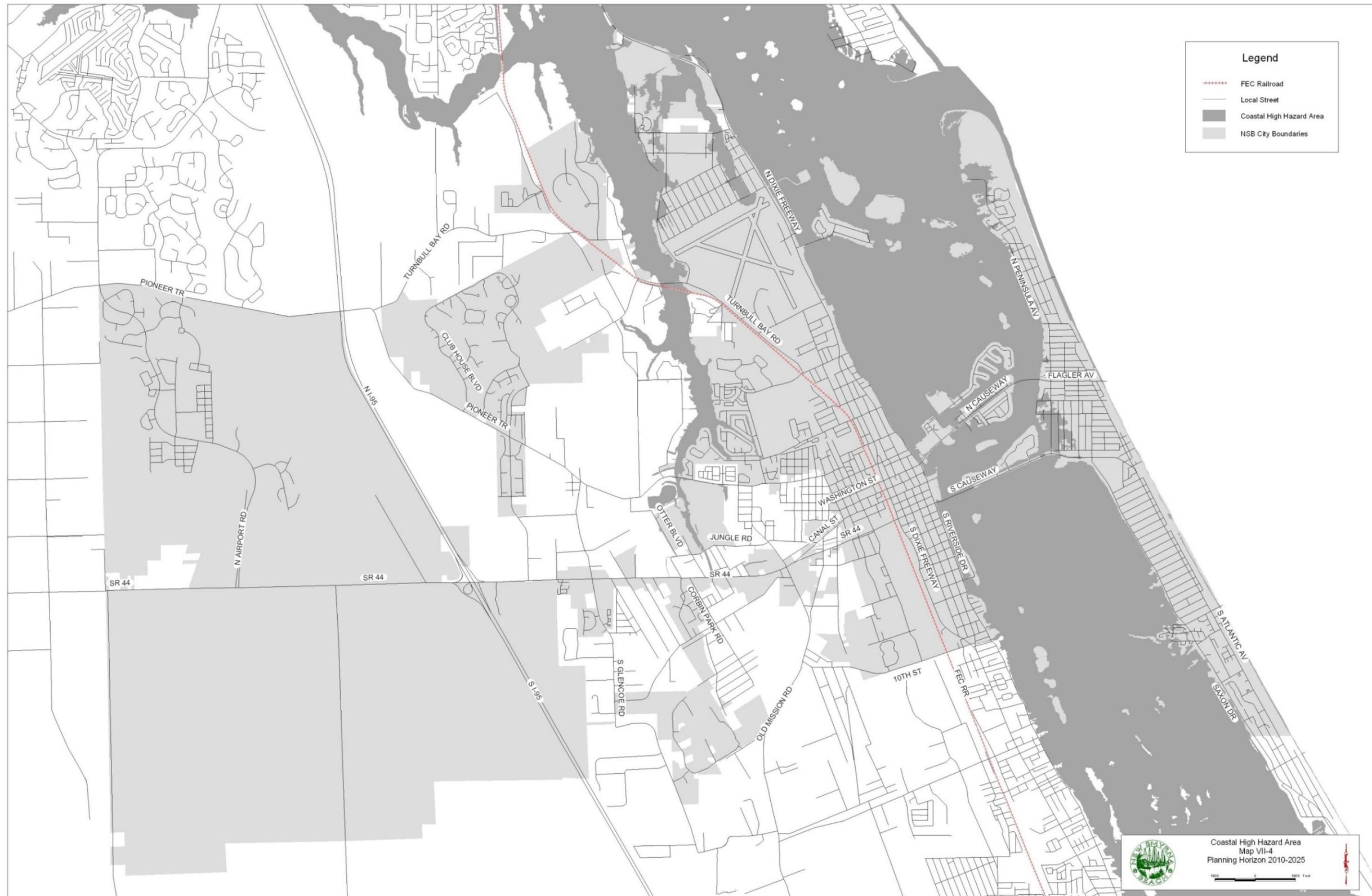
OBJECTIVE:

2. Marina Slips. Develop a marina siting program prior to 2015 that accommodates the projected demand for additional boat slips in marinas.

POLICIES:

- a. A priority shall be placed on the development of boat slip capacity in the City, as well as in existing marinas.
- b. Marinas shall be encouraged to include both wet slip and dry slip capacity.
- c. Priority for new slips will be given to the expansion of existing marinas and new marinas, which would minimize travel distance to the Ponce de Leon Inlet.
- d. The City shall consider utilizing the dock facility slip allocation identified in the Manatee Protection Plan as a tool to stimulate high-quality, employment intensive waterfront development.

Map VIII-1 Coastal High Hazard Areas



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OBJECTIVE:

3. Boat Ramps and Fishing Piers. Implement a program to provide for public boat ramp and fishing pier facilities to accommodate the needs of the residents of New Smyrna Beach for water-oriented access.

POLICIES:

- a. The City shall provide one (1) boat ramp for public utilization for each 12,500 municipal population.
- b. Fishing piers, catwalks, and jetties shall be provided at a rate of 800 lineal feet per 25,000 population.

GOAL 7:

Public services and facilities shall be adequate and available to serve both current and future residents.

OBJECTIVE:

1. The Land Development Regulations shall ensure that the provision of roads, recreation facilities, potable water, sanitary sewer, drainage and solid waste facilities and services required to maintain the adopted level-of-service standards shall be consistent and phased with the level of development proposed in the Future Land Use Element.

POLICIES:

- a. Development or redevelopment within the coastal areas shall have public services and facilities available concurrent with the impacts of development.
- b. The City will maintain the level-of-service standards adopted in this and other elements of this plan.

OBJECTIVE:

2. Ensure through the *Land Development Regulations* and Capital Improvements Element of the *Comprehensive Plan* the adopted level-of-service standards.

POLICIES:

- a. Establish a level-of-service consistent with the Transportation Element for roadway facilities within the municipal coastal area.
- b. Establish a level-of-service "D" for the purpose of calculating the capacity of road facilities to clear evacuees within the hurricane evacuation time.

OBJECTIVE:

3. Ensure - through the *Land Development Regulations*, Capital Improvements Element, and development review - that sufficient water resources are available to meet the potable water needs of the New Smyrna Beach population.

POLICIES:

- a. Development in prime aquifer water recharge areas shall be consistent with the goal of protecting water resources.
- b. Future development will be required to hook up to centralized potable water systems.
- c. Adequate capacity will be required for potable water storage, treatment, and distribution facilities to meet the demand of projected growth and development.
- d. Adopt and enforce interlocal agreements among and between local governments to identify future service areas and potable water providers.
- e. Continue to assist Volusia County in developing and refining land development regulations to protect potable water wellfields from contamination (a wellfield protection ordinance, for example).
- f. Locate future wellfields west of the ultimate urban boundary line further inland near the center of the county, to protect against saltwater intrusion.

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- g. Potable water withdrawal from areas east of the ultimate urban boundary should be consistent with the requirements of FDEP and SJRWMD and pumped at an appropriate volume and rate to avoid saltwater intrusion and decreased aquifer levels.
- h. The level-of-service for potable water within the coastal area shall be consistent with the water and sewer sub-element of the *Comprehensive Plan*.
- i. Continue efforts to assess and upgrade water transmission facilities in areas experiencing low-pressure conditions, to ensure that an adequate water supply will exist during maximum daily demand periods to meet future growth.

OBJECTIVE:

- 4. Wastewater. Provide sufficient treatment capacity and effluent disposal methods to meet the demand projected by growth and development, consistent with adopted water quality standards.

POLICIES:

- a. Require future development or redevelopment to connect to wastewater treatment facilities.
- b. Require existing and future wastewater treatment facilities to meet or exceed adopted FDEP water quality standards.
- c. Adopt interlocal agreements among and between local governments to identify future wastewater service areas and collection and treatment responsibility.
- d. The level-of-service for the provision of wastewater treatment in the coastal area shall be consistent with the water and sewer sub-element of the *Comprehensive Plan*.

OBJECTIVE:

- 5. Stormwater Management. The Stormwater Management Master Plan was last revised in 2004. All stormwater system improvements and repairs should be in compliance with this approved plan. The City will continue to monitor and implement this plan.

POLICIES:

- a. For new development, prohibit the untreated direct discharge of stormwater runoff into Class II waters.
- b. The minimum level-of-service standard for stormwater runoff in the coastal area shall be as follows:
 - i. The first inch of rainfall shall be retained on site; or
 - ii. In cases where the local government determines that soil and/or groundwater table conditions are not conducive to such retention, the first inch shall be detained and gradually released over a period of 24 to 72 hours; or
 - iii. In the case of wet retention, standards approved by the local government shall be applied.
- c. Discharge from stormwater facilities shall not result in violation of adopted water quality standards.
- d. Stormwater management systems shall be designed to remove oil and suspended solids prior to discharge.

OBJECTIVE:

- 6. Solid Waste. Ensure through monitoring programs that solid waste facilities do not result in violation of adopted standards or degradation of coastal resources.

POLICIES:

- a. The level-of-service standard for solid waste shall be as identified within the Solid Waste sub-element.
- b. The City shall continue to investigate and review the available technology for resource recovery and other alternatives to solid waste management, consistent with the protection and conservation of environmental resources and water quality.

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OBJECTIVE:

7. Public Buildings. Ensure through capital improvement planning and site selection that public buildings meet the needs of population growth, and are constructed to reduce the potential for damage from storms or flooding.

POLICIES:

- a. Cooperate with the Volusia County School Board in identifying future sites for school facilities within New Smyrna Beach.
- b. Locate future school facilities outside of areas susceptible to hurricane storm damage or areas prone to flooding, or as consistent with Chapter 235, *Florida Statutes*, and Rule 7A-2, *Florida Administrative Code*, regarding floodplain and school building requirements.
- c. Cooperate with the Volusia County School Board and the American Red Cross in identifying and designating school facilities as hurricane evacuation and emergency shelters.
- d. Future school facilities should be designed to be used as hurricane evacuation and emergency shelters.
- e. Provide for fire and law enforcement facilities commensurate with population growth and development in the coastal area.
- f. Construct new fire and law enforcement facilities to reduce the potential for damage due to a hurricane or flooding.
- g. Continue to update procedures as part of the New Smyrna Beach Emergency Preparedness Plan for emergency fire and police protection and response.

GOAL 8:

Protect the waterway resources, specifically manatees, by regulating boating impacts.

OBJECTIVE:

1. To execute the Volusia County Manatee Protection Plan, as amended, incorporated by reference herein, including municipal options for slip aggregation, the establishment of a manatee conservation trust fund, and other measures designed to protect manatees, while allowing compatible boat facility siting.

POLICIES:

- a. The maximum number of powerboat slips to be constructed, based upon data and research compiled in the *Volusia County Manatee Protection Plan*, together with shoreline measurements, inventory of existing slips, City level-of-service, and other data, in the areas outlined in Map VIII-2 are as follows:
 - i. Section A – Protected Areas – slips are prohibited;
 - ii. Section B – Intermediate Areas – slips are prohibited;
 - iii. Section C – Case-by-Case Review Areas – 1,204 slips north of the State Road 44 / North Causeway Bridge and 276 south of the State Road A1A / South Causeway Bridge, for a total of 1,480 slips; and
 - iv. Section D – Slip-to-Shoreline Areas – no limitation to the number of slips.
- b. Waterfront single-family residential lots will not be denied their riparian rights to construct a dock for two (2) slips per lot. If single-family residential lots are subdivided subsequent to the approval of the *Volusia County Manatee Protection Plan*, each additional lot shall represent one (1) powerboat slip to be deducted from the total.
- c. All marina development must be consistent with the *Volusia County Manatee Protection Plan*.
- d. Where the opportunity exists, the sharing of multi-slip facilities and aggregation of slips shall be encouraged during development and redevelopment, including single-family residences.

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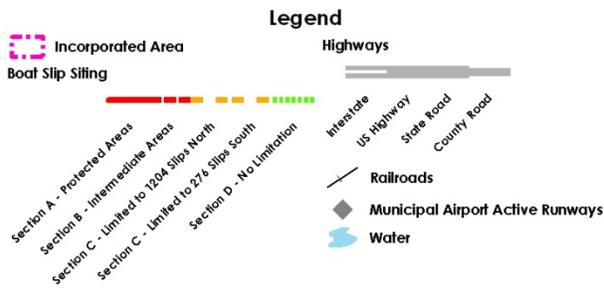
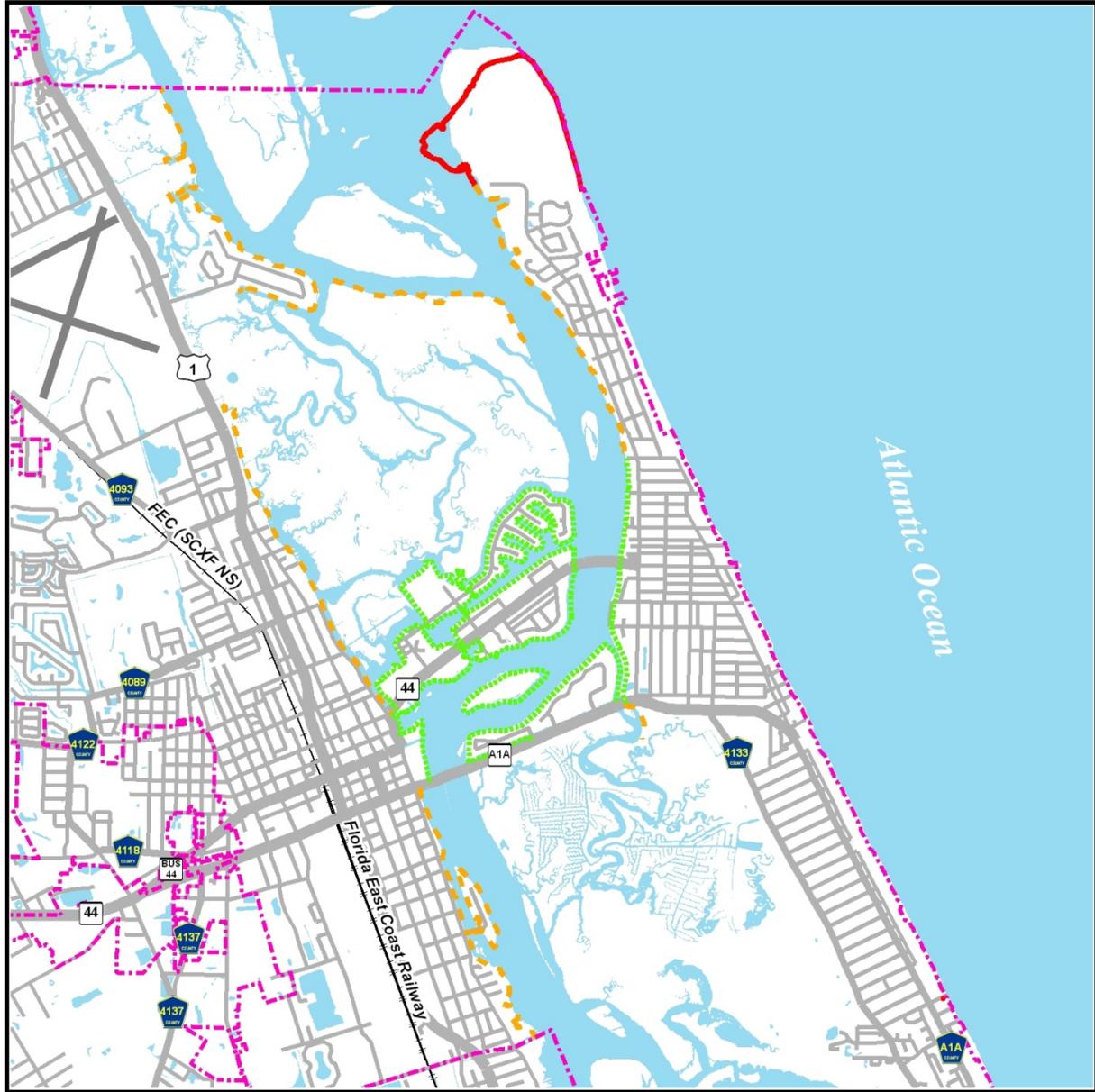
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- e. The data and analysis used to determine the allowable densities of powerboat slips shall be monitored by the re-evaluation of data on at least a five (5) year basis. This re-evaluation can be in association with or concurrent with the re-evaluation of the *Volusia County Manatee Protection Plan*.
- f. The City shall consider utilizing the dock facility slip allocation identified in the Manatee Protection Plan as a tool to stimulate high-quality, employment intensive waterfront development.

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Map VIII-2 Boat Slip Siting



Source: Volusia County Growth and Resource Management and Volusia County Property Appraiser's Office
 The data contained in this map is provided "as is" without warranty or any representation of accuracy, timeliness, or completeness. The burden for determining accuracy, timeliness, completeness, merchantability, and fitness for use rests solely with the requester. The City of New Smyrna Beach makes no warranties, expressed or implied, as to the appropriate use of the data contained in this map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the data, including the fact that the data is dynamic and is in a constant state of maintenance, correction, and updates.
 June 23, 2010

IX. CONSERVATION ELEMENT

PURPOSE

The purpose of this element is to promote the conservation, use, and protection of natural resources within New Smyrna Beach.

STANDARDS

As defined by Rule 9J-5, *Florida Administrative Code*, conservation uses are "... activities within land areas designated for the purpose of conserving or protecting natural resources or environmental quality, including areas designated for such purposes as flood control, protection of quality or quantity of groundwater or surface water, floodplain management, fisheries management, or protection of vegetative communities or wildlife habitats."

The *Natural Resources Summary Report for the Volusia County Coastal Management Element* prepared by Kevin L. Erwin Consulting Ecologist, Inc. (September 1988) is the primary source for the natural resource inventory and analysis. The study area, including the estuaries, was mapped using the Florida Land Use Cover and Forms Classification System (FLUCFCS) Level III criteria (Florida Department of Transportation, 1985).

NATURAL RESOURCES INVENTORY AND ANALYSIS

Although the various habitats are discussed individually, they should not be considered as separate entities. Each of the habitats represented within the complex mosaic of natural systems within each ecosystem are interdependent. The movement of organisms and materials between different types of habitats means that terrestrial and marine communities are not defined simply by their physical boundaries.

SURFACE WATER

Water habitat is comprised largely of the Intracoastal Waterway (i.e., the Indian River), bays, canals, marshes, and coastal creeks. In the *Natural Resources Summary Report* (Erwin, 1988), Volusia County estuaries were considered as one (1) entity extending from the Volusia County/Flagler County line to the Volusia County/Brevard County line and encompassing all water and water bodies, not including land forms and emergent wetlands connected with either the mainland (west) and barrier island (east) shorelines. Further analysis, including quality of rivers, bays and lakes, as classified by Florida Department of Environmental Protection (FDEP), can be found in the Coastal Management Element and the Volusia County Conservation Element.

AIR QUALITY

Air quality can generally be defined by the presence of specific pollutants in certain concentrations. The pollutants and concentrations can be measured and compared with the statewide Ambient Air Quality Standards established by the FDEP to determine the extent of air pollution in any given location (see table on following page).

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FDEP Ambient Air Quality Standards (micrograms per cubic meter)

Pollutant	Average Annual Allowable	3 Hour Maximum	24 Hour Maximum ¹
Particulates	60	None Given	150
Sulfur Dioxide	60	1,300	260
Nitrogen Oxide	100	160	None Given

Note: ¹These standards cannot be exceeded more than once per year.

Based on these standards, no violations have occurred in NewSmyrnaBeach; however, it is anticipated that air quality problems will occur as traffic increases on major arterial roadways within the City. At this time, it appears that motor vehicles are the only major source of air pollution in NewSmyrnaBeach.

FLOODPLAINS

The majority of NewSmyrnaBeach is located in the 100 year floodplain, as identified on the 100 Year Flood Map appearing in the Future Land Use Element. These areas are based on the Flood Insurance Rate Map (FIRM).

KNOWN SOURCES OF COMMERCIALLY VALUABLE MINERALS

There are no known sources of commercially valuable minerals within the NewSmyrnaBeach planning area. Although minerals certainly exist, none have been identified in sufficient quantities to make commercial mining worthwhile.

VEGETATION, FISH AND WILDLIFE

Natural vegetation within the planning area includes:

- Palmetto prairie (slash pine, cabbage palm, live oak, dahoon holly, scrub live oak, wax myrtle, saw palmetto)
- Coastal scrub (cabbage palm, sand live oak, buttonwood, saw palmetto, cordgrass, spanish bayonet, buckthorn, wax myrtle)
- Longleaf pine/xeric oak (longleaf pine, wiregrass, turkey oak, paupaw, runner oak)
- Sand pine (chapman oak, myrtle oak, sand live oak, turkey oak, saw palmetto, common prickly pear)
- Wet pine flatwood (slash pine, bald cypress, wax myrtle, goldenrod)
- Oak/pine/hickory (laurel oak, cabbage palm southern magnolia, red maple, sweetgum, cedar, slash pine, longleaf pine, pignut hickory, water oak)
- Cabbage palm (cabbage palm, live oak, red mulberry, wax myrtle, red maple)
- Embayments (turtle grass, shoalweed, red mangrove, white mangrove, black mangrove)
- Stream swamp (laurel oak, bald cypress, sweetgum, tupelo, water hickory, dahoon holly)
- Mixed wetland hardwoods (cabbage palm, buckthorn, swamp fern, Florida elm)
- Cypress (bald cypress, loblolly bay, water tupelo, slash pine, willow elm)
- Cypress/pine/cabbage palm, cypress dominant overstory (slash pine, saw palmetto, saltbush)
- Freshwater marsh (sawgrass, iris, cattail, maidenweed, duckweed)
- Saltwater marsh (red mangrove, sand cordgrass, marsh hay, false willow)
- Wet prairie, fresh (sawgrass, St. Johns wort, wax myrtle, maidencane)

The *Natural Resources Summary Report* (Erwin, 1988) summarizes all the plant species for each of the vegetative communities within the VolusiaCounty coastal planning area.

The Florida Fish and Wildlife Conservation Commission's *Florida's Endangered Species, Threatened Species, and Species of Special Concern, July 2009* indicates those species listed by the State of Florida and the US Fish and Wildlife Service as threatened, endangered, or species of special concern. Only two plants on the FWCC list are found within the planning area: American chaffseed (*Schwalbea Americana*) and Rugel's pawpaw (*Deeringothamnusrugelii*).

Natural vegetation serves several important functions. Among them are:

- Bird and animal habitats
- Air purification
- Noise reduction
- Retardation of runoff, and retention of soil moisture
- Prevention of shoreline erosion
- Buffering of storm surges
- Prevention of wind erosion
- Utilization of excess nutrients
- Filtration of sediments and pollutants which may endanger water quality in adjacent areas

The importance of preventing unnecessary ground clearing cannot be overstressed, particularly in shoreline areas and on slopes. Lot clearing not associated with permitted development activities should also be avoided as it depletes the environmental benefits provided by the vegetation and dislocates animals using the land as habitat for underdetermined amounts of time. Retention of as much natural vegetation as possible will aid considerably in protecting water quality, marine life, and living conditions in the area.

The Indian River and the Atlantic Ocean provide opportunity for commercial and sport fishing and shellfish harvesting. The most prevalent types of fish caught in the area include mullet, sea trout, grouper, whiting, and bass. Shellfish include blue crabs, oysters, clams, and shrimp. A complete listing of dominant species is provided in the Coastal Management Element, which also identifies marine habitats below the mean high tide line.

The *Natural Resources Summary Report* (Erwin, 1988) presents a list of wildlife species that are known to be, or suspected to be, present in the planning area. Table IX-1 presents a list of wildlife species in the New Smyrna Beach planning area that are considered to be threatened, endangered or species of special concern. A list of dominant species is included in the Coastal Management Element.

KNOWN SOIL EROSION PROBLEMS

No areas of significant inland soil erosion have been identified. However, several areas along the rivers, coastal creeks, and drainage canals have banks of sufficient slope conducive to erosion under certain weather conditions. Therefore, vegetation on these banks must be maintained.

GROUNDWATER RECHARGE AREAS

These are areas suited for capture and infiltration of precipitation and stormwater runoff into underground limestone formations that replenish groundwater resources. There are two (2) basic types of recharge areas:

PRIMARY

Primary areas are used as potable water sources, which recharge deep groundwater aquifers often. These primary recharge areas generally contain well-drained, sandy soils; a thick unsaturated zone having a low water table; little or no confining layers to impede leakage; and adequate storage capacity available in the artesian system.

SECONDARY

Areas that are capable of groundwater recharge but, with hydrologic modifications, can be induced to perform more efficiently. These areas generally occur five (5) to ten (10) feet below the ground surface, and recharge the surficial aquifer via percolation of rainfall. Consequently, this aquifer does not supply large quantities of water; and what water it does supply is not of adequate quality for drinking.

There are no primary recharge areas in the NewSmyrnaBeach planning area. However, there are some secondary recharge areas that recharge the surficial aquifer, which provides some prevention of lateral saltwater intrusion.

Areas of NewSmyrnaBeach in which the surficial aquifer occurs include the Atlantic Coastal Ridge on the

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beachside and the US Highway 1 / Florida East Coast Railway area on the mainland. The existing land uses in this area are a mixture of residential and commercial, with some industrial uses in the railroad corridor. The impact these land uses have on the aquifer's recharge area is primarily that of stormwater runoff from streets, parking lots, sidewalks, etc. However, the natural function of the recharge areas has not been adversely impacted; and the natural filtering ability of the soils tends to mitigate any major impact from oil, grease, or other pollutants contained in the runoff.

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Table IX-1 Wildlife Species within the Planning Area Listed as Threatened, Endangered, or Species of Special Concern¹

Common Name	Scientific Name
FISH	
shortnose sturgeon	Acipenser brevirostrum
Atlantic sturgeon	Acipenser oxyrinchus
bluenose shiner	pteronotropis welaka
rivulus	Rivulus marmoratus
AMPHIBIANS	
Gopher frog	Rana capito
REPTILES	
American alligator	Alligator mississippiensis
Atlantic loggerhead seaturtle	Caretta caretta
Green seaturtle	Chelonia mydas
leatherback seaturtle	Dermochelys coriacea
Eastern indigo snake	Drymarchon corais couperi
hawksbill seaturtle	Eretmochelys imbricata
Gopher tortoise	Gopherus polyphemus
Kemp's ridley seaturtle	Lepidochelys kempii
Atlantic salt marsh water snake	Nerodia clarkii taeniata
Florida pine snake	Pituophis melanoleucus mugitus
BIRDS	
Florida scrub jay	Aphelocoma coerulescens
limpkin	Aramus guarauna
piping plover	Charadrius melodus
little blue heron	Egretta caerulea
reddish egret	Egretta rufescens
snowy egret	Egretta thula
tricolored heron	Egretta tricolor
white ibis	Eudocimus albus
Southeastern American kestrel	Falco sparverius paulus
Florida sandhill crane	Grus canadensis pratensis
American oystercatcher	Haematopus palliatus
woodstork	Mycteria americana
osprey	Pandion haliaetus
brown pelican	Pelecanus occidentalis
roseate spoonbill	Platalea ajaja
black skimmer	Rynchops niger
least tern	Sterna antillarum
MAMMALS	
Southeastern beach mouse	Peromyscus polionotus niveiventris
Florida mouse	Podomys floridanus
Florida manatee (West Indian manatee)	Trichechus manatus latirostris
Florida black bear	Ursus americanus floridanus
Florida panther	Felis concolor coryi

Note: ¹Listed by Florida Fish and Wildlife Conservation Commission *Florida's Endangered Species, Threatened Species, and Species of Special Concern, July 2009*

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STORMWATER MANAGEMENT

The historical practice of collecting and discharging stormwater runoff to surface water bodies and channeling natural drainage corridors to remove excess rainfall has created severe environmental problems. These problems include, but are not limited to:

- Saltwater intrusion
- Diminished water quality
- Flooding
- Loss of valuable recharge to groundwater supplies
- Erosion of topsoil
- Sedimentation of receiving water bodies
- Lowering of the water table

The City's existing Stormwater Management and Conservation Ordinance requires that post-development stormwater runoff rates and volumes must approximate pre-development conditions; and that precautions must be taken to prevent erosion, sedimentation, and flooding. In particular, the ordinance requires that:

1. On-site retention shall be provided for no less than one and one-half (1½) inch of runoff from roofed, paved, and other impervious surfaces caused by or resulting from the project.
2. The peak discharge rate and total runoff volume leaving the developed or redeveloped site for a 25 year storm of 24 hours duration shall be limited to 110 percent of the pre-development or pre-redeveloped discharge rate and total discharge volume.
3. Stormwater runoff shall be subjected to "best management" practices prior to discharge into natural or artificial drainage systems. Best management shall mean a practice or combination of practices determined by the City Engineer to be the most effective practical means of preventing or limiting the pollution generated by the project to a level compatible with Florida water quality standards found in Rule 17-3, *Florida Administrative Code*.
4. Runoff computation shall be based on the most critical situation and conform to acceptable engineering practices using rainfall data and other local information applicable to the affected area.
5. No site development or alteration shall cause siltation of wetlands, pollution of downstream wetlands, reduction in the natural retention or filtering capabilities of wetlands, or reduction in the elevation of the existing water table.
6. No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.
7. Site development or alteration activities shall include construction or installation of such water retention facilities, settling structures, and/or flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.
8. Design of water retention or detention structures and flow attenuation devices shall be subject to the approval of the City Engineer.
9. In subdivisions and on parcels where stormwater retention meeting current standards is not provided, filling of low lots shall not be allowed within required yard areas except that a minimum amount of fill may be allowed for:
 - a. A driveway and up to five (5) feet on either side of the driveway; and
 - b. No more than six (6) inches of fill may be allowed within the required yard areas provided an adequate drainage scheme is constructed to not allow stormwater onto adjacent lots. Construction techniques allowed to elevate the first floor of a structure include use of stem wall and pier foundations.

KNOWN POLLUTION PROBLEMS

The largest percentage of pollutants, which enter surface waters, are introduced by stormwater runoff.

The Volusia County 208 Study, published in 1980, states: "Urban stormwater runoff (is) a significant source of pollutants in the Indian River," and "in particular, the accumulation of sediment deposits was identified as having a significant detrimental effect on water quality due to the flushing and re-suspension of bottom deposits during wet weather flows."

Urban land use pollution sources in New Smyrna Beach include subdivision, commercial, and industrial developments close to central business districts, and developments adjacent to commercial centers along main arterial roads. The most significant constituents of urban pollution found in surface waters are petroleum hydrocarbons (grease, oil), which are transported in stormwater runoff. Metals are also significant constituents of urban pollution, and are known to cause toxicity. Ninety percent (90%) of metals found in the City's surface waters are transportation-related.

Aside from these water quality problems, there are no known pollution problems of major concern in the New Smyrna Beach planning area. The potential for conservation and protection of the City's surface water resources is discussed in the Goals, Objectives, and Policies section at the end of this element.

POTABLE WATER

Sources of information presented in this section include the Utilities Commission, City of New Smyrna Beach, and the *City of New Smyrna Beach Code of Ordinances*.

EXISTING WATER NEEDS AND SOURCES

CURRENT DEMAND AND LEVEL-OF-SERVICE

According to the Utilities Commission, City of New Smyrna Beach, current peak-day demand at the water treatment plant is 7.12 million gallons per day (mgd), serving a population of 31,856, based on the population projections from the 2008 *St. Johns River Water Management District Revised Population and Demand Projections for Draft Water Supply Assessment*. Average day demand is 5.27 mgd. This information is based on the latest available data from the Utilities Commission, City of New Smyrna Beach.

EXISTING WATER SUPPLY

Currently, the City has sufficient water supply through the Consumptive Use Permit (CUP) #8747, issued by the St. Johns River Water Management District (SJRWMD) on January 10, 2006, and facilities to meet projected demand through 2020. The Utilities Commission has identified a number of strategies to meet this demand including water conservation, re-use, and development of alternative water supply. It annually reviews its facilities and needs and coordinates with the SJRWMD in the regular update of the District Water Supply Plan. The Utilities Commission updates its five (5) year capital improvement plan on an annual basis and changes to that plan are incorporated into the Capital Improvements Element of this *Comprehensive Plan*.

Over the years, New Smyrna Beach has had to continue seeking water supplies farther inland due to saltwater intrusion in its wells. In fact, the City's original Smith Street wellfield is no longer being used, due to this intrusion. Consequently, the City now operates the following three (3) wellfields:

1. water treatment plant about, three (3) miles inland
2. Samsula, approximately seven (7) miles farther west; and
3. Intersection of State Road 44 and Pioneer Trail (County Road 4118)

The water treatment plant wellfield currently has seven (7) wells, providing 3,230 gallons per minute (gpm). The Samsula wellfield has six (6) wells, providing 1,850 gpm. The State Road 44 / Pioneer Trail wellfield has six (6) wells, providing 2,770 gpm. Each of the wells at all sites is 183 to 364 feet deep, drawing water from the Floridan Aquifer. Each well also has a pump house and a fence surrounding it. Ten (10) of the wells have auxiliary engines for emergency pumping in the case of power failure. According to the Utilities Commission, City of New Smyrna Beach, the cone of influence for saltwater intrusion has been reduced at the water treatment plant wellfield due to increased use of the Samsula wellfield and less pumping at the water treatment plant wellfield. Total permitted peak capacity for all three (3) wellfields is 10.5 mgd; the average capacity is 5.00 mgd.

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FUTURE WATER NEEDS AND SOURCES

FUTURE DEMAND AND LEVEL-OF-SERVICE

The Utilities Commission, City of New Smyrna Beach increased the water treatment plant peak-flow capacity from 6.2 to 10.38 mgd in the early 1990's. Improvements associated with this increase included: aeration facilities, yard piping, site work, lime softening unit, sludge piping, filtration expansion, fluoridation modification, high-service pumping station, 2.0 mg ground storage reservoir, sludge handling facilities, and electrical/instrumentation systems. The primary constraint limiting the groundwater withdrawals are defined in the Consumptive Use Permit (CUP) #8747, issued by the St. Johns River Water Management District (SJRWMD) on January 10, 2006, which will expire on February 9, 2020. The CUP permits increasing annual average withdrawals up to the year 2012, when it plateaus at 8.33 mgd until the year 2020 and increasing maximum daily average withdrawals up to the year 2018, when it plateaus at 12.75 mgd. Therefore, the wellfields are permitted to withdraw enough water to meet the permitted CUP allowance of 8.33 mgd through the year 2020. However, current plant capacity can only be met by the well output and raw water transmission limitations, which limit maximum capacity to 9.0 mgd.

Table IX-3 Potable Water Wellfields Capacity Projections and Requirements

Year	Population	Average Daily Demand (mgd)	Peak Day Demand (mgd)	Average Daily Flow Per Account (gd)	Existing Wellfields Capacity (mgd)	Surplus / (Deficit) (mgd)
2010	46,958	4.68	7.59	334	10.50	5.82
2015	52,449	5.71	7.94	334	10.50	4.79
2020	58,640	6.38	8.40	334	10.50	4.12
2025	64,986	7.07	8.90	334	10.50	3.43

Note: Population projections from GIS Associates, Inc., 2010

Source: Utilities Commission, City of New Smyrna Beach

FUTURE WATER SUPPLY

Many of the improvements that will be required for meeting future potable water needs (see Table IX-3) in the planning period are contained in the *Utilities Commission, City of New Smyrna Beach Water Plan* (Quentin L. Hampton Associates, 2005). This plan will be continually monitored and modified to provide for new and additional equipment and facilities as demands dictate during the planning increments.

INDUSTRIAL AND HAZARDOUS WASTES

Brownfields are defined by the Florida Department of Environmental Protection (FDEP) as abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. The primary goals of Florida's Brownfields Redevelopment Act (Ch. 97-277, Laws of Florida, codified at ss. 376.77-.85, F.S.) are to reduce health and environmental hazards on existing commercial and industrial sites that are abandoned or underused due to these hazards and create financial and regulatory incentives to encourage voluntary cleanup and redevelopment of sites. After a local municipality in Florida designates an area as a brownfield to encourage redevelopment and focus upon revitalization, a resolution is passed and property owners within that designated area optionally may remediate or redevelop their property. The Community Redevelopment Agency (CRA) has had the State designation of "Brownfield" applied to the entire CRA District. Executed Brownfield Site Rehabilitation Agreements (BSRAs) are voluntary cleanup agreements between a responsible party and FDEP or a delegated local pollution control program. This agreement provides the FDEP and the public assurance that site rehabilitation will be conducted in accordance with the statute and the Brownfields Cleanup Criteria rule (Ch. 62-785), and provides liability protection for the responsible person. The agreement contains various commitments by the responsible person, including milestones for completion of site rehabilitation tasks and submittal of technical reports and plans as agreed to by the responsible person and the DEP. It also contains a commitment by the FDEP to review technical reports according to an agreed upon schedule. At this time, no such agreements are in place for any properties within the City. However, in the Summer of 2009, the CRA was awarded a grant through the Federal Environmental Protection Agency's (EPA) "Brownfields 2009

Assessment Grant program in the amount of \$400,000. \$200,000 of this is to be applied to assessment and cleanup planning for hazardous waste sites and \$200,000 is to be applied to sites contaminated with petroleum. Community-wide hazardous substances and petroleum grant funds will be used to conduct 10 Phase I and 5 Phase II environmental site assessments. Grant funds also will be used to support community outreach activities. These activities are to be completed by Summer 2011.

WATER QUALITY AND CONSERVATION / PROTECTION OF RESOURCES

WATER QUALITY

All potable water produced by the Utilities Commission, City of New Smyrna Beach facilities is (and will continue to be) in compliance with both federal and state safe drinking water standards and regulations. The Glencoe Road water treatment plant has received numerous awards, including that of "Best Operated Water Plant, Class A Category, in the St. Johns River Water Management District" (1980, 1981, 1984 and 1986), awarded by the Florida Department of Environmental Protection, and the American Water Works Association's "Award of Recognition for Best Class A/B Water Plant in the State of Florida" (1985 and 1986).

The plant is well maintained, and structures, components, and equipment are in good condition. Daily operation and maintenance and preventive maintenance are performed with the assistance of computerized schedules, with preventive maintenance accounting for 12% of the total O&M budget for Fiscal Year 2009. In addition, regularly scheduled training sessions are held for plant operators and maintenance technicians.

WATER USE CONSERVATION

The Utilities Commission, City of New Smyrna Beach sees water conservation and re-use as important components of its alternative water supply. Through public information on water saving devices and lawn irrigation rules, customers have cut back on wasteful water use. Through expansion of water re-use facilities, non-potable water can be used for irrigation, thus cutting back on the need for potable water. When conditions require emergency conservation, system pressure is lowered as a conservation measure, and the Utilities Commission, City of New Smyrna Beach cooperates with all conservation policies of the SJRWMD. Additionally, the SJRWMD does have conservation regulations that limit lawn watering to one (1) time per week during the lowest evaporation times of the day.

PROTECTION OF RESOURCES

As previously noted, all of the City's potable water supply is obtained from groundwater sources in Volusia County farther inland. The reason is that much of the planning area is underlain by a mostly impervious "aquitard" which prevents little or no recharge of the Floridan Aquifer from which potable water is obtained. However, there are some recharge areas located in the coastal ridges which do not supply large quantities of water, but which serve to prevent lateral saltwater intrusion into inland groundwater reservoirs. These recharge areas should be protected. Ideally, they should be left in their natural state; and natural vegetation should be maintained to the maximum extent possible.

Since land development is the main threat to these recharge areas, regulation of land use by zoning can control such development. When development does occur, drainage and surface runoff can be controlled through compliance with stormwater management ordinances. While the City has no specific regulations for maintaining and preserving recharge areas, it does have a stormwater management ordinance and zoning regulations (including planned unit development and landscaping regulations), which accomplish essentially the same purpose.

WASTEWATER REUSE PROGRAM

The Utilities Commission, City of New Smyrna Beach, is responsible for the operation of the reclaimed water distribution system within the service area. The benefits of the reclaimed water program include: 1) reduction of outfall to the Indian River Lagoon and 2) reduction of potable water usage for irrigation.

All of the reclaimed water originates as treated effluent from the New Smyrna Beach water Reclamation

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facility (WRF), which is permitted as a Class A advanced wastewater treatment facility. The WRF is located on 600 acres immediately west of Interstate 95 and north of State Road 44, serving both the beachside and mainland. The 7.0 mgd treatment process is summarized as “advanced wastewater treatment using a five (5) stage Bardenpho system”. The current FDEP operating permit was issued June 1, 2009.

Per the Goals, Objectives and Policies included in the Infrastructure Element of this *Comprehensive Plan*, the discharge of secondary treated effluent into the Indian River is to be eliminated by 2015. This will be accomplished by continuing to expand the wastewater reuse program for irrigation throughout the service area. Large developments, golf courses, roadway medians, and City parks are now irrigated with reuse water, rather than drawing water from the aquifer. This system results in the conservation of potable water while assisting the recharge of the aquifer.

GOAL, OBJECTIVES, AND POLICIES

GOAL:

To protect, conserve, restore, maintain, and properly manage the natural resources of New Smyrna Beach. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs (and the City's ability to meet those needs) become better established.

OBJECTIVE:

1. To maintain and enhance the quality of the environment through proper land development practices on an ongoing basis.

POLICIES:

- a. Utilize the *Land Development Regulations*, in conjunction with this element, to encourage preservation of those areas that have limitations or are environmentally sensitive, such as wetlands, flood hazard areas, or areas with severe soil limitations.
- b. Continue to support and enforce existing subdivision regulations, zoning ordinances, and the building permit process to protect natural resources.
- c. Continue to encourage soil conservation/preservation and prevention of erosion by enforcement of the Stormwater Management and Conservation Ordinance.
- d. Mandate proper disposal of hazardous wastes within the planning area to protect the area's natural resources.
- e. Continue to protect designated environmentally sensitive lands identified in the Future Land Use Element.
- f. Pursue and encourage county, state, and federal acquisition of key environmentally sensitive areas.
- g. Utilize its development regulations to require all new developments to provide open space.
- h. Provide for the protection of natural resources identified in the Recreation and Open Space Element through the implementation of policies contained in that element.
- i. On a parcel-by-parcel basis, prepare an environmental assessment of the wetland resources and determine specific designations for areas of environmental concern. Once the environmental protection areas and their associated uplands are determined, the approximate boundaries of the conservation designation on the Future Land Use Map shall be administratively adjusted to accurately depict the environmental areas and the upland buffers. The adjustment shall be completed without requiring a Future Land Use Map amendment. In the event that the area to be changed is greater than five (5) acres in size, Planning and Zoning Board approval

shall be required.

OBJECTIVE:

2. To maintain the current high levels of air quality so as not to drop below minimum air quality standards established by United States Environmental Protection Agency and FDEP.

POLICIES:

- a. Continue to respond to the goals and objectives as set forth in state and federal regulations pertaining to clean air and water resources.
- b. Encourage, through the Future Land Use Element and the *Land Development Regulations*, the type and density of development that is consistent with proper maintenance of clean air and water.
- c. Use the Transportation and Capital Improvements Elements to ensure that alternative methods of transportation are provided to minimize traffic congestion and resultant pollution.
- d. Continue to promote conservation of water sources in accordance with the plans and regulations of the SJRWMD.

OBJECTIVE:

3. To continue to enforce the *Land Development Regulations* that prevent the further degeneration of the ambient water quality of surface water resources.

POLICIES:

- a. Utilize the *Land Development Regulations* to encourage the use of natural drainage and storage areas, as well as maintenance and preservation of existing vegetation, in order to filter stormwater runoff and help preserve water quality in the planning area.
- b. Continue to enforce the Stormwater Management and Conservation Ordinance, which controls the design of stormwater systems in order to protect the quality and quantity of water that flows into estuarine or oceanic waters. Such flows include coastal creeks and rivers, as well as stormwater runoff and drainage.
- c. Monitor the effectiveness of the *Land Development Regulations* that were adopted to preserve water quality and update as necessary.

OBJECTIVE:

4. To continue to protect and conserve fisheries, natural areas, wildlife and marine life, and to direct growth away from these areas.

POLICIES:

- a. Support the conservation, appropriate use, and protection of the natural functions of existing soils, fisheries, wildlife, wildlife habitats, marine habitats, rivers, bays, floodplains, harbors, and wetlands (including estuarial marshes) through the enforcement of land use regulations. The measure of this policy shall be the number of encroachments into conservation areas. At a minimum, the *Land Development Regulations* will require:
 - i. an environmental impact analysis for environmentally sensitive sites
 - ii. pre-construction and post-construction erosion controls
 - iii. the minimum open space requirements for the City are as follows:
 1. Conservation - 70 percent
 2. Single-family, Multifamily, and Mobile Home Residential - 40 percent
 3. Commercial - 25 percent
 4. Industrial - 25 percent

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All development adjacent to and surrounding wetlands shall require a 25-foot wetlands buffer; and

- iv. The provisions outlined above are intended to ensure that development will be clustered away from environmentally sensitive portions of the development site, to provide for on-site protection of specimen trees and the habitat of endangered/threatened species.
- b. Promote and encourage public awareness of, and private efforts toward, protection and conservation of natural areas within the planning area by maintaining and making available to the public, a mapping inventory of ecological communities by type.
- c. Coordinate with other government agencies to encourage protection and preservation of sand dunes by promoting construction of boardwalks for pedestrian access to the beach, and by replanting disturbed areas.
- d. Restrict activities known to adversely affect the survival of threatened and endangered wildlife through enforcement of the *Land Development Regulations*.

OBJECTIVE:

5. To provide for a continuing, coordinated intergovernmental management approach to protecting and properly utilizing natural resources, including wildlife and marine habitats, water, and natural vegetation.

POLICIES:

- a. Coordinate with appropriate governmental entities to protect environmentally sensitive lands, including those that extend into adjacent jurisdictions.
- b. Continue active participation in the Federal Flood Insurance program.
- c. Identify and fill gaps in existing resource management processes.
- d. Periodically review and update policies and procedures involving management, protection, and utilization of natural resources, including amendments to the Conservation Element of the *Comprehensive Plan*.

OBJECTIVE:

6. To protect, preserve, and maintain as much natural vegetation as possible to protect and maintain water quality, marine life, wildlife, aesthetics, and other valuable functions served by vegetative ground cover, leading to preservation and enhancement of the quality of life in the planning area.

POLICIES:

- a. Utilize the site plan review process contained in the *Land Development Regulations* as a tool for preservation of natural vegetation.
- b. Preserve, wherever possible, a minimum of fifty percent (50%) of the existing undisturbed native vegetation through the application of cluster development, open space areas, buffer zones, and landscape zones. The City promotes the xeriscape approach to natural vegetation retention. Development will be clustered in order to promote the preservation of specimen trees such as Oaks with trunk diameters 12 inches or greater, or Maple, Sweetgum and Hickory with trunk diameters 18 inches or greater; and to allow for the continuance of wildlife habitat.
- c. Protect the natural hydrologic functions of the areas designated as Conservation on the Future Land Use Map by not allowing non-public agency development in these areas. If future information demonstrates portions of areas designated Conservation are not actually environmentally sensitive, the City will consider redesignating these portions through the process outlined in the Future Land Use Element, Goal 7,

Objective 1. Policy d.

- d. Cooperate with county, regional, state, and federal efforts to identify, acquire, and protect habitat corridors that serve as biological connections to existing management areas.

OBJECTIVE:

7. To provide for the protection, maintenance, enhancement, and utilization of wetlands within the City.

POLICIES:

- a. Maintain *Land Development Regulations* consistent with the minimum standards for wetland protection as approved by Volusia County in 1989 by Volusia County, Florida, Ordinance No. 89-8 (July 6, 1989). These standards address the identification of wetlands, mitigation requirements to ensure that there is no net loss of wetlands within the City limits, and a minimum 25-foot wide buffer upland and adjacent to wetlands requirements.
- b. Restrict development in wetlands unless eliminated wetlands are mitigated at a minimum of one-to-one (1:1) ratio through the enforcement of adopted *Land Development Regulations* that conform to county minimum wetland protection standards adopted in 1989 by Volusia County, Florida, Ordinance No. 89-8 (July 6, 1989), and through land use designations.

OBJECTIVE:

8. To continue to protect and maintain natural groundwater aquifer recharge areas through enforcement of adopted *Land Development Regulations*.

POLICIES:

- a. Monitor the *Volusia County Comprehensive Plan* and *Volusia County Land Development Regulations* with respect to the wastewater treatment plant, Samsula, and State Road 44 / Pioneer Trail wellfields, and will advise the county of any existing or potentially adverse conditions with respect to the wellfields and their local recharge areas.
- b. Encourage preservation and maintenance of secondary natural groundwater recharge areas to enhance their recharge potential through the adopted *Land Development Regulations*.

OBJECTIVE:

9. To maintain management and control of stormwater runoff for alleviating existing environmental problems and preventing future problems through enforcement of current *Land Development Regulations*.

POLICIES:

- a. Maintain *Land Development Regulations* which:
 - i. Regulate management of stormwater runoff to prevent diminished water quality, flooding, loss of groundwater recharge, soil erosion, sedimentation in receiving surface waters, and lowering of the water table.
 - ii. Require the use of best management practices to maintain swamps, marshes, floodplains, and other wetlands for stormwater management.
 - iii. Require that retention areas are designed and located to maximize their effectiveness for flow attenuation and aquifer recharge; to minimize the need for channelization; and to provide for greater safety and reliability.
- b. Continue to enforce the Stormwater Management and Conservation Ordinance, and

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provide for maintenance of stormwater management facilities as part of its stormwater management program.

OBJECTIVE:

10. To incorporate the inherent limitation of existing soils in land planning and development, and to minimize impacts which result in soil erosion.

POLICIES:

- a. Prior to any land disturbance, require developers to indicate on their site plans any areas of highly erodible soils, (as defined by the United States Department of Agriculture Natural Resources Conservation Service (NRCS) or the Florida Department of Agriculture), and to take adequate measures to ensure that soil erosion is avoided, including utilization of appropriate best management practices.
- b. Regulate construction in soils, which are determined to be hydric in character (as defined by the NRCS and the Florida Department of Agriculture) to the extent that the proposed construction activities will not adversely impact protected resources.

OBJECTIVE:

11. To continue to coordinate efforts to conserve potable water on an annual basis.

POLICIES:

- a. Continue to enforce the SJRWMD landscape irrigation rule.
- b. Continue to lower system pressure when conditions require emergency conservation.
- c. Continue to implement a waste-water re-use program designed to significantly reduce effluent discharge into the Indian River Lagoon and make non-potable water available for irrigation purposes.
- d. Continue to implement a water conservation program to reduce potable water demand.
- e. Maintain the average consumption of potable water at 240 gallons per day per equivalent residential unit.
- f. Continue to require, through the *Land Development Regulations*, all new residential subdivisions to install dry lines, or provide payment in lieu, for future connection to reclaimed water systems if reclaimed water is not available within 500 feet of the subdivision.
- g. Continue to require installation of reuse supply lines where reclaimed water is available or will be available for use.
- h. Adopt by 2013 landscape water conservation regulations that provide landscape and irrigation standards.
- i. Continue to promote and encourage the use of low impact development techniques.
- j. Develop alternative water supplies that will be needed in addition to or instead of groundwater needed to meet water supply demands in the future. The Utilities Commission shall provide an annual status report to the SJRWMD which shall document all activities taken to develop alternative water supplies including planning, design, permitting, financial and project schedule.

OBJECTIVE:

12. To protect and preserve floodplains.

POLICIES:

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- a. Investigate the possibility of public acquisition of lands within floodplains, using local and state funded programs.
- b. Prohibit the development of all wetlands located within floodplains
- c. Continue to rezone floodplains as Conservation, in order to limit development.
- d. Where filling of land within the 10 year floodplain is unavoidable, the lost volume shall be made up by excavation of uplands.

X. RECREATION AND OPEN SPACE ELEMENT

INTRODUCTION

Parks and natural open space areas can be used for many different activities: recreation, wetlands and forest which aid in stormwater drainage and provide habitat for wildlife, a relief from urban congestion and development, and aesthetic benefits to surrounding residents and visitors.¹

Benefits of exposure to plants, landscapes and wilderness experiences on physical and mental health have been well-documented.² Studies have shown that residents located near parks and open spaces exercise more. Regular physical activity has been shown to increase health and reduce the risk of numerous diseases, including heart disease, hypertension, colon cancer, and diabetes.³ Psychological health is also influenced by exposure to parks and open spaces. Evidence shows that exposure to parks and open space reduces the effects of depression and anxiety, can improve mood and enhance psychological well-being. Parks and open space in urban settings provide recreational opportunities for at-risk youth, low-income children and families, and provide a sense of community.

In addition to the health benefits, parks and open space provide numerous environmental benefits. Trees provide a more effective and less expensive way to manage storm water runoff than building systems of concrete sewers and drainage ditches.⁴ In addition to reducing noise pollution, trees improve air quality by reducing air and water pollution, trees provide shade which reduces heat island effects, and provide habitat for wildlife, which in turn can reduce pest insects.

Studies have shown that parks and open space increase the value of neighboring or nearby residential properties (and there is some evidence that this does so for non-residential properties as well).⁵ Corporations place value on quality-of-life factors when determining where to locate facilities, as do individuals choosing a place to live. The availability of parks and open space is an important quality-of-life factor in these decision-making processes. Parks even become tourism draws, which contribute directly to local businesses.

PURPOSE

The purpose of this element⁶ is to establish the role of the recreation and open space system of New Smyrna Beach in satisfying the recreational needs of the residents, thus preserving valuable open space and using the system to enhance the visual image of the City. Parks play a very important role in establishing the City's self-image; therefore, the recommendations of this element are intended to provide for continued maintenance of adequate recreation facilities and for beautification of existing parks in order to beautify the City. Inventories of existing conditions and evaluations of appropriate potential park sites, recreation areas, facilities and open space systems are also provided.

OVERVIEW

Generally, park areas serve dual purposes: (1) they conserve open space and natural resources, and (2) they provide outdoor recreation opportunities. Florida is still rich in open space resources such as

¹ McConnell, Virginia and Margaret Walls. 2005. "the Value of Open Space: Evidence from Studies of Nonmarket Benefits." Resources for the Future.

² Frumkin, Howard, MD, PhD, DrPH, FACP, FACOEM. 2001. "Beyond Toxicity: Human Health and the Natural Environment". *American Journal of Preventative Medicine*. 20(3): 234-240.

³ Sherer, Paul. 2003. "Why America Needs More City Parks and Open Space." Trust for Public Lands.

⁴ Ibid.

⁵ Crompton, John L. 2000. *The Impact of Parks and Open Space on Property Values and the Property Tax Base*. Ashburn, Va.: National Recreation and Park Association.

⁶ This Element satisfies the requirements of Section 163.3177(6)(e), Florida Statutes for contents in the Comprehensive Plan.

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forestlands, grasslands, wetlands, lakes, and beaches, although the supply is steadily dwindling. Conservation of open space through the acquisition of land is one means of maintaining examples of Florida's original natural character. Demand for outdoor recreation opportunities can be met by providing parks for such passive, resource-based pursuits as picnicking and nature study, and parks for active user-oriented pursuits such as tennis, shuffleboard, and softball.

Parks that conserve open space and fulfill outdoor recreation demand can be subdivided into several types, depending primarily on the size of the area they serve: Beach access, Urban Open Space, Equipped Playgrounds and Tot Lots, Neighborhood Parks, Community Parks, Regional Parks, Urban District Parks and Sports Complexes. These types of parks are described below, with specific criteria summarized in Table X-1.

The standards adopted by New Smyrna Beach are based on the standards being used by the State of Florida. The intent of the City is that this level-of-service will be maintained by using these standards to expand existing facilities and provide new facilities as the community grows.

TYPES OF OUTDOOR RECREATION FACILITIES

Outdoor recreation, broadly defined, is any leisure time activity conducted outdoors. However, for planning purposes, the wide range of outdoor recreation activities is generally subdivided into "user-oriented" and "resource-based" recreation.

USER-ORIENTED ACTIVITY STANDARDS

User-oriented types of outdoor recreation are those that can be provided almost anywhere for the convenience of the user. Examples include golf, tennis, baseball, basketball, shuffleboard, volleyball, soccer, pool swimming, archery, skeet and trap shooting, and playground activities.

RESOURCE BASED ACTIVITY STANDARDS

Resource-based outdoor recreation differs from user-oriented recreation in that it cannot be provided just anywhere. It is dependent upon some element or combination of elements in the natural or cultural environments that cannot be easily duplicated by man. It may be either active or passive in nature. Examples include hunting, fishing, camping, backpacking, boating, water skiing, surfing, and nature study. Visiting historical and archaeological sites is also included because such sites, while not strictly natural resources, share the limitations of being fixed in both quantity and location. The City's standards are based on those presented in the "Outdoor Recreation in Florida - 2000" created by the Division of Recreation and Parks under the Florida Department of Environmental Protection.

STANDARDS

The planning of individual parks, and of a whole system of parks, cannot be done in an orderly manner without assigning to each park a function, size limitation, , and general listing of facilities. A good system of classification and standards enables parks to be planned in a balanced manner for uniform and all-inclusive recreation service. All areas of the City can then be properly served, and all age groups and segments of population provided for, on an impartial basis.

The State of Florida Division of Recreation and Parks, in the publication *Outdoor Recreation in Florida-2000*, established a set of reference standards, which provide a suitable basis for planning. The standards were developed based on preferences among tourists and Florida residents. The standards used by New Smyrna Beach are based on these state standards, in part, and on their own community standards, needs, and preferences.

APPLICATION OF STANDARDS TO THE CITY

The application of standards to the park system in New Smyrna Beach does not fully consider or measure

quality. Also, the standards do not account for differences in the character of residential facilities; for differences in the age composition of the population, which in turn affects the type and quantity of parks required; or for differences in habits and customs among ethnic groups, which are decisive in determining the extent to which park facilities are actually used. In this planning element, the standards are used to identify general park and recreation facility deficiencies within the City, and to guide the assignment of planning priorities.

Private recreation facilities are plentiful in the City of New Smyrna Beach and Volusia County. While these private facilities serve much of the recreation demand in the area, the City has prepared its plan and adopted its standards strictly for the purposes of providing public parks and recreation facilities/programs. The availability of private facilities has not been relied upon by the City to meet its standards, and the City is not actively seeking to increase the number of private facilities. The City will continue to provide public parks and recreation facilities/programs, and it will require developers to contribute their fair share toward providing public recreation facilities and open spaces.

School facilities also serve as resources to meet much of the recreation demand in the area. The City has a good relationship with the Volusia County School Board and several of the schools located within the City. While this resource is extensive, school facilities and programs have not been relied upon when measuring public facilities by the City's standards.

PARK CLASSIFICATIONS AND STANDARDS

Table X-1 Site Guidelines for Outdoor Recreation Resources and Facilities, 2000

Park Facility	Location	Service Area	Area Per 1,000 Population	Minimum Park Size (Acres)	Population Served
Beach Access / Dune Walkovers	within 0.25 mile of urban coastal beach or on its periphery	1 access/0.5 mile of shoreline	N/A	N/A	N/A
Beach Access Parks with Parking	N/A		0.25 acre	1	N/A
Urban Open Space	Resource-based Recreation Areas	0.25-0.5 miles	0.1 acres	0.1	N/A
Equipped Play and Tot Lot	Residential setting or adjacent to a school	up to 0.25 mile	0.2 acre	0.25	Up to 5,000
Neighborhood Park	Neighborhood area, adjacent to elementary school when feasible	up to 1/2 mile	0.4 acres	1.9	Up to 5,000
Community Park	Designed to serve residents of a group of neighborhoods. Should be located adjacent to Jr. or Sr. High School when feasible.	up to 3 miles	1 acres	20	Up to 5,000
Regional Park	On the periphery of an urban area	30 minutes to 1 hour driving time	20 acres	250	Over 100,000
Urban District Park	In a large urban area or on its periphery	30 to 40 minutes driving time	5 acres	50	50,000
Sports Complex	strategically-located community-wide facilities	N/A	N/A	N/A	N/A

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Source: Outdoor Recreation in Florida - 2000, Florida's Statewide Comprehensive Outdoor Recreation Plan, Florida Department of Environmental Protection

BEACH ACCESS SITES

Access points and parking areas are primarily support facilities for public-owned beaches. In many areas beach access is limited to pedestrian paths and raised wooden walkways which extend to the public-owned portion of the beach (that part lying seaward of the mean high water line). Public parking may or may not be provided. Sites may range from 10 to more than 100 feet in width; parking areas may range from less than to more than an acre. A distance of one-half mile between access sites has been developed as a guideline for the spacing of public access sites at state-financed beach restoration projects as required by Chapter 16B-36, Florida Administrative Code. Additionally, Beach access should be provided in 1.0 acre increments when the deficiency equals 0.5 acres.

EQUIPPED PLAY AREA AND TOT LOT

Equipped play areas, or "tot lots" as they are often called, are open areas with play apparatus for preschool and school age children. It is recommended that an equipped play area serve neighborhoods of between 500 and 5,000 people at a minimum of 1/4-acre at a site adjoining an existing recreation facility or elementary school. Elsewhere, 1 acre is suggested. Recommended facilities include play apparatus, landscaping, benches and open space. Depending on local recreation needs, picnic tables may be included. The level of service standard for these facilities is 0.2 acres per 1000 residents. Because Tot Lots are most commonly associated with adjacent parks and open space, these facilities should be provided in 0.25 acre increments when the deficiency equals 0.2 acres.

URBAN OPEN SPACE

Urban open space sites are landscaped or natural open areas, located within built-up areas. Depending on their location, open space sites may serve populated areas ranging in size from a single neighborhood to an entire city. Their principal function is to intersperse congested urban environments with aesthetically pleasing buffer areas. Urban open space areas may vary in size from 1/10-acre to several acres depending on their intended use. Some serve as linear, vest pocket or traffic circle parks, while others are parkways, boulevard medians, plazas, malls, courthouse squares, and promenades. Benches, commemorative structures, trails and paths are optional depending on local needs and the size and location of individual sites. Urban Open Space should be provided in 0.1 acre increments when the deficiency equals 0.05 acres.

NEIGHBORHOOD PARKS

The neighborhood park is a "walk-to" park, generally located along streets where people can walk or bicycle without encountering heavy traffic. It serves the population of a neighborhood in a radius of up to one-half mile, and should have at least 0.4 acres for each 1,000 population. These parks should be provided in 1.9 acre increments when the deficiency equals 1.0 acre.

Because the service areas of a neighborhood park and an elementary school often coincide, it is desirable for the neighborhood park to physically join the elementary school, when feasible. Both park and school serve the same basic population, share compatible land uses, and contain recreation facilities that are of mutual benefit. Because recreation needs vary from one neighborhood to another, site design for this type of park should be flexible in order to meet the particular recreation needs of each neighborhood.

Site design should also reflect the character of the neighborhood and incorporate compatible elements of both passive and active types of recreation. Typical facilities developed in the neighborhood park may include play apparatus, recreation buildings, multipurpose courts, sports fields, picnic areas and free play areas. Additional facilities may be added, depending on the recreation demands of the neighborhood.

COMMUNITY PARKS

A community park is a "ride to" park, located near major streets. It is designed to serve the needs of 4 to 6 neighborhoods. It serves an area with a radius of up to 3 miles, or a service population of up to 25,000. A minimum of 20 acres for each community park is recommended, with acreage needs based on a standard of 1 acre per 1,000 population. Where a community park can be located adjacent to a junior or senior high school, a minimum of 5 acres is recommended. The community park offers a wide range of program and facility opportunities for all individuals and families. Just as the neighborhood park fulfills the recreation needs of the neighborhood, the community park is designed to meet the recreation needs of

the entire community. These parks should be provided in 20.0 acre increments when the deficiency equals 10.0 acres.

Typical facilities at a community park may include swimming pools, ball fields, tennis courts, play areas, picnic areas, multipurpose courts, recreation buildings, and sports fields. Additional recreation facilities may be included to meet a particular recreation demand in the community. Adequate off-street parking may be needed to contain parking overflow from the school parking areas. Two important elements of every community park are the use of landscaping and the provision of passive recreation activity areas.

REGIONAL PARKS

Regional parks are large, resource-based areas that serve two or more communities or counties and are usually located within an hour's driving distance of the residents they serve. A space allowance of 20 acres per 1,000 population is suggested. The park should serve a population of over 100,000 and should range in size from a minimum of 250 acres to as much as several thousand acres. Because regional parks are generally designed for resource-based activities, location is dependent upon the availability of high quality natural resources capable of being developed and used for outdoor recreation.

Typical facilities provided at a regional park include water-based recreation sites, camping areas, hiking and nature trails, picnic areas, and other facilities not requiring intensive development. Parking areas are necessary support facilities and should be designed to minimize adverse effects on the natural environment. The most prominent feature of a regional park is that it provides recreational opportunities that, through the design and development of outdoor recreation resources and facilities, capitalize on the natural environment and promote an atmosphere of beauty and serenity.

Regional parks should be provided via inter-local or inter-governmental agreements, given the size and the population served by such a facility, which would be greater than the population of New Smyrna Beach alone.

URBAN DISTRICT PARK

An urban-district park is designed to serve the recreation needs of several communities, a city, or a county, and usually provides some areas and facilities that are resource-based. Typical areas and facilities include natural areas, campgrounds and play apparatus. Additional facilities may include a zoo, a golf course or a botanical garden. Driving periods of up to 30 to 40 minutes may be required to reach an urban-district park, which should, when possible, be located on the periphery of a large urban area. Such parks should serve an average population of 50,000, with a desirable space allowance of 5 acres per 1,000 people. While 100 acres may meet minimum requirements, a size range of 200 acres or more is desirable.

As with Regional Parks, these facilities should be provided via inter-local or inter-governmental agreements, given the size and the population served by such a facility, which would be greater than the population of New Smyrna Beach alone.

SPORTS COMPLEX

While a specific definition for a "sports complex" is not provided by the *Florida's Statewide Comprehensive Outdoor Recreation Plan*, it is listed as a Community Outdoor Recreation Resource or Facility within the plan. It is roughly described within the DEP plan as a facility that is "strategically located" to provide "community wide facilities". This type of facility is listed as containing ballfields, soccer fields, football fields, tennis courts, play structures, hard courts, volleyball, internal trails, and picnic areas. This facility should be a minimum of 25 acres, but potentially would be 40-80 acres.

No specific level of service standard is provided by the State Guidelines. The City feels the existing facilities are sufficient.

RECREATION FACILITY STANDARDS

The facilities at each park should be designed to meet the recreation needs of the people in its service area. Standards for meeting these needs are presented in Table X-2. As with the park facility standards previously described, these standards are based on FDEP guidelines.

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Table X-2 Population Guidelines for User-Oriented Outdoor Recreation Activities

User Oriented Activity	Resource / Facility	Population Served	
		Minimum	
Baseball/Softball	Field	2,000	10,000
Basketball	Court	500	20,000
Bicycle Trails	Mile of Trail	1,500	10,000
Boat Ramp	Lane	1,500	12,500
Pier/Catwalk/Jetty	800 feet	5,000	25,000
Football/Soccer	Field	4,000	25,000
Handball/Racquetball	Court	2,500	20,000
Shuffleboard	Court	1,000	12,000
Tennis	Court	1,067	10,000

Source: Outdoor Recreation in Florida - 2000, Florida's Statewide Comprehensive Outdoor Recreation Plan, Florida Department of Environmental Protection

EXISTING CONDITIONS

BACKGROUND

The City of New Smyrna Beach has a long-standing history of offering recreation facilities and open space areas for its residents. An inventory of existing facilities and areas is presented in Table X-3 and Map X-1. Included in this list, and shown on the maps, are publically-owned facilities. It should be noted that the Atlantic Ocean Beach, Canaveral National Seashore, Smyrna Dunes Park, and the Doris Leaper Spruce Creek Preserve are included in the inventory list as parks servicing the City and its residents and visitors. However, aside from Smyrna Dunes Park, these parks are not located within the City incorporated boundaries. Due to their proximity to the City and the frequent use of the facilities by residents and visitors alike, they are considered regional amenities that serve the City's levels of service standards.

Finally, aside from Flagler Avenue Boardwalk, 27th Avenue Park and Esther Street Park (which is to be completed by 2015), beach access is primarily dune walkovers or pathways.

SITE INVENTORY AND ANALYSIS

Analyses of how existing parks / open spaces and facility amenities meet the Level of Service Standards adopted by the City are based on population. The population is based on the projection shown in Table X-3:

Table X-3. Population Projections: 2010-2025

Year	2010	2015	2020	2025
Projected Population	25,043	28,664	32,284	34,095

Additionally, the following table (Table X-4) shows the various parks and their assigned classifications based on the categories presented in Outdoor Recreation in Florida – 2000. Some parks meet criteria to be assigned to two categories, as shown under “Primary Classification” and “Secondary Classification”. Parks with two classifications are counted towards meeting both of the classifications’ minimum level of service standards.

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Table X-4. List of Park Facilities Serving the Population of New Smyrna Beach, with Primary and Secondary Classifications, and Size in Acres indicated

NAME	Primary Classification	Secondary Classification	ACRES
Atlantic Coast and Inlet Beach	Regional Park	Urban District Park	314.470
Babe James Youth Center	Recreation Center	Neighborhood Park	2.597
Brannon Community Center	Recreation Center		2.471
Buena Vista Park	Neighborhood Park	Equipped Play and Tot Lot	1.987
Callalisa Park	Urban Open Space		0.980
Canaveral National Seashore	Regional Park		58000
Christmas Park	Urban Open Space		0.140
City Gym	Recreation Center	Neighborhood Park	2.521
Coronado Civic Center	Recreation Center		0.690
Detwiler Park	Neighborhood Park	Equipped Play and Tot Lot	1.950
Dog Park	Urban Open Space		0.755
Doris Leeper - Spruce Creek Preserve	Regional Park		2000
Emory L. Bennett Park	Urban Open Space		0.317
Esther Street Park	Beach Access	Urban Open Space	1.827
Flagler Avenue Boardwalk	Beach Access	Urban Open Space	1.849
Glenwood Av Park	Urban Open Space		1.282
Indian River Lagoon Park	Urban District Park		115.084
Inlet Shores Park	Equipped Play and Tot Lot		0.506
Mainland Shuffleboard Club	Urban Open Space		0.593
Manatee All Children's Playground	Equipped Play and Tot Lot	Urban Open Space	0.352
Mary Avenue Park	Urban Open Space	Equipped Play and Tot Lot	0.769
Municipal GOLF Course	Urban District Park		132.609
Myrtle Avenue Park	Urban Open Space	Equipped Play and Tot Lot	1.158
North Beach Park	Urban Open Space	Beach Access	12.309
North Causeway Boat Ramp	Urban Open Space		6.006
Old Fort Park	Urban Open Space		2.842
Pettis Park	Neighborhood Park	Equipped Play and Tot Lot	4.652
Riverside Park	Neighborhood Park		6.963
Rocco Park	Neighborhood Park		3.298
Scout Hut	Urban Open Space	Recreation Center	1.988
Skate Park	Neighborhood Park		2.530
Smyrna Dunes Park	Urban District Park	Beach Access	208.543
Sports Complex	Community Park		75.664
Turnbull Street Park	Equipped Play and Tot Lot		1.129
Twenty-seventh Ave Park	Neighborhood Park	Beach Access	2.658

BEACH ACCESS SITES

The City currently has 46 dune walkovers, ramps and beach paths providing public access to the beach within the City Limits. These are located between Smyrna Dunes Park at the north end of the barrier island (commonly called "Beachside") and near Seawoods Boulevard near the southern end of the City limits. The average is one dune walkover, path or ramp approximately every 570 feet, which greatly exceeds the State guidelines for suggested beach access at a rate of one for every 0.5 miles of coastline.

The City also manages the Flagler Avenue Boardwalk, which is an approximately 295 foot long boardwalk and brick paver walkway constructed as a linear pavilion and is located on the beach. This facility also provides restrooms and showers as well as a number of parking spaces for beach access. The 27th Avenue Park provides a tot lot play area, racquetball courts, a picnic pavilion and a number of parking spaces for beach access. Esther Street Park will be developed with 40-plus parking spaces as well as a number of other park amenities, to include a nature trail, restrooms, volleyball courts, a picnic pavilion and a playground.

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The Level of Service (LOS) standard for Beach Access is 0.25 acres per 1,000 residents to be provided in 1.0 acre increments. Not counting the actual area each dune walkover or beach path or ramp occupies, the City operates and residents have access to 227.19 acres of Beach Access lands (Smyrna Dunes Park, North Beach Community Park, Flagler Avenue Boardwalk, 27th Avenue Park), which equals 9.072 acres per 1000 residents. No deficiency in this type of park is expected through 2025.

EQUIPPED PLAY AREA AND TOT LOT

The City has 9 Equipped Play Area / Tot Lots. These are located at the following facilities: Manatee All Children's Playground, Inlet Shores Park, Turnbull Street Park, Mary Avenue Park, Myrtle Avenue Park, Detwiler Park, Buena Vista Park, and Pettis Park. These parks total 12.503 acres. The LOS for this type of facility is 0.2 acres per 1000 population to be provided in 0.25 acre increments. The City currently has 0.499 acres/1000 population. No deficiency is expected through 2025.

URBAN OPEN SPACE

The City currently operates 15 park facilities classified as Urban Open Space. These parks total 33.167 acres and range from traditional park settings within neighborhoods, such as Myrtle Avenue Park which provides a playground and picnic tables, to the Mainland Shuffleboard Court, to pocket parks such as Christmas Park on Canal Street and Emory L. Bennett Park on Sams Avenue, to Dog Park located on Glenwood Avenue. At a rate of 0.1 acres per 1,000 residents, the City currently has 2.50 acres per 1,000 residents provided in 0.1 acre increments. No deficiency is expected through 2020. Until the LOS deficiency equals 0.05 acres, development of additional Urban Open Space will not be required. However, as urban land is bought up for infill and redevelopment, the City should keep in mind opportunities to purchase and develop such types of facilities within the urban setting.

NEIGHBORHOOD PARKS

As shown in the inventory on Table X-4, there are nine (9) neighborhood park owned and operated by the City of New Smyrna Beach. These are: Babe James Youth Center, the City Gym, Pettis Park, Riverside Park, Rocco Park, the New Smyrna Beach Skate Park, Buena Vista Park, Detweiler Park, and Twenty-Seventh Avenue Park, totaling 29.156 acres. The standard adopted by the City establishes a level of service of 0.4 acres of Neighborhood Park land per 1,000 residents, provided in 1.9-acre increments when the deficiency equals 1.0 acres. Based on the current (2010) estimated population of 25,403 and the 29.156 acres of existing neighborhood parks, there is about 1.164 acres per 1,000 residents, which exceeds the City's adopted LOS standard.

COMMUNITY PARKS

Based on the definition of a "Community Park" being a minimum of 20 acres in size and providing such amenities as "informal ballfields, swimming pool, archery ranges, disc golf areas, ornamental gardens, open space and facilities for cultural activities", the City has one facility that meets this standard – the Municipal Sports Complex located adjacent to the Municipal Airport. This facility is 75.664 acres. Based on the 2010 population of 25,043 residents the City is providing the Community Park at a rate of 3.021 acres per 1000 residents. The LOS standard of 1 acre per resident is thus well-exceeded by this facility through 2025. The City will provide Community Parks in 20 acre increments when the demand equals 10 acres.

URBAN DISTRICT PARKS

The City currently has four (4) parks that are classified as "Urban District Parks": Indian River Lagoon Preserve, Municipal Golf Course, Smyrna Dunes Park, and the Atlantic Coast and Inlet Beaches. While Smyrna Dunes Park and the Atlantic Coast and Inlet Beaches are owned and managed by Volusia County, it is within the incorporated City Limits and serves the residents of New Smyrna Beach to fulfill the LOS standard for this park type. These four (4) parks total 770.706 acres of park land, and are spatially well-distributed and are within 40 minutes from anywhere within the City. The LOS standard for this type of park facility is 5.0 acres per 1,000 residents. The City currently operates at a LOS of 30.775 acres per 1,000 residents, which well-exceeds the minimum LOS standard.

REGIONAL PARKS

While the City does not own or manage a regional park within its incorporated boundaries, there are two such facilities that serve the area: the adjacent Atlantic Coast Beach and Inlet Beach (managed by Volusia County), which consists of 314.47 acres, and Canaveral National Seashore, located at the southern end of the Beachside barrier island, which, is approximately 58,000 acres in size – both well over the minimum size of 250 acres for this type of park, and both within 60 minutes driving time from any point within the City boundaries. Therefore, this public facility serves to fulfill the State guidelines for Regional Parks. Additionally, to the north of the City on US1 is the Doris Leeper Spruce Creek Preserve. This park is more than 2000 acres in size and is within 60 minutes from anywhere in the City. It is a public park owned and operated by Volusia County. Therefore, while the City does not own or maintain these parks, they are publically owned lands that service the City and are considered when analyzing the LOS for Regional Parks.

SPORTS COMPLEX

Outdoor Recreation in Florida – 2000 does not provide a LOS standard for “Sports Complexes”. However, the City owns and maintains a 75+ acre sports complex, which provides soccer, football, baseball and softball fields as well as a football stadium, trails, and restrooms. The Sports Complex provides 3.021 acres of this type of park facility per 1000 residents.

Map X-1 City Parks

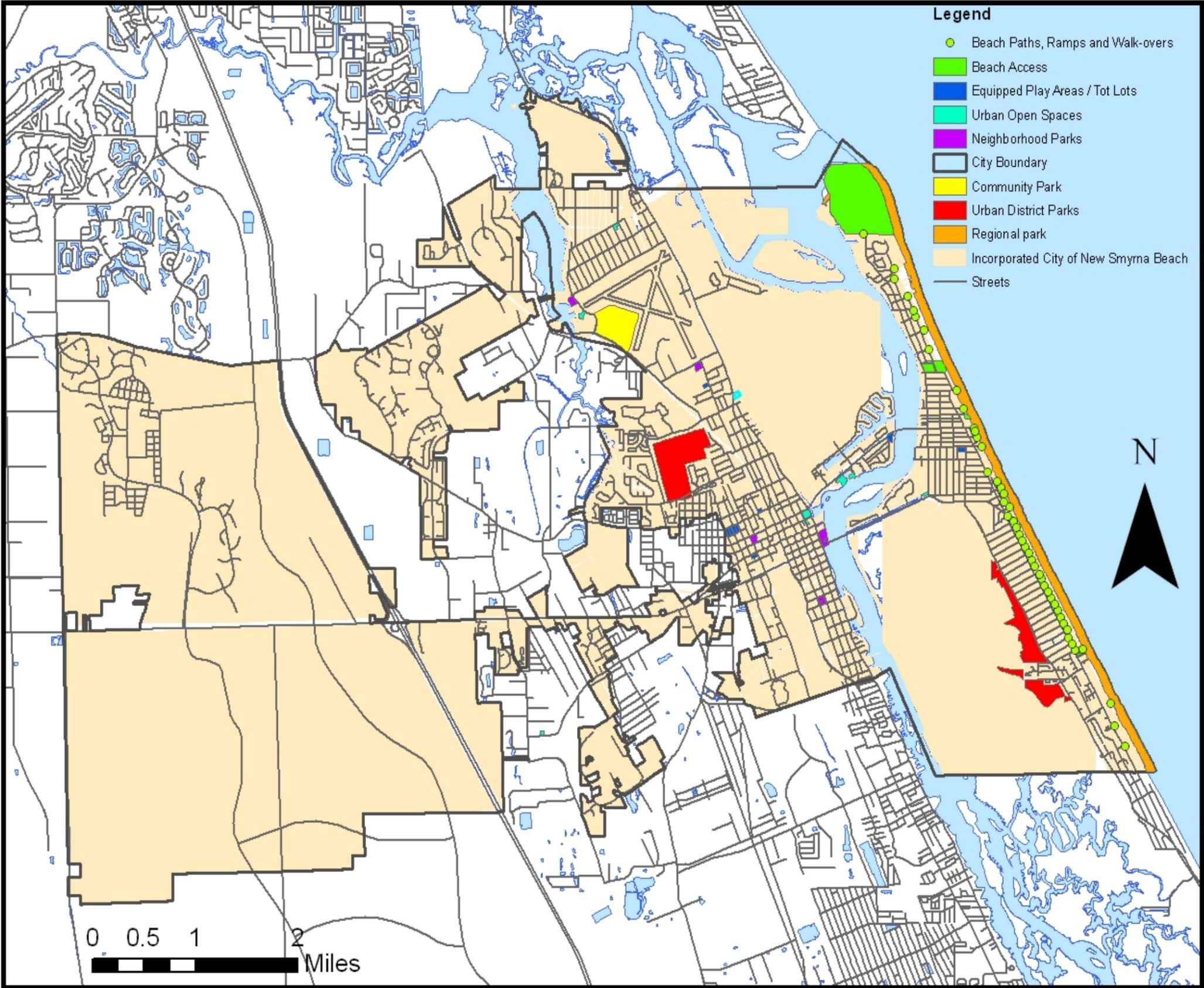


Table X-5 Inventory of Public Park and Open Space Lands by Park Classification and Total Acres, 2010

Total for Each Park and Open Space Category in Acres	
Beach Access	227.19
Equipped Play Areas/Tot Lots	12.503
Urban Open Space	33.167
Neighborhood Parks	29.156
Community Parks	75.664
Urban District Parks	770.706
Regional Parks	60314.470
Sports Complex	75.664

Table X-6. Park Level of Service Standards by Classification and Population Projections

Park Classification	Level of Standard	Minimum Park Size in Acres	2010 Level of Service / 1000 Population	2010 Overage or Deficiency	Projected 2015 Level of Service / 1000 Population	2015 Overage / Deficiency	Projected 2020 Level of Service / 1000 Population	2020 Overage / Deficiency	Projected 2025 Level of Service / 1000 Population	2025 Overage / Deficiency
Beach Access	0.25 acre / 1000	1.0	9.072	8.822	7.926	7.676	7.037	6.787	6.663	6.413
Equipped Play Areas / Tot Lots	0.2 acres / 1000	0.25	0.499	0.299	0.436	0.236	0.387	0.112	0.367	0.132
Urban Open Space	0.1 acres / 1000	0.1	1.324	1.224	1.157	1.057	1.027	0.927	0.973	0.873
Neighborhood Parks	0.4 acres / 1000	1.9	1.164	0.764	1.017	0.617	0.903	0.261	0.855	0.309
Community Parks	1 acres / 1000	20.0	3.021	2.021	2.640	0.381	2.344	0.677	2.219	0.802
Urban District Parks	5.0 acres / 1000	50.0	30.775	25.775	26.888	21.888	23.873	18.873	22.605	17.605
Regional Parks	20 acres / 1000	250.0	2408.436	2388.436	2104.189	2084.189	1868.246	1848.246	1769.012	1749.012
Sports Complex	n/a	n/a	3.021	n/a	2.640	n/a	2.344	n/a	2.219	n/a

RECREATIONAL FACILITIES GUIDELINE COMPARISON

As previously described, New Smyrna Beach provides numerous recreation facilities and programs administered by City staff. In addition to the general public, City recreation facilities are used by volunteers and private nonprofit organizations for programs and activities. Existing facilities which support the City's recreation programs and more than 25,000 residents are described below, and are compared with the requirements shown in the guidelines on Table X-2.

Table X-7. Recreational Facilities Level of Service Standards – Minimum Adopted with Existing and Projected Levels

User Oriented Activity	Minimum Level of Service Standard	Provided Amenity	Existing Level of Service Provided (2010)	Projected Level of Service - 2015	Projected Level of Service - 2020	Projected Level of Service - 2025
Baseball/Softball	1 field/10,000 residents	9 fields	3.59 fields / 10,000 residents	3.14	2.79	2.64
Basketball	1 court / 20,000 residents	10 courts	7.99 courts / 20,000 residents	6.98	6.20	5.87
Bicycle Trails	1 mile of trail / 10,000 residents	46.584 miles	18.6 miles / 10,000 residents	16.25	14.43	13.66
Boat Ramps	1 lane / 12,500 residents	8 lanes	3.99 lanes / 12,500 residents	3.49	3.10	2.93
Pier/Catwalk/Jetty	800 feet / 25,000 residents	4,074 feet	4,067 feet / 25,000 residents	3,553.24	3,154.81	2,987.24
Football/Soccer	1 field / 25,000 residents	7 fields	5.59 fields / 25,000 residents	6.11	5.42	5.13
Handball/Racquetball	1 court / 20,000 residents	5 courts	3.99 courts / 20,000 residents	3.49	3.10	2.93
Shuffleboard	1 court / 12,000 residents	37 courts	17.73 courts / 12,000 residents	15.49	13.75	13.02
Tennis	1 court / 10,000 residents	9 courts	3.59 courts / 10,000 residents	3.14	2.79	2.64

As can be seen in Table X-7, there will be no deficiencies through the end of the planning period for any of the recreational facilities provided by the City based on adopted level of service standards.

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EXISTING FUNDING SYSTEM

The City funds its recreation and open space system from several sources. These include general fund tax monies, impact fees from new development, nonresident user fees, registration fees, sponsor fees, private donations, and grants from county, state and federal agencies. The revenues are programmed for expenditure through the City's annual budget.

CONCLUSION

New Smyrna Beach has been continually developing its Parks and Recreation Program over many years. The size and number of recreation facilities has kept sufficient pace with the City's growth. Facilities owned by Volusia County and other public entities help to improve the situation. The deficiencies previously noted have been identified by the Parks and Recreation Department, and are addressed further in the "Future Needs" section of this Element.

FUTURE NEEDS

The Parks and Recreation Department recognizes deficiencies in its existing recreation facilities, which should be corrected in the near future. Other future needs are oriented toward expanding and enhancing the recreation program to accommodate growth.

BEACH ACCESS

Based on the lineal feet of shoreline and current provisions of beach access, no additional facilities will be needed through 2025.

EQUIPPED PLAY AREAS / TOT LOTS

Based on the LOS of 0.2 acres per 1,000 population, no additional facilities will be needed through 2025.

URBAN OPEN SPACE

Based on population projections, this should be sufficient to meet minimum level of service standards up to 2020. It is projected that around 2020 the LOS provided will become deficient and additional Urban Open Space will have to be provided. However, as stated above, until the deficiency equals the minimum park size, in this case being 0.1 acres, it is not mandatory that an additional park facility be developed.

NEIGHBORHOOD PARKS

Based on the LOS of 0.4 acres per 1,000 population, no additional facilities will be needed through 2025.

COMMUNITY PARKS

The standard for community park access will be applied in twenty (20) acre increments to be provided when demand equals 10 acres. It is not expected for the next needed increment to occur prior to 2025.

REGIONAL PARKS

There is a significant surplus of regional park facilities in the general vicinity of New Smyrna Beach. In fact, with a LOS standard of 20 acres per 1000 population, there is a surplus of 1749.012 acres through 2025. No additional facilities of this type will be needed through the planning period.

RECREATIONAL FACILITIES

The existing facility inventory shows no deficiencies.

GOAL, OBJECTIVES, AND POLICIES

GOAL:

To provide and maintain an outstanding system of recreation and open space areas that will meet the present and future needs of New Smyrna Beach. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs, and the City's ability to meet those needs, become better established.

OBJECTIVE:

1. To develop and maintain community and neighborhood parks that continue to meet the recreation needs of New Smyrna Beach residents, according to level-of-service standards identified in this element.

POLICIES:

- a. The City will continue to follow established level-of-service standards identified in this element. The following demand standards shall be used:
 - Beach Access will be provided in 1.0 acre increments when demand equals 0.25 acres; the Level of Service standard is 0.25 acres per 1,000 residents.
 - Urban Open Space will be provided in 0.1 acre increments when the demand equals 0.05 acres; the Level of Service standard is 1.0 acre per 1,000 residents
 - Equipped Play Areas / Tot Lots Acres will be provided in 0.25 acre increments when demand equals 0.2 acres; the Level of Service standard is 0.2 acres per 1,000 residents
 - Neighborhood Parks will be provided in 1.9 acre increments when demand equals 1.9 acres; the Level of Service standard is 0.4 acres per 1,000 residents
 - Community Parks will be provided in 20 acre increments when the demand equals 10 acres; the Level of Service standard is 1 acre per 1,000 residents
 - Regional Parks will be provided in 250 acre increments when the demand equals 200 acres; the Level of Service standard is 20 acres per 1,000 residents.
 - Urban District Parks will be provided in 50-acre increments when demand equals 40 acres; the Level of Service standard is 5.0 acres per 1,000 residents
 - Baseball / Softball Fields will be provided in 1-field increments when demand equals 1 field; the Level of Service standard is 1 field per 10,000 residents.
 - Basketball Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 20,000 residents
 - Bicycle Trails will be provided in 1-mile increments when demand equals 0.5 miles; the Level of Service standard is 1 mile of trail per 10,000 residents
 - Boat Ramps will be provided in 1-lane increments when demand equals one (1) lane; the Level of Service standard is 1 lane per 12,500 residents
 - Piers/Catwalks/Jetties will be provided in 800-foot increments when demand equals 800 feet; the Level of Service standard is 800 lineal feet of pier/catwalk/jetty per 25,000 residents
 - Football / Soccer fields will be provided in 1-field increments when demand equals one (1) field; the Level of Service standard is 1 field per 25,000 residents
 - Handball/Racquetball Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 20,000 residents
 - Shuffleboard Courts will be provided in 1-court increments when demand equals

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one (1) court. The Level of Service standard is 1 court per 12,000 residents

- Tennis Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 10,000 residents

The standard for neighborhood park acres will be applied in 1.9 acre increments to be provided when demand equals one (1.0) acres. The standard for community park acres will be applied in 20 acre increments, to be provided when demand equals 10.0 acres. The standard for tennis courts, softball/baseball fields, and boat ramps will be applied in a 1.0 facility increment to be provided when demand equals 1.0 facility. The standard for handball/racquetball courts will be applied in 2.0 court increments, to be provided when demand equals 1.0 court.

- b. The City will continue to develop its recreation and open space system through the annual budget and work program to include:
 - i. Boat ramps
 - ii. Bicycle path system
 - iii. Beach access with parking
 - iv. Equipped play areas and tot lots
 - v. Urban open space
 - vi. Community parks
 - vii. Neighborhood parks
- c. New property obtained for the City recreation and open space system will be in locations and sizes (preferably five [5] acres or larger) that serve the needs of existing and future residents in accordance with City standards. Sites will be obtained via development regulations for new developments.
- d. Neighborhood parks will be developed with the following physical improvements on an ongoing basis, as new needs are identified:
 - i. Playgrounds
 - ii. Picnic areas with benches and tables
 - iii. Open areas for free play
 - iv. Landscaping
- e. Neighborhood parks will be the highest priority park classification in the City in terms of funding. A new neighborhood park of at least 1.9 acres in size will be built by 2020.
- f. The following physical improvements will be made to existing parks throughout the planning period:
 - i. Community buildings
 - ii. Regulation football/soccer fields
 - iii. Tennis courts
 - iv. Racquetball courts
 - v. Restrooms, when appropriate
 - vi. Lighting, when appropriate
 - vii. Landscaping
 - viii. Signage
 - ix. Parking and drainage
 - x. Energy efficient equipment and construction
 - xi. Maintenance efficient equipment and construction
 - xii. Ramps and other considerations for physically handicapped users

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- g. Recreation programs will be provided on an ongoing basis by the City and/or nonprofit organizations, as follows:
 - i. Programs will be provided to meet the needs of the general population.
 - ii. Special programs will be provided for elderly residents.
 - iii. Special programs will be provided for physically handicapped residents.
 - iv. Special programs will be provided for school-age residents
- h. The City will reevaluate the established level-of-service standards identified in this element by 2015 to determine how they relate to recreation demands.

OBJECTIVE:

- 2. To preserve, maintain, and enhance, on an ongoing basis, the aesthetic and recreational qualities of open space within and surrounding New Smyrna Beach through development of passive parks, passive areas in active parks; and to require future development to provide open space to comply with landscape regulations.

POLICIES:

- a. The *Land Development Regulations* will be used to encourage appropriate use of land in floodplain and waterfront areas, and to promote the protection of natural areas.
- b. Open space and landscaping requirements for future development are defined in the *Land Development Regulations*, and will be enforced as part of the development approval process.
- c. Enhancement of existing open spaces and scenic areas within active parks will be encouraged by the City through the annual budget and work program.
- d. Scenic corridors will be identified and protected by the control of signage, lighting, and landscaping.
- e. Landscape design of, and improvements to, the City's open space system will be used to enhance the visual image of the City.

OBJECTIVE:

- 3. To provide full funding of recreation and open space improvements and programs in the City.

POLICIES:

- a. The City will use funding sources that include:
 - i. User fees (resident and nonresident)
 - ii. General fund
 - iii. Florida Fish and Wildlife Conservation Commission fund
 - iv. Florida Inland Navigation District fund
 - v. Florida Forever Fund
 - vi. Volusia County Environmental, Cultural, Historic and Outdoor Recreation (ECHO) Fund
 - vii. Volusia County joint participation fund
 - viii. Registration fees
 - ix. Sponsor fees
 - x. New development impact fees
- b. The City will use general fund tax revenues to develop and maintain recreation and

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open space facilities and areas.

- c. The City will collect user fees to fund recreation programs, classes, lighting, league costs, and other activities directly related to specific users.
- d. The City will continue to pursue and use county, state, federal, and other funds to improve its recreation and open space system.
- e. The City will continue to encourage volunteer and private nonprofit organizations to use its facilities, and will continue to provide programs to the City's residents, based on agreements related to costs, fees, hours of use, insurance, and other City policies.

OBJECTIVE:

4. To continue to monitor the open space and recreation needs and demands of the residents, and to update plans on an annual basis.

POLICIES:

- a. The City will review the appropriateness and priority of proposed recreation and open space facilities and programs each year as it prepares and adopts the annual budget.
- b. The City will make amendments to the Recreation and Open Space Element of the *Comprehensive Plan* as needed. Updates will be completed no less frequently than required by state law.
- c. Operational aspects of the recreation and open space system will be monitored at least annually, and may include:
 - Leases
 - User fees
 - Policies and programs related to planning, developing, operating, and maintaining the park system.

OBJECTIVE:

5. The City will maintain existing agreements and negotiate new formal and informal agreements to share facilities with other public and private entities to meet recreation demands.

POLICIES:

- a. The City will continue formal and informal agreements to share facility and program resources with Volusia County, the Volusia County School Board, the State of Florida, the US Government, private nonprofit organizations, and others.
- b. The City will continue to work with the Volusia County School Board to ensure that new public school buildings, whenever possible, are collocated adjacent to existing or proposed public facilities such as parks, libraries, and community centers.
- c. The City will encourage development of new golf courses independently, or through joint programs with private development, as new needs are identified.

OBJECTIVE:

6. To continue to increase the amount of public access to the Indian River and other designated public areas.

POLICIES:

- a. The purchase of oceanfront and riverfront areas will be considered in the annual budget, as needed, to ensure adequate public access to the beach, the Indian River and other designated public areas.

- b. County, state, and federal programs will continue to be pursued for funding the purchase of coastal lands.
- c. The City will encourage, via the development review and approval process, the voluntary dedication of land and property to provide access to public waterways and designated scenic areas.

PROGRAMMED IMPROVEMENTS AND ACTIVITIES

BACKGROUND

Actions to be taken by the City over the next five (5) years regarding new and expanded facilities fall into two (2) categories, planning and construction.

CONSTRUCTION

The City's construction activities are described in the *Capital Improvements Plan*.

PLANNING

The planning activities include:

- Prepare a Citywide Parks Master Plan
- Preparing an atlas of all City owned parklands, including boundary, topographic and existing facility information.
- Preparing and maintaining conceptual plans for land and facilities, outlining the types of improvements needed at each facility.
- Preparing design standards, budgets, and schedules for beautifying the City's parks.
- Preparing plans for expanding an existing park to meet community park standards.
- Preparing a scenic corridor plan for maintaining existing corridors and identifying new ones.
- Developing a riverfront boating/park facility.
- Planning to develop a five (5) acre South Beach Park.
- Developing plans to expand the Municipal Ballpark facility.
- Continuing to develop a citywide bicycle path system.
- Developing a joint use facilities agreement with the Volusia County School Board.
- Continue to work with the Volusia County School Board to ensure that new public schools are collocated, when possible, with existing or proposed public facilities such as parks, libraries, and community centers.
- Consolidating future park planning to "centralize" facilities.
- Develop a five (5) acre (minimum) park west of I-95.

Planning efforts for individual facilities will be conducted within an overall framework for creating functional, attractive, and well located parks.

XI. INTERGOVERNMENTAL COORDINATION ELEMENT

PURPOSE

The purpose of this element is to evaluate mechanisms for coordinating with other governments and selected governmental agencies in the preparation and revision of comprehensive plans, in the review and approval of new development, and in the provision of services. It is the intent of this element to identify and resolve incompatible goals, objectives, and policies proposed in local government comprehensive plans, and to determine and respond to the needs for coordination processes and procedures with adjacent local governments and regional and state agencies.

STANDARDS

The City of New Smyrna Beach has a joint planning agreement with Volusia County effective July 1, 1999, for unincorporated areas adjacent to the City to insure consistent and orderly development and financially feasible provision of infrastructure as growth occurs, to provide a broader picture of existing and future conditions in and around New Smyrna Beach, and to help promote intergovernmental coordination. In addition to Volusia County, other governmental entities of concern include the Cities of Edgewater and Port Orange south and north of New Smyrna Beach, respectively.

INVENTORY OF AGENCIES

The City of New Smyrna Beach has either formal or informal coordination agreements, or interacts through standard operating procedures under statutory authority, with the following agencies:

CITIES

1. Edgewater
2. Port Orange

COUNTIES

1. Volusia County

REGIONAL AGENCIES

1. East Central Florida Regional Planning Council (ECFRPC)
 - a. Planners Committee
 - b. Project Review Committee
 - c. Regional Policy Plan Advisory Committee
2. St. Johns River Water Management District (SJRWMD)
3. Volusia Transportation Planning Organization (TPO)
 - a. Citizen's Advisory Committee
 - b. Bicycle/Pedestrian Advisory Committee
 - c. Technical Coordinating Committee
 - i. Coordinated Community Transportation Provider
 - ii. Project Review Committee
 - d. Board
4. Volusia Council of Governments (VCOG)
 - a. Executive Committee
 - b. Population Growth Study Committee
 - c. Programs and Projects
 - d. Water Resources Coordinating Committee
5. Volusia Growth Management Commission (VGMC)
6. Volusia County Beach Trust Commission
7. Volusia County Business Development Corporation
8. Southeast Volusia Chamber of Commerce
9. Volusia County Emergency Management Department

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STATE OF FLORIDA, DEPARTMENT OF:

1. Community Affairs
2. Education
3. Environmental Protection
4. Fish and Wildlife Conservation Commission
5. State
6. Transportation

FEDERAL AGENCIES, UNITED STATES:

1. Federal Aviation Administration
2. National Parks Service
3. Army Corps of Engineers
4. Coast Guard
5. Fish and Wildlife Service
6. Housing and Urban Development

UTILITIES

1. Utilities Commission, City of New Smyrna Beach

SCHOOL BOARDS

1. Volusia County School Board

HOUSING AUTHORITIES

1. New Smyrna Beach Housing Authority

INVENTORY OF EXISTING COORDINATION MECHANISMS

The various methods (or mechanisms) used by the City of New Smyrna Beach to bring about necessary coordination with local, state, regional, and federal agencies include both formal and informal agreements, which are described herein. Standard operating procedures have also been developed over time to carry out coordination with the various agencies identified in the preceding inventory, as required by *Florida Statutes*. Because these relationships with agencies, such as the Department of Transportation, are virtually identical for all cities throughout the state, they are not detailed herein. However, any agreements, mechanisms, or relationships beyond the norm are described. All agreements described are written agreements. Coordination is the responsibility of the City Manager or his or her designee, unless otherwise indicated.

SEWER SERVICE

The City of New Smyrna Beach currently has a resolution of understanding in effect with the Cities of Edgewater (south of New Smyrna Beach) and Port Orange (north of New Smyrna Beach) by which all parties have agreed to not encroach on each other's potential water and sewer service areas in the unincorporated areas of Volusia County. It is further agreed that new development in fringe areas may be served by the municipality that is best able to provide the service at the time it is needed. Such connections will be decided on a case-by-case basis, subject to the approval of both municipalities involved.

In addition, the City has annexation agreements with the Utilities Commission, City of New Smyrna Beach customers in unincorporated areas of Volusia County whereby these customers, in order to receive water and/or sewer service, have agreed to annexation at such time as their property becomes contiguous to the municipal boundaries. Before extending service outside the municipal boundaries of New Smyrna Beach, the Utilities Commission, City of New Smyrna Beach must secure approval from the City Commission. This approval will not be granted unless the potential customer has signed the aforementioned annexation agreement.

BEACH MANAGEMENT

Beach management is accomplished through enforcement of the Volusia County Unified Beach Code which: (1) provides for protection of public rights of access and customary use of the beach; (2) regulates use of and conduct on the beach; (3) establishes traffic and parking regulations and vehicle access fees;

(4) regulates beach concessions; and (5) provides for maintenance, lifeguard services, and beach patrol.

The code is administered by the Volusia County Department of Beach Management and the Beach Trust Commission. The Beach Trust Commission is comprised of 11 members, all of whom are coastal area residents. Each member has a weighted vote based on the percentage of total coastal area population that his or her municipality or unincorporated area represents. The Commission's primary purpose is to advise the Volusia County Council on formulation and adoption of beach ordinances and regulations.

The City historically maintained the beach areas lying within the City limits until 1986, when the Beach Trust Commission was created by referendum. If, through legislative or legal action, jurisdiction of the beach is returned to the City, the City will resume its historic role of maintaining this resource.

LAW ENFORCEMENT

A written mutual aid agreement is in effect through January 1, 2015, between Volusia County and all of its cities, which allows the various law enforcement agencies to assist each other in routine arrests and emergency situations. This agreement allows law enforcement officers to cross jurisdictional boundaries, as necessary, in the performance of their duties. Beach Patrol, Volusia County Department of Beach Services is also included in the agreement. The New Smyrna Beach Chief of Police has reported no problem with implementing this agreement, or with its effectiveness.

Specifically, the mutual aid agreement includes provisions for voluntary cooperation and operational assistance for investigating violations of Chapter 893, *Florida Statutes*, and other related criminal activities. The purpose of this agreement is to coordinate and establish procedures on investigations, buy/bust or deferred arrests, surveillance techniques, manpower and equipment requirements, and funding. The 7th Judicial Circuit State Attorney designates a "group coordinator" who works with each agency's representative to implement the agreement.

FIRE PROTECTION

The City of New Smyrna Beach has a written mutual assistance agreement with Volusia County and the Cities of Edgewater and Port Orange. This agreement allows the participants to assist each other in fighting fires or coping with other emergencies, and establishes a response sequence. It also allows the participants to request specific equipment from each other. Although such mutual assistance is needed only infrequently (averaging about once a year), response time is excellent, and no problems or complaints have been reported. The New Smyrna Beach Fire Department has primary responsibility for coordination.

EMERGENCY COMMUNICATIONS

The City of Edgewater, the City of New Smyrna Beach, and the City of Port Orange have entered into an interlocal agreement in effect through January 1, 2012, to establish and provide a consolidated dispatch communications and records system servicing law enforcement, fire, rescue, and emergency communications for each of the municipalities. The costs for the implementation of the consolidated dispatch system are allocated between the municipalities equally, per unit, or proportionately based on population and the number of calls.

TRANSPORTATION

The road system in the coastal area of Volusia County encompassing New Smyrna Beach is comprised of federal, state, county, and City roads. The Volusia Transportation Planning Organization serves as the planning coordinator for the federal and state roadways, and may serve a coordinative role in the planning of county and City roadway facilities as well.

ADMINISTRATION

New Smyrna Beach has resolutions of understanding with the Cities of Edgewater and Port Orange, which establish planning area boundaries and authorize the city manager or mayor of each City to make formal agreements pertaining to growth management issues. The *Volusia Growth Management Commission Comprehensive Plan Consistency Certification Rules* provide a means for coordinating the plans of municipalities and the county, in order to provide a forum for local governments to cooperate in

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coordinating the provision of public services. It is the function of the Volusia Growth Management Commission to evaluate the extent to which any plan, element, or plan amendment may create adjacent incompatible land uses, and the manner in which the adverse impact of these incompatible uses may be eliminated or mitigated. The Volusia Growth Management Commission is a governmental entity created by charter.

ECONOMIC DEVELOPMENT

The City of New Smyrna Beach assists in economic development by coordinating with two (2) regional entities, the Volusia County Business and Development Corporation (VCBDC) and the Southeast Volusia Chamber of Commerce (SEVCC). The goal of the VCBDC is to attract businesses that will benefit the economy of the entire county. When an entrepreneur approaches the City in pursuit of a location for a business, he or she is referred to the VCBDC for assistance. The SEVCC is an organization that works not only with prospective new businesses, but is also responsible for maintaining existing businesses and representing businesses economically and legislatively.

EMERGENCY MANAGEMENT

The City coordinates with the Volusia County Emergency Management Department on matters relating to natural-disaster preparation plans and post-disaster plans. The Emergency Management Department is the entity responsible for evacuating the City when it is vulnerable to natural disasters.

EVALUATION OF EXISTING MECHANISMS

The City of New Smyrna Beach has relationships either formal or informal with those entities, which it must coordinate. These relationships range from frequent communications and interaction to sporadic, infrequent contact.

The following is a description of the relationships between the City and the various entities.

CITIES

1. Edgewater – New Smyrna Beach’s relationship to the City of Edgewater is similar to those between neighboring municipalities. The formal relationship between New Smyrna Beach and Edgewater consists of their membership/representation on area wide organizations including the Volusia Transportation Planning Organization, the Volusia Council of Governments, and the Volusia Growth Management Commission. The informal relationship between the City and Edgewater involves interaction between the staffs of various departments. The office with primary responsibility for intergovernmental coordination is the City Manager’s Office.
2. Port Orange – The relationship between New Smyrna Beach and the City of Port Orange is similar to that described above. The formal relationship between the City and Port Orange consists of their membership/representation on area wide organizations including the Volusia Transportation Planning Organization, the Volusia Council of Governments, and the Volusia Growth Management Commission. The informal relationships between the City and Port Orange involve communication between staff. The office with primary responsibility for intergovernmental coordination is the City Manager’s Office.

COUNTIES

1. Volusia County – The City of New Smyrna Beach has an extensive relationship, both formal and informal, with Volusia County. The formal relationships consist of their membership/representation on area wide organizations including the Volusia Transportation Planning Organization, the Volusia Council of Governments, and the Volusia Growth Management Commission. Additionally, the county and the City of New Smyrna Beach presently have interlocal agreements regarding water and sewer service and providing quality, cost-effective services throughout the joint planning area. The informal relationships between the county and New Smyrna Beach involves frequent interaction among staff concerning a myriad of subjects. The office with primary responsibility for

intergovernmental coordination is the City Manager's Office.

REGIONAL AGENCIES

1. East Central Florida Regional Planning Council – The East Central Florida Regional Planning Council (ECFRPC) is an association of local governments serving six (6) counties: Brevard, Lake, Orange, Osceola, Seminole, and Volusia. The ECFRPC has a 31-member governing board. The ECFRPC takes a leadership role in representing identified regional resources and interests through a strategic planning program; develops and maintains a regional data system; provides coordination and assistance to local governments at all levels; develops a shared vision of the region's future; and coordinates the region's resources and energies to achieve common goals.

Pursuant to §186.509, *Florida Statutes*, ECFRPC is to establish by rule a dispute resolution process to reconcile differences on planning and growth management issues between local governments, regional agencies, and private interests. The dispute resolution process shall, within a reasonable set of timeframes, provide for: voluntary meetings among the disputing parties; if those meetings fail to resolve the dispute, then an initiation of mandatory mediation or a similar process; and if that process fails, then an initiation of arbitration or administrative or judicial action, where appropriate.

Data development at the ECFRPC involves developing and maintaining a core database that compiles data sets by geographic unit to allow for spatial analysis of demographic and growth trends by ECFRPC staff, local governments, and the general public. The ECFRPC is undertaking a multi-year effort to identify the data needed for such a database and to develop an implementation plan for collecting, storing, using and maintaining those data. This system will allow the graphic presentation of metropolitan and regional trends and will provide an exciting tool for "what if" examinations of the future.

The ECFRPC provides technical assistance to its member local governments in a variety of ways. These include staffing the Local Emergency Planning Committee's hazardous materials training program for city and county professionals; reviewing local government comprehensive plans, plan amendments, and Developments of Regional Impact; reviewing high speed rail plans and county emergency plans; and serving as the regional clearinghouse for review of federal funding or permitting programs. The ECFRPC also provides information, technical assistance, and a forum for communication to the region's housing planners. As an association of local governments, the ECFRPC is an objective, locally based advisor on growth management issues. As a result, the ECFRPC is often asked to provide short-term technical assistance in areas so varied as analyzing the boundaries of City election districts, providing data on areas slated for annexation, developing computerized land use, zoning, and City base maps, and researching local ordinances.

2. St. Johns River Water Management District (SJRWMD) – The City of New Smyrna Beach falls entirely within the jurisdiction of the SJRWMD. The SJRWMD regulates the use of all ground and surface waters within its jurisdiction through permitting controls. The City maintains interaction with the SJRWMD staff. The Engineering Department has primary responsibility for intergovernmental coordination with the Water Management District.
3. Volusia Growth Management Commission (VGMC) – The creation of the Volusia Growth Management Commission (VGMC) was approved by referendum in 1986. The Commission was established in 1987 under §202.3, Article II of the *Volusia County Charter*. The VGMC has the responsibility to determine the consistency of the comprehensive plans and plan amendments of Volusia County and its municipalities. Membership includes one (1) voting member appointed by municipality and five (5) voting members from unincorporated Volusia County. Each voting member has a weighted vote based on the population of the municipality/county. Non-voting members include the Volusia County School Board, the SJRWMD, and the Volusia County Business Development Corporation.

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The VGMC represents one of the major avenues through which intergovernmental coordination can be achieved. The City Manager's Office is the primary office with responsibility for intergovernmental coordination.

4. Volusia Transportation Planning Organization (TPO) – Each urbanized area in the United States with a population of 50,000 or more is required by the federal government to have a metropolitan planning organization (MPO). MPOs are responsible for the continuing, cooperative, and comprehensive transportation planning process for their urbanized area, which results in the development of plans and programs consistent with the comprehensively planned development of the urbanized area. All voting Board members are elected city and county officials. The Florida Department of Transportation (FDOT) and the Volusia County School Board are represented as non-voting Board members.

SCHOOL BOARDS

1. Volusia County School Board – The Volusia County School Board has responsibility for operating all public schools within Volusia County. The City has entered into an interlocal agreement that provides for a uniform concurrency management approach and a proportionate share methodology. The School Board is a non-voting member of the Local Planning Agency. The City maintains communications with the School Board as necessary. The office with primary responsibility for intergovernmental coordination is the City Manager's Office.

STATE AND FEDERAL AGENCIES

1. State of Florida – The City maintains relationships with a variety of state agencies. The nature of the relationships, frequency of interaction and office with primary responsibility for intergovernmental coordination varies according to the subject being addressed.

FUTURE COORDINATION NEEDS

Intergovernmental coordination mechanisms are already in use for virtually all areas of the City's operations. As new needs arise or new operations develop, new mechanisms will be needed. Interlocal agreements should be developed with Volusia County or the Volusia Transportation Planning Organization (TPO) to promote increased transportation planning and coordination, including levels-of-service, maintenance, operations, right-of-way acquisitions, and impact fees.

Interlocal agreements are also needed with Volusia County to establish joint planning areas for enhancing land use compatibility, and to establish service areas or annexation procedures.

There is also a need for an ongoing review of the mechanisms, along with periodic evaluation of the effectiveness of each, by appropriate operating departments. A spirit of cooperation is necessary to help provide for the most efficient and cost-effective delivery of services.

CONSISTENCY WITH OTHER PLANS

CONSISTENCY WITH OTHER PLAN ELEMENTS

There are opportunities to address specific needs and problems by additional intergovernmental coordination.

FUTURE LAND USE

The local jurisdictions foresaw the need to have better coordination between local governments on issues relating to all elements of the comprehensive plan. New Smyrna Beach participates on the Volusia Growth Management Commission (VGMC). While this is a formal relationship, the City should continue to pursue informal discussions with adjacent jurisdictions to anticipate issues prior to formal review processes.

TRANSPORTATION

As all jurisdictions adopt their transportation elements, the need to avoid unwarranted overlap or conflict

becomes more important. The Volusia communities' ability to address concurrency issues requires continuing negotiation. The VGMC and the TPO are good tools to use with respect to these issues.

HOUSING

Housing is primarily a market driven function. Since the City's direction in the Housing Element is to make the development of new affordable housing less of a regulatory encumbrance, the City should monitor other communities' successes and failures to ease the regulatory burden.

SANITARY SEWER, POTABLE WATER, SOLID WASTE, DRAINAGE, AND NATURAL GROUNDWATER AQUIFER RECHARGE

The City must address utility expansion in the reserve areas with respect to the *Volusia County Comprehensive Plan*. The interlocal agreement between the two (2) jurisdictions provides the framework for this issue.

CONSERVATION

The City shares responsibility for maintaining the quality of natural resources in the area. Since the resources in many cases do not relate to jurisdictional boundaries, it is important for New Smyrna Beach to look to other affected agencies to share conservation responsibilities.

COASTAL MANAGEMENT

The specific problems and needs have been addressed with the countywide development of the Coastal Management Element.

RECREATION AND OPEN SPACE

The City is continually in need of additional parks and recreation facilities and open space as the population grows. The City should coordinate with the County and adjacent municipalities for shared facilities and open space.

INTERGOVERNMENTAL COORDINATION

In some cases the City may not be represented in coordination meetings. The City should ensure that they are notified and represented in coordination efforts.

CAPITAL IMPROVEMENTS

Methodologies in funding capital improvements are a great need. Better coordination would assist in determining revenue sources and funding mechanisms.

HISTORICAL AND ARCHAEOLOGICAL PRESERVATION

The preservation of historical and archaeological resources may be the responsibility of multiple governmental jurisdictions. The City will take the lead in coordinating the preservation of these resources when they are to be impacted.

PUBLIC SCHOOL FACILITIES

The City has entered into an interlocal agreement with the School Board and has coordinated the adoption the Public School Facilities Element and updates to the Capital Improvements Element and this Intergovernmental Coordination Element.

ECONOMIC DEVELOPMENT

The City will coordinate recruitment, retention, and expansion of businesses with the County of Volusia Department of Economic Development. This should create mechanisms, including incentives and workforce training, to attract, retain, and expand diverse, innovative, and responsible businesses to the City.

CONSISTENCY WITH OTHER JURISDICTIONS' COMPREHENSIVE PLANS

The Volusia Growth Management Commission was created to coordinate the comprehensive planning

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between neighboring jurisdictions.

CONSISTENCY WITH THE REGIONAL POLICY PLAN

The Comprehensive Regional Policy Plan of the East Central Florida Regional Planning Council has been reviewed, and the City's policies are consistent with the policies and strategies contained in the plan. The City of New Smyrna Beach will pursue the strategies of the Regional Policy Plan within the limits of its capabilities and resources. Regional policies will continue to be monitored to ensure consistency with City policies.

CONSISTENCY WITH THE *STATE COMPREHENSIVE PLAN*

The goals and policies of the *State Comprehensive Plan* are addressed throughout this *Comprehensive Plan* for the City of New Smyrna Beach. Consequently, the City's plan is consistent with the state's goals and policies. The City will continue to use the State Plan as a guide for policymaking.

AREAS OF CRITICAL STATE CONCERN

There are no areas of critical state concern, either partially or wholly within the New Smyrna Beach planning area.

GOALS, OBJECTIVES, AND POLICIES

PLAN COORDINATION GOAL:

To promote the preparation and implementation of the *Comprehensive Plan* that meets the needs of New Smyrna Beach, and that is coordinated with the plans of other jurisdictions in the area. This goal will be met by initiating the objectives and policies stated herein, which will be more specifically defined in future *Comprehensive Plan* updates as local needs (and the City's ability to meet those needs) become better established.

OBJECTIVE:

1. To ensure citizen participation in plan preparation, adoption, and implementation.

POLICY:

Input by the residents of New Smyrna Beach into the planning process will be encouraged on an ongoing basis. Technical advisory committees, existing advisory boards, and special task forces will be used as appropriate.

OBJECTIVE:

2. To maintain and improve lines of communication with other units of government in order to minimize conflict and maximize coordination during the planning process.

POLICIES:

- a. Continue to monitor activities and legislation at the federal, state, regional, and local level that could affect the New Smyrna Beach planning area.
- b. Continue to encourage its elected representatives, employees, and residents to participate in and monitor activities of other agencies that could affect the New Smyrna Beach planning area.
- c. Participate in the Volusia Growth Management Commission in order to enhance intergovernmental coordination among local governments for plan implementation.
- d. Review the comprehensive plans and plan amendments of adjacent local governments, and state and regional agencies, for consistency with the goals, objectives, policies, and implementation strategies of this *Comprehensive Plan*.
- e. Participate in the development of updates to the St. Johns River Water Management District (SJRWMD) Water Supply Assessment, Water Supply Plan, and in other water

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supply development related initiatives facilitated by SJRWMD that affect the City.

- f. The Utilities Commission, City of New Smyrna Beach shall adopt a ten (10) year Water Supply Facilities Work Plan and support documentation that is coordinated with the most recently adopted SJRWMD Water Supply Plan to address water supply facilities necessary to meet existing and projected demand within the service area.
- g. Coordinate the maintenance of the *Comprehensive Plan* with Utilities Commission, City of New Smyrna Beach by adopting a ten (10) year Water Supply Facilities Work Plan within 18 months of an update to the SJRWMD Water Supply Work Plan that affects the City.

OBJECTIVE:

- 3. To continue coordination with Volusia County, other municipalities, and other affected agencies through formal and informal mechanisms, to ensure consistency in the impact of proposed development and comprehensive planning matters.

POLICIES:

- a. Establish procedures for coordinating the following activities with other local governments through the City/County Joint Planning Committee:
 - i. Resolving conflicts with other local governments through the East Central Florida Regional Planning Council's formal or informal mediation process;
 - ii. Reviewing development proposals having potential significant impacts on neighboring local governments;
 - iii. Providing services and information; and
 - iv. Resolving annexation issues.
- b. Implement an interlocal agreement with Volusia County to promote consistency of future land use designations in both the City's and the County's comprehensive plans.

OBJECTIVE:

- 4. To continue to coordinate with state, regional, and other local governmental entities in reducing the impacts of development on, and maintaining level-of-service standards for, public facilities. This shall be accomplished by maintaining membership in area wide organizations and participating in multi-level staff communications.

POLICIES:

- a. Support the efforts of, and actively participate on, the Technical Coordinating committee of the Volusia Transportation Planning Organization.
- b. Support and cooperate with the Volusia Council of Governments and the Volusia Growth Management Commission.
- c. Participate in monthly countywide city managers' meetings and in monthly countywide planners' meetings.

OBJECTIVE:

- 5. To pursue the implementation of common goals, objectives, and policies with other units of government.

POLICIES:

- a. Continue to use Interlocal agreements, contracts, mutual aid agreements, and other means of cooperation to effectively provide the public with needed services, and to provide coordinated level-of-service standards for public facilities.
- b. Support the goals, objectives, and policies outlined in the intergovernmental coordination elements of comprehensive plans developed by adjacent local

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governments.

- c. Continue to support and encourage consistent and coordinated management of lagoons, waterways, rivers, and other natural resources affected by more than one jurisdiction.
- d. Encourage and support state legislation requiring that development of unincorporated areas be consistent with the comprehensive plans of adjacent municipalities.
- e. Continue to work with the Volusia County School Board to ensure that new public schools are collocated, when possible, with existing or proposed public facilities such as parks, libraries, and community centers.

OBJECTIVE:

6. Use the following process for the resolution of any conflict, which arises from a dispute over a growth management issue:
 - a. Offer to participate in a meeting with the other party or parties to resolve the dispute, to define the parameters of the dispute, and/or to establish a formal process for resolving the dispute. Where the City is the aggrieved party, this offer will be incorporated in the notification to the other party or parties. Where the City is the responding party, the offer will be included in the initial response. Any notice or response will request a response within 15 days as to the willingness of the other party or parties to use the dispute resolution process provided under this objective. The City's notice or response will include any applicable information as to the current status of any permit(s) issued or action(s) taken by the City, including the expected date(s) of issuance of any permit(s).
 - b. Where an informal meeting does not resolve the dispute, the City will suggest that one or more of the following entities be used to facilitate in the resolution of the dispute:
 - i. The Volusia Growth Management Commission shall be used to resolve all area-wide conflicts affecting jurisdictions in Volusia County as they pertain to land use, transportation, and infrastructure issues;
 - ii. East Central Florida Regional Planning Council; and/or
 - iii. Florida Growth Management Conflict Resolution Consortium.

PUBLIC SCHOOL FACILITIES COORDINATION GOAL:

Establish and maintain a cooperative relationship between the City of New Smyrna Beach and the Volusia County School Board to provide an effective joint planning process including procedures to coordinate land use planning with the development of school facilities including public school siting, calculate population projections, and provide for the development of public education facilities concurrently with residential development and other public facilities and services.

OBJECTIVE:

1. To establish coordination mechanisms with the Volusia County School Board to achieve a collaborative effort to identify school needs, to provide for schools facilities, and to implement school concurrency using consistent supporting data and analysis.

POLICIES:

- a. Adopt and implement an interlocal agreement , in cooperation with the School Board, as required by §1013.33, *Florida Statutes*, which includes procedures for:
 - i. Coordinating and sharing information;
 - ii. Educational and ancillary siting procedures;
 - iii. Comprehensive plans and plan amendment review;

- iv. Site design and development plan review;
 - v. Joint development of schools, parks and other uses;
 - vi. School concurrency implementation;
 - vii. Implementation and amendments; and
 - viii. Resolution of disputes.
- b. Appoint a representative to meet with School Board and other local government representatives to review data and annually approve a projection of the amount, type, and distribution of population growth and student enrollment, in accordance with the schedule established in the *Interlocal Agreement for Public School Facility Planning* (Interlocal Agreement). Data shall include but not be limited to:
 - i. Capital budgets for each jurisdiction;
 - ii. School Board five (5) year facilities work program;
 - iii. School Board educational plant survey (every fifth year);
 - iv. Volusia County five (5) year road improvement program;
 - v. Anticipated new development, infill development, and redevelopment; and
 - vi. Student enrollment and school utilization including portable classroom assignments.
 - c. Provide the School Board with a copy of each LPA/Planning and Zoning Board and Commission agenda.
 - d. Coordinate the acquisition and development of sites for future educational and ancillary facilities, in accordance with the process established in the Interlocal Agreement.
 - e. Continue to implement school concurrency and §206 of the *Volusia County Charter*.
 - f. Provide notice to adjacent jurisdictions as required by the Interlocal Agreement when school capacity in the adjacent jurisdiction is anticipated to be applied to meet concurrency requirements for proposed residential development.

OBJECTIVE:

- 2. To monitor and evaluate the implementation of the Public School Facilities Element to assure compliance with the provisions of the *Comprehensive Plan* and the Interlocal Agreement, to assure the use of best practices in the joint planning of school facilities, and to provide for the continuing coordination of school planning.
 - a. Submit a report to the LPA/Planning and Zoning Board and the School Board reporting on the implementation actions and coordinated planning efforts for planning and developing school facilities including joint development opportunities, in accordance with the Interlocal Agreement, but no less than once per year. If the School Board or the City of New Smyrna Beach finds that implementation of the plan or Interlocal Agreement is not occurring, the School Board or LPA/Planning and Zoning Board shall make recommendations to the City Commission of steps necessary to achieve successful implementation.
 - b. For each *Comprehensive Plan* amendment reviewed by the Volusia Growth Management Commission (VGMC), the City of New Smyrna Beach shall identify in the VGMC application support materials how anticipated impacts of the proposed amendment to school facilities are addressed.
 - c. Appoint a citizen to serve as a member of the oversight committee created by the adopted Interlocal Agreement and shall appoint a staff member to serve on the technical committee created by the adopted Interlocal Agreement.

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Plant Survey, prepared every five (5) years by the State Department of Education in accordance with *Florida Statutes*. The last survey was completed in April 2008. The results of this survey indicated a need for a new elementary school to relieve Cypress Creek, Horizon, and Chisholm Elementary Schools. A new K-8 school is also required to relieve New Smyrna Beach Middle School and Indian River and Edgewater Elementary Schools. The School Board has already acquired an elementary school site in New Smyrna Beach, which could potentially be the site for the new elementary school. The School Board has also acquired a site for the needed K-8 facility along State Road 442 in the southwestern section of the City of Edgewater, which is anticipated to open August 2014. Additions and remodeling have occurred at Chisholm Elementary and New Smyrna Beach Middle School. The remainder of the existing education facilities was noted as being in excellent or good condition and was adequately served by roadways, sanitary sewer, solid waste, stormwater drainage, potable water, and recreation facilities.

The State of Florida Agency for Health Care Administration determines the need for new health care facilities with a formula based on occupancy rates, historic use by age group, and population projects by age group. The Bert Fish Medical Center operates within the City of New Smyrna Beach incorporated area and serves the entire southeast Volusia County area.

Individual capital improvement needs identified in this element are, for the most part, those improvements, which cost \$25,000 or more and are generally non-recurring purchase items. The capital improvements identified in the other elements of this *Comprehensive Plan* are listed in Table XII-2 along with their estimated costs and projected year of expenditure. The improvements are listed by type of service, related to the various elements of the *Comprehensive Plan*. As required by Rule 9J-5.016, *Florida Administrative Code*, the Capital Improvements Element addresses existing and future capital improvements needed for at least the first five (5) fiscal years after the adoption of the *Comprehensive Plan*. Therefore, Table XII-2 lists improvements identified for the years 2010-2015. Table XII-3 details pending and approved proportionate fair-contributions for required transportation improvements. Table XII-6 identifies the *Volusia Transportation Planning Organization (TPO) Transportation Improvement Program FY 2010/11 – 2014/15*. Table XII-7 identifies the Volusia County School Board five (5) year work program which must be included within the CIE per the Public Schools Facility Element.

Table XII-2 Five (5) Year Capital Improvement Schedule

PROJECT #	DESCRIPTION	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	TOTAL
WATER							
W-25	Upgrade Under-Sized Water Mains	220,500	232,000	244,000	256,000	269,000	1,221,500
Funding Source: Renewal and Replacement Fund		220,500	232,000	244,000	256,000	269,000	1,221,500
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Potable Water Sub-Element, Objective 1, Policy 3							
W-26	New Customers Water Line Extensions	30,000	40,000	40,000	40,000	40,000	190,000
Funding Source: Renewal and Replacement Fund		30,000	40,000	40,000	40,000	40,000	190,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Potable Water Sub-Element, Objective 1, Policy 3							
W-45	Road Project Relocation/Interagency Coop. Project	150,000	150,000	200,000	200,000	300,000	1,000,000
Funding Source: Renewal and Replacement Fund		150,000	150,000	200,000	200,000	300,000	1,000,000
Intergovernmental Coordination Element, Objective 5, Policy a							
W-125	Water Production Equipment and Fixtures	199,500	223,000	191,400	242,800	208,000	1,064,700
Funding Source: Renewal and Replacement Fund		199,500	223,000	191,400	242,800	208,000	1,064,700
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Potable Water Sub-Element, Objective 1, Policy 3							
W-126	Water Distribution Equipment and Fixtures	252,400	264,900	279,300	295,100	308,000	1,399,700
Funding Source: Renewal and Replacement Fund		252,400	264,900	279,300	295,100	308,000	1,399,700
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Potable Water Sub-Element, Objective 1, Policy 3							
W-127	Water Treatment Plan Hypochlorite Conversion	0	250,000	250,000	0	0	500,000
Funding Source: Renewal and Replacement Fund		0	250,000	250,000	0	0	500,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Potable Water Sub-Element, Goal 1							
W-128	Future Water Supply (Alternative Water Supply Needs)	0	40,000	244,000	205,000	422,000	911,000
Funding Source: Renewal and Replacement Fund		0	40,000	244,000	205,000	422,000	911,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Potable Water Sub-Element, Goal 1							
TOTAL		852,400	1,199,900	1,448,700	1,238,900	1,547,000	6,286,900
WASTEWATER							
WW-20	Manhole Lining Program	30,000	32,000	34,000	36,000	38,000	170,000
Funding Source: Renewal and Replacement Fund		30,000	32,000	34,000	36,000	38,000	170,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-38	Gravity Sewer Rehabilitation	100,000	200,000	300,000	300,000	300,000	1,200,000
Funding Source: Renewal and Replacement Fund		100,000	200,000	300,000	300,000	300,000	1,200,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-49	Biosolids Process Upgrade	50,000	500,000	450,000	0	0	1,000,000
Funding Source: Renewal and Replacement Fund		50,000	500,000	450,000	0	0	1,000,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 8							
WW-51	Road Relocations/Interagency Coop.	100,000	150,000	150,000	175,000	175,000	750,000
Funding Source: Renewal and Replacement Fund		100,000	150,000	150,000	175,000	175,000	750,000
Intergovernmental Coordination Element, Objective 5, Policy a							
WW-59	Wastewater Collection Equip. and Fixtures	199,000	145,300	126,600	158,900	141,900	770,800
Funding Source: Renewal and Replacement Fund		199,000	145,300	126,600	158,900	141,900	770,800
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-60	Wastewater Pumping Equip. and Fixtures	272,000	259,000	301,000	284,000	327,000	1,443,000
Funding Source: Renewal and Replacement Fund		272,000	259,000	301,000	284,000	327,000	1,443,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-61	Reconstruct Lift Stations	210,000	221,000	232,000	244,000	256,000	1,163,000
Funding Source: Renewal and Replacement Fund		210,000	221,000	232,000	244,000	256,000	1,163,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-62	Repair/Upgrade 30 Lift Stations	236,000	248,000	260,000	273,000	287,000	1,304,000
Funding Source: Renewal and Replacement Fund		236,000	248,000	260,000	273,000	287,000	1,304,000

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Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-63	System-Wide Infiltration/ Inflow Assessment	0	500,000	0	0	0	500,000
Funding Source: Renewal and Replacement Fund		0	500,000	0	0	0	500,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 8							
WW-65	Beachside Interceptor Force Main	0	200,000	750,000	1,000,000	250,000	2,200,000
Funding Source: Renewal and Replacement Fund		0	200,000	750,000	1,000,000	250,000	2,200,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-66	Sugar Mill Collection System Improvements	60,000	0	0	0	0	60,000
Funding Source: Renewal and Replacement Fund		60,000	0	0	0	0	60,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-71	WWTP Sodium Hypochlorite Conversion	0	520,000	0	0	0	520,000
Funding Source: Renewal and Replacement Fund		0	520,000	0	0	0	520,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-72	Indian River Outfall Discharge (Dechlorination)	0	0	0	0	208,000	208,000
Funding Source: Renewal and Replacement Fund		0	0	0	0	208,000	208,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-73	WWTP Influent Structure Improvement	150,000	0	0	0	0	150,000
Funding Source: Renewal and Replacement Fund		150,000	0	0	0	0	150,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-74	Rehabilitate WWTP Clarifiers	0	350,000	300,000	0	0	650,000
Funding Source: Renewal and Replacement Fund		0	350,000	300,000	0	0	650,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 2, Policy b							
WW-76	WWTP 3.5 MG Capacity Expansion	0	0	0	0	1,000,000	1,000,000
Funding Source: Renewal and Replacement Fund		0	0	0	0	1,000,000	1,000,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 1, Policy a							
TOTAL		1,407,000	3,325,300	2,903,600	2,470,900	2,982,000	13,088,800
REUSE							
R-26	Reclaimed Meters	56,000	59,000	62,000	65,000	68,000	310,000
Funding Source: Renewal and Replacement Fund		56,000	59,000	62,000	65,000	68,000	310,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 6, Policy d							
R-30	Road Relocation/Interagency Cooperation	50,000	50,000	50,000	75,000	75,000	300,000
Funding Source: Renewal and Replacement Fund		50,000	50,000	50,000	75,000	75,000	300,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 6							
R-36	Reclaimed Water Source Development (ASR)	100,000	900,000	1,000,000	2,000,000	2,000,000	6,000,000
Funding Source: Renewal and Replacement Fund		100,000	900,000	1,000,000	2,000,000	2,000,000	6,000,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 6							
R-37	Sugar Mill Tank Storage	25,000	0	0	0	0	25,000
Funding Source: Renewal and Replacement Fund		25,000	0	0	0	0	25,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Sanitary Sewer Sub-Element, Objective 6							
TOTAL		231,000	1,009,000	1,112,000	2,140,000	2,143,000	6,635,000
RECREATION							
P-1	Pettis Park Accessibility Improvements	58,000	0	0	0	0	58,000
Funding Source: Community Development Block Grants (CDBG)		58,000	0	0	0	0	58,000
Recreation and Open Space Element, Goal 1, Objective 1, Policy a							
P-2	Westside Neighborhood Splash Park	53,520	100,000	0	0	0	150,520
Funding Source: Community Development Block Grants (CDBG)		53,520	0	0	0	0	53,520
Funding Source: Florida Recreation Development Assistance Program (FRDAP) (Planned)		0	100,000	0	0	0	100,000
Recreation and Open Space Element, Goal 1, Objective 1, Policy a							
P-3	Esther Street Beachfront Park*	0	1,335,000	0	0	0	1,335,000
Funding Source: Community Redevelopment Agency Fund (CRA)		0	785,000	0	0	0	785,000

Funding Source: Florida Recreation Development Assistance Program (FRDAP) (Planned)		0	200,000	0	0	0	200,000
Funding Source: Volusia County ECHO Grant (Planned)		0	350,000	0	0	0	350,000
Recreation and Open Space Element, Goal 1, Objective 6, Policy a							
P-4	Coronado Shuffleboard Courts Restroom Facility	171,281	0	0	0	0	171,281
Funding Source: Florida Recreation Development Assistance Program (FRDAP)		76,281	0	0	0	0	76,281
Funding Source: Community Redevelopment Agency (CRA)		55,000	0	0	0	0	55,000
Funding Source: General Revenue Fund		40,000	0	0	0	0	40,000
Recreation and Open Space Element, Goal 1, Objective 2, Policy e							
P-5	North Causeway Boat Ramps	790,000	0	0	0	0	790,000
Funding Source: Florida Inland Navigation Grant (FIND)		200,000	0	0	0	0	200,000
Funding Source: Florida Fish and Wildlife Conservation Commission		195,000	0	0	0	0	195,000
Funding Source: General Fund		395,000	0	0	0	0	195,000
Recreation and Open Space Element, Goal 1, Objective 6, Policy a							
P-5	Multi-Use Trail	0	0	1,126,212	0	0	1,126,212
Funding Source: Volusia County Environmental, Outdoor, Cultural, and heritage Grant (ECHO)		0	0	287,853	0	0	287,853
Funding Source: Volusia County Transportation Planning Organization (TPO)		0	0	838,359	0	0	838,359
Recreation and Open Space Element, Goal 1, Objective 6, Policy a							
P-6	Riverside Park Improvements	400,000	0	0	0	0	400,000
Funding Source: Community Redevelopment Agency Fund		400,000	0	0	0	0	400,000
Recreation and Open Space Element, Goal 1, Objective 2, Policy c							
TOTAL		1,472,801	1,435,000	1,126,212	0	0	4,034,013
TRANSPORTATION							
PW-2	Fairgreen Sidewalk	265,615	0	0	0	0	265,615
Funding Source: Florida Department of Transportation		265,615	0	0	0	0	265,615
Public Schools Facility Element, Goal 1, Objective 3, Policy dii							
TOTAL		265,615	0	0	0	0	265,615
STORMWATER/DRAINAGE							
SW-1	Central Beach Drainage Improvements, Phase 3	1,248,390	1,775,805	1,775,805	0	0	4,800,000
Funding Source: Stormwater Operating Fund		1,248,390	830,805	830,805	0	0	2,910,000
Funding Source: FEMA Hazard Mitigation Grant		0	945,000	945,000	0	0	1,890,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							
SW-2	Fairmont/Westwood, between North Street and Conrad Street	609,000	0	0	0	0	609,000
Funding Source: Stormwater Operating Fund		609,000	0	0	0	0	609,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							
SW-4	Esther Street Drainage Improvements	0	375,000	0	0	0	375,000
Funding Source: Community Redevelopment Agency Fund		0	150,000	0	0	0	150,000
Funding Source: FDEP 319h Grant		0	225,000	0	0	0	225,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							
SW-5	Julia Street Water Quality Improvements	0	0	100,000	100,000	0	200,000
Funding Source: Stormwater Operating Fund		0	0	50,000	50,000	0	100,000
Funding Source: Florida Department of Environmental Protection LP6064 Grant		0	0	50,000	50,000	0	100,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							
SW-6	S. Orange Street Stormwater Improvements/ Streetscape (between Downing Street and Lytle Avenue)	156,150	0	0	0	0	156,150
Funding Source: Community Redevelopment Agency Fund		156,150	0	0	0	0	156,150
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							
SW-7	Mary Avenue Streetscape/ Stormwater Improvements	183,677	0	0	0	0	183,677
Funding Source: Community Redevelopment Agency Fund		183,677	0	0	0	0	183,677
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							
SW-8	Isleboro Area Drainage Study	4,000	0	0	0	0	4,000
Funding Source: Stormwater Operating Fund		4,000	0	0	0	0	4,000
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							

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SW-9	Acquisition of Property at 2631 Westwood Avenue and 632 South Pine Street	619,080	0	0	0	0	619,080
Funding Source: FEMA Grant		464,310	0	0	0	0	464,310
Funding Source: Stormwater Operating Fund		154,770	0	0	0	0	154,770
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							
SW-10	Isleboro Drainage Improvements	0	644,755	0	0	0	644,755
Funding Source: Stormwater Operating Fund		0	644,755	0	0	0	644,755
Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element, Drainage Sub-Element, Objective 1							
TOTAL		2,820,297	2,795,560	1,875,805	100,000	0	7,591,662

Note: If planned funds cannot be obtained, the project will be place on hold until such time as funding becomes available.

Table XII-3 Transportation Proportionate Fair-Share Agreements by Project

Project	Developer	Development	Agreement Approval	Date of Contribution	Total
Traffic Signal at State Road 44 and Glencoe	Village Square LLC	Village Square PUD	9/25/2007	Pending	TBD
	Coronado Land Investments LLC	Coronado Office Park PUD	Pending	Pending	\$ 30,633.78
	Southeast Interchange Complex LLC	Southeast Interchange PUD	5/10/2005	2/7/2007	\$ 17,148.80
	Odyssey (VI) Commercial DP VIII LLC	Timberlane Retail Center PUD	Pending	Pending	TBD
	Subtotal				\$ 47,782.58
Traffic Signal at State Road 44 and Sugar Mill	Acorn Development Company	Isles of Sugar Mill / Landings at Sugar Mill	11/28/2005	11/28/2005	\$ 37,042.00
	Progressive Builders LLC	Sugar Mill Gardens	6/1/2005	2/1/2007	\$ 17,704.50
	Subtotal				\$ 54,746.50
Paige Avenue Paving	Taco Bell of America, Inc.	Taco Bell, 1860 State Road 44	N/A	12/1/2008	\$ 8,054.55
	Subtotal				\$ 8,054.55
Total					\$ 110,583.63

Table XII-4 Summary of Capital Improvements

FACILITY TYPE	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 13/14	TOTAL
Water	852,400	1,199,900	1,448,700	1,238,900	1,547,000	6,286,900
Sanitary Sewer	1,407,000	3,325,300	2,903,600	2,470,900	2,982,000	13,088,800
Reuse	231,000	1,009,000	1,112,000	2,140,000	2,143,000	6,635,000
Recreation	1,472,801	1,435,000	1,126,212	0	0	4,034,013
Transportation	265,615	0	0	0	0	265,615
Stormwater/Drainage	2,820,297	2,795,560	1,875,805	100,000	0	7,591,662
Total Capital Improvements	7,049,113	9,764,760	8,466,317	5,949,800	6,672,000	37,901,990

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Table XII-5 Summary Schedule of Committed and Planned Funds

Source	2010-2011	2011-2012	2012-2013	2013-2014	FY 14/15	Total
Community Development Block Grants (CDBG)	111,520	0	0	0	0	111,520
Community Redevelopment Agency Fund	794,827	935,000	0	0	0	1,729,827
FDEP 319h Stormwater Grant (Planned)	0	225,000	0	0	0	225,000
FEMA Hazard Mitigation Grant	464,310	945,000	945,000	0	0	2,354,310
FDEP LP6064 Grant	0	0	50,000	50,000	0	100,000
FDOT	265,615	0	0	0	0	265,615
Florida Fish and Wildlife Conservation Commission	195,000	0	0	0	0	195,000
Florida Inland Navigation Grant	200,000	0	0	0	0	200,000
FRDAP	76,281	0	0	0	0	76,281
FRDAP (Planned)	0	300,000	0	0	0	300,000
General Revenue Fund	435,000	0	0	0	0	435,000
Utilities Commission Renewal and Replacement Fund	2,490,400	5,534,200	5,464,300	5,849,800	6,672,000	26,010,700
Stormwater Operating Fund	2,016,160	1,475,560	880,805	50,000	0	4,422,525
Volusia County ECHO Grant	0	0	287,853	0	0	287,853
Volusia County ECHO Grant (Planned)	0	350,000	0	0	0	350,000
Volusia County TPO	0	0	838,359	0	0	838,359
TOTAL	6,818,113	8,755,760	7,354,317	3,809,800	4,529,000	31,266,990

Table XII-6 identifies transportation improvements included in the first five (5) years of the Volusia County Transportation Planning Organization's (TPO) adopted transportation improvement program (TIP), to the extent that such improvements are relied upon to ensure concurrency and financial feasibility.

Table XII-6 Volusia County Metropolitan Transportation Planning Organization (MPO) Transportation Improvement Program FY 2009/10-2013/14

PROJECT #	WORK SUMMARY	TOTAL ESTIMATED COST						SPONSOR
		FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	TOTAL	
2409925	Intersection improvement - one of 15 intersections identified for improvement in the US 1 Arterial Investment Study	1,025,000	0	0	0	0	1,025,000	FDOT
4068694	Add lanes and rehabilitate pavement on I-95 from Brevard County line to 0.5 miles north of SR 44.	3,051,508	690,517	452,034	0	0	4,194,059	FDOT
4068696	Add lanes and rehabilitate pavement on I-95 from 0.5 north of SR 44 to south of I-4.	6,316,925	0	0	0	0	6,316,925	FDOT
4180201	Replace existing strain pole supports with new mast arms for 7 traffic signals on SR 44 from Eddie Road to 3 rd Avenue.	0	0	1,915,029	0	0	1,915,029	FDOT
4216291	Install a new traffic signal system on SR 44 at Glencoe Road	397,500	0	0	0	0	397,500	FDOT
Candidate 2-2010	New Smyrna Beach Multi-Use Trail	123,358	0	1,090,592	0	0	1,213,950	City of NSB
4233841	Construct new sidewalk along Fairway Drive between Wayne Avenue and Fairgreen Drive, 0.61 miles	265,615	0	0	0	0	265,615	City of NSB
4076741	Airport Hangar Construction	680,000	0	0	0	0	680,000	City of NSB
4144431	Aviation Capacity Project - NSB Municipal Airport	214,594	0	0	0	0	214,594	City of NSB
4182971	Airport Hangar Construction	0	0	200,000	0	0	200,000	City of NSB
4184851	Consolidated Fuel Farm at NSB Municipal Airport	0	0	925,000	0	0	925,000	City of NSB
4184861	NSB Municipal Airport Apron Parking Construction	5,134	193,038	431,096	1,666,008	2,363,570	4,658,846	City of NSB
4208561	NSB Municipal Airport Land Acquisition	0	1,250,000	0	0	0	1,250,000	City of NSB
4208571	NSB Municipal Airport Maintenance Facility	150,000	0	0	0	0	150,000	City of NSB
4270171	Bridge Replacement - Turnbull Bay Road	10,542	0	0	0	0	10,542	FDOT
4272671	State Road 44 Resurfacing	50,000	0	9,235,561	0	0	9,285,561	FDOT

Source: Volusia County Transportation Planning Organization Amended TIP 2010/11 - 2014/15

Table XII-7 identifies public school facilities improvements included in the first five (5) years of the 2010/11-2014/15 Volusia County School Board Work Program.

Table XII-7 Volusia County School Board Five (5) Year Work Program, 2009/10-2013/14

	FY 10/11	FY 11/12	FY12/13	FY 13/14	FY 14/15
NEW CONSTRUCTION					
None	0	0	0	0	0
MAJOR PROJECTS AT EXISTING SCHOOLS & FACILITIES					
Portables – Lease	800,000	600,000	500,000	250,000	250,000
Portables – Moves & Compliance	600,000	500,000	500,000	400,000	400,000
Southwestern Mid. – Additions	4,000,000	0	0	0	0
Various Schools – Minor Projects	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
Various Facilities – Facilities Review Projects	4,650,000	5,000,000	5,000,000	5,000,000	5,000,000
Total Major Projects at Existing Schools & Facilities	11,350,000	7,400,000	7,300,000	6,950,000	6,950,000
FACILITIES MANAGEMENT					
Facilities Management – Various Projects	1,814,000	1,000,000	1,000,000	1,000,000	1,000,000
TECHNOLOGY					
Network, EDP & Communications Equipment	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
SYSTEM WIDE EQUIPMENT & VEHICLES					
Various Schools & Departments Furn. & Equip.	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
BUSES					
Transportation Dept. – Bus Replacement	0	0	0	4,722,422	4,976,466
TRANSFERS					
Transfers – Debt Service	51,602,925	51,601,151	51,598,274	51,599,888	51,603,928
Transfers – Equipment Leases & Property Insurance	3,407,250	3,407,250	3,407,250	3,407,250	3,407,250
Transfers – Maintenance	15,800,000	15,800,000	15,800,000	15,800,000	15,800,000
Total Transfers	70,810,175	70,808,401	70,805,524	70,807,138	70,811,178
TOTALS	91,274,956	86,508,401	86,405,524	90,834,560	91,037,644

C. EXISTING FINANCIAL RESOURCES

The first step in planning capital improvements, as well as arranging the necessary financing through the budgeting process, is to inventory the major sources of funding available to the City. These major sources of funding, which include both monies paid to the City and to the Utilities Commission, City of New Smyrna Beach, are expected to contribute a total revenue sum of \$93,699,806 in fiscal year 2010/11. The revenue sources listed below comprise a working inventory for which the City's ability to fund the needed capital improvements will be assessed. In addition, the current status of each revenue source currently used by the City is indicated. It is important to note that the list below includes all of the major financial resources available to the City and is not limited to the funds that will be used for the capital improvement projects identified in the five (5) year Schedule included in this element. These currently utilized financial resources comprise, in part, the revenue sources that will be used to fund the identified capital improvement projects.

The City of New Smyrna Beach utilizes a fund structure as outlined in the accounting regulations that govern units of local government. A fund is a fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances and changes therein which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions or limitations. Funds are divided into various types according to the legal restrictions imposed upon them or the uses to which the funds may be placed.

LOCAL REVENUE SOURCES

GENERAL FUND

The General Fund, which is the largest fund in the City, accounts for approximately sixty-four percent (64%) of the financial resources of the government. General Fund revenues include property taxes, franchise taxes, charges for services, intergovernmental revenue, fines and forfeitures, interest revenue, miscellaneous revenue, license and permit fees, internal service charges and various other types of revenues as outlined below. This fund finances most of the basic operating services, such as fire and police protection, community development, finance, parks and recreation, public works and general administration, as well as a number of capital expenditures extracted from the General Fund. The tentative millage rate, combined with the decline in assessed property values will result in a decrease of over \$5,594,578 in tax revenue for the General Fund from FY 09/10.

1. Property Taxes (Ad Valorem) – Property taxes are normally based on a millage rate (i.e., one [1] mil equates to \$1 per \$1,000 of assessed value, or 0.001), which is then applied to the taxable value of all real property, as well as all other tangible personal property. The revenue from ad valorem taxes may be used to fund both operating costs and capital projects, unless prohibited by local policies. §200.081, *Florida Statutes*, allows municipalities to raise the millage rate above the 10-mill cap when taxpayers approve such a levy. As the major source of revenue for the City of New Smyrna Beach, ad valorem taxes normally account for approximately forty-three and sixth-tenths percent (43.6%) of the annual budget for the General Fund, excluding transfers and reserves. The current millage rate for the General Fund is set at approximately 3.4793 mills. The expected tax yield for fiscal year 2010/11 is \$7,695,967 from a tax base (adjusted taxable value) of \$2,517,423,892. A level of assessment of ninety-five percent (95%) is currently used by the City.
2. Franchise Fee – Franchise fees are levied on certain utilities by the City for the privilege of doing business in the City. Franchise holders include Utilities Commission, City of New Smyrna Beach, Waste Pro, Southard Recycling, and Florida Public Utilities. Most taxes are based on gross revenues and fluctuate with changes in consumption and rates charged by the franchise holder. Budgeted revenue for FY 2010/11 is approximately \$4.2 million, based on historic trend analysis.

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3. Utility Service Tax – A utility tax is charged on homes and businesses located within the City. These taxes are assessed on the total amount of the monthly bills issued to customers by the Utilities Commission, City of New Smyrna Beach for electric service. Budgeted revenue for FY 2010/11 is \$1.2 million, based on historic trend analysis. The City also receives an annual payment of six percent (6%) of the gross revenues from utilities under the Utilities Commission, City of New Smyrna Beach control. In FY 2010/11, this payment is budgeted as \$3,613,356, based on historic trend analysis conducted by the Utilities Commission, City of New Smyrna Beach.
4. Business Tax Receipt – A person or company doing business in the City must have a business tax receipt (formerly called an occupational license). The majority of this revenue comes from annual renewals. Budgeted revenue for FY 2010/11 is \$154,350, based on historic trend analysis.
5. Charges for Services – The main components of this category of revenue are Planning and Zoning Department fees for planning and zoning activities and user fees for participants in various classes and sport-related activities offered by the Recreation Department. Miscellaneous fees are charged for funeral escorts, fingerprinting, CPR training, garage sale permits and pet licenses. These revenues represent less than one percent (1%) of the total General Fund Revenues. Budgeted revenue for ~~2009~~ FY 2010/11 is \$359,443, based on historic trend analysis.
6. Court Fines and Forfeitures – This revenue is the result of fines and penalties imposed by the court system for crimes and parking violations committed in New Smyrna Beach. Budgeted revenue for FY 2010/11 is estimated at \$83,265, based on historic trend analysis.
7. Interest – The City maintains a pooled cash fund for substantially all City deposits and investments. The City places the highest priority on the safety of principal and maintenance of liquidity to meet current needs. Budgeted revenue for FY 2010/11 is \$67,052, based on forecasted interest rates.
8. Miscellaneous Revenues – Miscellaneous income includes any income that is not in one of the other categories and primarily consists of rental income from various city facilities, insurance proceeds, the sale of fixed assets, appropriated fund equity and other reserves, and donations. Budgeted revenue for FY 2010/11 is \$339,607, based on based on historic trend analysis and current economic conditions.
9. Transfers Into the General Fund – This source of revenue is gained from a percentage of the administrative costs of the various user departments based upon their actual usage and miscellaneous revenues. Budgeted revenue for FY 2010/11 is \$30,700.

UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH FUNDS

1. Revenue Fund – The Revenue Fund was established by the Utilities Commission, City of New Smyrna Beach to be in compliance with Resolution No. 28-48. The Revenue Fund is used for operations. All sources of funds are deposited to this fund. Sources of funds include: operating revenue, such as direct sales to customers; other revenues, such as pole rentals, interest earning and hydrant rentals; miscellaneous operating revenue, such as cut-in fees, penalties, and miscellaneous revenue. The uses of these funds include payment of operation and maintenance expenses, required payment to the City, transfers to restricted funds, and lastly transfers to the internally designated Rate Stabilization Fund. The balance at any time in this fund is unrestricted and available for operations or any lawful purpose that the Commission desires. Budgeted revenue for FY 2010/11 is \$61,322,156, based on historic trend analysis conducted by the Utilities Commission, City of New Smyrna Beach.
2. Renewal and Replacement Fund – The Renewal and Replacement Fund is required by Resolution No. 28-78, Section 16, D(8), as amended and supplemented by Resolution No. 4-02, adopted on July 1, 2002. The source of funds deposited to this fund come from transfers from the Revenue Fund after the Revenue Fund first transfers sufficient funds into the Debt Service Sinking Funds. The use of funds is legally restricted to pay for capital improvements or replacement of utility plant assets as well as to provide for major repairs

to such assets.

Under the provisions cited above, "mandatory requirements" are to be transferred into the Renewal and Replacement Fund in an amount not less than eight percent (8%) of gross revenues, for the second preceding fiscal year, after deducting from gross revenues a sum equal to one hundred percent (100%) of the fuel and purchased power costs incurred by the electric utility system in the second preceding fiscal year. "Additional requirements" are transferred into the Renewal and Replacement Fund as necessary to meet planned expenditures for capital improvement projects and major repairs to utility system plant assets. The "additional requirements" are needed to insure completion of projects, since the "mandatory requirements" do not provide a sufficient level of funding to internally finance on-going and planned projects that are budgeted for the year. The fund exists to insure that utility plant is sufficiently maintained or expanded to generate recurring revenue as the source for repayment of the debt. Budgeted revenue for FY 2010/11 is \$4,241,007, based on historic trend analysis conducted by the Utilities Commission, City of New Smyrna Beach.

3. Restricted Renewal and Replacement Fund – This fund was established to deposit payments collected from customers for water and wastewater capacity fee charges (connection fees) that are restricted under the terms of the agreements to add capacity to the utility plan assets, increase extensions, and provide for expansion of utility plant as necessary to accommodate growth in the Utilities Commission, City of New Smyrna Beach customer base. The source of funds accounted for in the Restricted Renewal and Replacement Fund is from "Connection Fees-Restricted." These charges are deposited to the Revenue Fund and then immediately transferred from the Revenue Fund into the Restricted Renewal and Replacement Fund. The use of funds is restricted to pay for new plant, increase plant capacity, and increase of extension lines. Budgeted revenue for FY 2010/11 is \$249,130, based on historic trend analysis conducted by the Utilities Commission, City of New Smyrna Beach.
4. CDD/Infrastructure Fees – The Community Development District/Infrastructure Fees are developed by the Engineering Department of the Utilities Commission, City of New Smyrna Beach to assist with expected growth within the City of New Smyrna Beach. Since inception the Utilities Commission, City of New Smyrna Beach has received \$1,605,370 in cash and \$910,141 in the form of Letters of Credit. Budgeted amounts are based on best available future development information provided to the Utilities Commission, City of New Smyrna Beach. Budgeted revenue for FY 2010/11 is \$125,000, based on development trend analysis performed by the Utilities Commission, City of New Smyrna Beach.

SPECIAL REVENUE FUNDS

The Special Revenue Funds account for the proceeds of specific revenue sources which are legally restricted to expenditures for specific purposes. The following funds are included:

1. Stormwater Fund – The Stormwater Utility Fund accounts for the fiscal activity relating to the fees for stormwater utility operation and maintenance activities and City-wide planning related activities. An annual assessment rate of \$60 per ERU (Equivalent Residential Unit) of 1,818 square feet is charged to developed parcels. Stormwater is managed as a division of the Public Works Department. The funding program includes, but is not limited to, maintenance of the existing stormwater catch basins and swales; construction of stormwater handling infrastructure; replacement of deteriorating infrastructure, master planning to solve local flooding and water quality problems and capital improvement projects.
Budgeted revenue for FY 2010/11 is estimated at \$1,331,835, based on projected stormwater assessments, grant revenues, and miscellaneous revenue.
2. Law Enforcement Trust Fund – The Law Enforcement Trust Fund receives proceeds from the forfeiture of property related to various police undercover activities that are allocated to the municipalities that participated in these programs. State statute requires these

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proceeds be deposited in a special law enforcement trust fund. Such proceeds and interest earned must be used for related police programs such as school resource officers, crime prevention, safe neighborhoods, drug abuse education and prevention programs or other law enforcement purposes. These funds may not be used to meet normal operating expenses of the law enforcement agency.

No revenue is budgeted in FY 2010/11.

3. Airport Fund – The Airport Fund accounts for the fiscal activities related to this agency. The revenues collected through rental and user fees are used to maintain and improve the airport facilities and are not used for general government functions. The airport has completed substantial capital improvements in the last few years and will continue to do so in fiscal year 08/09 through the use of federal and state grants.
Budgeted revenue for FY 2010/11 is \$3,445,789, based on estimated operating revenues, federal and state grants, and interest income.
4. Law Enforcement Impact Fee Fund – The Law Enforcement Impact Fee Fund accounts for the fiscal activity relating to the law enforcement impact fees charged for growth-related law enforcement capital improvements. Activities subject to fees include any improvement to land that requires the issuance of a building permit or any changes in the use of a structure that generates additional law enforcement demands. For 2010/11, the revenues were based at the approximate residential rate of \$277.54. Fees are charged for residential land use and at a rate per square foot for non-residential land use. Fees may be appropriated for capital improvements including construction of law enforcement facilities, acquisition of law enforcement and protection equipment, acquisition, construction and equipping of training facilities and acquisition and equipping of vehicles and other equipment.
Budgeted revenue for FY 2010/11 is \$20,000, based on historic trend analysis.
5. Fire Protection and Emergency Services Impact Fee Fund – The Fire Protection and Emergency Services Impact Fee Fund accounts for the fiscal activity relating to the fire and rescue impact fees charged for growth-related fire protection and rescue capital improvements. Activities subject to fees include any improvement to land that requires the issuance of a building permit or any changes in the use of a structure which generates additional fire/rescue demands. For FY 2010/11, the revenues were based on the residential rate of approximately \$299.61. Fees may be appropriated for capital improvements including construction of fire stations; acquisition of firefighting and protection equipment; acquisition, construction and equipping of training facilities; and acquisition and equipping of rescue vehicles and other emergency equipment.
Budgeted revenues for FY 2010/11 are \$10,000, based on historic trend analysis.
6. Parks and Recreational Facilities Impact Fee Fund – The Parks and Recreational Facilities Impact Fee Fund accounts for the fiscal activity relating to the park impact fees assessed for growth-related parks and improvements. Activities subject to fees include any improvement to land that requires the issuance of a building permit. For FY 2010/11, the revenues were based at the residential rate of \$131.28. Fees may be appropriated for acquisition, expansion and development of capital equipment and facilities such as walking paths, construction of ball fields, picnic pavilions, installation of equipment of children’s play areas, irrigation systems, lighting systems, fencing, bleachers, roads, parking facilities, restrooms, concession and community buildings, manager quarters, and storage units.
Budgeted revenue for FY 2010/11 is \$5,000, based on charges for services and appropriated fund equity.
7. Marina Fund – The City Marina Fund accounts for all of the fiscal activities related to the operation of the marina, including resident and transient slip rentals. The marina reopened in mid-2006 after a complete renovation. The marina has established itself as one of the best city marinas in the area and has attracted boaters traveling up and down the East Coast. Since it is located next to the downtown canal Street area it continues to bring new customers to local businesses in the community.

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Budgeted revenue for FY 2010/11 is \$268,000, based on estimated charges for services and miscellaneous revenues.

8. Transportation Impact Fee Fund – The Transportation Impact Fees Fund accounts for the fiscal activity relating to the transportation impact fees charged for growth-related transportation capital improvements. Activities subject to fees include any improvement to land which requires the issuance of a building permit or any changes in the use of a structure which generates additional transportation demands. For FY 2010/11, the revenues were based at the residential rate of approximately \$975.50. Fees may be appropriated for transportation capital improvements including preliminary engineering design studies, land surveys, right-of-way acquisitions, engineering, permitting, and construction of all the necessary features for transportation projects.

Budgeted revenue for FY 2010/11 is \$45,000, based on estimated impact fees and miscellaneous revenues.

9. Special Events Fund – The Special Events Fund was set up during FY 2006 for the purpose of separately accounting for the special events that the City sponsors during the year, such as the Art Fiesta, Flamingo Follies, Ed Root Run, Senior Games, Seaside Fiesta, and Music in the Park.

Budgeted revenue for FY 2010/11 is \$63,000, based on estimated fees.

10. Building and Inspection Fund – The Building and Inspection Fund was set up in FY 2006 to separately account for the fiscal activity of construction permitting and inspection. State statute requires this revenue be spent on expenses related to this activity and cannot be used for general government expenses.

Budgeted revenue for FY 2010/11 is \$632,840, based on estimated charges for services and interest income.

- ~~11~~2. Community Redevelopment Agency – The Community Redevelopment Agency (CRA) Fund accounts for the fiscal activities related to this agency. The CRA works to promote the economic development of designated areas of the City and receives special incremental ad valorem tax levies to pay for rehabilitation and redevelopment of the specified areas in need of improvement to sustain the tax base.

Budgeted revenue for FY 2010/11 is \$1,741,872, based on estimated ad valorem tax revenue, miscellaneous revenues, and appropriated income.

CAPITAL PROJECTS FUNDS

The Capital Projects Fund accounts for the financial resources to be used for the acquisition or construction of major capital facilities other than those financed by proprietary and trust funds. The major activities currently included in these funds are the construction of the police station, three (3) fire stations, and various sidewalk projects within the City.

Budgeted revenue for FY 2010/11 is \$3,620,001. Capital expenditures for the police and fire stations were budgeted in prior years' budgets. However, most of that budget has not been used due to construction delays. Therefore, these balances have been carried over.

PROPRIETARY FUNDS

1. Golf Course Fund – The Golf Course Fund accounts for the fiscal activities of the City of New Smyrna Beach Municipal Golf Course, which is financed and operated in a manner similar to private business enterprises. It is the intent of the City that the costs of providing the golf course to the general public on a continuing basis be financed or recovered primarily through user charges for those services. However, the FY 08/09 budget includes a transfer from the general fund unless revenues exceed the current estimates.

Budgeted revenue for FY 2010/11 is \$1,217,776, based on estimated charges for services and miscellaneous revenues.

2. Sanitation Fund – The Sanitation Fund accounts for the fiscal activities related to the operation of refuse and recycling services provided by third-party contracted vendors, the costs of which are recovered by user charges.

Budgeted revenue for FY 2010/11 is \$5,049,742, based on estimated charges for services

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and interest income.

3. Garage Fund – The Garage Fund accounts for the fiscal activities related to fleet maintenance services provided to other departments and agencies of the City, or to other governments, on a cost reimbursement basis.
Budgeted revenue for FY 2010/11 is \$832,890, based on charges for services, miscellaneous revenues, and appropriated fund equity.

STATE RESOURCES

GENERAL FUND

1. Local Option Gas Tax – These 6-cent and 5-cent per gallon taxes county-wide are allocated to the City based upon an inter-local agreement with Volusia County. The distribution formula is based on a population formula that is updated periodically.
Budgeted revenue for FY 2010/11 is estimated at \$703,793, based on state forecasts.
2. State Revenue Sharing – The Municipal Revenue Sharing Program is based on a percentage of taxes and user fees collected by the State of Florida and allocated based on a formula that considers population, sales tax collections and the relative ability to raise revenue.
Budgeted revenue for FY 2010/11 is estimated at \$451,572, based on state forecasts.
3. State Sales Tax – A portion of the State sales tax revenue is distributed directly to the City for the purpose of providing relief from ad valorem and utility taxes and to provide revenue for local programs. The allocation formula is computed by dividing the City's total population by the sum of the county's total population plus two-thirds (2/3) of the county's unincorporated population.
Budgeted revenue for FY 2010/11 is estimated at \$917,523, based on state forecasts.
4. Communications Services Tax – The Simplified Communications Services Tax allows both the state and local communications services tax to be imposed on a broad base of telecommunications and cable services and does not discriminate between services or providers. The tax base includes the transmission of voice, data, audio, video, or other information services, including cable services. The State of Florida is primarily responsible for collecting the tax and remitting it to the various local agencies.
Budgeted revenue for FY 2010/11 is estimated at \$1.1 million.
5. Federal and State Grants – The City expects to receive state and federal grants for various General Fund programs and capital projects in 2009. Agencies involved include, but are not limited to, the Florida Department of Transportation, U.S. Department of Justice, Florida Inland Navigation District, and the Department of Community Affairs.
Budgeted revenue for FY 2010/11 is estimated at \$1,246,212, based on the award amount of approved grants.

D. LOCAL POLICIES AND PRACTICES

In support of the goals, objectives, and policies documented in the various other Elements within the *Comprehensive Plan*, local policies and practices may be used to direct the timing and location of development in the City. Many of these policies and practices may be influenced by state, regional, and county agencies that provide public facilities within the City's jurisdiction.

Several segments of the City of New Smyrna Beach's roadway network are on the State and County Highway System. Because these roadways are largely the financial responsibility of the Florida Department of Transportation (FDOT) and Volusia County, the City is reliant on the *FDOT Five (5) Year Work Program* and *Volusia County MPO Transportation Improvement Program*. Consequently, these plans will affect the capacity of the roadways, which will in turn affect the intensity of development or amount of financial commitment for which the City must plan. With the passage of the 2005 Growth Management Act (Senate Bill 360), the Schedule must include transportation improvements included in the first five (5) years of the applicable metropolitan planning organization's (MPO) adopted transportation improvement program (TIP), to the extent that such improvements are relied upon to ensure concurrency and financial feasibility. MPOs are required to update their TIP by July 1 each year to

include all regional/county projects (See Table XII-6). This practice of utilizing plans of and/or agreements with various other governments in order to broaden the scope and efficiency of services is further described in the Intergovernmental Coordination Element.

The following is a list of the local policies and practices that have been adopted or may be adopted in the future by the City. A brief description of their general concept and the circumstances under which they may be used is also given.

LEVEL-OF-SERVICE STANDARDS

Level-of-service (LOS) standards are benchmarks or goals by which the City's services are measured. In short, LOS indicates the capacity per unit of demand of each public facility.

Chapter 163, *Florida Statutes*, and Rule 9J-5, *Florida Administrative Code*, require local governments to include measurable LOS standards for public facilities in their comprehensive plans. Furthermore, these LOS standards are utilized in issuing development orders to ensure that adequate public facilities will be available in advance of the impact of development.

As a part of the other Elements within this *Comprehensive Plan*, the following level-of-service standards for public facilities have been proposed:

SANITARY SEWER

~~242~~ 207 gallons per day per Equivalent Residential Unit

SOLID WASTE

7.3 pounds per person per day (non-residential waste is included in this figure)

POTABLE WATER

240 gallons per day per Equivalent Residential Unit

DRAINAGE

25 year, 24 hour event. Drainage system will be designed to meet the requirements contained in the *Land Development Regulations*.

ROADWAYS

LOS "C" or better for Florida Interstate Highway System

LOS "D" on other State highways

LOS "E" on minor arterials, collectors, local roadways and all facilities located within a central business district. The central business districts shall be defined as follows:

Mainland – That area designated as Mixed Uses on the Future Land Use Map including roads adjacent to areas designated as Mixed Uses.

Beachside – The area bounded by an east west extension of Florida Street on the north and Jessamine Street on the south and the Indian River and Atlantic Ocean as west and east boundaries, respectively.

RECREATION FACILITIES

- * Beach Access will be provided in 1.0 acre increments when demand equals 0.25 acres; the Level of Service standard is 0.25 acres per 1,000 residents.
- * Urban Open Space will be provided in 0.1 acre increments when the demand equals 0.05 acres; the Level of Service standard is 1.0 acre per 1,000 residents
- * Equipped Play Areas / Tot Lots Acres will be provided in 0.25 acre increments when demand equals 0.2 acres; the Level of Service standard is 0.2 acres per 1,000 residents
- * Neighborhood Parks will be provided in 1.9 acre increments when demand equals 1.9 acres; the Level of Service standard is 0.4 acres per 1,000 residents
- * Community Parks will be provided in 20 acre increments when the demand equals 10 acres; the Level of Service standard is 1 acre per 1,000 residents

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- * Regional Parks will be provided in 250 acre increments when the demand equals 200 acres; the Level of Service standard is 20 acres per 1,000 residents.
- * Urban District Parks will be provided in 50-acre increments when demand equals 40 acres; the Level of Service standard is 5.0 acres per 1,000 residents
- * Baseball / Softball Fields will be provided in 1-field increments when demand equals 1 field; the Level of Service standard is 1 field per 10,000 residents.
- * Basketball Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 20,000 residents
- * Bicycle Trails will be provided in 1-mile increments when demand equals 0.5 miles; the Level of Service standard is 1 mile of trail per 10,000 residents
- * Boat Ramps will be provided in 1-lane increments when demand equals one (1) lane; the Level of Service standard is 1 lane per 12,500 residents
- * Piers/Catwalks/Jetties will be provided in 800-foot increments when demand equals 800 feet; the Level of Service standard is 800 lineal feet of pier/catwalk/jetty per 25,000 residents
- * Football / Soccer fields will be provided in 1-field increments when demand equals one (1) field; the Level of Service standard is 1 field per 25,000 residents
- * Handball/Racquetball Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 20,000 residents
- * Shuffleboard Courts will be provided in 1-court increments when demand equals one (1) court. The Level of Service standard is 1 court per 12,000 residents
- * Tennis Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 10,000 residents

PUBLIC SCHOOL FACILITIES

Elementary Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the concurrency service area

K-8 Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the concurrency service area

Middle Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the concurrency service area

High Schools – one hundred twenty percent (120%) of permanent FISH capacity for the concurrency service area

CAPITAL IMPROVEMENT PROGRAM

A capital improvement program (CIP) is a plan for capital expenditures to be incurred each year over a fixed period of years to meet anticipated facility improvements and needs. The CIP identifies each capital project or other capital expenditures anticipated by the City, as well as presenting estimates of the resources needed to finance the project.

The CIP is to be designed to be consistent with the CIE of the *Comprehensive Plan* because it reflects the goals, objectives, and policies of the element and its implementation strategy, including the five (5) year Schedule. The CIP, however, is more inclusive than the CIE as it also lists those projects that are of relatively small scale and low cost (under \$25,000). Furthermore, the CIP is not limited to those public facilities discussed in the *Comprehensive Plan*, whereas the CIE is constrained.

The City of New Smyrna Beach anticipates adopting its first Five-Year Capital Improvements Program in FY 2010/11.

URBAN SERVICE AREAS

Urban service areas are those to which the City provides public facilities and services. When used in conjunction with the Capital Improvements Element, a defined urban service area provides the local government with a tool to help schedule the public facility and service improvements within areas

planned for development.

The City's urban service area is illustrated in the Sanitary Sewer, Potable Water, Solid Waste, Drainage, and Natural Groundwater Aquifer Recharge Element and further discussed in the Intergovernmental Coordination Element of this *Comprehensive Plan*.

MANDATORY EASEMENT AND RIGHT-OF-WAY DEDICATIONS

As a condition of plat approval, the City may require that developers of a subdivision dedicate easements over that portion of land to be used for public purposes such as roadways, drainage, utilities, and conservation.

Developers of platted subdivisions are currently required to dedicate public right-of-way, and easements for, drainage, utilities, and conservation, to the City as part of the plat approval process.

MORATORIA

To temporarily halt or freeze development on an emergency basis for a specified period of time and geographic location, the City may adopt a moratorium ordinance. Moratoria are used to allow the City time to adopt regulations to address a specific issue or concern. This type of ordinance may be imposed on development orders (e.g. building permits, certificates of occupancy, etc.) or governmental services such as water and sewer hook-ups.

The City currently is not imposing any moratoria. However, such a policy may be reasonable or necessary for the protection of local public health, safety, and welfare at some time in the future based on failure to provide adequate level-of-service.

CONCURRENCY MANAGEMENT SYSTEM

This controls the timing and location of development by conditioning new development approvals on evidence that sufficient facilities and services are present or will be provided in order to maintain adopted level-of-service standards. In effect, this implements the 1985 Legislative mandate (Chapter 163, *Florida Statutes*) that requires public facilities to be available to support the impacts of new development. Therefore, development approval becomes contingent on the ability of local governments to provide facilities and services, and furthermore, may require the development itself to furnish the facilities and services in order to maintain the adopted level-of-service standards. Additional benefits associated with a Concurrency Management System are as follows:

- * Supports the consistency of the Capital Improvements Element with the Future Land Use Element;
- * Provides for the orderly expansion of public facilities;
- * Stabilizes capital improvement expenditures and taxing structures for capital improvements; and
- * Reduces the possibility of damage to the environment from the use of overburdened facilities.

Typically, the Concurrency Management System interacts with the development approval process by requiring that all zoning, subdivision, or planned until development (PUD) approvals be granted only upon demonstrated compliance with the system. The building permit stage is another level at which a Concurrency Management System may function. In this context, the Concurrency Management System may control development in areas that are already approved, but not as yet built on, such as pre-platted lands.

The City of New Smyrna Beach has developed a Concurrency Management System as part of the *Comprehensive Plan*, which is implemented in its *Land Development Regulations*.

E. ANALYSIS

FISCAL ASSESSMENT

This section analyzes the City's ability to sufficiently fund the capital improvements listed in Table XII-2. The

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assessment process consists of projecting the revenues needed and expenditures required for the City to construct the necessary or desired capital improvement projects. This process allows the City to identify any revenue surplus or major shortfalls, which in turn provides the basis for exploring alternative methods of financing.

This section not only reviews the direct costs incurred for capital improvements in the other elements of this *Comprehensive Plan*, but also addresses the additional operating costs (e.g. personnel, maintenance, etc.) incurred as a result of such improvements being put in place.

PROJECTED REVENUES

Revenue projections are based on current growth trends and/or on capital improvement expenditures made by the City in recent years. The revenues have been projected for each of the funding sources utilized by the City for capital improvements in 2010 dollars. Tables 8 and 9 show detailed projections for the ad valorem tax base and projected ad valorem yields for the planning period. Revenues from all sources projected for the fiscal years 2010/11 to 2014/15 are shown in Table XII-10.

The City's tax base value is projected to decrease for FY 2010/2011. This is based on the proposed millage rate combined with the decline in assessed property values, resulting in an estimated decrease of over \$1,012,655. Historically, the adjusted taxable value grew approximately thirty percent (32%) from 2006-2007 and remained at basically the same level from 2007-2008. The ad valorem tax base projections shown in Table XII-8 show an 11.52% rate of decline for the adjusted taxable value of property (including new construction) for FY 2010/11, with no increase in fiscal years 2011/12 – 2013/14. Beginning in FY 2014/15, a one percent (1%) growth rate has been applied. The City's assessment ratio is projected to remain stable at ninety-five percent (95%).

Table XII-8 Ad Valorem Tax Base Projections

Fiscal Year	Adjusted Taxable Value	Change
2005-2006	\$2,845,407,991	-
2006-2007	\$3,743,475,297	31.6%
2007-2008	\$3,750,485,808	0.2%
2008-2009	\$3,443,228,086	-8.2%
2009-2010	\$2,845,189,751	-16.7%
2010-2011	\$2,517,423,893	-11.52%
2011-2012	\$2,517,423,893	0%
2012-2013	\$2,517,423,893	0%
2013-2014	\$2,517,423,893	0%
2014-2015	\$2,542,598,131	1.0%

Ad valorem tax yields were projected assuming the proposed FY 2010/11 rate of millage and the projected taxable value rates shown in Table XII-8.

Table XII-9 Projected Ad Valorem Tax Yields

Fiscal Year	Ad Valorem Tax Rate	Adjusted Taxable Value	Total Ad Valorem Revenue	95% of Ad Valorem Revenue	CRA Tax Increment Revenue	General Fund Ad Valorem Revenue
2010-2011	3.4793	\$2,517,423,893	\$7,695,967	\$7,311,169	\$610,483	\$6,700,686
2011-2012	3.4793	\$2,517,423,893	\$7,695,967	\$7,311,169	\$610,483	\$6,700,686
2012-2013	3.4793	\$2,517,423,893	\$7,695,967	\$7,311,169	\$610,483	\$6,700,686
2013-2014	3.4793	\$2,517,423,893	\$7,695,967	\$7,311,169	\$610,483	\$6,700,686
2014-2015	3.4793	\$2,542,598,131	\$8,846,462	\$8,404,139	\$701,746	\$7,702,393

Table XII-10 Revenue Projections Affecting Capital Improvements

FUND	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	TOTAL
General Fund	17,713,906	18,418,297	18,786,663	19,162,396	19,545,644	94,517,340
Utilities Commission Revenue Fund	61,322,156	61,922,418	62,558,455	63,422,140	64,222,228	313,447,397
Stormwater Fund	1,331,835	2,637,899	2,690,657	2,717,564	2,744,739	12,122,694
Law Enforcement Trust Fund	0	84,240	85,925	87,643	89,396	347,204
Airport Fund	3,445,789	3,411,331	3,479,558	3,549,149	3,620,132	17,505,959
Police Impact Fee Fund	20,000	19,800	20,196	20,600	21,012	101,608
Fire/Emergency Services Impact Fee Fund	10,000	9,900	10,098	10,300	10,506	50,804
Parks/Recreation Impact Fee Fund	5,000	4,950	5,049	5,150	5,253	25,402
Marina Fund	268,000	265,320	270,626	276,039	281,560	1,361,545
Transportation Impact Fee Fund/Traffic Concurrency Fees	45,000	44,550	45,441	46,350	47,277	228,618
Special Events Fund	63,000	62,370	63,617	64,890	66,188	320,065
Building and Inspection Fund	632,840	626,512	620,246	620,246	620,246	3,120,090
Capital Projects Funds	0	0	0	0	0	0
Golf Course Fund	1,217,776	1,205,598	1,229,710	1,254,304	1,279,390	6,186,778
Sanitation Fund	5,049,742	4,999,245	5,099,229	5,201,214	5,305,238	25,654,668
Garage Fund	832,890	824,561	841,052	857,873	875,031	4,231,407
Community Redevelopment Agency Fund	1,741,872	1,637,360	1,653,733	1,736,420	1,823,241	8,592,626
TOTAL OPERATING EXPENDITURES	93,699,806	96,174,351	97,460,255	99,032,278	100,557,081	487,814,205

Note: These projects represent new revenues only for each year, and do not include any carry-over from the previous fiscal year. The above funding sources are utilized for both operating and capital needs. Other City funds that are only operational in nature are not included.

Sources: City of New Smyrna Beach Finance Department and Utilities Commission, City of New Smyrna Beach

PROJECTED EXPENDITURES

The projected expenditures have been separated into three (3) categories for the purpose of this assessment: (1) scheduled capital improvement project expenditures; (2) capital improvement debt service expenditures; and (3) operating cost expenditures. The first category of expenditure represents the direct cost of those capital improvements that must be in place this planning period to meet the State's concurrency rules. Table XII-11 lists these projected expenditures by Fund for 2011-2015. This table only includes funds which have been committed and which are collected by the City. Grant funds are not included.

Table XII-11 Expenditure Projections for Scheduled Capital Improvements

Source	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	Total
Community Redevelopment Agency Fund	794,827	935,000	0	0	0	1,729,827
General Revenue Fund	435,000	0	0	0	0	435,000
Utilities Commission Renewal and	2,259,400	4,525,200	4,352,300	3,709,800	4,529,000	19,375,700

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Replacement Fund						
Stormwater Operating Fund	2,016,160	1,475,560	880,805	50,000	0	4,422,525
Total	5,505,387	6,935,760	5,233,105	3,759,800	4,529,000	25,963,052

The second category includes the projected expenditures required to meet debt service requirements for outstanding bond issues, as well as planned future bond issues or loans. Table XII-12 shows the projected debt service expenditures by fund source.

Table XII-12 Expenditure Projections – Debt Service

	FINAL MATURITY	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	TOTAL
General Obligation Bonds, Series 2005	FY 2024	1,423,136	1,418,686	1,422,593	1,419,048	1,418,788	7,102,251
Capital Improvement Refunding Revenue Bonds, Series 2005	FY 2030	504,315	504,844	503,679	499,891	500,191	2,512,920
Florida Municipal Loan Council Series 2008B	FY 2012	106,905	97,503	0	0	0	204,408
Capital Improvement Refunding Revenue Bonds, Series 1998	FY 2014	341,454	341,653	341,860	171,011	0	1,195,978
Promissory Note 1997	FY 2013	21,465	21,477	10,742	0	0	53,684
Promissory Note 1998A	FY 2014	45,768	45,750	45,750	22,875	0	160,143
Promissory Note 1999A	FY 2014	426,782	426,769	426,804	429,865	0	1,710,220
State Revolving Fund Loan 1999	FY 2021	153,032	153,032	153,032	153,032	153,032	765,160
State Revolving Fund Loan 2002	FY 2023	40,408	40,408	40,408	40,408	40,408	202,040
State Revolving Fund Loan 2003	FY 2024	33,310	33,310	33,310	33,310	33,310	166,550
State Revolving Fund Loan 2009	FY 2028	20,000	20,000	20,000	20,000	20,000	99,998
TOTAL		3,116,575	3,083,432	2,978,178	2,769,440	2,145,729	14,093,354

Source: City of New Smyrna Beach Finance Department

The final category of expenditures contains the annual operating costs for providing the necessary facility improvements and services to the City's customers. These operating costs consist of the recurring expenses associated with the normal operation of capital facilities such as supplies, maintenance, personnel, and utility costs associated with the assessed capital improvement needs. The operating costs have been assigned to the first year in which they are expected to be incurred based on the schedule of improvements contained in Table XII-11. Table XII-13 presents the annual operating expenditures, including debt service, of the City for fiscal years 2011-2015. Transfers and payments to other governmental entities are not included in the operating expenditures, but are included in Table XII-14 of this element.

With regard to the Utilities Commission, City of New Smyrna Beach funds, monies in the Renewal and Replacement Fund are first deposited into the Revenue Fund and then transferred into the Renewal and Replacement Fund once monies have been withheld for debt service and operating expenses. Therefore, separate operating expenses are not listed for either the Renewal and Replacement Fund,

Restricted Renewal and Replacement Fund or CDD/Infrastructure Fees Fund.

Table XII-13 Annual Operating Expenditures

FUND	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	TOTAL
General Fund	18,022,220	17,841,998	17,841,998	18,198,838	18,562,815	90,467,868
Utilities Commission Revenue Fund	65,306,192	66,881,418	67,528,455	69,057,140	70,712,228	339,485,433
Stormwater Fund	2,656,721	2,391,049	2,391,049	2,438,870	2,487,647	12,365,336
Law Enforcement Trust Fund	93,600	84,240	85,925	87,643	89,396	440,804
Airport Fund	3,505,904	3,540,963	3,576,373	3,612,136	3,648,258	17,883,634
Police Impact Fee Fund	20,000	20,200	20,402	21,422	22,493	104,517
Fire/Emergency Services Impact Fee Fund	10,000	10,500	10,605	12,196	14,025	57,326
Parks/Recreation Impact Fee Fund	80,000	15,000	16,500	18,975	21,821	152,296
Marina Fund	268,000	239,673	242,070	244,490	246,935	1,241,168
Transportation Impact Fee Fund/Traffic Concurrency Fees	45,000	45,450	45,905	46,364	46,827	229,545
Special Events Fund	63,000	56,700	57,834	58,991	60,170	296,695
Building and Inspection Fund	632,840	522,878	528,106	533,387	538,721	2,755,933
Capital Projects Funds	3,619,611	2,895,689	3,538,764	-	-	10,054,064
Golf Course Fund	1,217,776	1,095,998	1,095,998	1,117,918	1,140,277	5,667,968
Sanitation Fund	5,344,017	5,450,897	5,505,406	5,615,514	5,727,825	27,643,660
Garage Fund	909,251	818,326	818,326	834,692	851,386	4,231,981
Community Redevelopment Agency Fund	8,977,377	2,717,646	1,311,873	1,395,035	1,993,615	16,395,546
TOTAL OPERATING EXPENDITURES	110,771,509	104,628,625	104,615,588	103,293,612	106,164,440	529,473,775

In order to assess the City's capability to fund the necessary capital improvement expenditures, a determination of revenue sufficiency must be made. This capability is shown by finding the difference between the projected annual revenues and expenditures for each fund the City uses to finance the capital improvements. The assessment results are shown in Table XII-14.

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Table XII-14 Fiscal Assessment

		FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15
GENERAL FUND	Revenues	17,713,906	18,418,297	18,786,663	19,162,396	19,545,644
	Transfers In	30,700	30,700	30,700	30,700	30,700
	Fund Balance Carryforward	8,500,000	8,500,000	8,504,652	8,976,338	9,470,705
	TOTAL SOURCES	26,244,606	26,948,997	27,322,014	28,169,433	29,047,048
	Expenditures	18,022,220	17,841,998	17,841,998	18,198,838	18,562,815
	Transfers Out	612,820	602,347	503,679	499,891	500,191
	TOTAL FUND BALANCE	7,609,566	8,504,652	8,976,338	9,470,705	9,984,042
UTILITIES COMMISSION REVENUE FUND	Revenues	61,322,156	61,922,418	62,558,455	63,422,140	64,222,228
	Other Revenue Sources ¹	3,984,036	4,959,000	4,970,000	5,635,000	6,490,000
	Total All Revenues	65,306,192	66,881,418	67,528,455	69,057,140	70,712,228
	Expenditures	65,306,192	66,881,418	67,528,455	69,057,140	70,712,228
	BALANCE	0	0	0	0	0
STORMWATER OPERATING FUND	Revenues	1,331,835	2,637,899	2,690,657	2,717,564	2,744,739
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	1,571,736	0	0	52,758	84,602
	TOTAL SOURCES	2,903,571	2,637,899	2,690,657	2,770,322	2,829,341
	Expenditures	2,656,721	2,391,049	2,391,049	2,438,870	2,487,647
	Transfers Out	246,850	246,850	246,850	246,850	246,850
	BALANCE	0	0	52,758	84,602	0
LAW ENFORCEMENT TRUST FUND	Revenues	0	84,240	85,925	87,643	89,396
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	88,286	-5,314	-5,314	-5,314	-5,314
	TOTAL SOURCES	88,286	78,926	80,611	82,329	84,082
	Expenditures	93,600	84,240	85,925	87,643	89,396
	Transfers Out	0	0	0		
	BALANCE	-5,314	-5,314	-5,314	-5,314	-5,314
AIRPORT FUND	Revenues	3,445,789	3,411,331	3,479,558	3,549,149	3,620,132
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	1,456,890	1,396,775	1,267,143	1,170,328	1,107,341
	TOTAL SOURCES	4,902,679	4,808,106	4,746,701	4,719,477	4,727,472
	Expenditures	3,505,904	3,540,963	3,576,373	3,612,136	3,648,258
	Transfers Out	0	0	0	0	0
	BALANCE	1,396,775	1,267,143	1,170,328	1,107,341	1,079,215
POLICE IMPACT FEE FUND	Revenues	20,000	19,800	20,196	20,600	21,012
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	379,510	379,510	379,110	378,904	378,082
	TOTAL SOURCES	399,510	399,310	399,306	399,504	399,094
	Expenditures	20,000	20,200	20,402	21,422	22,493
	Transfers Out	0	0	0	0	0
	BALANCE	379,510	379,110	378,904	378,082	376,601
FIRE/EMERGENCY SERVICES IMPACT FEE FUND	Revenues	10,000	9,900	10,098	10,300	10,506
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	190,301	190,301	189,701	189,194	187,298
	TOTAL SOURCES	200,301	200,201	199,799	199,494	197,804
	Expenditures	10,000	10,500	10,605	12,196	14,025
	Transfers Out	0	0	0	0	0
	BALANCE	190,301	189,701	189,194	187,298	183,779
PARKS/RECREATION IMPACT FEE FUND	Revenues	5,000	4,950	5,049	5,150	5,253
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	146,761	71,761	61,711	50,260	36,435
	TOTAL SOURCES	151,761	76,711	66,760	55,410	41,688
	Expenditures	80,000	15,000	16,500	18,975	21,821
	Transfers Out	0	0	0	0	0
	BALANCE	71,761	61,711	50,260	36,435	19,867
MARINA FUND	Revenues	268,000	265,320	270,626	276,039	281,560
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	293,666	293,666	288,613	286,470	287,318
	TOTAL SOURCES	561,666	558,986	559,239	562,509	568,878
	Expenditures	237,300	239,673	242,070	244,490	246,935
	Transfers Out	30,700	30,700	30,700	30,700	30,700
	BALANCE	293,666	288,613	286,470	287,318	291,243
TRANSPORTATION IMPACT FEE FUND / TRAFFIC	Revenues	45,000	44,550	45,441	46,350	47,277
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	540,377	540,377	539,477	539,014	539,000

		FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15
CONCURRENCY FEES	TOTAL SOURCES	585,377	584,927	584,918	585,363	586,277
	Expenditures	45,000	45,450	45,905	46,364	46,827
	Transfers Out	0	0	0	0	0
	BALANCE	540,377	539,477	539,014	539,000	539,449
SPECIAL EVENTS FUND	Revenues	63,000	62,370	63,617	64,890	66,188
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	21,791	21,791	27,461	33,244	39,143
	TOTAL SOURCES	84,791	84,161	91,078	98,134	105,331
	Expenditures	63,000	56,700	57,834	58,991	60,170
	Transfers Out	0	0	0	0	0
	BALANCE	21,791	27,461	33,244	39,143	45,161
BUILDING AND INSPECTION FUND	Revenues	632,840	626,512	620,246	620,246	620,246
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	-8,987	-8,987	94,647	186,787	273,646
	TOTAL SOURCES	623,853	617,525	714,893	807,034	893,893
	Expenditures	632,840	522,878	528,106	533,387	538,721
	Transfers Out	0	0	0	0	0
	BALANCE	-8,987	94,647	186,787	273,646	355,171
CAPITAL PROJECTS FUND	Revenues	0	0	0	0	0
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	10,054,064	6,434,453	3,538,764	0	0
	TOTAL SOURCES	10,054,064	6,434,453	3,538,764	0	0
	Expenditures	3,619,611	2,895,689	3,538,764	0	0
	Transfers Out	0	0	0	0	0
	BALANCE	6,434,453	3,538,764	0	0	0
GOLF COURSE FUND	Revenues	1,217,776	1,205,598	1,229,710	1,254,304	1,279,390
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	-845,073	-845,073	-735,473	-601,761	-465,375
	TOTAL SOURCES	372,703	360,525	494,237	652,543	814,015
	Expenditures	1,217,776	1,095,998	1,095,998	1,117,918	1,140,277
	Transfers Out	0	0	0	0	0
	BALANCE	-845,073	-735,473	-601,761	-465,375	-326,262
SANITATION FUND	Revenues	5,049,742	4,999,245	5,099,229	5,201,214	5,305,238
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	2,161,028	1,866,753	1,415,100	1,008,923	594,623
	TOTAL SOURCES	7,210,770	6,865,998	6,514,330	6,210,137	5,899,861
	Expenditures	5,344,017	5,450,897	5,505,406	5,615,514	5,727,825
	Transfers Out	0	0	0	0	0
	BALANCE	1,866,753	1,415,100	1,008,923	594,623	172,037
GARAGE FUND	Revenues	832,890	824,561	841,052	857,873	875,031
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	476,099	399,738	405,973	428,700	451,881
	TOTAL SOURCES	1,308,989	1,224,299	1,247,026	1,286,573	1,326,911
	Expenditures	909,251	818,326	818,326	834,692	851,386
	Transfers Out	0	0	0	0	0
	BALANCE	399,738	405,973	428,700	451,881	475,525
COMMUNITY REDEVELOPMENT AGENCY FUND	Revenues	1,741,872	1,637,360	1,653,733	1,736,420	1,823,241
	Transfers In	0	0	0	0	0
	Fund Balance Carryforward	9,000,000	1,421,939	0	0	170,374
	TOTAL SOURCES	10,741,872	3,059,299	1,653,733	1,736,420	1,993,615
	Expenditures	8,977,377	2,717,646	1,311,873	1,395,035	1,993,615
	Transfers Out	342,556	341,653	341,860	171,011	0
	BALANCE	1,421,939	0	0	170,374	0

Source: City of New Smyrna Beach Finance Department and Utilities Commission, City of New Smyrna Beach

F. IMPLEMENTATION

FIVE (5) YEAR CAPITAL IMPROVEMENT SCHEDULE

The five (5) year capital improvement schedule (Schedule) (Table XII-2) is the mechanism by which the City can effectively stage the timing, location, projected cost, and revenue sources for the capital improvements derived from the other *Comprehensive Plan* elements. Based upon the Inventory, Analysis, and Goals, Objectives, and Policies of this Element, the five (5) year Schedule has been developed to document the financial feasibility of the *City of New Smyrna Beach Comprehensive Plan*.

MONITORING AND EVALUATION

The role of monitoring and evaluation is vital to the effectiveness of any comprehensive plan and particularly for the Capital Improvements Element. As part of the annual budgeting process, the City evaluates the status of all scheduled capital improvements and the overall status of public facilities in relation to current and projected demand. This evaluation ensures that revisions to the budget, work programs, and this *Comprehensive Plan* may be made as necessary to provide facilities in a timely and financially feasible manner, consistent with adopted level-of-service standards. In addition, the issues of development orders and building permits are monitored continuously to ensure consistency with this plan.

The City's annual review includes the following consideration, which are also evaluated each year to determine their continued applicability:

1. Any corrections, updates, and modifications concerning costs; revenue sources; acceptance of facilities pursuant to dedications which are consistent with the element; or the date of construction of any facility listed in this Element
2. The Capital Improvements Element's consistency with the other elements and its support of the Future Land Use Element
3. The City's ability to provide public facilities and services within the Urban Service Area in order to determine any need for boundary modification or adjustment
4. The priority assignment of existing public facility deficiencies
5. The City's progress in meeting those needs that are determined to be existing deficiencies
6. The criteria used to evaluate capital improvements projects in order to ensure that projects are being ranked in their appropriate order of priority
7. The City's effectiveness in maintaining the adopted LOS standards
8. The City's effectiveness in reviewing the impacts of plans and programs of state agencies and water management districts that provide public facilities within the City's jurisdiction
9. The effectiveness of impact fees, and mandatory dedications or fees in lieu of, for assessing new development a pro rata share of the improvement costs which they generate
10. The impacts of special districts and any regional facility and service provision upon the City's ability to maintain its adopted LOS standards
11. Efforts made to secure grant or private funds, whenever possible, to finance the provision of capital improvements
12. The transfer of any unexpended account balances
13. The criteria used to evaluate proposed plan amendments and requests for new development or redevelopment
14. Capital improvements needed for the latter part of the planning period, for inclusion in the five (5) year Schedule

G. CONCURRENCY MANAGEMENT SYSTEM

OVERVIEW

The purpose of a Concurrency Management System is to provide the necessary regulatory mechanism for evaluating development orders to ensure that the level-of-service standards adopted as part of the

Comprehensive Plan are maintained. The system consists of three (3) primary components: (1) an inventory of existing public facilities for which concurrency is to be determined; (2) a concurrency assessment of each application for a final development order or permit; and (3) a schedule of improvements needed to correct any existing public facility deficiencies. Under this system, and according to the Florida State Legislature, no development orders may be issued which will cause a public facility to operate below its adopted level-of-service standard. However, development orders may be conditioned such that needed public facility improvements will be in place concurrent with the impacts of the proposed development.

In order to ensure that all public facilities included within this system are available concurrent with the impacts of development, concurrency will be determined during the final site plan or final subdivision plan approval process. All development orders and permits will specify any needed improvements and a schedule for their implementation. Thus, while some required improvements may not have to be completed until a certificate of occupancy is applied for, the requirements for the certificate of occupancy will have already been specified as a condition of approval of the original development order. If a development proposal cannot meet the test for concurrency, then it may not proceed under any circumstances and no development orders or permits may be issued. Likewise, if a development fails to meet a condition of approval once it has commenced, then no additional development orders, permits, or certificates of occupancy may be issued.

APPLICABILITY

Prior to the granting of a development order, all applications for a final site plan or final subdivision plan shall be reviewed for concurrency consistent with the provisions and requirements of this system. Development orders may be issued only upon a finding by the City that the public facilities addressed under the Concurrency Management System will be available concurrent with the impacts of the development.

All applicants for development permits shall be required to provide all information deemed necessary by the City so that the impacts of the proposed development may be accurately assessed.

The *Land Development Regulations* specifically list the application requirements for development permits that reflect the informational needs for the determination of concurrency.

PLANNING AND ZONING DEPARTMENT

The Planning and Zoning Department is responsible for the three (3) primary tasks that are described below. The Department Director may delegate all or a part of these functions to the employees within this Department. The three (3) tasks are: (1) maintaining an inventory of existing public facilities and capacities or deficiencies; (2) determining concurrency of proposed development which does not require Planning and Zoning Board approval; and (3) providing advisory concurrency assessments and recommending conditions of approval to the Planning and Zoning Board for those applications for development orders which require Planning and Zoning Board approval.

H. GOALS, OBJECTIVES, AND POLICIES

INFRASTRUCTURE GOAL:

To provide infrastructure to all residents in the community in a manner, which efficiently replaces obsolete or worn-out facilities, meets existing deficiencies, and accommodates desired future growth consistent with the Future Land Use Plan.

OBJECTIVE:

1. Capital improvements shall be provided to correct existing deficiencies, to accommodate anticipated future growth, and to replace outdated and obsolete facilities, as indicated in the five (5) year capital improvement schedule (Schedule) of this Element.

POLICIES:

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- a. The City shall include all projects required to meet or maintain adopted level-of-service (LOS) standards, as required by the Florida Growth Management Act, or implement the goals, objectives, and policies of the *Comprehensive Plan* and determined to be of relatively large scale in cost (\$25,000 or greater) as capital improvement projects to be included within the Schedule of this Element.
- b. The City shall, for accounting purposes, also include into this Element Debt Service and Operating expenditures.
- c. The City shall continue its current program providing for renewal and replacement of capital facilities as outlined in the various Elements of this Plan.
- d. The City shall create a capital improvement program and shall continue to adopt an annual budget as a part of its budgeting process. The City shall review the capital improvement program annually together with the Utilities Commission, City of New Smyrna Beach five (5) year capital improvement program to include the water and sanitary sewer related projects identified for the first five (5) years of these programs. The program shall be "financially feasible" as defined in *Florida Statutes*.
- e. The proposed capital improvement projects shall be evaluated and ranked in order of priority according to the following criteria:
 - i. Whether the project is needed to protect public health and safety, to fulfill the City's legal commitment to provide facilities and services, or to preserve or achieve full use of those facilities already in place;
 - ii. Whether the project promotes the City's development of alternative water supplies, corrects water supply deficiencies or otherwise results in a reduction in future dependence on Upper Floridan aquifer water sources to support future growth of the City;
 - iii. Whether the project increases efficiency of use of existing facilities, prevents or reduces future improvements costs, provides services to developed areas lacking full service, or promotes in-fill development;
 - iv. Whether the project represents a logical extension of facilities and services within the designated Urban Service Areas boundary, and is coordinated with the plans of state agencies that provide facilities within the City;
 - v. Whether the project implements the policies of this *Comprehensive Plan* as they pertain to the concurrency requirements; and
 - vi. Whether the project is financially feasible.
- f. The potential for reducing Vehicle Miles Traveled (VMTs) and green house gas (GHG) emissions should be considered in all location and investment decisions for public facilities.

OBJECTIVE:

2. The proportionate share of facility improvements that are necessitated by future development in order to maintain adopted LOS standards shall be borne by those directly benefiting from the improvements.

POLICIES:

- a. The City shall continue to collect impact fees from development projects to pay for the provision of water, sewer, recreation, public safety services, and transportation facilities required by those projects.
- b. The City shall consider the use of other impact or mobility fees, such as for transit service or pedestrian and bicycle facilities.
- c. All new development shall be required to donate or reserve their fair share of right-of-

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way adjacent to major roadways prior to the issuance of a final development order.

- d. All new development shall be required to pay its proportionate fair share toward transportation LOS and mobility improvements that are necessary to provide capacity for their impacts as outlined in the City's Proportionate Fair-Share Ordinance.

OBJECTIVE:

3. The City shall manage its fiscal resources to ensure the provision of needed capital improvements for previously issued development orders and for future development and redevelopment. This objective shall be achieved through the implementation of the following policies:

POLICIES:

- a. The City shall not issue development orders or permits unless public facilities (which meet the adopted level-of-service standards) needed to support development or redevelopment are available, or will be available concurrently with the impacts of the development.
- b. The City shall continue to apply for and secure grants or private funds whenever possible to finance the provision of capital improvements and other City improvement projects.
- c. The City shall begin to adopt a five (5) year capital improvement program and shall consider adopting an annual capital improvement program as part of its budgeting process.
- d. The City shall identify and use stable revenue sources, which are also responsive to growth, for financing public facilities.

OBJECTIVE:

4. The City shall base all decisions regarding the issuance of development orders and permits on the coordination of the development requirements included in this *Comprehensive Plan, Land Development Regulations*, and ordinances, and the availability of public facilities needed to support such development at the time it is needed.

POLICIES:

- a. The City shall use the following levels-of-service (LOS) standards in reviewing the impacts of new development and redevelopment upon public facility provision:
 - * Sanitary Sewer – ~~212~~ 207 gallons per day per Equivalent Residential Unit
 - * Solid Waste – 7.3 pounds per person per day (non-residential waste is included in this figure)
 - * Potable Water – 240 gallons per day per Equivalent Residential Unit
 - * Drainage – 25 year, 24 hour event. Drainage system will be designed to meet the requirements contained in the *Land Development Regulations*.
 - * Roadways
 - * LOS "C" or better for Florida Interstate Highway System
 - * LOS "D" on other State highways
 - * LOS "E" on minor arterials, collectors, local roadways and all facilities located within a central business district. The central business districts shall be defined as follows:
 - Mainland – That area designated as Mixed Uses on the Future Land Use Map including roads adjacent to areas designated as Mixed Uses.
 - Beachside – The area bounded by an east west extension of Florida Street on the north and Jessamine Street on the south and the Indian River and Atlantic Ocean as west and east

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boundaries, respectively.

- * Recreation Standards for Facilities
 - * Beach Access will be provided in 1.0 acre increments when demand equals 0.25 acres; the Level of Service standard is 0.25 acres per 1,000 residents.
 - * Urban Open Space will be provided in 0.1 acre increments when the demand equals 0.05 acres; the Level of Service standard is 1.0 acre per 1,000 residents
 - * Equipped Play Areas / Tot Lots Acres will be provided in 0.25 acre increments when demand equals 0.2 acres; the Level of Service standard is 0.2 acres per 1,000 residents
 - * Neighborhood Parks will be provided in 1.9 acre increments when demand equals 1.9 acres; the Level of Service standard is 0.4 acres per 1,000 residents
 - * Community Parks will be provided in 20 acre increments when the demand equals 10 acres; the Level of Service standard is 1 acre per 1,000 residents
 - * Regional Parks will be provided in 250 acre increments when the demand equals 200 acres; the Level of Service standard is 20 acres per 1,000 residents.
 - * Urban District Parks will be provided in 50-acre increments when demand equals 40 acres; the Level of Service standard is 5.0 acres per 1,000 residents
 - * Baseball / Softball Fields will be provided in 1-field increments when demand equals 1 field; the Level of Service standard is 1 field per 10,000 residents.
 - * Basketball Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 20,000 residents
 - * Bicycle Trails will be provided in 1-mile increments when demand equals 0.5 miles; the Level of Service standard is 1 mile of trail per 10,000 residents
 - * Boat Ramps will be provided in 1-lane increments when demand equals one (1) lane; the Level of Service standard is 1 lane per 12,500 residents
 - * Piers/Catwalks/Jetties will be provided in 800-foot increments when demand equals 800 feet; the Level of Service standard is 800 lineal feet of pier/catwalk/jetty per 25,000 residents
 - * Football / Soccer fields will be provided in 1-field increments when demand equals one (1) field; the Level of Service standard is 1 field per 25,000 residents
 - * Handball/Racquetball Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 20,000 residents
 - * Shuffleboard Courts will be provided in 1-court increments when demand equals one (1) court. The Level of Service standard is 1 court per 12,000 residents
 - * Tennis Courts will be provided in 1-court increments when demand equals one (1) court; the Level of Service standard is 1 court per 10,000 residents

b. The City shall evaluate all proposed *Comprehensive Plan* amendments and requests for new development or redevelopment according to the following guidelines as to whether the proposed action would:

- i. Be consistent with the Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element and the Coastal Management Element and not contribute to a condition of public hazard;
- ii. Be consistent with the Transportation Element; Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element; and Recreation and Open Space Element and not intensify an existing public facility capacity deficits not envisioned within this plan;
- iii. Generate public facility demands that may be accommodated by planned capacity increases as shown in the five (5) year Schedule;
- iv. Conform with future land uses as shown on the future land use map of the Future

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Land Use Element, and Urban Service Areas as described the Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge Element;

- v. Accommodate public facility demands based upon level-of-service standards by provision of facilities by the developer or by the City consistent with this element; and
- vi. Be consistent with state and regional agencies' and water management district's facilities plans.

PUBLIC SCHOOL FACILITIES GOAL:

Provide for a financially feasible public school facilities program.

OBJECTIVE:

- 1. The City of New Smyrna Beach shall ensure that the capacity of schools is sufficient to support residential subdivisions and site plans at the adopted level-of-service standard. This level-of-service standard shall be consistent with the level-of-service standard adopted in the Interlocal Agreement entered into by the Volusia County School Board and the local governments within Volusia County.

POLICIES:

- a. The level-of-service standard adopted by the City of New Smyrna Beach shall be applied consistently by all local governments within Volusia County and by the School Board district-wide to all schools of the same type.
- b. Consistent with the Interlocal Agreement, the uniform, district-wide level-of-service standards are set as follows using Florida Inventory of School Houses (FISH) capacity based on the traditional school calendar:
 - i. Elementary Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the Concurrency Service Area;
 - ii. K-8 Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the Concurrency Service Area;
 - iii. Middle Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the Concurrency Service Area;
 - iv. High Schools – one hundred twenty percent (120%) of permanent FISH capacity for the Concurrency Service Area; and
 - v. Special Purpose Schools – one hundred percent (100%) of permanent FISH capacity.
- c. The following schools shall achieve the adopted level-of-service no later than the identified date. The level-of-service presented in the following table is the tiered level-of-service that shall apply to that school until the date noted in the table.

School	LOS	Date
Orange City Elementary	117 percent	July 1, 2012
Horizon Elementary	158 percent	July 1, 2012
Freedom Elementary	126 percent	July 1, 2012
Osceola Elementary	117 percent	July 1, 2012
Ortona Elementary	150 percent	July 1, 2012
Ormond Beach Elementary	116 percent	July 1, 2012
Southwestern Middle	120 percent	July 1, 2013
New Smyrna Beach Middle	122 percent	July 1, 2014

Note: This policy designates a tiered LOS for those schools that exceed the desired levels at the end of the five (5) year capital improvement program.

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- d. The following schools shall be considered constrained schools at the designated LOS due to the inability to add capacity at the site and the nature of the communities they serve. Concurrency will be reviewed in the adjacent Concurrency Service Areas and requests to increase residential densities in the constrained Concurrency Service Areas will need to be accompanied by a plan to address school capacity.

School	LOS
Burns-Oak Hill Elementary	115 percent
Coronado Elementary	115 percent
Samsula Elementary	165 percent

Source: Interlocal Agreement for Public School Facility Planning

OBJECTIVE:

2. The City of New Smyrna Beach shall cooperate with the Volusia County School Board to ensure existing deficiencies and future needs are addressed consistent with adopted level-of-service standards for public schools.

POLICIES:

- a. By December 1 of each year, the City of New Smyrna Beach shall adopt as part of its Capital Improvements Element the Volusia County School Board five (5) year work program approved in September of each year as part of the School Board budget, including planned facilities and funding sources to ensure a financially feasible capital improvement program and to ensure the level-of-service standards will be achieved by the end of the five (5) year period.
- b. The City of New Smyrna Beach shall coordinate with the School Board and adopt development conditions to ensure that future development pays a proportionate share of the costs of capital facility capacity needed to accommodate new development and to assist in maintaining the adopted level-of-service standards via impact fees and other legally available and appropriate methods.

XIII. HISTORICAL AND ARCHAEOLOGICAL PRESERVATION ELEMENT

HISTORICAL DEVELOPMENT

New Smyrna Beach has a rich historical heritage dating back to prehistoric times when nomadic hunters roamed the area, roughly 4,000 years ago. The permanent colonization effort began in 1766, shortly after the first Spanish occupation of Florida, when Dr. Andrew Turnbull arrived at Mosquito Inlet with his first contingent of Greek, Italian, Corsican, and Minorcan settlers and named the 20,000-acre land grant New Smyrna after his wife's birthplace in Greece. The primary intent of the colony was to develop a plantation for the production of indigo, rice, hemp, and cotton. Although Turnbull's colonizing attempt lasted only nine years, many others followed and eventually flourished, especially in connection with development of the sugar and timber industries in this area during the second period of Spanish occupation (1783-1821) and into the early years of Florida's territorial period (1821-1845).

During the territorial period, the United States government fought two wars in Florida. Known as "The Seminole Wars," the goal was to eradicate the Seminole Indians from Florida. New Smyrna was a base of operation for the U.S. during these wars, with a military fort along the Indian River, between what is now Lytle Avenue to the north, Clinch Street to the south, and Live Oak Street to the west.

The oldest historical sites in the City and surrounding area are associated with these early historical periods, and include:

Turtle Mound, a shell midden and aboriginal burial mound on the peninsula about eight miles south of New Smyrna Beach, which is thought to have been built between the years 800-1400 CE.

The canals constructed by Turnbull's colonists to assist cultivation on the plantation. These canals run east and west parallel with Canal Street, and connect with the Indian River. There are also canals running north and south which connect with the east/west canals, allowing for easy transport of crops and other materials. A portion of the northernmost canal lies underneath Canal Street, but is still visible from the 800 block west. The southernmost canal, the Gabordy Canal, remains intact, and is near the boundary line between the cities of New Smyrna Beach and Edgewater.

The remains of a coquina stone wharf on the Indian River in the 700 block of South Riverside Drive. This wharf was constructed during the early British colonial period (1763-1783).

The "Old Fort" is now known to be a residence for Andrew Turnbull's business partner, Sir William Duncan. The ruins are located on the west side of the Indian River between Julia and Washington Streets. Construction of the residence occurred during the early British colonial period (1763-1783).

The Cruger and Depyster Sugar Mill Ruins, located south of State Road 44. The Sugar Mill was built in roughly 1830, during the territorial period, between the Second Spanish Period and Statehood.

There are approximately 1,290 structures within the City that were constructed before 1950 and documented on the Florida Master Site File by the Division of Historical Resources, Bureau of Historic Preservation. Most of them are residential in usage. About two-thirds of these structures are located on the mainland, mostly in a four- to five-block-wide strip on both the east and west sides of US 1. Another pocket of older structures is congregated along a thin strip straddling South Atlantic Avenue from 10th Street north to Flagler Avenue, and along Flagler Avenue westward to the river.

The oldest structures in New Smyrna Beach were constructed about 1895. Most are of frame, brick or concrete block construction, with a scattered few constructed of native coquina rock. There are a few structures exhibiting the Colonial Revival, Dutch Colonial Revival, Spanish Revival, and mission styles

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of architecture, as well as the Mediterranean Revival style which typified construction in Florida during the "boom" era of the 1920s.

Another significant part of the City's history is the Florida East Coast (FEC) Railroad, which greatly contributed to employment, growth and development in the area --particularly after the Civil War. However, the railroad was plagued with a 30-year strike which greatly impacted the community's economy, and all but eliminated the railroad as an economic factor in the New Smyrna Beach area.

HISTORIC PRESERVATION

For years, the City of New Smyrna Beach left the management of historic resources to private whim, resulting in an erosion of these resources. However, due to the enactment of stronger, more comprehensive national legislation for historic preservation; implementation of the state's comprehensive planning program; and an increasing awareness by concerned citizens and public officials that historic treasures were rapidly becoming an "endangered species"; the City began to take a more realistic approach to the identification and preservation of structures and sites having historic importance. In addition, federal tax legislation in 1976 and 1981 helped to create a more favorable investment climate for preserving these structures and sites.

The City's progress in dealing with historic preservation can be physically measured by the fact that it has:

- (1) surveyed historic resources on both the Mainland and Beachside, with the most recent survey being completed in 2010;
- (2) prepared a historic preservation element to the Comprehensive Plan to evaluate these resources, and to determine which of them should be preserved;
- (3) designated two National Register Historic Districts encompassing the traditional mainland downtown and surrounding residential neighborhoods and the Old Coronado Beach section of the beachside;
- (4) Adopted an ad valorem tax exemption program for historic residences that are restored according to the Secretary of the Interior's guidelines; and
- (5) adopted a historic preservation ordinance (1986) outlining sound policies for preservation and restoration of the structures and sites selected for such action. The two steps remaining are:
 - (a.) to outline locally designated historical districts and landmarks, where appropriate;
 - (b.) to develop a definitive procedure for nominating potential structures and sites for National Register of Historic Places and local landmarks review and final selection;
- (6) adopted an Archaeological Ordinance, requiring archaeological monitoring in places thought to contain artifacts from the Turnbull era; and
- (7) adopted a Demolition by Neglect Ordinance.

HISTORICALLY SIGNIFICANT HOUSING

At the present time, New Smyrna Beach has approximately 1,290 historic structures documented on the Florida Master Site File by the Division of Historical Resources, Bureau of Historic Preservation. These files include all buildings constructed within the City limits before 1950. Buildings included in the inventory contribute to a sense of time, place and historical development of the City through their location, design, setting, materials, workmanship and association, all of which define neighborhood character.

The majority of the buildings are found immediately east and west of U. S. 1 in a four- to five-block-wide area on each side of the highway in the central sector of the City. On the peninsula, they are congregated in approximately a 2-5 block area that is bisected near its northern end by Flagler Avenue.

In 1990, a National Register Historic District was designated in the City encompassing the traditional downtown and surrounding residential neighborhoods. The City has developed voluntary guidelines for rehabilitating old homes that are located in the District. People are encouraged to follow these guidelines, but they are not mandatory.

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In the area extending south from Canal Street to Clinch Street (between US 1 and the Indian River), 139 buildings were surveyed. The buildings are in relatively good condition. The area was developed between 1910 and 1924, and features the best architectural examples of residential construction in New Smyrna Beach, according to an analysis conducted by Historic Property Associates, Inc. in 1987-1988. Buildings sit on 50- to 100-foot lots with consistent setbacks. Many lots are lined with live-oak trees that in places form a canopy over the street.

Phase 2 of the survey conducted by Historic Property Associates, Inc. concentrated on areas beyond the New Smyrna Beach redevelopment area. Most of the 185 buildings surveyed were located north of Ronnoc Lane or south of Clinch Street. These buildings generally date from the 1920s and are not as intensely concentrated as those located closer to the core area center.

In 1997, the Coronado National Register Historic District was designated on the City's beachside. A total of 125 buildings were surveyed, with 83 considered contributing structures, and an additional 42 considered non-contributing structures. The heart of the district centers along Flagler Avenue, with the boundary extending from the east shore of the Indian River, stopping two blocks west of the Atlantic Ocean. Most buildings display Frame Vernacular styling, and the Craftsman style is the most common formal design.

Beginning in 2007 and ending in 2010, the City engaged Environmental Services, Inc., of Jacksonville, Florida, to conduct a survey of areas surrounding the two existing National Register Historic Districts. During the course of this survey, an additional 686 structures were surveyed; eight resource groups were identified; and expansions to the boundaries of the existing historic districts were recommended, along with the possible creation of a Westside Historic District.

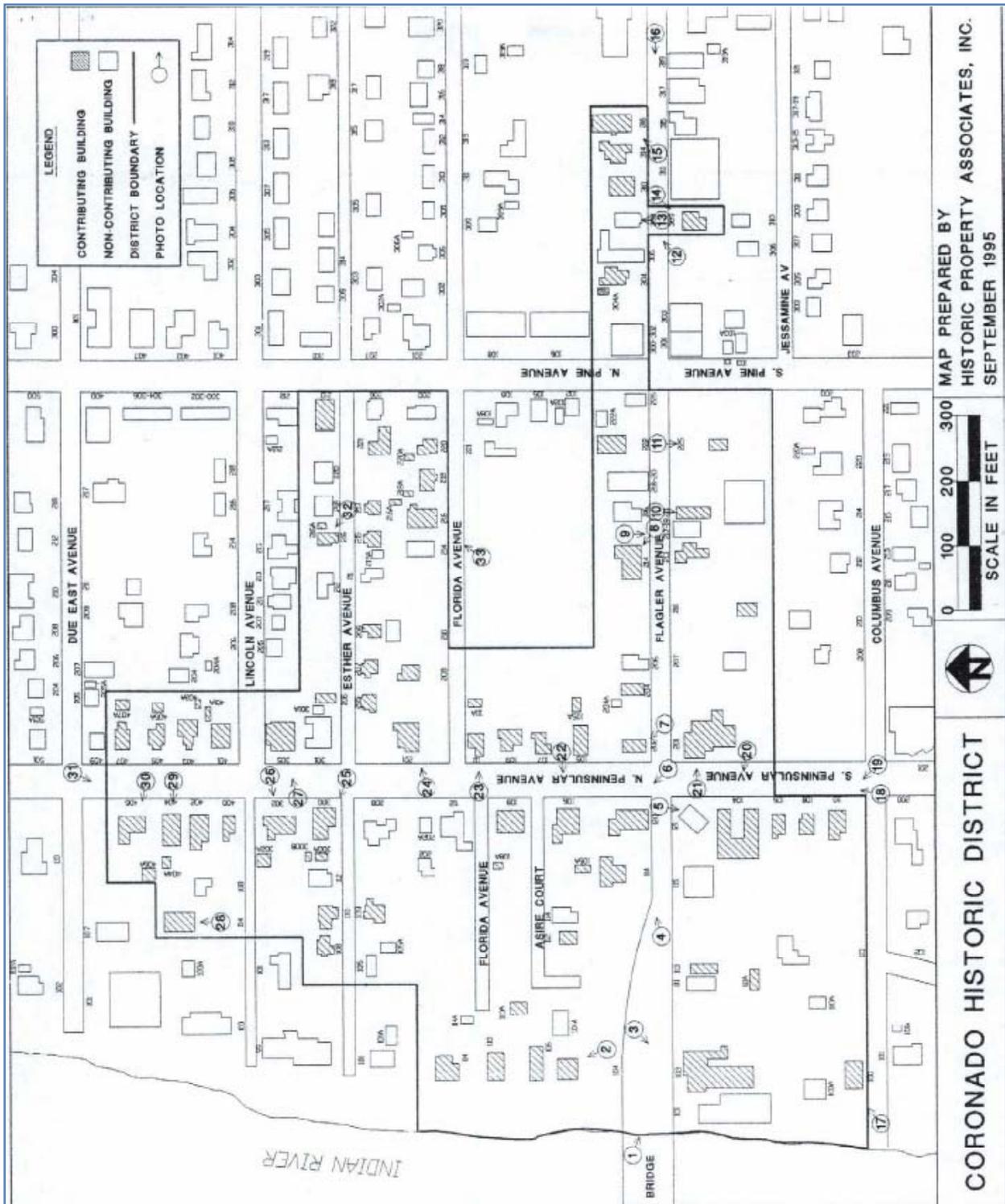
Generally, historic residential architecture in New Smyrna Beach is modest, reflecting the limited economic development of the community during the latter 19th and early 20th centuries. It was largely dominated by frame vernacular design during the first several decades of development and the bungalow style popular in Florida and other areas of the US during the 1910s and 1920s. Scattered examples of the Queen Anne, Carpenter Gothic and Colonial Revival styles can also be found. New Smyrna Beach is a participant in the Certified Local Government program, which can provide a vehicle for neighborhood conservation activities, in accordance with the historic preservation aspects of this Comprehensive Plan.

PRESERVATION, MAINTENANCE OR REHABILITATION OF HISTORICALLY SIGNIFICANT HOUSING STRUCTURES OR NEIGHBORHOODS

The City will make every effort to preserve, maintain, or rehabilitate housing structures or neighborhoods of historical significance. The City will also encourage efforts by commercial, private, or non-profit civic groups and organizations to maintain and rehabilitate historic structures. The Historic New Smyrna Beach Preservation Commission (HPC) is required to review any request to demolish contributing structures in the City's two National Register of Historic Places districts, which are located on the beachside, in the Coronado Historic District, and on the mainland, in the Mainland Historic District.

Map of Coronado Historic District

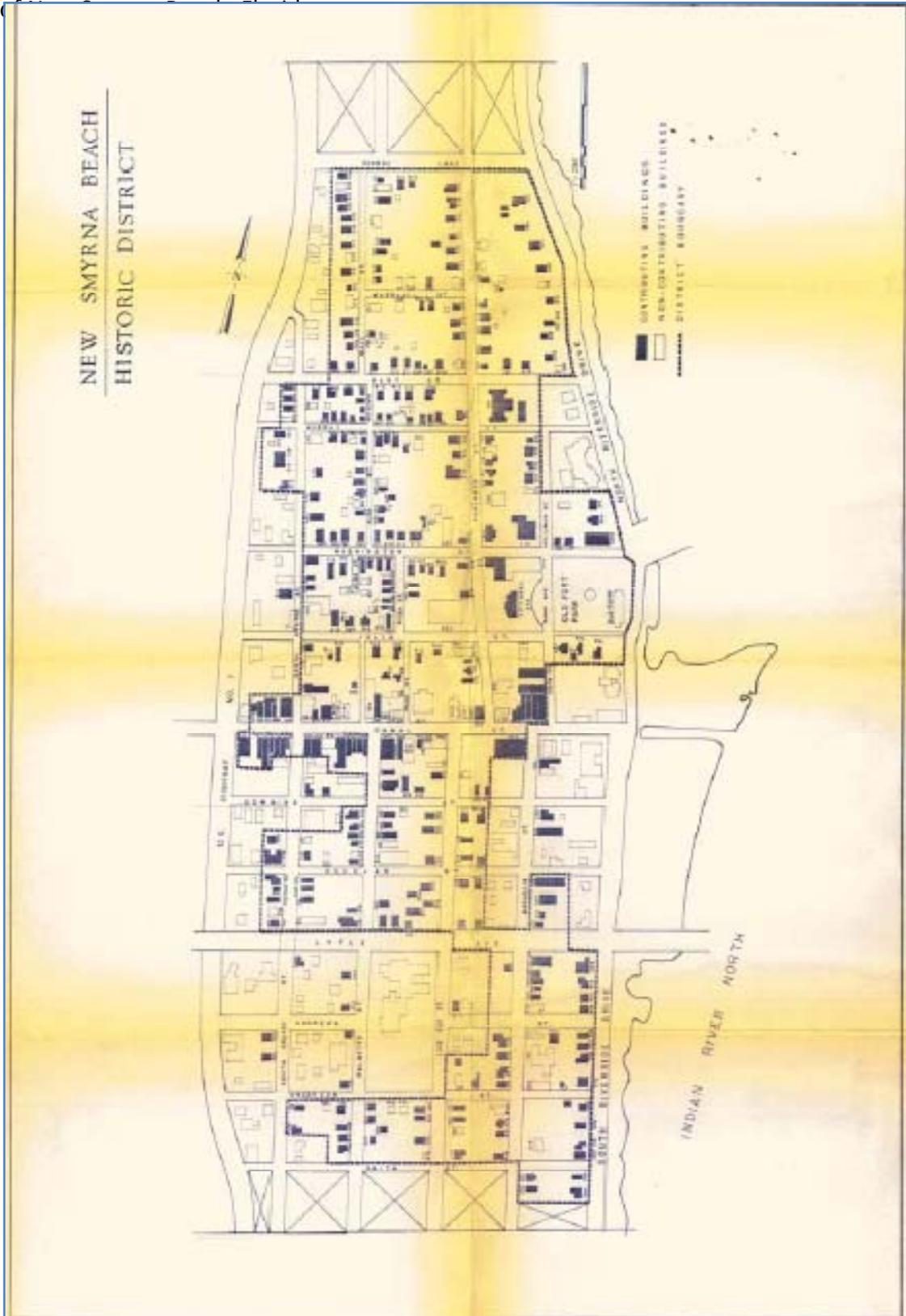
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Map of Mainland Historic District

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GOALS, OBJECTIVES, AND POLICIES

GOAL:

It shall be the goal of the City of New Smyrna Beach to maintain a historical and archaeological preservation program to promote the educational, cultural, moral, and economical welfare of the City and its residents. This program shall identify, document, protect and preserve its archaeological, historic, architectural and cultural resources. Instilling public awareness of those resources and the value of preserving those resources shall be a part of that effort.

OBJECTIVE

1. To provide an administrative framework for historical and archaeological preservation within the City.

POLICIES:

- a. The Historic New Smyrna Beach Preservation Commission (HPC) shall be maintained to provide recommendations to the City Commission on all archaeological and historical issues, to approve Certificates of Appropriateness', educate the community on the value of historical and archaeological preservation, and to perform other duties as required by City codes and the City Commission.
- b. The City shall retain personnel to coordinate municipal historic preservation activities, act as City liaison for providing assistance and information regarding historic preservation, assemble and manage the base of information required to support that responsibility, provide administrative support for the Historic New Smyrna Beach Preservation Commission (HPC) and seek funding for preservation projects.
- c. The City Manager or his/her designee shall designate a staff person to act as the City Historic Preservation Officer.
- d. The City shall ensure professional archaeological services are available to identify and preserve archaeological resources and to provide advice on archaeological issues.
- e. A historic preservation ordinance, structured to implement the historical and archaeological preservation goal, shall be maintained and implemented by the City.
- f. A site shall be maintained to house and display historical and archaeological artifacts.
- g. Pursue grants to fund historical and archaeological preservation including restoration and conservation, research and educational programs.

OBJECTIVE

- 2: Identify and inventory archaeological and historical resources that are publicly or privately owned.

POLICIES:

- a. Document all contributing structures in the National Register of Historic Places districts to be demolished prior to their demolition.
- b. Maintain a file of architectural and archaeological surveys, historical sites and districts, and other appropriate maps, site files and historical and archaeological records.

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- c. Encourage an archaeological survey on private property within a high probability area for containing archaeological resources prior to demolition, development and/or redevelopment.
- d. Assemble and maintain a comprehensive document that identifies and inventories all known historical and archaeological resources within the City and identify sites with a high probability for containing archaeological and historical resources.
- e. Nominate eligible historic and archaeological resources to the National Register of Historic Places.

OBJECTIVE

- 3: Educate the public about the need to preserve and appreciate historical and archaeological resources.

POLICIES:

- a. Coordinate public seminars and provide speakers on historic and archaeological preservation topics to community groups.
- b. Publicize historic and archaeological preservation through educational publications.
- c. Utilize mass media to promote the value of preservation.
- d. Interest the public by using plaques, markers, and interpretive signs at historical and archaeological sites.
- e. Coordinate education efforts with community groups such as the Southeast Volusia Historical Society, Board of Realtors, schools, and others.
- f. Inform owners of historical and archaeological properties of proper preservation and maintenance practices for the resources.

OBJECTIVE

- 4: Properly manage publicly owned historical and archaeological resources.

POLICIES:

- a. Designate historical and archaeological buildings, sites and districts as local landmarks. Require a local landmark building, site or district to meet established standards to ensure historically and architecturally appropriate changes.
- b. Encourage the acquisition of additional historic buildings and archaeological sites for City purposes such as open space, recreation, preservation and conservation.
- c. Encourage the preservation, maintenance, protection against vandalism, and continued use of publicly owned historical buildings for public uses.
- d. Properly maintain and interpret publicly owned archaeological sites.
- e. Include archaeological and historical resources in land acquisition programs for open space, recreation, preservation, and conservation.
- f. Properly safeguard historical and archaeological resources to protect against theft, vandalism, over use, and weather damage.

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OBJECTIVE

- 5: Encourage the preservation of privately owned historical and archaeological resources through use and reuse as an alternative to demolition and redevelopment.

POLICIES:

- a. Suggest voluntary designation of historical and archaeological buildings, sites and districts as local landmarks. Require a local landmark building, site or district to meet established standards to ensure historically and architecturally appropriate changes. Strive to designate a minimum of one local landmark per year.
- b. Remove obstacles to the rehabilitation, use or reuse of historic properties. Included, but not limited to this, are granting variances, liberal interpretation of codes, and providing code exemptions for historical buildings.
- c. Provide incentives to assist in preserving, using and reusing historical properties. Included, but not limited to this, are tax relief and exemptions, technical assistance, transfer of development rights, and grant acquisition.
- d. Provide flexibility in zoning regulations and applications to preserve use and reuse historical properties.
- e. Require Historic New Smyrna Beach Preservation Commission review of proposed historic building demolitions.
- f. Encourage relocation or reuse of historic buildings.

OBJECTIVE

- 6: Maintain and improve historic neighborhoods and properties.

POLICIES:

- a. Install street and other infrastructure improvements such as lighting, signage, sidewalks and fencing so that they are consistent and compatible with the historic character of the neighborhoods.
- b. Encourage local landmark designation of individual properties and districts so that new construction and exterior alterations will be compatible with the existing historic structures and the surrounding historic neighborhood.
- c. Develop and maintain vehicular and pedestrian traffic patterns that preserve the character of historic neighborhoods while providing safe traffic circulation.
- d. Preserve housing density and commercial and residential mix in historic neighborhoods to keep the existing character.

OBJECTIVE

- 7: To employ historical and archaeological preservation as a means to strengthen the local economy through increased tourism and local visitation at historical and archaeological sites.

POLICIES:

- a. Place plaques, markers, and interpretive signs at historical and archaeological sites to inform residents and visitors of their significance.
- b. Establish a program with local tourism groups to disseminate information about historical and archaeological resources.

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- c. Promote the development of historical and archaeological resources for public visitation and involvement.
- d. Designate the local historical museum and the Visitor's Center as places to promote archaeological and historical tourism.
- e. Develop a working relationship with the Visitor's Center to promote the City's rich heritage.
- f. Utilize the State Tourism marketing tools to promote historic and archaeological aspects of New Smyrna Beach
- g. Develop a cultural heritage economic impact measuring tool to determine the number of visitors to the City interested in the City's heritage.

XIV. PUBLIC SCHOOL FACILITIES ELEMENT

INTRODUCTION

In 2005 the Florida Legislature adopted requirements for all local governments to institute mandatory planning for schools. The requirements called for cooperative efforts between local governments and school boards to develop long-term plans for the provisions of necessary educational facilities to meet current and future needs. These plans were accompanied by requirements to institute school concurrency to ensure that facilities are in place to serve the needs of new development at the time the student demand resulting from the new development impacts schools. Local governments were also required to adopt amendments to their capital improvements elements demonstrating that plans to provide educational facilities were financially feasible. These requirements are implemented through the interlocal agreement between the school board and local governments and through the public school facilities element, capital improvements element, and intergovernmental coordination element.

The Volusia County School Board and the 16 local governments (Ponce Inlet was granted an exemption) began formal development of the public school facilities element in the summer of 2006. The planning task was supported by a broad-based effort to involve various segments of the community in the planning process. The School Board appointed a Stakeholders Committee that included representatives from the real estate and building interests, teachers, school administrators, elected officials and a variety of citizen groups. Each local government was given the opportunity to appoint a staff member to serve on a technical committee. Regular meetings were held with city managers and periodic reports were made to local elected officials at the Volusia Council of Governments meetings. Workshops were also held with the School Board to obtain direction on key issues. Two (2) public forums were held mid-way through the planning process to report results from the data and analysis effort and obtain comments about various options for the plan. Completion of the model plan was followed by adoption by each local government in compliance with the requirements for amending local government comprehensive plans.

The approach to the Public School Facilities Element (PSFE) employed in Volusia County was the preparation of a model PSFE, and amendments to the capital improvements and intergovernmental coordination elements that could be adopted as presented or with minor modifications to account for local conditions. The key features, including the level-of-service, Concurrency Service Areas, and the capital improvements program, are the same in all jurisdictions, but there is some room in the process for adjustments to accommodate local land use conditions, review and management procedures, and similar elements of the local plan, that might suggest minor variations from the model element. In addition to the PSFE, the interlocal agreement will provide for a uniform school concurrency management approach and uniform proportionate share methodology.

The PSFE is presented in two (2) sections. The first section reports on existing conditions and projected demand, summarizing key data from the larger data and analysis report that was generated during the planning process. The second section is the action plan including the goals, objectives, and policies. The PSFE also includes a projection of school needs by type through the end of the planning period in 2025 and a financial plan that is financially feasible for the initial five (5) year period and projects financial resources and costs through the end of the planning period. The adopted version of the PSFE, prepared in December 2007, includes updated tables that incorporate student projections, school utilization data, and the five (5) year capital improvements program from the 2007-2008 fiscal year budget adopted by the Volusia County School Board in September 2007. These changes provide the most current information for inclusion in the local government comprehensive plans updating the 2006-2007 fiscal year data that was the adopted budget at the time plans were transmitted to the Department of Community affairs.

Each year by December 1st, the City shall adopt, as part of its annual update to the Capital Improvements Element, the Volusia County School District five-year work program, which is approved in September of each year as part of the School District's

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work program includes planned facilities and funding sources to ensure a financially feasible capital improvements program and to ensure the level-of-service standards will be achieved by the end of the five-year period.

A BRIEF SUMMARY OF SCHOOL PLANNING IN VOLUSIA COUNTY

Over the past 15 to 20 years Volusia County has had a history of active interrelationships between the School Board and local governments. Much of the contact has occurred at the staff level, but the Volusia County School Board and local elected bodies have also met regularly in workshops to discuss school and community needs and develop relationships that can help foster cooperation on key issues. In 2003, the School Board and the local governments adopted the current Interlocal Agreement, and the various School Board and local government planning staffs have been active in implementing the agreement. As a result, when planning began to implement the PSFE requirements, the planning staffs and School Board staff already had a solid working relationship that allowed for a frank and broad-based discussion of issues and potential solutions.

In May 2005, the School Board adopted Policy 613 that asked local governments to voluntarily consider impacts on schools when comprehensive plan amendments or rezoning requests that increased residential densities were reviewed. Most local governments did apply Policy 613 giving Volusia County some base of experience in identifying and dealing with the issues that will be brought to the forefront by the mandatory PSFE. In 2006 voters in Volusia County approved an amendment to the County Charter including school planning as a mandatory element of the comprehensive planning process in addition to state requirements. The charter amendment language is:

“The county council shall provide no later than September 30, 2007 by ordinance that any county or municipal comprehensive plan amendment or rezoning allowing increased residential density may be effective only if adequate public schools can be timely planned and constructed to serve the projected increase in student population. Any ordinance implementing this section shall respect the constitutional authority of the school district to operate, control and supervise its public schools. Any ordinance implementing this section shall prevail over conflicting municipal comprehensive plan, ordinance, or resolution provisions.”

The charter amendment was subsequently included as Section 206 of the Volusia County Charter and the County Council adopted rules by ordinance to implement the amendment. The charter amendment provisions have been included in the Interlocal Agreement as well.

SUMMARY OF EXISTING CONDITIONS AND PROJECTED DEMAND

The data and analysis supporting the Public School Facilities Element has been prepared as a separate report, along with a series of technical memoranda prepared for use by the Technical Advisory Committee, staff and other working groups as they explored options and alternatives during the plan development process. This section extracts some of the key data from the data and analysis report so that this information can be conveniently located with the goals, objectives, and policies and with the projected school needs.

The initial data and analysis information was based on data available from the 2006-2007 Volusia County School Board fiscal year. This was the latest data available through September of 2007 when the School Board adopted its budget, including the updated five (5) year capital improvement program. The tables in this summary section and in the PSFE have been updated to reflect the 2007-2008 fiscal year where appropriate including student attendance, student projections, school utilization, and the capital improvement program. Population and student projections for the longer term planning period have not been updated, but it is important to note that student projections over the initial five (5) year planning period are lower than those projections from the initial database. This trend needs to be closely monitored and adjustments to the long-range projections made in future years as these become necessary. Corrections to the long-range projections must be made by amending the Interlocal

agreement, which would require approval by the Volusia County School Board and the 16 local governments that approved the initial agreement.

The following data summarizes population projections by jurisdiction and by school planning areas as agreed upon by the plan participants. This information was used to project future student demand by school planning area, as a basis for projecting future school needs by geographic area. Current school utilization levels in comparison with the proposed capital improvement program combined with student projections give a picture of system performance at the end of the initial five (5) year period and at key points thereafter. The data and analysis report should be consulted for more detailed information, analysis and the methodology employed in determining the key data outputs.

PROJECTED POPULATION BY JURISDICTION AND PLANNING AREA

The following tables present population estimates and projections through the end of the planning period in 2025. The Bureau of Economic and Business Research (BEBR) mid-range projections were used as the control values while allocation to individual local governments and to school planning areas was done based on current and anticipated development trends. The data was reviewed by technical staff from the Volusia County School Board and each local government, and the resulting distribution was approved by the technical staff. Table XIV-1 presents population by local government.

Table XIV-1 Volusia County Population Projections, 2010-2025

Jurisdiction	2000 Census	2005 BEBR	2010	2015	2020	2025
Daytona Beach	64,112	65,129	69,432	73,736	78,040	82,344
Daytona Beach Shores	4,299	4,661	4,818	4,976	5,133	5,292
DeBary	15,559	18,222	20,000	22,000	23,500	25,000
DeLand	20,904	25,055	28,759	32,462	35,548	37,400
Deltona	69,543	82,973	95,672	105,196	109,958	114,720
Edgewater	18,668	21,156	23,154	25,819	30,483	34,481
Holly Hill	12,119	12,620	12,765	12,910	13,055	13,200
Lake Helen	2,743	2,847	2,961	3,076	3,190	3,305
New Smyrna Beach	20,048	22,025	25,043	28,664	32,284	34,095
Oak Hill	1,378	1,922	2,130	2,343	2,553	2,765
Orange City	6,604	8,854	9,126	9,398	9,670	9,942
Ormond Beach	36,301	39,683	42,533	45,951	48,800	51,079
Pierson	2,596	2,633	3,110	3,587	4,064	4,541
Ponce Inlet	2,513	3,247	3,511	3,776	4,040	4,305
Port Orange	45,823	54,630	62,048	70,949	78,366	84,300
South Daytona	13,177	13,955	14,502	15,050	15,597	16,146
Unincorporated	106,956	115,037	125,536	131,407	139,081	147,285
Total	443,343	494,649	545,100	591,300	633,362	670,200

Sources: US Census Bureau, 2000; Bureau of Economic and Business Research, 2005; and Volusia County School Board

Note: The population projections in this table were developed in 2006, prior to the economic recession that began in 2008. Based on the current economic conditions, the City is not anticipating to actually achieve growth at this rate, especially in the short-term.

Table XIV-2 redistributes the population projections by eight (8) school planning areas. The planning areas were based on common characteristics, geography, and other factors such as school feeder patterns. The use of school planning areas allowed geographic areas with similar development characteristics to be grouped together and it allowed for more efficient introduction of variances in the student generation projections based on these common development characteristics. For example, areas with significant population growth but low student generation rates could be distinguished from areas that tend to have larger families and greater student generation rates. This process also made it easier to project for unincorporated populations located close to cities where they exhibited similar student patterns.

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Table XIV-2 School Population Allocation by Planning Area, 2005-2025

Planning Area	2005	2010	2015	2020	2025
North Halifax					
Ormond Beach	39,683	42,533	45,951	48,800	51,079
Unincorporated	27,167	29,176	30,126	31,564	33,064
Subtotal	66,850	71,709	76,077	80,364	84,143
Central Halifax					
Daytona Beach (part)	56,031	60,061	64,084	68,098	72,104
Holly Hill	12,620	12,765	12,910	13,055	13,200
South Daytona	13,955	14,502	15,050	15,597	16,146
Unincorporated	3,780	4,574	4,910	5,454	6,001
Subtotal	86,386	91,902	96,954	102,204	107,451
South Halifax					
Daytona Beach (part)	9,098	9,371	9,652	9,942	10,240
Daytona Beach Shores	4,661	4,818	4,976	5,133	5,292
Ponce Inlet	3,247	3,511	3,776	4,040	4,305
Port Orange	54,630	62,048	70,949	78,366	84,300
Unincorporated	14,387	15,603	16,215	17,110	18,063
Subtotal	86,023	95,351	105,568	114,591	122,200
Southeast					
Edgewater	21,156	23,154	25,819	30,483	34,481
New Smyrna Beach	22,025	25,043	28,664	32,284	34,095
Oak Hill	1,922	2,130	2,343	2,553	2,765
Unincorporated	18,061	19,775	20,585	21,813	23,197
Subtotal	63,164	70,102	77,411	87,133	94,538
Deltona					
Deltona	82,973	95,672	105,196	109,958	114,720
Unincorporated	5,229	6,485	7,079	8,978	9,011
Subtotal	88,202	102,157	112,275	118,936	123,731
DeBary - Orange City					
DeBary	18,222	20,000	22,000	23,500	25,000
Orange City	8,854	9,126	9,398	9,670	9,942
Unincorporated	8,344	9,189	10,499	11,261	12,012
Subtotal	35,420	38,315	41,897	44,431	46,954
DeLand					
DeLand	25,055	28,759	32,462	35,548	37,400
Lake Helen	2,847	2,961	3,076	3,190	3,305
Unincorporated	27,193	29,585	30,715	32,427	34,255
Subtotal	55,095	61,305	66,253	71,165	74,960
Northwest					
Pierson	2,633	3,110	3,587	4,064	4,541
Unincorporated	10,876	11,149	11,278	11,474	11,682
Subtotal	13,509	14,259	14,865	15,538	16,223
Total	494,649	545,100	591,300	634,362	670,200

Source: Volusia County School Board

STUDENT PROJECTIONS FOR VOLUSIA COUNTY AND SCHOOL PLANNING AREAS

Population projections and the geographic distribution of population are key inputs into the projection of student demand. Overall student demand was projected from the student generation rates developed in the school impact fee study applied to the population projections presented above. These rates yielded the information shown in Table XIV-3, with student projections for the planning period at the countywide level. As with most school districts in Florida the last two years have been relatively flat in terms of student growth. The plan treated this condition as a short term trend by shifting projected student population to a point later in the planning period, as the long range projections for student growth appear to remain valid. As noted above the adjustments made for the short-term still underestimated the decline in student demand. As with many elements of the population and student projection effort, this decision needs to be closely monitored as part of the annual review process established in the Interlocal Agreement and the student projections need to be adjusted as appropriate.

Table XIV-3 Volusia County Student Projections, 2010-2025

Year	Population	Households ¹	Students ²	Elementary ³	Middle ³	High ³	Other
2005	494,649	213,211	64,603	29,136	14,471	20,040	1,227
2010 ⁴	545,100	234,957	67,647	31,759	15,098	19,413	1,377
2015	591,300	254,871	74,526	34,861	16,638	21,517	1,508
2020	634,362	273,001	81,219	37,880	18,138	23,567	1,635
2025	670,200	288,879	87,775	40,836	19,608	25,571	1,759

Notes: ¹Households based on 2000 Census of 2.32

²Students based on impact fee weighted average of .303

³Grade distribution based on distribution from Volusia County School Board as Elementary .451, Middle .224, High .306, and Other .019

⁴2010 projections are from Volusia County School Board demographer

Source: Volusia County School Board

STUDENT PROJECTIONS BY SCHOOL PLANNING AREA

The following tables provide the student projections by grade level for each school planning area. The countywide student projections reported above were used as the control values for the initial 2005 total and for each five (5) year period. The students were then distributed by school planning area by allocating the total increase for the period based on the population growth rates, beginning with the 2010 – 2015 time period and continuing to the end of the study period. The “Other” student population represents students in non-traditional learning environments and was not distributed by planning area, as these students are not always limited to a geographic attendance area. The total of “Other” student population is very small and when distributed by grade and allocation by planning area would be unlikely to result in any material change to the analysis.

In the DeBary - Orange City planning area new middle school and high school construction now under way will increase capacity and modify the impacts to adjacent planning areas. The projections have been modified to account for these impacts and the adjustments are noted with the appropriate tables.

Table XIV-4 Volusia County Elementary School Projections by Planning Area

Planning Area	2005	2010	2015	2020	2025
North Halifax	3,101	3,319	3,612	3,913	4,225
Central Halifax	4,228	4,281	4,672	5,095	5,594
South Halifax	4,368	4,396	5,030	5,608	6,169
Southeast	3,053	3,200	3,691	4,372	4,983
Deltona	7,438	8,366	9,045	9,512	9,908
DeBary - Orange City	2,019	2,357	2,598	2,775	2,983
DeLand	4,218	4,670	5,002	5,347	5,660
Northwest	1,039	1,170	1,211	1,258	1,314
Total	29,464	31,759	34,861	37,880	40,836

Source: Volusia County School Board

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Table XIV-5 Volusia County Middle School Projections by Planning Area

Planning Area	2005	2010	2015	2020	2025
North Halifax	1,964	2,095	2,241	2,390	2,545
Central Halifax	1,509	1,490	1,684	1,894	2,142
South Halifax	2,557	2,567	2,882	3,169	3,448
Southeast	1,538	1,530	1,774	2,112	2,416
Deltona ¹	4,745	4,176	4,513	4,745	4,942
DeBary - Orange City ^{1,2}	-	1,163	1,282	1,371	1,474
DeLand ¹	2,340	2,077	2,242	2,413	2,569
Northwest	-	-	20	44	72
Total	14,653	15,098	16,638	18,138	19,608

Notes: ¹Addition of Middle DD in DeBary - Orange City draws 763 from Deltona and 400 from DeLand Planning Areas.

²Middle DD opens with 1163 including student growth factor for 2005-2010

Source: Volusia County School Board

Table XIV-6 Volusia County High School Projections by Planning Area

Planning Area	2005	2010	2015	2020	2025
North Halifax	2,009	1,907	2,106	2,310	2,521
Central Halifax	3,454	3,337	3,602	3,890	4,228
South Halifax	2,797	2,702	3,132	3,524	3,905
Southeast	2,060	1,978	2,311	2,773	3,188
Deltona ¹	5,519	3,608	4,069	4,386	4,654
DeBary - Orange City ¹	-	2,253	2,416	2,537	2,678
DeLand ¹	3,282	2,710	2,935	3,169	3,381
Northwest	919	918	946	978	1,016
Total	20,040	19,413	21,517	23,567	25,571

Note: ¹Addition of DDD removed 1190 from Deltona and 620 from Deland Sub-areas.

Source: Volusia County School Board

SCHOOL UTILIZATION FOR VOLUSIA COUNTY

Tables XIV-7, XIV-8, and XIV-9 report the utilization percentages for each school in Volusia County as of the beginning of 2007-2008 school year in comparison to the same data for the prior school year. This information provides a beginning point for measuring the impact of the current work program on system capacity. The tables note the utilization level by comparing the school enrollment to the FISH capacity. (FISH is the Florida Inventory of School Houses and represents the official design capacity of a school facility based on current State standards.) Breakouts of this information by School Planning area are available in Appendix C of the data and analysis report.

Based on 2007-08 school year data, elementary schools are operating at one hundred twenty-two percent (122%) of permanent FISH capacity district wide. This represents a six percent (6%) decline from the previous school year with this improvement being attributable to the opening of Cypress Creek Elementary in the South Halifax area, and additions to other elementary schools. Utilization levels range from a low of sixty-four percent (64%) at Palm Terrace Elementary to a high of one hundred sixty-two percent (162%) at Horizon Elementary. About one-third (1/3) of Volusia elementary schools (11 of 47) have some available capacity, while about twenty percent (20%) of the elementary schools (10 to 48) showed an increase in their overall utilization rates. This result would be expected as the new and expanded facilities added capacity to the system and relieved crowding at existing schools. The schools with available capacity tend to be located in older core city areas where growth impacts have been minimal and enrollments have either been stable or declining. These schools also typically showed declines in utilization levels from the previous year.

The middle schools are operating at 109 percent of permanent FISH capacity, about a two percent (2%) improvement from the previous year. No capacity additions were made from the prior year, but student enrollment declined slightly. Four (4) schools, or thirty-three percent (33%), are operating at or below their FISH capacity. These schools represent the Daytona Beach – Holly Hill area and Ormond Beach where the positive impact from opening Hinson Middle School in 2005 is continuing. Utilization rates range from

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sixty-five percent (65%) at Campbell to one hundred fifty-one percent (151%) at Galaxy Middle.

The high schools are operating at one hundred ten percent (110%) of permanent FISH capacity, representing a four percent (4%) reduction from the prior year. This reduction is primarily due to declining enrollment countywide at the high school level. With the recent renovations at DeLand, Seabreeze, and Taylor High Schools, the district has now completed a major effort to modernize all of its oldest high school facilities. Spruce Creek High School (1974) and Deltona High School (1986) are now the oldest high schools that have not yet undergone a comprehensive plant upgrade, although significant renovations have been or are scheduled at each school. Four (4) of the current nine (9) high schools are operating at or below their FISH capacity and only two (2) high schools increased their level of utilization over the prior year.

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Table XIV-7 Volusia County Elementary School Utilization, 2006-2007 and 2007-2008

School	2006-2007			2007-2008			Change
	Enrollment	Capacity	Utilization	Enrollment	Capacity	Utilization	
Blue Lake	655	703	93%	585	703	83%	-10%
Bonner	412	551	75%	362	551	66%	-9%
Burns - Oak Hill	234	250	94%	231	250	92%	-1%
Chisholm	375	297	126%	380	479	79%	-47%
Coronado	321	282	114%	309	282	110%	-4%
Cypress Creek	-	-	0%	630	742	85%	85%
DeBary	798	561	142%	779	561	139%	-3%
Deltona Lakes	1,021	744	137%	993	926	107%	-30%
Discovery	876	543	161%	841	725	116%	-45%
Edgewater	664	729	91%	646	729	89%	-2%
Enterprise	693	489	142%	659	489	135%	-7%
Forest Lake	758	551	138%	712	551	129%	-8%
Freedom	692	600	115%	790	782	101%	-14%
Friendship	788	528	149%	753	528	143%	-7%
Holly Hill	648	569	114%	568	569	100%	-14%
Horizon	921	543	170%	880	543	162%	-8%
Hurst	436	655	67%	480	655	73%	7%
Indian River	710	546	130%	679	546	124%	-6%
Longstreet	425	456	93%	383	456	84%	-9%
Manatee Cove	760	750	101%	786	750	105%	3%
Marks	940	621	151%	942	621	152%	0%
McInnis	464	420	110%	449	420	107%	-4%
Orange City	657	517	127%	639	517	124%	-3%
Ormond Beach	341	294	116%	342	294	116%	0%
Ortona	262	254	103%	319	254	126%	22%
Osceola	425	449	95%	450	449	100%	6%
Osteen	747	525	142%	758	764	99%	-43%
Palm Terrace	635	810	78%	519	810	64%	-14%
Pathways	639	553	116%	658	725	91%	-25%
Pierson	485	376	129%	495	376	132%	3%
Pine Trail	841	604	139%	792	786	101%	-38%
Port Orange	480	344	140%	398	344	116%	-24%
Read-Pattillo	478	493	97%	492	493	100%	3%
Samsula	257	156	165%	215	156	138%	-27%
Seville	118	-		110	-		0%
Small	454	452	100%	473	452	105%	4%
South Daytona	802	670	120%	737	978	75%	-44%
Spirit	852	768	111%	887	768	115%	5%
Spruce Creek	765	641	119%	676	823	82%	-37%
Starke	395	457	86%	410	457	90%	3%
Sugar Mill	766	623	123%	723	623	116%	-7%
Sunrise	1,018	553	184%	943	531	178%	-6%
Sweetwater	974	543	179%	556	543	102%	-77%
Timbercrest	896	540	166%	928	722	129%	-37%
Tomoka	861	690	125%	815	690	118%	-7%
Volusia Pines	704	563	125%	710	563	126%	1%
Westside	486	513	95%	448	513	87%	-7%
Woodward	857	652	131%	839	630	133%	2%
Total	29,786	24,428	122%	29,169	27,119	108%	-14%

Source: Volusia County School Board

Table XIV-8 Volusia County Middle School Utilization, 2006-2007 and 2007-2008

School	2006-2007			2007-2008			Change
	Enrollment	Capacity	Utilization	Enrollment	Capacity	Utilization	
Campbell	790	1,178	67%	771	1,178	65%	-2%
Creekside	1,212	1,131	107%	1,191	1,131	105%	-2%
DeLand	1,664	1,161	143%	1,599	1,161	138%	-6%
Deltona	1,462	1,190	123%	1,471	1,190	124%	1%
Galaxy	1,814	1,166	156%	1,763	1,166	151%	-4%
Heritage	1,465	1,150	127%	1,450	1,150	126%	-1%
Hinson	1,034	1,094	95%	1,063	1,071	99%	5%
Holly Hill	640	873	73%	620	873	71%	-2%
New Smyrna Beach	1,469	1,118	131%	1,391	1,118	124%	-7%
Ormond Beach	977	1,250	78%	925	1,250	74%	-4%
Silver Sands	1,252	1,108	113%	1,280	1,108	116%	3%
Southwestern	714	648	110%	730	622	117%	7%
Total	14,493	13,067	111%	14,254	13,018	109%	-1%

Source: Volusia County School Board

Table XIV-9 Volusia County High School Utilization, 2006-2007 and 2007-2008

School	2006-2007			2007-2008			Change
	Enrollment	Capacity	Utilization	Enrollment	Capacity	Utilization	
Atlantic	1,470	1,531	96%	1,370	1,532	89%	-7%
DeLand	3,382	2,901	117%	3,466	2,870	121%	4%
Deltona	2,900	1,920	151%	2,949	1,920	154%	3%
Mainland	1,979	2,344	84%	1,825	2,344	78%	-7%
New Smyrna Beach	2,048	2,235	92%	2,027	2,334	87%	-5%
Pine Ridge	2,594	1,888	137%	2,426	1,827	133%	-5%
Seabreeze	1,963	1,827	107%	1,955	1,827	107%	0%
Spruce Creek	2,816	2,066	136%	2,741	2,066	133%	-4%
Taylor	951	863	110%	970	1,217	80%	-30%
Total	20,103	17,575	114%	19,729	17,937	110%	-4%

Source: Volusia County School Board

VOLUSIA COUNTY SCHOOL BOARD CAPITAL IMPROVEMENT PROGRAM

The remaining key data piece contributing to the projections of school needs through the end of the planning period is the planned construction of new capacity. The data and analysis prepared at the beginning of the PSFE planning effort is based on the five (5) year capital improvement program (CIP) adopted by the Volusia County School Board as an element of their 2006-2007 budget. Each year as part of its annual update to the Capital Improvement Element (CIE), the City adopts the current Volusia County School District five year-work program. This program is approved in September of each year as part of the School District budget, and includes planned facilities and funding sources to ensure that the capital improvements program is financially feasible and that the level-of-service standards will be achieved by the end of the five-year period.

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PROJECTED CAPITAL FACILITIES NEEDS 2012-2025

In order to identify the timing and location of needed schools for the period between 2012 and 2025, student growth was projected by year for each geographic area based on the growth projections from the data and analysis report. The eight school planning areas were used for the elementary level, and the concurrency service areas for high schools were used to evaluate high school and middle school need. The Halifax Area was then examined at the school planning area level to determine if there were any smaller area impacts on middle schools that needed to be considered.

Schools were assumed to be needed when there were sufficient students available within the service area to comprise 80% of the standard size for the school level. The analysis area was also tested for compliance with the designated level-of-service standard to identify any deficiencies that might occur prior to the general need for a new school. A school was assumed to be needed when either demand reached 80% of standard school size or the analysis area exceeded the level-of-service standard for that area. This approach provides an indication of when and where level-of-service standard issues may be expected, but it does not get down to the individual school level since the error level over the term of the study is too great to make projections reasonable. At the individual school level, level-of-service standard issues may be encountered sooner than anticipated by this analysis. Close monitoring is going to be necessary as part of the annual concurrency management system review and budget development to identify and respond to level-of-service standard considerations. Table XIV-10 provides a listing of anticipated schools needed by location, type and year. This table lists only capacity, ancillary or replacement project. Other capital maintenance projects are not reflected nor are needs for school replacement.

Table XIV-10 Projected School Needs 2011-12 to 2025-26

School	Location	Start	Open	Notes
Elementary F	West	10-11	12-13	
Elementary B	Southeast	11-12	13-14	
Elementary C	N. Halifax	11-12	13-14	
Southwestern Middle	West	11-12	13-14	Addition. Capacity TBD
Elementary	S. Halifax	18-19	20-21	
Middle	Southeast		20-21	LOS Need Phased FF conversion
High	Halifax/SE	17-18	20-21	LOS need
Elementary	Southwest	19-20	21-22	
Elementary	C. Halifax	21-22	23-24	
Elementary	West	21-22	23-24	
Middle	S. Halifax	22-23	24-25	
Elementary	N. Halifax	23-24	25-26	
Elementary	S. Halifax	23-24	25-26	
Elementary	S. Halifax	23-24	25-26	
Elementary	Southeast	23-24	25-26	Required sooner if FF is phased to middle
High	West/SW	22-23	25-26	LOS need

Source: Volusia County School District

LAND BANKED SCHOOL SITES

The Volusia County School District has routinely purchased sites for schools in anticipation of future need. The data and analysis report a projection of anticipated school site needs by location and a listing of available sites. In addition to the known need generated by project schools, the plan recommends maintaining an inventory of additional sites to give the School District and local governments flexibility to address short term shifts in population and/or student growth. Doing so also provides additional options to respond to level-of-service issues that will arise at the elementary and middle school level, which are extremely difficult to predict at the school attendance zone level. Even relatively small shifts in population or student generation could shift the timing of demand appearing in the school planning areas. If construction funding is anticipated, the additional land-banked school sites will allow the School District to

shift projects in a relatively short period of time to respond to short-term shift in student demand. The School District should maintain or reserve sites in the following areas:

Elementary School Sites:	North Halifax South Halifax Southeast Southwest West
Middle School Sites:	Halifax/Southeast Southwest/West Northwest (flex site for elementary or middle school)
High School Sites:	Halifax/Southeast Southwest/West

CONSTRAINED SCHOOLS

The Volusia County School District includes a limited number of schools that have high utilization levels but due to site conditions cannot be expanded on site. These are generally schools in rural or semi-rural areas with little planned growth and are generally smaller schools that have strong community ties. In these cases, rezoning to another school is possible but is an option that is expected to be resisted by parents in these areas. For these schools, the plan provides for a permanent designation as constrained and the schools will be maintained at their current levels of service. Concurrency will be reviewed in the adjacent concurrency service areas and requests to increase residential densities in the constrained concurrency service areas will need to be accompanied by a plan to address school capacity. The constrained schools will maintain this status until they are replaced or other improvements are made that bring them within the designated level of service.

The District also occasionally encounters a situation where parents at a highly utilized school resist rezoning to a replacement school preferring to remain at the current school even though it may be heavily utilized. On occasion, the School Board has responded to these situations by creating a transitional process where currently enrolled students are given a “grace period” to finish at their original school while newer students are transitioned to the permanent school assignment. In these cases, a temporary designation as a constrained facility is appropriate to allow for the short-term operation of that school at a level that exceeds the designated level of service until the transition period is completed. During this period, new development could be permitted if adequate capacity will be available at the end of the transition period.

RENEWAL AND REPLACEMENT OF SCHOOL FACILITIES

Other than construction of new schools, the most significant capital cost the School District must address is maintenance of existing facilities and the replacement of existing schools when they become obsolete. The condition of existing facilities is addressed in a survey completed every five years. Once this information becomes available, the required projects are added into the five-year capital improvements plan as part of the overall program. To provide for this need, the financial plan has allocated a funding reserve equivalent to the replacement cost for one-fortieth of the total number of student stations. This allocation assumes that a school will have a useful life of 40 years and programs for the replacement of that portion of the total student stations each year. With the adoption of each updated capital improvements program, the renewal and replacement allocations will be converted into specific capital projects and the budget adjusted accordingly.

ANCILLARY FACILITIES

As with classroom needs, ancillary facilities will be monitored and reviewed on an annual basis. The Interlocal agreement includes procedures for coordinating the location of ancillary facilities with the local governments.

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COORDINATION OF CONCURRENCY SERVICE AREAS WITH LOCAL GOVERNMENT LAND USE PLANS

The goals, objectives, and policies for the Public School Facilities Element define Concurrency Service Areas for five (5) classes of facilities and establish three (3) central county Concurrency Service Areas that have no current or planned capacity. Elementary schools, middle schools, and K-8 schools are assigned Concurrency Service Areas based on their designated attendance zones. High schools are grouped into five (5) larger Concurrency Service Areas that reflect student movement between schools at this level, and the non-traditional schools or Other Schools that serve countywide student populations are evaluated on a countywide basis. This Concurrency Service Area format resulted from an extensive discussion of options by technical staff, elected official and stakeholders over a period of several months. The full range of options considered and the analysis of the various options are discussed in the data and analysis report and the series of technical memoranda that were generated during the plan development.

The concept of the central Concurrency Service Areas that have no current or planned school capacity was endorsed by all participants in the process as a planning tool to assure consistency between the PSFE and other elements of the *Volusia County Comprehensive Plan*. The Volusia County plan establishes land use classifications that provide for preservation, conservation, rural, and agricultural uses in the central corridor covered by the three (3) central Concurrency Service Areas. Development potential in these areas is limited with more significant development directed to cities and other more urban areas. No current city areas are included in the central Concurrency Service Areas. Students living in the central area are assigned to appropriate schools and future student generation projected based on current land use and zoning patterns has been evaluated with the overall projected demand for the affected schools and school planning areas. Future developments that will increase development density will need to include a plan for addressing anticipated school need as part of a land use or zoning amendment.

Absent changes to the future land use and zoning in the area covered by the central Concurrency Service Areas, there is insufficient student generation to support new school construction now and over the 20 year planning period. The students who reside in the area are accommodated in the schools associated with the underlying school attendance boundary. To the extent that the presence of schools encourages the location of residential development near them, the proposed Concurrency Service Areas support the Volusia County land use plan in its efforts to limit development in the central part of the County and to limit urban sprawl. This concept also supports the recommendations of the Volusia Smart Growth Implementation Committee, which issued their final report September 20, 2005. Limiting development in the central portion of the County is one of the key precepts of the recommended smart growth program.

GOALS, OBJECTIVES, AND POLICIES

INTERGOVERNMENTAL COORDINATION

Collaborate and coordinate with the Volusia County School Board to provide and maintain a public education system, which meets the needs of Volusia County's current and future population.

OBJECTIVE:

1. The City of New Smyrna Beach shall implement and maintain mechanisms designed to coordinate with the School Board to provide consistency between local government comprehensive plans and public school facilities and programs.

POLICIES:

- a. Pursuant to the procedures and requirements of the adopted Interlocal Agreement, the City of New Smyrna Beach shall coordinate with the School Board on growth and development trends, general population and student projections to ensure that the plans of the School Board and City of New Smyrna Beach are based on consistent

data.

- b. The City of New Smyrna Beach shall provide the representative of the School Board with copies of all meeting agendas and staff reports.
- c. The City of New Smyrna Beach shall meet at least annually with representatives from the School Board and the other local governments in Volusia County to review the Public School Facilities Element including enrollment projections. The timing and content of these meetings shall be done according to the requirements and procedures set forth in the adopted Interlocal agreement.

OBJECTIVE:

- 2. The City of New Smyrna Beach shall coordinate with the School Board on the planning and siting of new public schools and ancillary facilities to ensure school facilities are coordinated with necessary services and infrastructure and are compatible and consistent with the *Comprehensive Plan*.

POLICIES:

- a. The City of New Smyrna Beach shall coordinate with the School Board to assure that proposed public school facility sites are consistent with the applicable land use categories and policies of the *Comprehensive Plan*. Schools shall be permitted in all future land use classifications except for the following City future land use classifications as shown on the Future Land Use Map of the *Comprehensive Plan*:
 - Industrial
 - Conservation
 - Forestry Resource
- b. Coordination of the location, acquisition, phasing, and development of future school sites and ancillary facilities shall be accomplished through the procedures adopted in the Interlocal Agreement.
- c. The City of New Smyrna Beach and the School Board will jointly determine the need for and timing of on-site and off-site improvements necessary to support each new school or the proposed renovation, expansion or closure of an existing school. If deemed necessary, the parties may enter into a written agreement as to the timing, location, and party or parties responsible for constructing, operating, and maintaining the required improvements.
- d. The City of New Smyrna Beach shall encourage the School Board to land bank sites for future use as school facilities. The City of New Smyrna Beach shall coordinate with the School Board on the acquisition and use of land banked sites in the same manner as established for other sites in order to ensure adequate infrastructure is planned and constructed in advance of school construction.
- e. The City of New Smyrna Beach shall protect schools and land banked school sites from the adverse impact of incompatible land uses by providing the School Board with the opportunity to participate in the review process for all proposed development adjacent to schools.
- f. In developing capital improvement plans and programs for public services, the City of New Smyrna Beach shall consider required infrastructure to service existing and proposed schools and any land banked school sites.

OBJECTIVE:

- 3. The City of New Smyrna Beach shall enhance community and neighborhood design through effective school facility design and siting standards and encourage the siting of school facilities in order to serve as community focal points and are compatible with surrounding land uses.

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POLICIES:

- a. The City of New Smyrna Beach shall coordinate with the School Board on opportunities for the expansion and rehabilitation of existing schools so as to support neighborhoods and redevelopment.
- b. The City of New Smyrna Beach shall collaborate with the School Board on the siting of public facilities such as parks, libraries, and community centers near existing or planned public schools, to the extent feasible.
- c. The City of New Smyrna Beach shall look for opportunities to co-locate and share the use of public facilities when preparing updates to the *Comprehensive Plan* schedule of capital improvements and when planning and designing new or renovating existing, community facilities. Co-located facilities shall be governed by a written agreement between the School Board and the City of New Smyrna Beach specifying operating procedures and maintenance and operating responsibilities.
- d. The City of New Smyrna Beach shall reduce hazardous walking conditions consistent with the Florida Department of Transportation's Safe Routes to School Program. In conjunction with the School Board, the City of New Smyrna Beach shall implement the following strategies:
 - i. New developments adjacent to schools shall be required to provide a right-of-way and direct safe access path for pedestrian travel to existing and planned schools and shall connect to the neighborhood's pedestrian network.
 - ii. New development and redevelopment within two (2) miles of a school shall be required to provide sidewalks within or adjacent to the property for the corridor that directly serves the school or qualifies as an acceptable designated walk or bicycle route to the school.
 - iii. In order to ensure continuous pedestrian access to public schools, the City of New Smyrna Beach shall consider infill sidewalk and bicycle projects connecting networks serving schools as part of the annual capital budget process. Priority shall be given to hazardous walking conditions pursuant to Section 1006.23, *Florida Statutes*.
 - iv. The City of New Smyrna Beach shall coordinate with the Metropolitan Planning Organization to maximize the funding from the Florida Department of Transportation and other sources that may be devoted to improving pedestrian networks serving schools.
- e. The City of New Smyrna Beach and the School Board shall coordinate with Volusia County Emergency Services on efforts to build new school facilities, and facility rehabilitation and expansion, to be designed to serve as and provide emergency shelters as required by Section 1013.372, *Florida Statutes* and by the American Red Cross Standards for Hurricane Evacuation Shelter Selection.

OBJECTIVE:

4. Manage the timing of new development to coordinate with adequate school capacity as determined by the Volusia County School Board.

POLICIES:

- a. The City of New Smyrna Beach shall take into consideration the School Board comments and findings on the availability of adequate school capacity in the evaluation of *Comprehensive Plan* amendments and other land use decisions including but not limited to developments of regional impact. School Board review shall follow the policies and procedures set forth in the Interlocal Agreement.
- b. Amendments to the Future Land Use Map shall be coordinated with the School Board

and the Public School Facilities Planning Maps.

- c. Where capacity will not be available to serve students from the property seeking a land use change or other land use determination that increases residential density, the City of New Smyrna Beach shall not approve the proposed land use change until such time as the School Board can find that adequate public schools can be timely planned and constructed to serve the student population or that the applicant has provided adequate mitigation to offset the inadequacies in anticipated school capacity.

CONCURRENCY GOAL

The City of New Smyrna Beach shall assure the future availability of public school facilities to serve new development consistent with the adopted level-of-service standards. This goal will be accomplished recognizing the Volusia County School Board’s statutory and constitutional responsibility to provide a uniform system of free and adequate public schools and the City of New Smyrna Beach’s authority for land use, including the authority to approve or deny *Comprehensive Plan* amendments, re-zonings or other development orders that generate students and impact the public school system. The City of New Smyrna Beach shall operate and maintain in a timely and efficient manner adequate public facilities for both existing and future populations consistent with the available financial resources.

OBJECTIVE:

- 1. The City of New Smyrna Beach through coordinated planning with the Volusia County School Board and implementation of its concurrency management system shall ensure that the capacity of schools is sufficient to support residential subdivisions and site plans at the adopted level-of-service standard within the period covered by the five (5) year schedule of capital improvements. These standards and the concurrency management system shall be consistent with the Interlocal Agreement approved by the School Board and the local governments in Volusia County.

POLICIES:

- a. The level-of-service standards for schools shall be applied consistently by all the local governments in Volusia County and by the School Board district-wide to all schools of the same type.
- b. Consistent with the Interlocal Agreement, the uniform, district-wide level-of-service standards are set as follows using FISH capacity based on the traditional school calendar:
 - i. Elementary Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the Concurrency Service Area;
 - ii. K-8 Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the Concurrency Service Area;
 - iii. Middle Schools – one hundred fifteen percent (115%) of permanent FISH capacity for the Concurrency Service Area;
 - iv. High Schools – one hundred twenty percent (120%) of permanent FISH capacity for the Concurrency Service Area; and
 - v. Special Purpose Schools – one hundred percent (100%) of permanent FISH capacity.
- c. The following schools shall achieve the adopted level-of-service no later than the identified date:

School	Level-of-Service	Date
Orange City Elementary	117%	July 1, 2012
Horizon Elementary	158%	July 1, 2012

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Freedom Elementary	126%	July 1, 2012
Osceola Elementary	117%	July 1, 2012
Ortona Elementary	150%	July 1, 2012
Ormond Beach Elementary	116%	July 1, 2012
Southwestern Middle	120%	July 1, 2013
New Smyrna Beach Middle	122%	July 1, 2014

Note: This policy designates a tiered level-of-service for those schools that exceed the desired levels at the end of the five (5) year capital improvement program.

- d. The following schools shall be considered constrained schools at the designated level-of-service due to the inability to add capacity at the site and the nature of the communities they serve. Concurrency will be reviewed in the adjacent Concurrency Service Areas and requests to increase residential densities in the constrained Concurrency Service Areas will need to be accompanied by a plan to address school capacity.

School	Level-of-Service
Burns-Oak Hill Elementary	115%
Coronado Elementary	115%
Samsula Elementary	165%

Source: *Interlocal Agreement for Public School Facility Planning*

- e. The City of New Smyrna Beach and the School Board recognize and agree that short-term changes in enrollment unrelated to new development approvals can and do occur, and that students enrolling in their assigned school will be accepted consistent with the School Board's constitutional obligations regardless of the utilization levels at the assigned school.
- f. If there is a consensus to amend any level-of-service, the amendment shall be accomplished by execution of an amendment to the Interlocal Agreement by all parties and the adoption of amendments to each local government comprehensive plan. The amended level-of-service shall not be effective until all plan amendments are effective and the amended Interlocal Agreement is fully executed. No level-of-service standard shall be amended without showing that the amended level-of-service standard is financially feasible and can be achieved and maintained within the five (5) years of the capital facilities plan.

OBJECTIVE:

2. The City of New Smyrna Beach shall establish School Concurrency Service Areas as the area within which an evaluation is made of whether adequate school capacity is available based on the adopted level-of-service standard. Maps of the School Concurrency Service Areas are adopted in the *Interlocal Agreement for Public School Facility Planning*.

POLICIES:

- a. The Concurrency Service Area for elementary schools shall be the elementary school attendance boundary as represented on the map series *Public School Facilities Element Elementary School Concurrency Service Areas* as adopted as part of the *Volusia County Comprehensive Plan*, which is incorporated herein by reference.
- b. The Concurrency Service Area for middle schools shall be the middle school attendance boundary as represented on the map series *Public School Facilities Element Middle School Concurrency Service Areas* as adopted as part of the *Volusia County Comprehensive Plan*, which is incorporated herein by reference.
- c. The Concurrency Service Area for K-8 schools shall be as represented on the map series *Public School Facilities Element K-8 Concurrency Service Areas* as adopted as part of the *Volusia County Comprehensive Plan*, which is incorporated herein by

reference.

- d. The Concurrency Service Area for high schools shall be as represented on the map series *Public School Facilities Element High School Concurrency Service Areas* as adopted as part of the *Volusia County Comprehensive Plan*, which is incorporated herein by reference.
- e. The Concurrency Service Area for special use schools shall be district wide.
- f. The Concurrency Service Area maps designate three (3) areas where school capacity is not anticipated for the planning period.
- g. Within the central Concurrency Service Areas all current and future students shall be assigned to schools designated for them as part of the School Board's normal school assignment procedures. Requests for development orders for new development consistent with the future land use designations and existing residential zoning densities shall be evaluated for concurrency based on the assigned school and that school's Concurrency Service Area. If adequate capacity is not available in the assigned Concurrency Service Area, the proposed development shall be evaluated in comparison to the Concurrency Service Areas adjacent to the assigned Concurrency Service Area, subject to the limitations of Policy 2.3.g. The School Board shall maintain a listing of assigned and adjacent Concurrency Service Areas for each central School Concurrency Service Area.
- h. Requests to develop properties within the central School Concurrency Service Areas at residential densities and intensities greater than the current land use or zoning designations shall be done via a *Comprehensive Plan* amendment consistent with the Volusia County Charter provision 206 regarding school planning. The *Comprehensive Plan* amendment shall demonstrate how school capacity will be met consistent with the terms of the *First Amendment to the Interlocal Agreement for Public School Facility Planning* effective July 2007 and Section 206 of the *Volusia County Charter*. If the project area is to be annexed by a municipality, the *Comprehensive Plan* amendment shall include an amendment of the central Concurrency Service Area boundary by Volusia County to exclude the subject parcel.
- i. Amendments to the School Concurrency Service Areas shall be completed according to the procedures specified in the *Interlocal Agreement for Public School Facility Planning*. Amendments to Concurrency Service Areas shall consider the following criteria:
 - i. Adopted level-of-service standards shall not exceed the level-of-service standard within the initial five (5) year planning period; and
 - ii. The utilization of school capacity is maximized to the greatest extent possible taking into account transportation costs, court approved desegregation plans, proximity to schools, ethnic and socio-economic diversity, subdivisions and neighborhoods, demographic changes, future land development patterns, crossing guard availability and other relevant factors.

OBJECTIVE:

3. In coordination with the Volusia County School Board the City of New Smyrna Beach will establish a process for implementation of school concurrency, which includes applicability and capacity determination, availability standards and school capacity methods. The City of New Smyrna Beach shall manage the timing of residential subdivision approvals and site plans to ensure adequate school capacity is available consistent with the adopted level-of-service standards for public schools.

POLICIES:

- a. School concurrency applies to residential development not otherwise exempt as

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specified by Policy 2.3.c.

- b. Development orders may be issued for residential development where:
 - i. Adequate school capacity, as determined by the School Board, exists or will be under construction for each level of school in the affected Concurrency Service Area within three (3) years after the issuance of the development order allowing the residential development;
 - ii. Adequate school facilities, as determined by the School Board, are available within an adjacent Concurrency Service Area subject to the limitations of Policy 2.3.g. Where capacity from an adjacent Concurrency Service Area or areas is utilized, the impacts of development shall be shifted to that area. If capacity exists in more than one Concurrency Service Area or school within a Concurrency Service Area, the School Board shall determine where the impacts of development shall be allocated based on the School Board policies for student assignment; and
 - iii. The developer executes a legally binding commitment with the School Board and City of New Smyrna Beach to provide mitigation proportionate to the demand for public school facilities to be created by the actual development of the property as provided by Objective 2.4 and its supporting policies.
- c. The following residential development shall be considered exempt from the school concurrency requirements:
 - i. Single family lots of record existing prior to May 13, 2008, the effective date of the School Concurrency implementing ordinance, which otherwise would be entitled to build;
 - ii. Any residential development or any other development with a residential component that received approval of a Final Development Order or Functional Equivalent or is otherwise vested prior to May 13, 2008, the effective date of the school concurrency implementing ordinance, is considered vested for that component which was previously approved for construction and shall not be considered as proposed new residential development for purposes of school concurrency;
 - iii. Amendments to residential development approvals which do not increase the number of students generated by the development based on the student generation rates for each school type as determined by the School Board;
 - iv. Age restricted developments that are subject to deed restrictions prohibiting the permanent occupancy by a resident under the age of 55. Such deed restrictions must be recorded and be irrevocable for a period of at least thirty years; or
 - v. Group quarters that do not generate students including residential facilities such as jails, prisons, hospitals, bed and breakfast, hotels and motels, temporary emergency shelters for the homeless, adult halfway houses, firehouse dorms, college dorms exclusive of married student housing, and religious non-youth facilities.
- d. The creation of subdivisions and/or single family lots equal to or less than ten (10) units shall be subject to school concurrency as part of an annual concurrency management review. The City of New Smyrna Beach shall report such projects to the School Board as part of the annual planning coordination process established by the Interlocal Agreement and these units shall be included by the School Board in planning student allocations by school.
- e. Continue to implement the school concurrency ordinance (Ord. 84-07), which establishes the application procedures and process for evaluating school capacity

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and making concurrency determinations consistent with the provisions of the Interlocal Agreement.

- f. The School Board shall conduct a concurrency review that includes findings and recommendations of whether there is adequate capacity to accommodate proposed development for each type of school within the affected Concurrency Service Area consistent with the adopted level-of-service. The School Board may issue a certificate of school concurrency if sufficient capacity exists for the proposed development or the School Board may set forth conditions required to satisfy the requirements of school concurrency including proportionate share mitigation.
- g. If the adopted level-of-service standard cannot be met within a particular Concurrency Service Area as applied to an application for development order and if the needed capacity is available in one or more contiguous Concurrency Service Areas, then this capacity shall be applied to the concurrency evaluation of the application for development approval subject to the following limitations:
 - i. Areas established for diversity at schools shall not be considered contiguous;
 - ii. Concurrency service areas generating excessive transportation costs shall not be considered contiguous. Excessive transportation costs are defined as transporting students requiring a transport time of fifty minutes one way as determined by School Board transportation routing staff;
 - iii. Concurrency service areas shall not be considered contiguous when the Concurrency Service Areas are separated by a natural or man-made barrier such as a river, water body, or interstate highway that requires indirect transport of students through a third Concurrency Service Area;
 - iv. When capacity in an adjacent Concurrency Service Area is allocated to a development application, assignment of the students to the school with available capacity may be accomplished by applying any of the techniques used to establish school attendance zones including modification of existing attendance zone boundaries or creation of island zones; and
 - v. Student transportation not in conformance with the conditions established in items 1 through 4 above shall be permitted to allow student assignments based on specific educational programming options; to comply with State and Federal mandatory transfer opportunities; or for other transfer opportunities that School Board shall deem appropriate for the specific circumstances of an individual student.
- h. If the adopted level-of-service cannot be met within a particular Concurrency Service Area the School Board may apply one or more of the following techniques to maximize use of available capacity and provide for adequate numbers of student stations to meet current and future demand:
 - i. Construct new school facilities;
 - ii. Construct additions to current facilities;
 - iii. Adjust program assignments to schools with available capacity;
 - iv. Modify attendance boundaries to assign students to schools with available capacity; or
 - v. Eliminate variances to overcrowded facilities that are not otherwise restricted by State or Federal requirements.

OBJECTIVE:

4. The City of New Smyrna Beach shall provide for mitigation alternatives that are financially feasible and will achieve and maintain the adopted level-of-service standard consistent

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with the Volusia County School Board's adopted financially feasible work program.

POLICIES:

- a. In the event that sufficient school capacity is not available in the affected Concurrency Service Area, the developer shall have the option to propose proportionate share mitigation to address the impacts of the proposed development.
- b. Mitigation shall be directed toward a permanent capacity improvement identified in the School Board's financially feasible work program, which satisfies the demands created by the proposed development consistent with the adopted level-of-service standards.
- c. Mitigation shall be directed to projects on the School Board's financially feasible work program that the School Board agrees will satisfy the demand created by the proposed development approval and shall be assured by a legally binding development agreement between the School Board, the City of New Smyrna Beach, and the applicant which shall be executed prior to the City of New Smyrna Beach's ~~issuance approval~~ of the subdivision or site plan ~~approval~~. If the School Board agrees to the mitigation, the School Board shall commit in the agreement to placing the improvement required for mitigation in its work plan.
- d. The applicant's total proportionate share obligation shall be based on multiplying the number of needed student stations generated from the proposed project by the School Board's current cost per student station plus land cost for each type of school. The applicant's proportionate share mitigation obligation shall be credited toward any impact fee or exaction fee imposed by local ordinance for the same need on a dollar for dollar basis. For example, if the proportionate share mitigation provides only for land, the credit is applied only against that portion of the impact fee or other exaction devoted to land costs.
- e. The student generation rates used to determine the impact of a particular development shall be the student generation rates adopted in the most recent school impact fee study.
- f. The cost per student station shall be the most recent actual costs per student station, and capitalization costs if applicable, paid by the School Board for the equivalent school facility.
- g. Mitigation options must consider the School Board's educational delivery methods and requirements and the State Requirements for Educational Facilities and may include, but not be limited to, the following:
 - i. Donation of buildings for use as a primary or alternative learning facility;
 - ii. Renovation of existing buildings for use as learning facilities;
 - iii. Funding dedicated to, or construction of permanent student stations or core capacity;
 - iv. For schools contained in the School Board's adopted five (5) year capital facilities work program, upon agreement with the School Board, the applicant may build the school in advance of the time set forth in the five (5) year work program;
 - v. Dedication of a school site as approved by the School Board;
 - vi. Up front lump sum payment of school impact fees;
 - vii. Upfront payment of interest and other costs of borrowing;
 - viii. Payment of off-site infrastructure expenses including but not limited to roads, water, and/or sewer improvements;
 - ix. Payment of transportation costs associated with the movement of students as a

- result of overcapacity school;
- x. Funding assistance with acquisition of school site;
- xi. Phasing of construction or delay of construction in order to timely plan for the availability of school capacity;
- xii. Establishment of an educational facilities benefit district; and
- xiii. Establishment of educational facilities mitigation banks.

OBJECTIVE:

- 5. The City of New Smyrna Beach shall ensure existing deficiencies and future needs are addressed consistent with the adopted level-of-service standards for schools.

POLICIES:

- a. In accordance with the adopted Interlocal Agreement, the City of New Smyrna Beach shall collaborate with the Volusia County School Board in locating required school sites as identified in the School Board's five (5), ten (10), and 20 year capital facilities plan.
- b. The City of New Smyrna Beach shall ensure that future development pays a proportionate share of the costs of public school facilities capacity needed to accommodate new development and to assist in maintaining the adopted level-of-service standards via impact fees and other legally available and appropriate methods.
- c. By December 1 of each year, the City of New Smyrna Beach shall adopt as part of its Capital Improvements Element the Volusia County School Board five (5) year work program approved in September of each year as part of the School Board budget, including planned facilities and funding sources to ensure a financially feasible capital improvement program and to ensure the level-of-service standards will be achieved by the end of the five (5) year period.

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XV. ECONOMIC DEVELOPMENT ELEMENT

I. INTRODUCTION

The City of New Smyrna Beach Economic Development Plan is the result of an intense research and planning process, which included the involvement of many stakeholders, and an extensive economic overview and analysis of the state, county and city.

In November of 2009, a private effort was initiated to facilitate the economic development strategic planning effort. To begin the study, an in-depth review of economic programs, resources, prior and current studies that exist have been reviewed. Meetings were held with city and county officials, key economic development and businesses leaders, and other community stakeholders.

The team conducted research including examination of strength's, weaknesses, opportunities, threats and trends (SWOTT Analysis), an economic assessment, cluster analysis, a review of economic development organizations and programs, and benchmarking to similar cities.

A few key existing and developing plans provided guidance to certain sections of this plan. These are mentioned in the report, and include Strategic Economic Development for the City of Deltona, 2007-2012 Strategic Plan for Economic Development "Roadmap to Florida's Future", Sustainable Governance, Volusia County Economic Development Plan, Florida & Metro Forecast 2009-2013, Hunter Interest's Inc report for Bert Fish and references to the upcoming Community Redevelopment Agency Master Plan Update. These processes, studies, and plans offer an important foundation off of which to build effective and comprehensive economic development strategies.

STRATEGIC VISION

A sustainable strategic vision represents the basic values of an organization. The intent of this Economic Development Element is to identify specific actions and programs to enable the City to achieve their vision. In December 2009, the City Commission adopted the following vision:

"We will build an attractive City that offers exceptional opportunities for her citizens and lifestyles that embrace an enhanced quality of life.

Our walking friendly City with her beautiful waterways will engender diverse recreational and economic opportunities for people of all ages.

Job opportunities will abound throughout our industrial centers and downtown areas. Beautifully landscaped corridors with attractive signage will refine our City with a well-maintained road system and a transportation network, including train and air transportation.

Our City will boast of sustainable business corridors and office parks. We will possess a hospital district and be a hub for educational enhancement through our schools and colleges.

Through our diligence our City will grow and be a place in which people want to live. Our partnerships with educational institutions, governmental entities, community and cultural groups will further be a testament to being responsive to citizens' needs and pro-active in making our vision a reality".

To reach the vision for the city, the Economic Development Element would build upon the City's economic assets, take advantage of the opportunities, while working to strengthen the weaknesses and minimize threats, while constantly scanning the environment for trends. Ideally, the City should increase employment and educational opportunities, facilitate the growth and expansion of light industry, business, commercial corridor, hospital district, improve the quality of life

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of all residents, expand the tax base, further promote and develop the business districts, develop its Intercoastal waterway, and position the city as a great place to live, work, and prosper.

The Economic Development Element is organized by key economic development goals. Each goal is supported with objectives and policies. The plan sets forth 10 economic development goals with supporting objectives and policies for the City. An Economic Development Advisory Board must be established to effectively oversee immediate implementation of this Element. The yet to be established Economic Development Department is referred to in this plan as a key implementing and coordinating agency.

II. CURRENT ECONOMIC CONDITIONS

FLORIDA'S ECONOMY

The following information about Florida's economy is based in part on the report that was adopted by the Legislative Budget Commission on September 15, 2009 and the Florida & Metro Forecast published by the Institute for Economic Competitiveness, University of Central Florida.

Florida has been one of the fastest growing states since the industrial revolution. However, the decline in new home construction and the real estate market correction has caused the state to endure a decline in 2009 with a negative outlook for 2010. Florida is not the only state to experience a deceleration in economic growth, yet it was one of the hardest hit.

Florida's Gross Domestic Product (GDP) is a sum of all the goods and services produced or exchanged within the state. This is one of the key economic measures for the comparison of states. In 2005, Florida ranked 2nd in the nation and in 2006, Florida kept pace to the national growth level. After adjusting for inflation, Florida's growth in GDP ranked 48th in the nation in 2008. Losses in the construction sector account for a significant portion of the decline.

Personal income growth, as it relates to changes in salaries and wages over the past year, has been declining. This is a key factor in determining the health of a state. Other key measures are job growth and the unemployment rate. While Florida led the nation in 2005 in these key areas, the state is now worse than the national averages, with serious problems. Over the last year, the only sector to gain jobs among Florida's major industries was Health Services.

The drastic changes in employment measures are related to the housing market and the tightening of the credit market. The increase of unsold houses has all but halted residential construction activity, indicated by the decrease in building permits. Existing single-family home sales ended the fiscal year nearly 50% below 2005, while the home prices continue a steep decline.

The housing market correction has brought increased unemployment in the construction, mortgage and real-estate fields, as well as related businesses and industries such as: appliances, carpeting, and other durable goods used to equip houses. Mortgage delinquencies and foreclosures are now as common as high unemployment rates, exceeding that of national levels. Employment figures have changed expectations to the downside, and economic weakness will likely persist for a longer period of time. According to the latest nationwide data, Florida is losing jobs at a greater pace than the nation. The state's job losses began with the construction downturn, however all sectors have been affected. Unemployment is projected to increase into 2010 and then stabilize in 2011-12. Job restoration in the construction, manufacturing, information and government sectors will lag behind the other areas.

Florida's unemployment rate is expected to reach almost 12% and remain above 10% through 2012. The high unemployment rate impacts the retail market as consumers have less disposable income to spend. Unemployment is expected to recover in 2013, at which time real disposable

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income "may" begin to grow. The word may is used, because of the uncertainty about future taxes on the federal and state level, and the amount of income that would be needed to cover these costs.

Home prices increased faster than gains in income creating a market of "innovative" financing arrangements. This made Florida extremely vulnerable to the housing market bust and interest rate risks. In 2006, almost half of all mortgages in the state were considered "innovative" (interest only and pay option ARM). Essentially, easy, cheap and innovative credit arrangements enabled people to buy homes that previously would have been denied. The surging demand for housing created an opportunity for builders and developers to embark on construction projects, which are now left unfinished and incomplete. While the national inventory of homes is close to 10 months, Florida's excess supply of homes is approximately 400,000, (an inventory of 50,000 is good). Subtracting the "normal" inventory and using the most recent sales experience, the state will need significant time to work off the current excess – at least until mid 2011 and likely longer.

Foreclosures have compounded Florida's unsold inventory of homes. Originally related to mortgage resets and changes in financing terms that placed owners in default, recent increases have been boosted by the continually growing number of unemployed.

The Florida economy is unlikely to turn around until new construction rebounds, which won't happen until the inventory is reduced, not expected in 2010 or 2011.

A construction rebound is unlikely until the latter half of 2011, perhaps never returning to the boom of 2005-06. As the availability of financing for commercial real estate tightens and loan losses mount, growth in private commercial construction is projected to fall another again this year. Public construction activity dropped 16% in 2009 and will continue to decline as tax revenues decline. Growth will return slowly over the next three years.

Population growth has been the state's primary engine of economic growth. However, as previously mentioned, population growth has significantly slowed. The most recent data from April 1, 2008 to April 1, 2009 indicates that the state's population has actually declined by approximately 58,000 residents. While some may have expected this decline, it should represent a change in economic strategy for political leaders. Growth in population was how local economies prospered with little planning or effort. As the demand for new construction increased, so did the need for goods and services. This economic activity generated sales tax, property tax and various types of revenue associated with construction, such as permitting fees, impact fees and assessments.

The current recession has caused more people to leave the state in search of employment and/or more affordable living conditions. In 2010, growth is expected to reflect only the state's natural increase, not migration from other states. Population growth will rebound by 2012, but the economic generator for Florida must evolve to include an investment in education and innovation.

According to Tim Center, Vice President of sustainability initiatives for the Tallahassee based Collins Center for Public Policy, along with expert opinion, Florida's population is expected to double by 2060.

VOLUSIA COUNTY'S ECONOMY

Volusia County represents 16 cities including World Famous Daytona Beach with a population of approximately 520,000 residents. Changes in population follow similar trends affecting the state and continue to be influenced by the net-migration of residents. In 2007 the county became home to approximately 30,000 new residents, while in 2009, population decreased by approximately 5000 residents.

Volusia County has relied heavily on population growth, housing starts, tourism and some agriculture as the main economic drivers. The economic downturn has had a negative impact on Volusia County's economic health, indicated by the housing bust, population decline and a

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reduction in tourism, resulting in an unemployment rate of 12.5%, significantly more than the state and national average. Additionally, Volusia County has one of the lowest average annual wage rates in the state.

The median price of a resold home in Volusia County plummeted from \$219,000 in 2006 to \$131,163 in 2009, with increases in home foreclosures, ranking Volusia County among the highest in the state. These key economic indicators are further supported with a decline in residential and commercial building permits.

NEW SMYRNA BEACH'S ECONOMY

New Smyrna Beach is a unique city located on the shores of the Atlantic Ocean in central Florida. With a sub-tropical climate, abundant natural environmental assets and a rich history, it has become a quiet haven for tourists, small business and families. Ocean, inlet, river, lagoon, marshes, mangroves, Intracoastal Waterway and productive agriculture lands/wetlands surrounding the town all contribute to its lush beauty.

Similar to the state and county economies, New Smyrna Beach has relied on population growth, and the traditional business clusters as the engine for economic growth, including tourism, marine and construction. The beach is lined with condos, and businesses relying upon the winter residents and seasonal tourists for economic vitality. This has led to a hospitality community that is service orientated and reliant on a strong economy, which is proving to be unsustainable.

The City of New Smyrna Beach has approximately 24,000 residents. However, the population size changes based on seasonal trends. Located both on the mainland and a 13 mile-long island, the city is bisected by the Indian River/Intracoastal waterway. The Canal Street Historic/Business District on the mainland riverfront is lined with art galleries, antique stores, restaurants and shops. This area has many historic homes and buildings of architectural interest. The downtown riverfront is home to the City Marina, the Brannon Community Center and Riverfront Park.

Known for its commitment to the arts (named as one of the "America's Top Small Cities for the Arts), the city is home to the Atlantic Center for the Arts, Arts on Douglas, The Harris House, The Artists Workshop and The Little Theater. Cultural arts, special events and festivals play a significant role in tourism and the quality of life for our residents.

Two causeways provide access to the island known as "beachside" and beach. The North Causeway leads to Flagler Avenue, a popular visitor destination of restaurants, boutique shops and nightlife with history as a tourist destination extending back into the 1800's. The South Causeway, which is the main thoroughfare connecting the mainland and beachside, brings residents and visitors to many dining, entertainment and shopping opportunities as it crosses the waterway & estuary and turns south into Atlantic Avenue.

DEMOGRAPHICS

As stated, the population of New Smyrna Beach residents is approximately 24,000 with 39% over the age of 60. Of the year-around residents, approximately 92% are White, 6.3% are African American, and the remaining are Hispanic and other ethnicities (Source: 2000 Census). The average household income is higher in New Smyrna Beach than the County as a whole, with \$47,307 per annum compared to \$43,875.

EDUCATION

New Smyrna Beach enjoys access to many high-performing educational institutions. Local public schools serving the K-12 population (approximately 63,400 county-wide in school year 2009-10) have all received a grade of "A" from the State of Florida based on FCAT (Florida Comprehensive Academic Test) scores and other measurements. These schools are Chisholm Elementary, Read-

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Pattillo Elementary, Coronado Elementary, New Smyrna Beach Middle School and New Smyrna Beach High School. Some students in the northwest portion of the city are zoned to Creekside Middle School and Spruce Creek High School. These are also rated "A", and Spruce Creek High School is known for its outstanding International Baccalaureate Program. High-performing private and charter schools are part of our local educational system.

The opportunity for individuals to attend public and private higher education institutions within our community abound with the following choices: Daytona State College, University of Central Florida, Bethune-Cookman University, Embry-Riddle Aeronautical University, Stetson University, Keiser College, University of Phoenix and Nova Southeastern University. In addition to these accredited colleges, Volusia County has technical schools as well, serving a broad range of student's educational interests, such as aviation, security, hospitality, and cosmetology.

ECONOMIC BASE

Tourism is the area's single largest industry because of our beaches, river and access to the inlet. The attraction to the beach will be a continual draw for guests from around the world. New Smyrna Beach is a vacation destination for residents of west Volusia and metro Orlando. Over the years, these vacationers eventually become residents and constitute a large percentage of ownership of island condominiums and homes. Not only does New Smyrna Beach cater to visitors from the around the state and nation, it is a popular tourist destination for a large number international visitors.

New Smyrna Beach and the vicinity of Southeast Volusia is famous for water sports. The 13 miles of beaches boast a habitat for surfing, swimming, sunbathing, boating and fishing, the barrier island is separated from Daytona Beach by Ponce Inlet, which permits boaters and fishermen access to the Atlantic Ocean from the Indian River/Intracoastal Waterway. The southern part of our barrier island is home to the pristine Mosquito Lagoon and 57,000 acre Canaveral National Seashores Park, said to be the Nation's longest stretch of remaining undeveloped seashore. Smyrna Dunes Park, at the northern tip of the island, features a 1.5 mile boardwalk loop around the inlet through pristine nature and coastal dunes.

A substantial number of popular attractions and theme parks are within driving distance and include: Walt Disney World, Universal Studios, SeaWorld, Daytona International Speedway, St. Augustine, Kennedy Space Center as well as state and Federal parks and preserves.

The hospitality industry plays a vital role in the local economy, and while tourism remains the largest segment of our local economy, there are other sectors expanding that hold promise for higher paying jobs and continued growth. Bert Fish Memorial Hospital is the area's largest private sector employer in the area and represents a growing medical sector that will require a skilled workforce at all levels, including but not limited to, global care centers, assisted living facilities, dialysis centers, cardio-vascular disciplines, etc. Of critical importance will be maintaining our hospital in the face of other outside pressures.

Other segments of our economy that have traditionally received little attention but offer promise for a sustainable future for growth are aviation, marine manufacturing, alternative environmental technologies and commercial opportunities (other than retail). While not directly related to tourism, companies that relocate or expand typically do so because they have been exposed to our seaside community.

It is important to note that greater than 50% of local employment is in the public sector. This over reliance on government provided and tax-payer funded employment (education, law enforcement, city/county/federal employees etc) underscores the need for private sector support and expansion.

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III. STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS AND TRENDS RELEVANT TO ECONOMIC DEVELOPMENT

"The overall evaluation of a business's strengths, weaknesses, opportunities and threats is considered a SWOT analysis. The SWOT analysis consists of an analysis of the external and internal environment" (Kotler, 2002). More contemporary analysis of the external environment includes trends in the marketplace that potentially have an impact on the organization (SWOTT Analysis). The internal analysis looks at the strengths and weaknesses of which the organization has control over. The external environment looks at opportunities, threats and trends created by the "environment" to which the organization has little control.

The external factors that an organization must monitor are macro-environmental forces (demographic-economic, technological, political-legal and social-cultural) and significant micro-environmental forces (customers-residents, competitors-other municipalities, suppliers), which affect the organization's ability to be successful (Kotler, Bowens & Mackens, 2008).

STRENGTHS

Just as in an organization, a city's strengths are the resources and capabilities that can be used as a "competitive advantage," and are internal. These are what give our city superior value and benefits to residents, businesses and visitors.

- Natural resources, beach, Intercoastal waterway, natural preserves and climate.
- Historic, charming, business district.
- Municipal airport.
- Proximity to other tourist destinations.
- Recreational/Outdoor Activities: boating, fishing, surfing, swimming, sunbathing, kayaking, golf, cycling and running.
- Small town charm. People helping one another.
- Cultural Character: Atlantic Center for the Arts, Artists' Workshop, Little Theatre, Arts on Douglas, Harris House.
- Separate entertainment district.
- Proximity to I-95 and I-4.
- Updated public Sports Complex.
- Safe, relaxed environment relatively free of crime and unseemly elements.
- Accessible public and private education system, both K-12 and higher ed.
- Availability of land for future development (private and public).
- Highly rated tourist destination.
- Shift in municipality's outlook towards new development with new management and new commission.
- Recognition of the necessity of having a climate that supports existing businesses and rewards their growth and success year around.
- Qualified City staff.
- Large pool of qualified citizens willing to volunteer.
- Community pride.
- Favorable demographics.
- Large inventory of housing.
- Growing community hospital.
- Churches.
- Community Redevelopment Agency's plan from Glatting Jackson to identify redevelopment goals.

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- Availability of overlay zones to promote and attract desirable business growth and expansion.

WEAKNESSES

The absence of certain strengths are considered weaknesses. A city's weaknesses are the resources and capabilities that are considered a "competitive disadvantage," and are internal. These are what detract from our city's value and benefits to residents, businesses and visitors. These are internal to an organization, and thus must be addressed.

- Reputation for "non-growth" mindset of City Leaders and some residents.
- High business start-up costs and taxes for would be entrepreneurs.
- No planned economic development efforts.
- Concerns about the operations of the Utilities Commission.
- Comprehensive Plan and Land Development Regulations not in sync with each other.
- Lack of agreement on a business philosophy between residents and city officials.
- Not enough hotel space near historic & tourist areas.
- Lack of restaurants, bars & upscale retail on Canal Street.
- Inadequate signage, including that for way-finding.
- Imbalance of seasonal vs. year round residents.
- Need for a business driven focus that will bring NSB a closer relationship with its neighbors but not change the good "assets."
- Lack of communication between existing Municipal and other government entities: City, CRA, UC, City Commission, County.
- Outdated and unenforceable ordinances and restrictions.
- No official historic Main Street or historic district designation that will allow eligibility for grants or other monies.
- No vision or plan and lack of capital to allow expansion of Hospital district.
- Lack of parking in commercial areas.
- Limited public access to inter-coastal waterway (parks, boat ramps, etc.).
- Underdeveloped and inefficient use of water front areas.
- No incentives for expanding existing businesses or bringing in new business.
- Poor communication between City staff and users of City services.
- Lack of first class office space.
- Lack of employment opportunities.
- Lack of resources dedicated to grant writing.
- Barriers and impediments to change.
- Fear of thinking "outside the box."
- Lack of leadership.

OPPORTUNITIES

The external analysis may provide opportunities for success probability that the organization has little to no control over. The most successful organizations are ones that generate the greatest value and sustain it over time.

- Contiguous land available for annexation.
- Expanded tax base leads to lower property taxes for all and improved services.
- Grant funding through Brownfields, ECO, and Historic Districts.
- Support and resources from Volusia County Economic Development Department.
- Partnering with surrounding cities.
- Increase in baby boomer population relocating to warmer climates.
- Desire and commitment to protect historic and natural assets.

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THREATS

An external environmental threat is a challenge posed by unfavorable trends or developments that will negatively affect an organization or entity such as a city.

- Voter approval of Amendment 4 in November 2010, requiring an election every time a change is desired to the Comprehensive Land Use Plan, will effectively shut down growth and development.
- No state funding for projects.
- Housing prices and tax revenues.
- Lack of financing.
- Business failures; poor overall business climate.
- Lower personal incomes.
- Separation of public and private entities, each pursuing own agenda.
- Competition with surrounding cities, Port Orange, Edgewater (Restoration and Woodhaven).
- Overregulation by the state.
- Not enough hotel space to accommodate visitors.
- Lack of restaurants, bars & upscale retail on Canal Street (threat to economic growth).
- Lack of parking in commercial areas (threat to development).
- No convention hotel (threat to business and tourism).
- No designated "Arts" District.
- Possibility of climate change.
- Hurricanes and other destructive acts of nature, such as red tide and beach erosion.
- Pollution of waterways.
- Inlet dredging.
- Unfunded state mandates.

TRENDS

A trend is a relatively constant movement of a variable over a period of time. Trends can take place over a short or prolonged period of time. For example, the aging of America is a trend that has been taking place since the early 1900's, when only 13% of the population was over the age of 65. It is expected that by 2050 the percentage of Americans over the age of 65 will be 25%.

- Aging population.
 - Retiring baby boomers moving to warmer climates.
 - Increase in need for medical services and health care as the population ages.
 - Health, wellness and preventative care.
- Acceptance of technological advancements. Such as social media and electronic communication.
- Economic turmoil
 - Declining state and local population.
 - Decrease in consumer spending.
 - Lower personal income levels.
- National increase in enrollment at higher learning institutions.
- Increase in bed tax revenues in Volusia County for past year, according to the Southeast Advertising Authority.
- Green technology and environmental awareness
- Discount retail and prices
- Affordable alcohol
- Parental outsourcing
- Tutoring, test prep & driving schools

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IV. GOALS, OBJECTIVES AND POLICIES

GOAL: PROMOTE AND MAINTAIN ORDERLY AND DIVERSIFIED ECONOMIC GROWTH, INCREASED EMPLOYMENT, AND INVESTMENT OPPORTUNITIES, ENHANCE AND PROMOTE RELATIONSHIPS WITH THE BUSINESS COMMUNITY AND STAKEHOLDERS, WHILE PROTECTING QUALITY OF LIFE THROUGH ENVIRONMENTAL SUSTAINABILITY TO ENSURE COMPETITIVENESS IN TODAY'S ECONOMY.

OBJECTIVE

1. *Image and Culture.* Create and advance the image and culture of the City of New Smyrna Beach as a place where the private business sector, government and community come together as a prosperous and special place to do business, live, work, visit, invest and grow.

POLICIES

- a. Assess the current image of the City as perceived by visitors/tourists, business people and political leaders and activists, determine a core image to used on a common basis and develop an image that promotes a sustainable business friendly atmosphere that is safe and reliable for investment.
- b. Assess and address the existing culture of the city government, its departments, sub-agencies, advisory boards and other volunteers in order to ensure attitudes and behaviors that are customer friendly and deliver service with results in a timely fashion.
- c. Review, amend and update as necessary the governing documents of the city and its agencies to ensure support for responsible economic development.

OBJECTIVE

2. *Organizational Development.* Develop a responsible and responsive economic development organization to oversee and implement an approved plan, coordinate activities with volunteers and work cooperatively with development staff from the county and surrounding municipalities.

POLICY

- a. Create an economic development organization to implement the Economic Development Element, Economic Development Plan and develop other incentives to promote economic development.

OBJECTIVE

3. *Streamline Processes.* Create streamlined, transparent, and user-friendly government processes required to start-up, relocate or expand a business, including home-based businesses.

POLICIES

- a. Identify policies and procedures that unnecessarily impede and/or duplicate the permitting process. If needed, recommend changes to current policies and procedures required to start-up, relocate or expand a business, identify new policies and procedures to streamline the process, implement in order to create an open and transparent permitting process.
- b. Continue to monitor and identify new methods to enhance service and procedures, including but not limited to, administrative review and approval of certain development applications.

OBJECTIVE

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4. *Expand Tourism.* Support efforts to expand tourism through venues and support systems.

POLICIES

- a. Stimulate the private development of short-term hotel accommodation space as well as convention services and facilities.
- b. Encourage the expansion of existing events and development of new events, which are compatible with the vision and mission of the city.

OBJECTIVE

- 5: *Business Recruitment, Retention and Expansion.* Create mechanisms, including incentives and workforce training, to attract, retain and expand diverse, innovative and responsible businesses to the City.

POLICIES

- a. Classify and characterize areas based on infrastructure, transportation links, geography, infill capability, sustainability and smart growth precepts.
- b. Revitalize the City's traditional downtown areas, building upon architectural, recreational and historical resources to attract residential, tourist-related and business development.
- c. Develop a list of targeted industries or specific business classifications that would be appropriate for the aforementioned areas, in order to develop incentive programs to attract those desired businesses.
- d. Capitalize on the city's resources, both natural and man made, to ensure the continued image as a safe and thriving community in which to raise a family, invest, do business and enjoy the quality of life.
- e. Encourage effective working partnerships between the public and private sectors, including educational institutions.
- f. Assure the conservation and enhancement of quality of life indicators, including cultural and natural assets.
- g. Promote appropriate business development around transportation hubs, including the airport, waterways and railroad corridor.

OBJECTIVE

- 6: *Annexation.* Create a plan for annexation of those geographical areas that are contiguous with or enclosed by current City boundaries in order to raise the tax base and provide a logical, contiguous land mass.

POLICIES

- a. Identify land for future annexation, prioritize areas for annexation, formulate a timeline for annexation and execute said timeline.
- b. Work with the Utilities commission to determine financial impact of annexation and infrastructure needs.