ORDINANCE NO. 10-1546

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA AMENDING THE TOWN'S COMPREHENSIVE PLAN BY ADOPTING THE EVALUATION AND APPRAISAL REPORT (EAR) BASED COMPREHENSIVE PLAN AMENDMENTS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Section 163.3191, Florida Statutes, directs local governments to periodically assess the success or failure of the adopted comprehensive plan in adequately addressing changing conditions, state policies, and rules; and

WHEREAS, Section 163.3191(1), Florida Statutes, directs local governments to adopt an Evaluation and Appraisal Report (the "EAR") assessing the progress in implementing the local government's comprehensive plan; and

WHEREAS, the Department of Community of Affairs has reviewed the EAR and has determined it to be sufficient; and

WHEREAS, the Town of Surfside, Florida ("Town") has prepared the EAR-Based Comprehensive Plan amendments necessary to update the Comprehensive Plan and to address the issues and opportunities identified in the adopted EAR; and

WHEREAS, pursuant to Section 90.17 of the Town Code, the Planning & Zoning Board also sits as the Local Planning Agency for the Town; and

WHEREAS, the Planning & Zoning Board its capacity as the Local Planning Agency, has reviewed the proposed ordinance and recommended approval to the Town Commission on August 27, 2009 ; and

WHEREAS, after review the Town Commission finds that this Ordinance is in the best interest and welfare of the residents of the Town.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA:

Section 1. Recitals. The foregoing "Whereas" clauses are hereby ratified and incorporated as the legislative intent of this Ordinance.

Section 2. Recommendation of Approval by the Local Planning Agency.

The Planning & Zoning Board, in its capacity as the Local Planning Agency, has reviewed the proposed amendments to the Town's Comprehensive Plan and recommends approval by the Town Commission.

Section 3. Adoption of the EAR-Based Comprehensive Plan Amendments.

The Town Commission, upon review of the recommendations of the Local Planning Agency and independent review, hereby adopts the EAR-Based Amendments into its Comprehensive Plan, which are attached as Exhibit "A" to this Ordinance.

Section 4. Severability.

Should any section, paragraph, sentence, clause, phrase or other part of this Ordinance be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of this Ordinance as a whole or any portion thereof, other than the part so declared to be invalid.

Section 5. Conflict.

That all Sections or parts of Sections of the Code of Ordinances, all Ordinances or parts of Ordinances, and all Resolutions, or parts of Resolutions, in conflict with this Ordinance are repealed to the extent of such conflict.

Section 6. Effective Date.

This Ordinance shall be effective immediately upon passage by the Town Commission on second reading, except that the effective date of the Plan Amendment approved by this Ordinance shall be the date a final order is issued by the Department of Community Affairs or Administration Commission finding the Plan Amendment in compliance in accordance with Section 163.3184, Florida Statutes, whichever occurs earlier. The Department of Community Affairs notice of intent to find the Plan Amendment in compliance shall be deemed to be a final order if no timely petition challenging the Plan Amendment is filed.

PASSED and ADOPTED on first reading this 8th day of September, 2009.

PASSED and ADOPTED on second reading this 12 day of January, 2010.

Vice Mayor

Marc Imberman, Vice Mayor

ATTEST:

Debra E. Eastman

Debra Eastman, Town Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

Lynn M. Dannheisser, Town Attorney

ORDINANCE 2010-1546

PASSED and **ADOPTED** on this 12 day of January, 2010.

Motion by Vice Mayor Marc Imberman, Second by Commissioner Steven Levine.

FINAL VOTE ON ADOPTION

Commissioner Elizabeth Calderon	yes
Commissioner Steven Levine	yes
Commissioner Howard Weinberg	yes
Vice Mayor Marc Imberman	yes
Mayor Charles Burkett	yes

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FUTURE LAND USE ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Future Land Use Element is the designation of future land use patterns as reflected in the goals, objectives and policies contained in the Town of Surfside's Comprehensive Plan. The supporting data provides a broad survey of current land use patterns, natural land features, and availability of public facilities for existing and future development. Future land use patterns are depicted on the *Future Land Use Map* (Map FLU 7).

PLANNING TIMEFRAMES

The Town of Surfside Comprehensive Plan provides guidance on development and redevelopment over two planning periods: a 5-Year short term planning period ending FY 2014 ~~(short-term)~~ and a ~~10-Year~~long term planning period ending FY ~~2019 (long term)~~2030.

EXISTING LAND USE CONDITIONS

The Town of Surfside is located in the eastern section of Miami-Dade County. Located on the barrier island, the Town is bordered by water on both its western and eastern boundaries. The western boundary is the Biscayne Bay and Indian Creek and the eastern boundary is the Atlantic Ocean. The Town is nearly built out. The Future Land Use Element supports the Town's desire to maintain its stable single family residential neighborhood, encourage redevelopment of the Harding Avenue business area, and limit density and intensity of beach front properties.

Existing land use patterns are depicted on *Map FLU 1 Existing Land Use*. An analysis of Existing Land Use indicates that single family residential uses make up approximately 48% and multi-family uses make up 10.7% of the total land area. Vacant lands make up 1.9% of the total town acreage.

The Town has 98.07% of its land developed. Residential development makes up 59.3% of the developed lands and 58.3% of total town acreage. Of developed lands, general business lands make up 1.87% and parking 1.51% respectively.

Table 1-1
Existing Land Use

EXISTING Land Use	Acres	Percentage of Total Acres
Community Facilities	6.72	1.83%
General Retail Services	6.76	1.84%
Multi Family Residential	39.10	10.64%
Parking	5.45	1.48%
Private Recreation	5.72	1.56%
Single Family Residential	175.25	47.69%
Vacant	7.07	1.93%
ROW	121.38	33.03%
TOTAL ACREAGE	367.45	100.00%

Source: Miami-Dade County Property Appraiser; Calvin, Giordano & Associates

FUTURE LAND USE DESIGNATIONS

Map FLU 7 Future Land Use designates future land uses in the Town. The Future Land Use Map guides future development according to the vision of residents and businesses in the Town. The Future Land Use Map serves as the basis for zoning designations provided in the Zoning Code. Table 1-2 shows the distribution of future land uses in the Town.

Table 1-2
Future Land Use

FUTURE LAND USE DESIGNATION	Acres	Percentage of Total Acres
Community Facility	1.46	0.40%
General Retail Services	5.84	1.59%
High Density Residential / Tourist	26.27	7.15%
Low Density Residential	176.03	47.90%
Moderate Low Density Residential	3.09	0.84%
Moderate High Density Residential	14.81	4.03%
Moderate Density Residential / Tourist	4.72	1.29%
Parking	4.23	1.15%
Public Buildings and Grounds	2.18	0.59%
Public Recreation	40.87	11.12%
Private Recreation	4.69	1.28%
Non-designated Right Of Way	83.27	22.66%
TOTAL	367.45	100.00%

Source: Miami-Dade County Property Appraiser; Calvin, Giordano & Associates

Approximately 61.21% of the total land area is designated for residential uses with the majority of the residential uses designated as Low Density Residential. Commercial uses added up to 1.59% and Recreation uses, both public and private, made up nearly 12.4% of the total land area. Non-designated Right of Way makes up 22.66% of the overall land area.

Table 1-3 shows the distribution of future land uses in the undeveloped parcels in the Town.

Table 1-3
Undeveloped Land with Future Land Use

FUTURE LAND USE DESIGNATION	Acres	Percent of Vacant Land	Percent of Town Acreage
Community Facility	1.09	15.41%	0.30%
Private Recreation	0.26	3.77%	0.07%
High Density Residential / Tourist	1.44	20.37%	0.39%
Low Density Residential	1.97	27.92%	0.54%
Moderate High Density Residential	2.14	30.27%	0.58%
Parking	0.16	2.27%	0.04%
TOTAL	7.07	100.00%	1.93%

Source: Miami-Dade County Property Appraiser; Calvin, Giordano & Associates

Approximately 1.93% of the total land area is vacant, developable land. Residential land uses make up 78.56% of the existing vacant land. At this time no lands designated General Retail Services are vacant, limiting the development of commercial properties.

POPULATION

Population Projections

The Town's population was estimated at 5,159 in 2007. The population is expected to increase 2.36% percent to 5,280 residents in 2010. By ~~2030~~2020, the Town is expected to be built-out with virtually no vacant residential lands or change in density or intensity; at which time the population is expected to flat-line at 5,680 residents. ~~residential population should reach 6,076 residents, which~~Between 2007 and 2030 the Town is projected to see an additional ~~represents an increase of 917~~ 521 residents, which represents ~~and 17.78%~~10.1% growth from 2007.

Table 1-4
Projections: Population, Surfside, 2007-2030

Year	Population	Increase from 2007 Population
2007	5,159	0
2010	5,280	121
2015	5,483	324
2020	5,680	521
2025	~~5,878~~5,680	~~719~~521
2030	~~6,076~~5,680	~~917~~521

Source: Population projections were obtained from the Miami-Dade Department of Planning & Zoning and derived from Transportation Analysis Zone (TAZ). Calvin Giordano & Associates, Inc.

Methodology

The Town of Surfside population projections were primarily obtained from the Miami-Dade Department of Planning and Zoning. The Miami-Dade Department of Planning and Zoning derives their projections using Traffic Analysis Zone (TAZ) data. However, because it will reach build-out in 2020, the Town believes its population will begin to flat-line at this time. Therefore, unlike the TAZ model, the Town forecasts its 2030 population to be unchanged from 2020.

Annexation

No annexations are being considered at this time.

Analysis of Land Needed to Accommodate Population

Table 1-5
Vacant Land and Potential Dwelling Units Analysis

Future Land Use of Vacant Lands	Acres	Density	Potential Dwelling Units	Average Household Size*	Potential Additional Population
High Density Residential / Tourist	1.4410	109 du per acre	157	2.18 persons	343
Low Density Residential	1.9748	8 du per acre	9	2.18 persons	20
Moderate High Density Residential	2.1409	79 du per acre	169	2.18 persons	369
		TOTAL	**335**		**732**

Source: Miami-Dade County Property Appraiser; Calvin, Giordano & Associates
*Census 2000 Demographic Profile for Surfside identified an average of 2.18 persons per household.

Population projections show an additional 521 people may take residence in Surfside between 2007 and ~~2020~~2030. Based upon current vacant residential lands, Surfside can accommodate an additional 732 residents. Therefore, throughout year 2030 the Town will have sufficient vacant lands to accommodate the projected populations.

NEED FOR REDEVELOPMENT: The Surfside Charrette

At this time Surfside contains no areas which require economic development. However in response to residents' concerns, the Town undertook Charrette-style community workshops. The Surfside Charrette was conducted in November 2006 to envision the future of Surfside and identify the action steps to achieve that vision. The Charrette was conducted with the help of the public, Town officials, professionals, and a diversity of stakeholders.

The specific recommendations include the following:

- Implement incremental traffic calming initiatives both in the residential neighborhood and in the business district.
- Pursue objective of reverting the one-way pair of Harding and Collins Avenues to their historic two-way flow, and institute lane reduction strategies and other thoroughfare improvement programs.
- Implement a comprehensive community-wide streetscape improvement program to create safer, more attractive streets that promote walking and enhance the value and livability of Surfside.
- Institute major streetscape improvement program based upon proposed reconfiguration of Harding Avenue to two lane, two way traffic flow.
- Implement comprehensive parking management program.
- Fund and build new parking decks to support and encourage infill and redevelopment of new mixed-use projects.
- Create new mixed-use zoning incentives to enable and encourage the creation of new outdoor parks and plazas in the business district and establish a greater "sense of place".
- Implement new zoning tools to encourage and incentivize new mixed-use development in the business district, which respects the existing character and scale of the community, while improving the town's tax base and financial viability.
- Create a pedestrian and bicycle network that links the Town's parks, recreational and natural amenities into an "emerald necklace".
- Create safer play environments for Surfside's families.
- Improve/enhance existing parks and under-utilized public properties to dramatically increase the number and quality of parks and open space within the community.
- Develop an effective strategy for consolidating and relocating existing recreational facilities to improve access and convenience for the majority of Surfside's residents.
- Develop and implement form-based codes and regulations that will protect and enhance Surfside's unique character and charm, while providing reasonable predictability for investors and homeowners alike.
- Indentify architectural styles that are appropriate to Surfside and which reflect the traditions of the community.

- Create landscape regulations that promote appropriate and sustainable plant species, native or acclimated to the area.
- Utilize new landscape code to encourage a more coherent and attractive appearance to the community.
- Plant shade trees along all thoroughfares to improve the pedestrian environment and to promote walkability.
- Consciously design landscape codes to promote safety and encourage neighborliness.

FACILITIES ANALYSIS

Sanitary Sewer Facilities

The Town's sanitary sewer system is interconnected with the Miami-Dade County Water and Sewer Department (MDWASD) system. Surfside maintains its own sewer collection system and two pumping stations. By agreement, the City of Miami Beach transmits the sewage via force mains to the MDWASD system and eventually to the treatment plant and disposal.

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system. Surfside's sewer system is treated by a secondary treatment facility on Virginia Key owned and operated by the Miami-Dade County Water and Sewer Department (MDWASD).

According to the MDWASD 2006 Comprehensive Annual Financial Report, approximately 689 million gallons of wastewater were treated by the County system from the Town of Surfside and 814 million in 2007. There is sufficient capacity to serve Surfside residents in the short and long term planning time frame.

Potable Water Facilities

The Town of Surfside's potable water is provided by the Miami-Dade County Water and Sewer Department (MDWASD). The water is distributed to residents and commercial business by approximately 11 miles of cast iron pipe installed in 1938. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami-Dade County. The Hialeah and Preston Water Treatment Plants (WTPs) are currently being modified and will receive ground water from five Upper Floridan Aquifer wells by 2010. The quantity of water available to serve MDWASD's North District, as reflected in permitted withdrawal allocations, provides more than adequate capacity.

The 155 gallons capita per day (gpcd) value is a MDWASD system wide finished water rate. In 2007 the actual gpcd value for the Town of Surfside was 206 gpcd. The Town of Surfside is aware of this high gpcd value, and is currently working with MDWASD to implement water efficiency plans, public education, and BMPs to reduce the Town of Surfside's gpcd value. The Town adopted its 20-year Water Supply Facilities Work Plan in 2008.

The level of service will be met for Surfside in the short term and long term planning periods.

Solid Waste

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Each year Surfside deposits approximately 6,048 tons of waste material at the county's facility. Since 2007, the Town is recycling over 500 tons per year. An increase involvement of private firms in the development of solid waste disposal facilities led to an oversupply of disposal capacity and a reduction in disposal fees. As a result, existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate to meet Surfside's needs for the foreseeable future.

Stormwater Drainage Facilities

Surfside's existing storm drainage system consists of a network of underground storm sewers that collect and direct stormwater to Indian Creek and Biscayne Bay. A pumping station at the western end of 92nd Street assists the drainage of water from that street by pumping to an outfall. Equipment which currently serves the 92nd Street pump station was replaced by FDOT and maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations.

In 2006, the Town of Surfside initiated additional stormwater projects, which consist of retrofitting three of the Town's outfall pipes to reduce pollutants and fresh water entering Biscayne Bay. The project will address long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores. The project directly addresses The Trust for Public Land's Biscayne Bay Accessibility report, supports the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhances level of service.

Transportation

The major north-south traversing roadways for the Town are Collins Avenue and Harding Avenue, both state arterial roadways. The major east-west traversing roadway is 96th Street. The level of service analysis for existing conditions indicates that all the roadways within the Town are operating at the adopted level of service.

Six bus routes from Miami-Dade Transit travel through the Town, nearly all the routes run along Collins Avenue except Route R which runs along Dickens Avenue. The Town has its own bus system which complements the Miami-Dade County Transit. The Town's mini buses circulate between the business district and residential areas.

Parks and Recreation

The Town has a Level of Service of six (6) acres of publicly-owned lands per 1,000 permanent population. The Town has approximately 42 acres of publicly-owned parks space and will continue to meet their level of service through the short term ~~(5-year)~~ and long term ~~(10-year)~~ planning periods.

There are four Town-owned recreation facilities; namely the Veterans Park/Surfside Tennis Center, Hawthorne Park Tot Lot, 96th Street Park, and the Surfside Community Center. The majority of the park land within the Town is the state-owned public beach.

Public Schools

There are no public schools located within the Town. In 2008 the Town entered into an Interlocal Agreement for Public School Facility Planning in Miami-Dade County with the Miami-Dade County School Board and adopted a Public Schools Facilities Element. The Miami-Dade County School Board

provides figures for current and projected student enrollment and capacity by school. There are currently 1 elementary school, 1 middle school, and 1 high school serving the Town of Surfside. These are:

Elementary:
Broad, Ruth K./Bay Harbor K-8 Center (Town of Bay Harbor Islands)

Middle:
Nautilus Middle (City of Miami Beach)

High:
Miami Beach Senior High School (City of Miami Beach)

These schools are currently and projected to have sufficient capacity to meet level of service standards in the short term and long term planning time frames.

Capital Improvements

The Town has several capital improvement projects scheduled including FDOT resurfacing projects; a water maintenance program; a sanitary sewer project to repair broken lines; and a stormwater pollution control project. The Town has prepared a Schedule of Capital Improvements (SCI) in the Capital Improvement Element.

HISTORIC PRESERVATION

The Bureau of Archaeological Research within the Florida Office of Cultural and Historic Preservation maintains the Florida Master Site File (MSF), a database that contains information on archaeological and historic resources in Florida. *Map CON 2 Historic Sites*, identifies and locates the historic resources contained on the MSF. There are six (6) listed sites within the Town; a prehistoric mound, a prehistoric midden, and four (4) structures. The Indian Creek Bridge, adjacent to the Town, is also listed on the MSF.

The Florida Department of Historic Resources has jurisdiction over historic and archaeological sites if there are human remains or if a state or federal permit is requested. If a private property owner develops or redevelops their property and their property is listed on the MSF, the state historic preservation officer should be contacted for guidance.

The aforementioned historic resources are displayed in Table 1-6.

Table 1-6
Historic Properties

Classification	Name	Address	Year Built	Additional Information
Historical Structures	8836 Collins Ave	8836 Collins Ave	1930	Architectural Style - Mediterranean Revival ca. 1880-1940
Historical Structures	Surf Club	9011 Collins Ave	1930	Architectural Style - Mediterranean Revival ca. 1880-1940
Historical Structures	Nichols West Apartments	9560 Collins Ave	C1947	Architectural Style - Moderne ca. 1920-1940
Historical Structures	Van Rel Apartments	9578 Collins Ave	C1947	Architectural Style - Mediterranean Revival ca. 1880-1940
Historical Sites	Surfside Midden	Bay Dr and 92 St	n/a	Culture - Glades
Historical Sites	Surfside Mound	Bay Dr and 94 St	n/a	Culture - Prehistoric
Historical Bridges	Indian Creek Bridge	Bay Dr and 91 St	C1929	Engineers - Belsham, Richard A./Ashworth, F. K.

Source: Florida Division of Historical Resources; Calvin, Giordano & Associates

LAND COVER

Map FLU 2 Soils identifies and maps native habitat within the Town. The land coverage can be categorized as Developed and Beach. Other than the beach and beach dune system, the Town is built out. There are no native preserves or remaining native habitats or wetlands within the Town. The beach and dune system, although created through a beach renourishment program, is owned by the State and maintained in a natural condition.

Water Resources

The predominant water resources that are present in the Town are the Atlantic Ocean and Biscayne Bay. Additionally there are Indian Creek and Point Lake. Indian Creek is a channel that separates the Town from the Islands of Indian Creek Village and Bay Harbor Islands. Point Lake, the dredged channel and water body that separates Biscaya Island from the remainder of the Town, is considered part of Biscayne Bay. *Map FLU 5 Water Bodies* highlights water resources.

Wellfield Protection

There are no public wellfields or wellfield protection zones located in the Town of Surfside.

Soils

Map FLU 2 Soils provides the general distribution of soils/coverage in the Town as mapped by the Natural Resource Conservation Service (NRCS). The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) identifies Urban Land and Beaches as the only two coverage types found within the Town. The NRCS describes Urban Lands as areas that are more than 70% covered by buildings, streets, sidewalks and other structures so the natural soil is not readily accessible. The NRCS describes beaches as nearly level to sloping, narrow, sandy strips along the Atlantic Ocean of fine to coarse sand mixed with shell fragments.

Soil Erosion

The entire length of ocean shoreline along the barrier island the Town is located on is recognized as 'Critically Eroded' by the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and is part of a long term beach renourishment program. The Bureau defines critically eroded as a segment of the shoreline where natural processes or human activity have caused or contributed to erosion and recession of the beach or dune system to such a degree that upland development, recreational interests, wildlife habitat, or important cultural resources are threatened or lost. Critically eroded areas may also include peripheral segments or gaps between identified critically eroded areas which, although they may be stable or slightly erosional now, their inclusion is necessary for continuity of management of the coastal system or for the design integrity of adjacent beach management projects.

The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point Lake is bulkheaded, and the remainder of the Town is developed and does not experience erosion problems.

Commercially Valuable Minerals

There are no extractable, commercially valuable minerals in the Town.

Development and Redevelopment on Flood Prone Areas

Map FLU 4 FEMA Flood Zones locates the flood zones within the Town. Nearly the entirety of the Town is an AE zone; this zone falls generally west of Collins Avenue. The X zone falls generally east of Collins

Avenue; the VE zone is located in a narrow strip along the beach; and the X-500 is represented as a narrow strip located along the north end of Collins Avenue and also along the beach. Existing land uses found within these flood zones are illustrated in the Future Land Use map and described in the Future Land Use Element.

Topography

Map FLU 3 Topography, identifies the topography of the Town. The Town is nearly flat with elevations ranging only from 0 to 10 feet. The vast majority of the Town has an elevation of 5 feet or less. The lowest elevation is found along the oceanfront coastline. The highest elevation is a narrow linear strip that runs approximately along Collins Avenue.

Hazard Mitigation

Within the Town there is the potential for impacts from lightning, floods, tornadoes and tropical storms, but the most significant natural disaster threat the Town needs to plan for is the event of a hurricane. Records indicate that the Town has been brushed by or hit by a tropical storm or a hurricane 51 times from 1871 through 2007.

During a hurricane evacuation, a significant number of vehicles will have to be moved across the local and regional road network. There are limited route choices, *Map CST 2 Evacuation Routes* identifies the designated evacuation route for the Town. There are no emergency shelters located within the Town. The Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as a Zone A evacuation area. The Town has developed a Comprehensive Emergency Management Plan (CEMP). The final draft is currently under review for adoption and will be in effect by the beginning of the 2009 hurricane season.

Future Land Use Element
Goals, Objectives and Policies

Goal 1: Ensure that the character and location of future land uses provides high economic and quality of life benefits to the Town's residents and business people while preserving the Town's natural resources, residential character and appropriate levels of public services.

Objective 1 – Coordination of land uses with topography and soils: Maintain existing development and achieve new development and redevelopment which is consistent with the goal above and which otherwise coordinates future land uses with the appropriate topography and soil conditions and the availability of facilities and services. This objective shall be measured by implementation of its supporting policies. [9J5.006 (3) (b) 1]

Policy 1.1 – The Town shall maintain, improve and strictly enforce ~~land development code~~ provisions which are consistent with the Future Land Use Map, including the land uses and densities and intensities specified thereon and including the following:

Low Density Residential: up to 8 dwelling units per acre and not more than 30 feet in height. Permitted uses are single family residential use and parks and open space.

~~Moderate Density Residential:~~ Moderate Low Density Residential: up to17 dwelling units per acre and not more than 30 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, public schools, places of public assembly, and parks and open spaces. This category is the buffer between Harding Avenue commercial uses and single family residential uses on west side of Abbott Avenue.

Moderate-High Density Residential: up to 79 residential dwelling units per acre or up to 108 hotel ~~or motel~~ units per acre and not more than 40 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, public schools, places of public assembly, and parks and open spaces.

High Density Residential/Tourist: up to 109 dwelling or hotel units per acre and not more than 120 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, public schools, places of public assembly, and parks and open spaces.

Moderate Density Residential/Tourist~~Office Apartment~~: up to 58 residential dwelling units per acre or up to 108 hotel ~~or motel~~ units per acre and not more than 40 feet in height. The permitted uses are single family, duplex, and multi-family residential uses, hotels, public schools, and parks and open space.

General Retail/Services: up to a floor area ratio of 3.0 and not more than ~~3 stories nor~~ 40 feet in height. The permitted uses are commercial uses (professional, retail, office and related parking).

Public Recreation~~al~~: up to a floor area ratio of 0.05 and not more than ~~2 stories nor~~ 30 feet in height. The permitted uses are Town-owned public parks and state-owned

beachfront east of the erosion control line and immediately adjacent to the Atlantic Ocean.

Private Recreational: up to a floor area ratio of 0.05 and not more than ~~2 stories nor~~ 30 feet in height. The permitted uses are privately owned open space and land between bulkhead and erosion control line (privately owned land).

Public Buildings and Grounds: up to a floor area ratio of 3.0 and not more than ~~3 stories nor~~ 40 feet in height. The permitted uses are Town-owned and publicly-owned land and facilities.

~~Public~~ Parking: up to a floor area ratio of 3.0 and not more than ~~3 stories nor~~ 40 feet in height. The permitted use is parking.

Community Facilities: up to a floor area ratio of 3.0 and not more than 70 feet in height. The permitted use is Town-owned facilities for community use.

~~Other Public and Semi-Public: up to a floor area ratio of 0.5 and not more than 2 stories nor 30 feet in height.~~

Policy 1.3 - The Town shall work towards the elimination of existing land uses which are inconsistent with the Town's development pattern and not compatible with the future land uses.

Policy 1.~~3~~4 – Within one (1) year of the adoption of this element~~T~~ the Town shall ~~maintain and improve~~adopt ~~land development code~~ provisions governing subdivisions in the Code of Ordinances. ~~, signs and floodplain protection.~~ Such provisions shall be consistent with this plan and with the applicable Florida statutory and administrative code guidelines and otherwise conform to the following standards. [9J-5.006 (3) (c) 1]

Subdivision regulations shall establish rules for platting and subdividing land consistent with the Future Land Use Map and other goals, objectives, and policies of this Comprehensive Plan. They shall establish a plat approval process consisting of preliminary and final plat approval. Final plat approval shall be required prior to construction of subdivision improvements. General and specific design standards shall be included to ensure: 1) appropriate continuity between new streets and existing street; 2) appropriate continuity between new and existing pedestrian accessways; 3) rights-of-way appropriate to traffic carrying characteristics, stormwater management needs, and other pertinent considerations; 4) that access to Collins Avenue and Harding Avenue is controlled and limited; 5) grades, alignments and other design characteristics in accord with the State of Florida *Manual of Uniform Minimum Standards for the Design, Construction and Maintenance of Streets and Highways* plus such additional highway engineering standards as the Town may determine are necessary from time to time; 6) appropriate configuration of blocks and lots; 7) adequate utility easements; 8) installation of certain utilities underground. The enumeration of specific features of the subdivision regulations contained herein shall be interpreted as establishing minimum guidelines for subdivision regulations, not as precluding additional or higher standards which may have a legitimate public purpose.

Policy 1.5 – The Town shall maintain and enhance as necessary ~~land development code~~zoning code provisions governing signs including size, placement, and design in order to limit visual clutter.

~~*Sign regulations* shall limit signs to the minimum amount consistent with reasonable identification of retail and other non-residential uses. Sign regulations shall include, but not necessarily be limited to the following:~~

~~*Prohibitions* of and/or limitations on specifically identified signs that clutter the visual environment, but are not necessary to minimum reasonable identification. Such signs may include abandoned signs, animated signs, flashing signs, box wall signs, buntings, balloon signs, neon signs, off premise commercial signs, pole signs, portable signs, projecting signs, roof signs, and swinging signs.~~

~~*Restrictions* of the number, size and type of authorized signs in order to limit visual clutter while still providing for reasonable identification. Such restrictions may include maximum size and minimum frontage requirements for monument signs and wall signs. Supplemental regulations may be specifically tailored for uses with particular sign regulations such as gas stations.~~
~~*Floodplain protection regulations* shall be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information. The Town shall revise as necessary and enforce flood hazard reduction regulations to ensure that: 1) adequate drainage paths are provided to guide storm water runoff around structures; 2) for residential buildings in AE zones, the lowest floor and significant mechanical equipment is located above the base flood elevation; 3) for nonresidential buildings in AE zones, either the lowest floor and the mechanical equipment is located above the base flood elevation or habitable areas below the base flood elevation are flood proofed; 4) all buildings in V zones are located according to the requirements of the Florida Coastal Zone Protection Act of 1985; 5) the elevation of all buildings in V zones is located so that the bottom of the lowest supporting horizontal member and all mechanical equipment is no lower than the base floor elevation; and 6) structural fill is prohibited. The enumeration of specific features of the flood protection regulations contained herein shall be interpreted as establishing minimum standards for Town regulations, not as precluding additional or higher standards which may have a legitimate public purpose. In addition, the Town shall participate in the Community Rating System of the National Flood Insurance Program.~~

Policy 1.6 – The Town shall maintain and enhance as necessary existing municipal code provisions regulating storm drainage and in particular regulations that govern floodplain protection and water management design standards. Such provisions shall be consistent with this plan, applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and with the applicable Florida statutory and administrative code guidelines.

Policy 1.9 – The Town shall participate in the Community Rating System of the National Flood Insurance Program. Through its building permit and development review process, the Town shall continue to review projects to determine and require conformance with FEMA's National Flood Insurance Program's "50% Rule".

Policy 1.~~4~~10 – The Town shall maintain a concurrency management system which meets the requirements of 9J-5.0055 ~~maintain and improve as part of the land development code a concurrency management system which meets the requirements of 9J-5.0055~~. The concurrency management system shall specify that no development permit shall be issued unless the public facilities necessitated by a development (in order to meet level of service standards specified in

the ~~Traffic Circulation~~Transportation, Recreation and Open Space, Public School Facilities, and Infrastructure Policies) will be in place concurrent with the impacts of the development or the permit is conditional to assure that they will be in place. ~~The requirement that no development permit shall be issued unless public facilities necessitated by the project are in place concurrent with the impacts of development shall be effective immediately and shall be interpreted as set forth in the nearby box entitled Concurrency Management System Standards. [9J-5.006 (3)(c) 3]~~

~~Policy 1.5 The Town shall maintain and improve land development code~~zoning code ~~standards and incentives to achieve new development, renovated development and/or redevelopment that meets~~
~~high standards for drainage and stormwater management, open space and landscaping, and on-site circulation and parking and other development standards in keeping with the goals, objectives and policies of this plan. These regulations shall be characterized as follows: [9J-5.006 (3)(c) 4]~~

~~*Drainage and stormwater management requirements* shall be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information. The Town shall revise as necessary and enforce drainage and stormwater management regulations to ensure that: 1) new development will occur at topographic elevations sufficient to minimize flood impact; 2) there is one inch of on-site drainage detention; 3) post development runoff is equal to or less than pre development runoff; 4) erosion is controlled during and after construction; 5) there is a minimum percentage of pervious open space; 6) appropriate swales receive proper maintenance, and; 7) drainage levels of service standards are met. These requirements shall be designed to help ensure full compliance with specific standards set forth in Objective 1 of the Infrastructure Element.~~

Policy 1.11 – The Town shall maintain zoning code standards for new development and/or redevelopment that meet high standards for open space, landscaping, on-site circulation, parking and other performance standards.

> ~~*Open Space and landscaping requirements* shall specify above average quantities of plant and other landscaping material and extensive use of xeriscape plant materials and design techniques for non-residential uses. Landscaping regulations shall include, but not necessarily be limited to, establishing a minimum number of trees based on lot size and/or lot frontage, establishing minimum requirements for other plant material, and establishing irrigation restrictions which minimize water loss due to evaporation. Regulations shall address site perimeters, parking lots and buffers between residential and nonresidential land uses.~~
>
> ~~*On-site circulation and parking requirements* shall be designed to ensure large circulation isles, turning radii and parking spaces. Parking regulations will establish the minimum number of parking spaces which will be required to serve uses; minimums will be based on intensity measures such as building square feet. Parking regulations will establish appropriate minimum sizes for circulation isles, parking stalls and parking stall angles. General standards will provide for review of parking lot layout in order to ensure that the layout will be safe. The minimum number of parking spaces required for multifamily residential uses shall be increased from the current one space per residential unit, which is hereby determined to be inadequate for and incompatible with the quality and character of new multifamily residential development desired for the Town. On-site traffic flow and on-site parking standards will be designed to encourage high levels of~~

~~pedestrian and bicycle use, including requiring bike racks under certain conditions. Pedestrian access ways will be required through large parking lots to connect building areas to public sidewalks. Bicycle parking racks shall be required for large scale uses.~~

~~Policy 1.5 Parking Expansion Needs shall be identified to assure the provision of an adequate supply of publicly accessible parking within and proximate to the Harding Avenue Business District to serve historical land use patterns deficient by contemporary standards in an amount of parking needed to sustain a viable business and commercial district and identify measures appropriate to expanding the number of spaces through public and private measures including but not limited to the land development regulations. The Town shall provide adequate, safe and conveniently located parking to serve the needs of the existing 93rd Street Recreation Center and municipal library.~~

~~Policy 1.6 At its convenience, the Town may enact zoning regulations which allow the appropriate mixing of residential and non residential uses in commercial land use categories. [9J-5.006 (3)(c) 5]~~

~~Policy 1.7 The Town shall promote public ownership and/or significant regulatory control over all environmentally sensitive lands which protect unique, rare or endangered habitat, assure survival of listed wildlife species, protect scenic waterways and provide public access to open space. For the purpose of this policy environmentally sensitive lands are defined as: 1) known and potential habitats for endangered and threatened species of special concern as listed by the U.S. Fish and Wildlife Service, Florida Game and Fresh Water Fish Commission and the South Florida Regional Planning Council; 2) wetlands as defined by Florida Department of Environmental Protection and the U.S. Army Corps of Engineers; 3) beaches and dunes; 4) waterbodies; 5) coastal and estuarine marshes; and 6) undeveloped islands within Biscayne Bay. Also for the purpose of this policy, environmentally sensitive lands are defined as previously developed lands which offer the opportunity for razing structures and removing invasive species and for restoring natural areas through the exposure of natural geological conditions and the planting of environmentally valuable vegetation which can provide habitat for listed species. The Town shall promote public ownership and/or significant regulatory control over lands adjacent to the environmentally sensitive lands identified in this policy so as to provide an opportunity for protecting environmentally sensitive lands. It is among the explicit purposes of this policy to promote the protection of natural resources, coastal resources and outdoor recreation activities from adverse impacts that may result from uses or activities occurring on adjacent lands. Among the resources to be protected are listed species and their habitats. It is also among the explicit purposes of this policy to promote the restoration of degraded natural areas.~~

Policy 1.12 – The Town shall consider the abundance, status and distribution of environmentally sensitive lands and endangered ecosystems when reviewing land use proposals and acquisitions.

Objective 2 – Protection of single family residential areas: Direct future growth and development so as to minimize the intrusion of incompatible land uses into single family residential areas. Achievement of this objective shall be quantified by the implementation of the following policies:

Policy 2.1 – The Town shall ~~Maintain~~ maintain a future land use map pattern and zoning pattern which keeps two-family and other incompatible uses out of single family residential areas.

Policy 2.2 – The Town shall ~~Maintain~~ maintain a future land use map pattern and other development regulations which provide effective buffers between single family residential areas and adjacent uses.

Policy 2.3 – The Town shall ~~Maintain~~ maintain a future land use map pattern and a traffic circulation pattern which directs through traffic to Collins Avenue and Harding Avenue (State Road A1A).

Policy 2.4 – The Town shall maintain and enhance zoning code standards that regulate massing and scale in order to maintain the historic character and protect the single family residential district.

Objective 3 – Redevelopment and renewal: ~~In general, e~~Encourage the redevelopment and renewal of blighted areas. The Town shall coordinate public and private resources necessary to initiate needed improvements to prevent decline and/or redevelopment within currently defined redevelopment areas as well as areas that may in the future exhibit indications of blight or decline. ~~In particular: 1) encourage private investment in the revitalization of the Harding Avenue business area; and 2) encourage private investment in the development of quality multi-family housing which serves a broad market and which is located south of 94th Street between Collins Avenue and Harding Avenue. Achievement of this objective shall be measured through the implementation of the following policies: [9J-5.006(3)(b)2]~~

Policy 3.1 – The Town shall ~~M~~maintain, and improve where appropriate, ~~zoning~~zoning code regulations which permit the concentration of commercial uses in and around the established Harding Avenue business area.

~~Policy 3.2 – Maintain, and improve where appropriate, zoning regulations which permit commercial office space along Collins Avenue between 93rd and 96th Streets as part of mixed use developments which provide concentrations of workers and/or residents to support retail and service uses along Harding Avenue.~~

~~Policy 3.3 – Maintain, and improve where appropriate, the quality of streetscape in the business area.~~

~~Policy 3.4 – New commercial development outside the area zoned B-1 in 1995 shall be required to provide on-site and for adjacent off-site locations, parking and loading space adequate to serve new uses being developed.~~

Policy 3.~~5~~2 – The Town shall maintain~~Maintain~~, and improve where appropriate, zoning regulations which permit residential complexes which provide a variety of housing unit sizes and types.

Policy 3.~~6~~3 – The Town shall maintain,~~Maintain,~~ and improve where appropriate, zoning regulations which encourage and/or permit the assemblage of large lots at selected locations on Collins Avenue and Harding Avenue.

Policy 3.~~7~~4 – The Town shall maintain,~~Maintain,~~ and improve where appropriate, zoning regulations which require landscape treatments to improve the appearance of at grade parking areas.

Policy 3.~~8~~5 – The Town shall maintain,~~Maintain,~~ and improve where appropriate, zoning regulations which facilitate the use of plazas, recreational amenities, and abundant landscaping and other open space.

Policy 3.~~9~~6 – The Town shall maintain~~Maintain~~ a future land use map pattern and other development regulations which ~~limits~~limit new tourist facilities to properties ~~on the east side of Collins Avenue.~~in the Moderate Density Residential/Tourist, Moderate-High Residential, and High Density Residential/Tourist land use categories.

Policy 3.7 – The Town shall adopt, maintain, and improve where appropriate, zoning code regulations which help secure a high quality of environment, regarding livability, visual interest, identity and sense of place by implementing the recommendations as presented in the Town's adopted Design Guidelines.

Policy 3.8 – By December 2010 the Town shall consider the financial feasibility of conducting a "Business District Expansion Study" to evaluate the expansion of the business district to the south along Harding Avenue, as identified in the November 2006 Charrette.

Policy 3.9 – By June 2011 the Town shall consider the financial feasibility of conducting a "Parking Trust Fund Study" to evaluate the areas best suited for development, cost, funding techniques and sources, and timeline to construct parking garages within the business district, as identified in the November 2006 Charrette.

Policy 3.10 – By June 2011 the Town shall consider the financial feasibility of conducting a "Streetscape Masterplan Study" to evaluate the cost, funding techniques and sources, and timeline to complete the façade improvements, wayfinding and place-making techniques and pedestrian focused improvements.

Policy 3.11 – By December 2011 the Town shall consider the financial feasibility of a "Park Enhancement Study" to evaluate the development of under-utilized park land and Town-owned land including street-end parks east of Collins Avenue, as identified in the November 2006 Charrette.

~~Policy 3.10 – Maintain, and improve where appropriate, performance zoning and special permit zoning regulations which permit flexible development of the properties west of Collins Avenue.~~

Objective 4 – Elimination or reduction of uses which are inconsistent with community character: In general, encourage the elimination or reduction of uses which are inconsistent with the community's character and future land uses. In particular, achieve the elimination of all inconsistent land uses. This objective shall be measured by implementation of its supporting policies. [9J-5.006 (3) (b) 3]

Policy 4.1 – Inconsistent uses as referred to in ~~Objective~~ Policy 1.3 ~~above~~ are hereby defined as any uses which are located on a site where they would not be permitted by this comprehensive plan.

Policy 4.2 – The Town shall maintain and improve land development regulations which protect the rights of property owners to continue non-conforming uses, but which, at a minimum, provide for the termination of such rights upon the abandonment of a non-conforming use for an extended period of time. Land development regulations which require the elimination of non-conforming uses after a period of amortization shall be consistent with this policy and this comprehensive plan in general.

~~Policy 4.3 The use of public parking spaces needed to serve public access to municipal services and facilities and the Harding Avenue Business District by municipal fleet vehicles shall be reduced or eliminated through relocation of municipal vehicles to more appropriately located parking facilities.~~

Objective 5 – Ensure protection of natural resources: In general, ensure protection of natural resources. In particular, ensure that stormwater systems which discharge into surface water bodies do not degrade the ambient water quality, particularly the Biscayne Bay Aquatic Preserve. ~~This will be accomplished by upgrading the drainage system if necessary so that storm water outfalls into Biscayne Bay (and adjacent canals) fully meet National Pollution Discharge Elimination System (NPDES) standards (as applicable to the Town under relevant interlocal agreements with Dade County and NPDES rules) no later than December 31, 1998 and the standards of Chapter 17 25, FAC and of Chapter 17 302.500, FAC. Upgrade on site drainage standards to ensure that private properties retain at least the first one inch of storm water on site and permit no more runoff after development than before development. [Scriveners note: Rule 9J 5.011 (3) (c) 5 states that stormwater "...standards need not be the same for all systems. Local governments shall consider Chapter 1740, F.A.C. in formulating water quality standards and may adopt by reference Chapter 17 25, F.A.C., as standards for water quality." It also states that local governments are not required to retrofit to meet existing standards and provides other restrictions on the burden which can be imposed on local governments under the rule.] [9J 5.006 (3) (b) 4]~~

~~Policy 5.1 The Town shall implement the NPDES program set forth in the interlocal agreement between Metropolitan Dade County and the Town of Surfside approved by Town Resolution 1365. [9J 5.006 (3) (c) 4]~~

Policy 5.~~2~~1 ~~Following completion of the improvements pursuant to Policy 5.1 above,~~ Tthe Town shall monitor the Town's storm drainage system to determine what additional actions may be necessary to improve the storm drainage system. [9J-5.006 (3) (c) 4]

Policy 5.~~3~~2 – The Town shall maintain and enforce a storm water management ordinance which requires that future development provide for on–site storm water retention. ~~at least to the standards cited in Objective 2. Provisions included in this ordinance may include: 1) retention or detention of the first one inch of on site drainage, 2) post development runoff equal to or less than pre development runoff, 3) erosion control, 4) minimum percentage of pervious open space, 5) maintenance of swales, 6) drainage level of service standards, and/or 7) other protection measures. The enacted provisions shall be designed to help ensure full compliance with the specific standards set forth in Objective 4 above~~. The enacted provisions shall ~~also~~ be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information. [9J-5.006 (3) (c) 4]

Policy 5.~~4~~3 – The Town shall prohibit the deposit of solid waste or industrial waste including spent oils, gasoline by-products or greases accumulated at garages, filling stations and similar establishments that create a health or environmental hazard upon any vacant, occupied or unoccupied premises, parkway or park, and in any canal or waterway within the Town [9J5.013 (2) (c) 1 and 6]

Policy 5.~~5~~4 – The Town shall cooperate with the Florida Department of ~~Natural Resources~~Environmental Protection to provide effective and timely reviews of local development

proposals for sites east of Collins Avenue, particularly with respect to the requirements of the State Coastal Construction Line.

~~Policy 5.6 The Town shall monitor oceanfront properties to ensure that there is no storm water drainage into the Atlantic Ocean.~~

~~Policy 5.7: The Town shall maintain, and improve where appropriate, building code regulations that require new construction to direct roof drainage and air conditioning condensate into properly sized and constructed dry wells.~~

Policy 5.~~8~~5 – No new point source discharge of stormwaters into coastal waters shall be permitted.

Policy 5.~~9~~6 – The Town shall seek the acquisition of property to provide increased permeable surface and other opportunities to control run-off into surface waters including coastal waters so as to protect aquatic vegetation. All publicly-owned property shall be graded and otherwise improved to ensure maximum protection of surface waters.

~~Policy 5.10 The Town shall seek the acquisition of property to provide enhancement of natural resources. Priority shall be given to sites which offer the potential for: 1) creating natural area greenways consisting of environmentally sensitive lands or lands in which plant species characteristic of and/or compatible with environmentally sensitive lands predominate or can be cultivated; 2) removing existing structures and creating unique geological areas by exposing the Appalachian Mountain sand of which the barrier island on which the Town rests is naturally composed; and 3) removing invasive or otherwise undesirable plant species including those listed in Conservation Element Policy 4.2.~~

Policy 5.~~9~~7 – Consistent with public health and safety, sanitary sewer, solid waste, drainage, adequate water supplies, and potable water facilities shall be in place and available to serve new development no later than the issuance of a certificate of occupancy. Prior to approval of a building permit, the ~~City~~ Town shall consult with the water supplier to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance of a certificate of occupancy.

Policy 5.~~10~~8 – Proposed future land use map amendments shall be supported with data and analysis from the adopted Town of Surfside 20-Year Water Supply Facilities Work Plan demonstrating that adequate water supplies and associated public facilities will be available to meet the projected growth demands.

Policy 5.~~11~~9 – The Town shall ensure coordination between land use and future water supply planning with the adoption and implementation of the Surfside 20-Year Water Supply Facilities Work Plan within 18 months of the adoption of the Lower East Coast Water Supply Plan, or its update, as required by Chapter 163, Florida Statutes.

Policy 5.~~12~~10 – The Town shall coordinate land uses and future land use changes with available and projected fiscal resources and a financially feasible schedule of capital improvements for water supply and facility projects.

Policy 5.~~13~~11 – The Town shall adopt level of service standards to evaluate whether adequate potable water service will be available concurrent with development.

Policy 5.~~14~~12 – Ensure the adopted Town of Surfside 20-Year Water Supply Facilities Work Plan is consistent with the Lower East Coast Water Supply Plan and the Miami-Dade County 20-Year Water Supply Facilities Work Plan.

Policy 5:~~15~~13 – The Town shall adopt by reference the 20-Year Water Supply Facilities Work Plan, dated November 26, 2008, containing projects and an implementation schedule. The Work Plan shall be updated, at a minimum, every five years.

Policy 5.~~16~~14 – The Town shall provide for the protection of water quality in the traditional and new alternative water supply sources.

Policy 5.~~17~~15 – No development order shall be issued unless the Miami-Dade Water and Sewer Department (WASD) certifies that adequate potable water supply is available for new development. The Town shall provide monthly reports to WASD, as required, to track the amount of water to be allocated for new uses.

Policy 5.~~18~~16 – WASD shall determine if adequate potable water supply is available for new development within the Town's service area.

Objective 6 – Protection of historic resources: ~~In general, ensure the~~The Town shall provide protection of historic resources. In particular, identify and conserve local structures and sites which are of historic significance. ~~Achievement of this objective shall be quantified by the implementation of its supporting policies. [9J-5.006 (3) (b) 4]~~

Policy 6.1 – The Town shall provide for appropriate use and protection of known historic structures through the site plan review process.~~The Town shall maintain and improve where appropriate, zoning regulations which require incentives for preserving historical structures.~~

Policy 6.2 – The Town shall explore the possibility of obtaining grants, funding assistance, and other financial resources in order to undertake a survey of structures by 2012 ~~constructed prior to 1940~~ to determine if any structures ~~not yet recognized as historic~~ merit historical recognition. ~~[9J5.006 (3) (c) 8]~~

Policy 6.3 – Prior to commencing any ~~significant~~ public construction or issuing any permits for ~~significant~~ private construction, not to include minor construction such as resurfacing of an existing street, construction of a residential fence and/or any other such improvement which will not disturb the archeological assets which lie well below the surface of these areas, within the areas identified as the Surfside Midden and the Surfside Mound, the Town shall notify Miami-Dade County's Historic Preservation Division. ~~The modifier "significant" shall exclude minor construction such as resurfacing of an existing street, construction of a residential fence and/or any other such improvement which will not disturb the archeological assets which lie well below the surface of these areas. [9J-5.006 (3) (c) 8]~~

Policy 6.4 – The Town shall coordinate historic resource protection activities, procedures and programs with applicable state and federal laws, policies and guidelines.

Objective 7 – Coordination of population with hurricane evacuation plans: Coordinate population densities with the applicable local or regional coastal evacuation plan [9J-5.006 (3) (b) 5] and coordinate future land uses by encouraging the elimination or reduction of land uses which are inconsistent with applicable interagency hazard mitigation report recommendations [9J-5.006 (3) (b) 6]. This objective shall be measured by implementation of its supporting policies. [9J5.006 (3) (b) 5 and 6]

Policy 7.1 – The Town Manager or designee shall annually assess the Town's existing and permitted population densities to determine if changes are significant enough to transmit such data to the ~~Metro~~Miami-Dade County ~~Office~~ Department of Emergency Management and Homeland Security to assist in their hurricane evacuation planning.

Policy 7.2 – The Town shall regulate all future development within its jurisdiction in accordance with the ~~Future Land Use Map which is consistent with the~~goals and objectives of the ~~Interagency Hazard Mitigation Team Report, FEMA 955-DR-FL, August 1992~~ "The Local Mitigation Strategy for Miami-Dade County and its Municipalities, Departments and Private Sector Partners" (June 2008).~~.~~ The Town shall periodically review and revise the Future Land Use Map in light of future interagency hazard mitigation reports in order to reduce or eliminate uses which are inconsistent therewith.

Policy 7.3 – Enhance the efforts of the ~~Metro~~Miami-Dade County ~~Office~~ Department of Emergency Management and Homeland Security by providing it with all relevant information.

Objective 8 – Discourage the proliferation of urban sprawl: The Town shall consider changes to the future land use plan based upon energy-efficient land use patterns and ~~D~~discourage the proliferation of urban sprawl. This objective shall be measured by implementation of its supporting policy. [9J-5.006 (3) (b) 8]

~~Policy 8.1 Policy 1.1 is incorporated as Policy 8.1 by reference. Policy 1.1 incorporates the Future Land Use Map and defines the regulatory significance of its land use categories. It is a legislative determination of the Town that development according to the Future Land Use Map will discourage urban sprawl by continuing to provide residential and employment opportunities in the Town of Surfside, which is inside the Dade County Urban Infill Boundary.~~

Policy 8.1 – The Town shall support and preserve the Town's Future Land Use Map and existing land use pattern which provides for a walkable, compact layout of accessible shopping, entertainment, recreation, and employment opportunities for Town residents

Policy 8.2 – The Town shall support and preserve the Town's existing diverse housing stock which includes both single family and multi-family housing options.

Policy 8.3 – The Town shall continue to allow home based businesses to the extent that impacts are compatible with a residential community.

Policy 8.4 – The Town shall ensure the comprehensive plan and zoning code do not prevent the construction of electric substations within the Town.

Policy 8.5 – The zoning code shall allow for use of alternate, renewable sources of energy including the use of solar panels.

Objective 9 – Drainage and sewer system land needs: Ensure the availability of suitable land for drainage and sanitary sewer system facilities needed to support planned infrastructure improvements. This objective shall be measured by implementation of its supporting policies. [9J5.006 (3) (b) 9]

Policy 9.1 – The Town shall maintain and improve ~~land development code~~code of ordinance provisions for sewer lift stations, stormwater lift stations and collection/infiltration mechanisms and other utility land requirements.

Policy 9.2 – The Town shall not vacate any road right-of-way without first obtaining an engineering opinion determining that the vacated right-of-way is not necessary to accommodate future storm and/or sanitary sewer facilities, all of which are expected to be needed in the future can be accommodated in such rights-of-way.

Objective 10 – Innovative development regulations: Encourage the use of innovative land development regulations ~~which may include provisions for planned unit developments and other mixed use development techniques~~. This objective shall be measured by implementation of its supporting policy. [9J-5.006 (3) (b) 10]

Policy 10.1 – Through its building permit and development review process, ~~The Town shall periodically review and consider the recent published literature on "innovative" land development regulations in relation to its own land development regulations and determine if there are "innovative" techniques which offer reasonable promise for accomplishing substantive (rather than process) objectives of the Town.~~the Town shall encourage residents and developers to adhere to the design recommendations as set forth in the Town's adopted design guidelines and the November 2006 Charrette.

Policy 10.2 – Within one (1) year of the adoption of this element, the Town shall review the zoning code's current permitted uses to determine appropriate revisions, primarily in the Harding Avenue business district, or new categories.

Policy 10.3 – The Town shall utilize Best Practices planning research to review and modify zoning code regulations.

Policy 10.4 – The Town shall continue to monitor updates to sea level rise forecasts and take into consideration the most current data when making decisions regarding land use amendments, capital improvements, infrastructure or critical public facilities projects.

Policy 10.5 – The Town shall maintain land development regulations requiring the use of Crime Prevention Through Environmental Design.

~~**Objective 11, Plan and Implement an expanded Civic Center Complex integrally related to the new Town Hall to serve the needs of a growing and changing population:**~~

~~Policy 11.1 Consolidate and modernize municipal services and facilities into a centrally located complex of municipal facilities that increase efficiency and cost effectiveness of municipal operations, provide for the necessary growth in space, parking and facilities needs to house existing underserved line department operations and projected municipal space and facility needs to serve a growing and changing resident and visitor base.~~

~~Policy 11.2 Expand existing undersized Library Facilities in a manner that assures adequate library services and central and convenient access to the residents of Surfside and other municipalities that may cooperate in an Interlocal service agreement for such services.~~

~~Policy 11.3 Relocate non water related public activities such as administrative space and the public library from the existing oceanfront Recreation Center at 93rd Street to allow for the expansion of active recreation facilities and services.~~

Objective 11 – Greenhouse gas reduction strategies: The Town shall implement greenhouse gas reduction strategies.

Policy 11.1 – In accordance with Section 255.2575, F.S. the Town will construct all future municipal buildings to meet the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by the Florida Department of Management Services.

Policy 11.2 – The Town shall maintain and improve adopted Design Guideline provisions which encourage the use of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system for both residential and commercial properties. Within two (2) years of adoption of this element, the Town shall explore incentives for use of green building standards in new development and redevelopment.

~~Policy 11.3 – Within two (2) years of the adoption of this element the Town shall consider the feasibility of requiring all new single family and multi-family structures to meet the United States Green Building Council (USGBC) Leadership in Energy and Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by the Florida Department of Management Services.~~

Policy 11.43 – By December 2012 the Town shall consider the financial feasibility of conducting a "Pedestrian and Bicycle Network Study" to evaluate the cost, funding techniques and sources, and timeline to create a pedestrian and bicycle network that links the Town's parks, recreational and natural amenities, and business district as identified in the November 2006 Charrette.

Policy 11.54 – Within two (2) years of the adoption of this element, bicycle parking facilities shall be provided at strategic beach access points and at public parks.

Policy 11.65 – The Town shall continue to support transit ready commercial and multi-family development along major transportation corridors.

Policy 11.76 – The Town shall continue to support the existing Miami-Dade County Transit bus routes that service the Town.

Policy 11.87 – The Town shall continue to support the weekly Surfside Farmer's Market in order to encourage local agriculture.

Policy 11.98 – The Town shall continue to participate in Miami-Dade County's curbside recycling program.

~~**9J-5.006 Objective and policy requirements not applicable to the Town of Surfside:** Rule 9J-5 of the Florida Administrative Code requires communities to adopt as part of their Future Land Use Element objectives and policies which address various issues, except where those issues are not reasonably applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable:~~

~~9J-5.006 (3) (c) 6 pertaining to the protection of wellfields and cones of influence~~

~~9J5.006 (3) (b) 7 pertaining to resource planning and management plans prepared pursuant to Chapter 380, FS.~~

~~9J5.006 (3) (b) 11 pertaining to the availability of dredge spoil deposit sites.~~

~~9J5.006 (3) (c) pertaining to the availability of dredge spoil deposit sites.~~

TRANSPORTATION ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

A local government which has all or part of its jurisdiction included within the urban area of a Metropolitan Planning Organization (MPO) pursuant to Section 339.175, F.S., shall prepare and adopt a transportation element consistent with the provisions of this Rule and Chapter 163, Part II, F.S. Within a designated MPO area, the transportation elements of the local plans shall be coordinated with the long range transportation plan of the MPO. The purpose of the transportation element shall be to plan for a multimodal transportation system that places emphasis on public transportation systems.

TRANSPORTATION PLANNING AREA

Surfside is located within the Beach/Central Business District (CBD) Transportation Planning Area defined by the Miami-Dade's Metropolitan Planning Organization (MPO). The Beach/CBD Transportation Planning Area has unique characteristics due to the presence of various islands and causeways. The Town of Surfside falls under Miami-Dade County's designated Transportation Concurrency Exception Areas (TCEA). A TCEA is a compact geographic area designated to support the urban infill and redevelopment to circumvent the adverse impacts of concurrency requirements. The Miami-Dade County MPO projects a 34% increase in population in the Beach/CBD Planning Area; but since the Town is almost 100% developed, not much change is expected, and the anticipated future growth will be mostly redevelopment.

As part of the TCEA, the Level of Service for major state roadways in Surfside is LOS E+20, meaning that where mass transit service having headways of 20 minutes or less is provided within a ½-mile distance, roadways shall operate at no greater than 120 percent of their capacity.

EXISTING TRANSPORATION SYSTEM

The Town is responsible for maintaining the local network program. The Town's street system is configured in a grid with most blocks 250-feet wide and 660-feet long. Surfside has two state arterials, five collectors, and fifteen local roads. The regional road network is under the State of Florida's jurisdiction. Collins Avenue and Harding Avenue are the major north-south corridors through the Town, while 96th Street is the main east-west roadway.

State Roadways

State arterial roadways include Collins Avenue, Harding Avenue and 96th Street which are all functioning at level of service standard 'D' and therefore are meeting level of service standards. Because of the compact nature of the Town, these roadways are within a ½-mile of mass transit. There are no FIHS or SIS facilities within the Town of Surfside.

SR AIA/Collins Avenue
SR A1A/Collins Avenue is a major principal arterial which runs parallel to Harding Avenue. The three-lane facility serves only northbound traffic.

SR A1A/Harding Avenue
SR A1A/Harding Avenue is a major principal arterial which runs parallel to Collins Avenue. The three-lane facility serves only southbound traffic.

SR 922/96th Street
SR 922/96th Street is a minor principal arterial and runs east-west. SR-922/96th Street connects Surfside with Bay Harbor Islands and Bal Harbour.

Primary Local Roads
The collectors are 88th Street, ~~91st Street/Surfside Boulevard, 94th Street, Abbott Avenue,~~Bay Drive, Dickens Avenue, and Byron Avenue south of 88th Street. The major local roads are 91st Street/ Surfside Boulevard, Abbott Avenue, ~~Bay Drive, Dickens Avenue,~~ 95th Street, 94th Street, and 93rd Street. 91st Street/Surfside Boulevard is the only gateway to Indian Creek. A two-lane bridge on the south connects ~~with~~ Biscaya Island to the rest of the Town.

Existing Roadway Level of Service
The following table shows the existing level of service for the state arterial roadways in Surfside.

Table 2-1 Roadway Existing Level of Service

Roadway Name	Location		Classification	Adopted Level of Service	Lanes	Adopted LOS E+20 Capacity	Pk Hr Pk Dir Volumes 2007	Existing Level of Service 2007
	From	To						
SR-922/96th Street	Harding Ave	West of Harding Ave	State Minor Arterial	E+20	2 lanes in each direction	1,992	1,261	D
SR-A1A/Collins Avenue	87th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	2,256	D
SR-A1A/Harding Avenue	88th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	1,797	D

Note:
1) The peak hour peak direction volume are directly taken from the ***FDOT Traffic Information DVD 2007***.
2) The adopted level of service standard thresholds are based on the ***FDOT Generalized Table 4-7 for Peak Hour Directional Volumes***.

Future Level of Service

As shown in Table 2-2, the state roadways within Surfside shall maintain their levels of service through 2030.

Table 2-2 Future (2030) Peak Hour Peak Direction Level of Service Analysis

Roadway Name	Location		Classification	Adopted Level of Service	Lanes	Adopted LOS E+20 Capacity	2030 Daily Volumes	K	D	Pk Hr Pk Dir Volumes 2030	Future Level of Service 2030
	From	To									
SR-922/96th Street	Harding Ave	West of Harding Ave	State Minor Arterial	E+20	2 lanes in each direction	1,992	34,454	0.095	0.5500	1,800	D
SR-A1A/Collins Avenue	87th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	27,292	0.095	-	2,593	D
SR-A1A/Harding Avenue	88th Avenue	SR-922/96th Street	State Major Arterial	E+20	3 lanes-one way	2,988	27,006	0.095	-	2,566	D

Note:
1) The bi-directional volumes are directly taken from the ***Miami Dade County MPO 2030 Long Range Transportation Plan (LRTP).***
2) The adopted level of service standards are based on the ***FDOT Generalized Table 4-7 for Peak Hour Directional Volumes***.
3) The peak hour factor (K) and directional factor (D) are directly taken from the ***FDOT Quality/Level of Service Handbook***.

Capital Improvement Projects

Currently, the only roadway capital improvements planned in Surfside are FDOT resurfacing projects that do not affect level of service.

Table 2-3 FDOT Five Year Work Plan (FY10-FY14)

FDOT Projects							
Project Name	**Location**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**Total**
SRAIA/CollinsAvenue Resurfacing FDOT Item No. 4198581	150 feet north of 75the Steet to north of 96th Street			$5,516,000			$5,516,000
SRA1A/Harding Avenue Resurfacing FDOT Item No. 4198601	75 Street to 91st Street			$1,462,000			$1,462,000
SRA1A/Harding Avenue Resurfacing FDOT Item No. 4198231	From Bal Harbor Shop Entrance to to 94th Street		$1,056,000				$1,056,000
Total Cost of FDOT Projects			**$1,056,000**	**$6,978000**			**$8,034,000**

Source: FY2010-2014 Transportation Improvement Program, Miami-Dade Metropolitan Planning Organization

Economic Development

SR A1A is currently divided into a one-way pair that includes Collins Avenue and Harding Avenue. Each roadway consists of three lanes with parallel parking along both sides. The current A1A one-way pair has proved to be inefficient and caused many frustrated commuters to redirect their routes into the surrounding neighborhood streets. The local traffic using the one-way pair is frequently forced to make many unnecessary turns to access businesses, particularly on Harding Avenue. This results in a greater vehicular delay along with an unfriendly pedestrian environment. However, while the vehicle delay is significant at the intersections because of the large number of left-turns, speeding is a concern at many of the stretches along the one-way pair and on the neighborhood streets. Originally, both Collins Avenue and Harding Avenue were two-way roadways.

A 2006 Design Charrette identified the opportunity to explore reverting from the current one-way pairs of Collins Avenue and Harding Avenue to their original two-way configuration. The Charrette recommended that Collins Avenue be converted to a four-lane divided roadway with two sidewalks and no parking while Harding Avenue is converted to a two-lane roadway with two sidewalks. Additionally, bike lanes would be added along both sides of Harding Avenue south of 93rd Street.

The conversion of Collins Avenue may allow the roadway to become an upscale boulevard with a beautifully landscaped median which is more in tune with the surrounding multi-story buildings. Similarly, the conversion of Harding Avenue may allow the street to become more in scale with the surrounding single family homes and townhomes.

There are several more benefits of the two-way configuration other than just the aesthetic appeal. Safer pedestrian crossing on the two-way streets may occur with narrower lanes and middle islands, further increasing public safety. The reduction in turns may be more convenient and safer for local drivers and pedestrians. The reduction in speeds will lead to less severe crashes. The aforementioned A1A modifications would encourage a multi-modal traffic circulation system that accommodates the future land use map.

Neighborhood Traffic

The Town of Surfside is currently facing the challenges of fast growth in the South Florida area. The Town of Surfside was not designed and built to accommodate high speed and high volume traffic. As a result, the Town is experiencing high speed cut-through traffic on the Town's local streets in an attempt to avoid the congested arterials. The Town is striving to provide excellent quality of living for its residents and visitors, while maintaining the character of the Town. Some traffic calming has been used to address the issues of speeding and cut-through traffic problems. The Town conducted a series of public input meetings known as the Surfside Charrette to identify the existing problems and solutions to achieve the Town's vision.

Bicycle and Pedestrian Ways

There are sidewalks on Collins Avenue, Harding Drive, and parts of Abbot Avenue. Map TRN-5 shows the existing and future sidewalks. No new sidewalks or bike paths are planned.

Transit

PUBLIC TRANSPORTATION SYSTEM

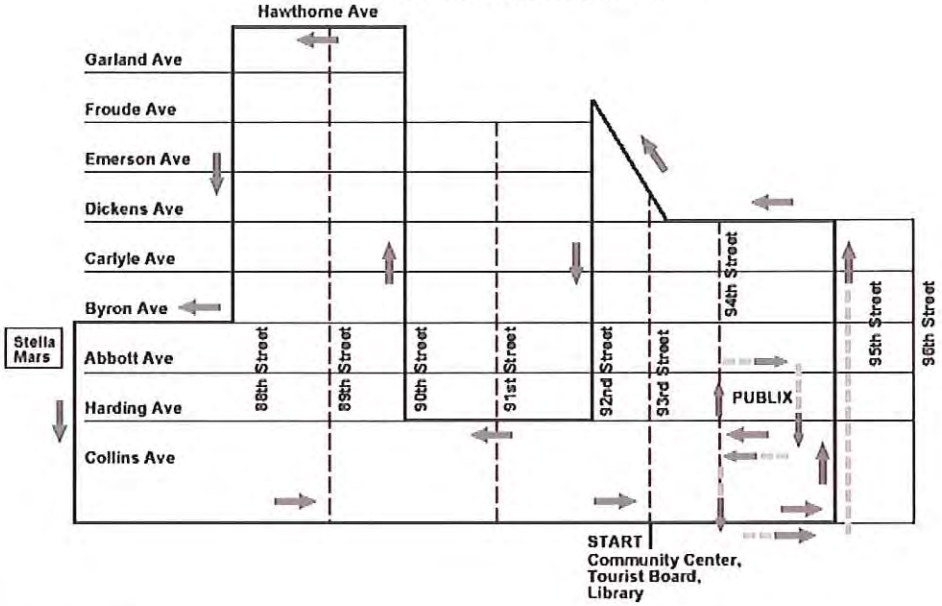
Six bus routes from Miami-Dade Transit travel through the Town, most of which run along Collins Avenue. The following are the route numbers, service areas and features.

Route	Service Areas	Features
G	NW 27 Avenue/163 Street, Bunche Park, Opa-locka, Bal Harbour, Collins Avenue, City of Miami Beach, Lincoln Road, Convention Center Drive	Wheelchair Bike
H	North Miami Beach, Skylake Mall, The Mall at 163rd Street, Sunny Isles Boulevard, Bal Harbour, Bal Harbour Shops, City of Miami Beach, Collins Avenue, Lincoln Road Mall, South Beach, Rebecca Towers	Wheelchair
K	Omni Bus Terminal, Downtown (Miami) Bus Terminal, Federal Building, MacArthur Causeway, South Beach, Washington Avenue, City of Miami Beach, Haulover Marina, Winston Towers, Hallandale Beach Boulevard (Broward County), Diplomat Mall (Broward County)	Wheelchair Metrorail
R	City of Miami Beach, Alton Road, Mount Sinai Hospital, Miami Heart Institute, Collins Avenue, Hawthorne Avenue, 96 Street/Harding Avenue	Wheelchair
S	Downtown (Miami) Bus Terminal, Main Library, Historical Museum, Miami Art Museum, Government Center Metrorail Station, Omni Bus Terminal, MacArthur Causeway, City of	Wheelchair

Route	Service Areas	Features
	Miami Beach, South Beach, Lincoln Road, Collins Avenue, 192 Street Causeway, Aventura, Aventura Mall	
120 Beach MAX	Downtown (Miami) Bus Terminal, Main Library, Historical Museum, Miami Art Museum, Government Center Metrorail Station, Miami-Dade College Wolfson Campus, Omni Bus Terminal, Julia Tuttle Causeway, City of Miami Beach, Collins Avenue, Surfside, Bal Harbour, Haulover Park Marina	Wheelchair Bike Metrorail

Additionally, the Town has its own bus system which complements the Miami-Dade County Transit system. The Town's mini-buses circulate between the business district and residential areas.

Figure 2-1 Surfside Mini-Bus Route



FUTURE TRANSIT

The MPO Long Range Transportation Plan (2030) indicates that premium transit is planned for A1A from 81st Street to the Broward County line. However, at this time it is a Priority IV unfunded project and therefore, because of the uncertainty of implementation, the route has not be added to the Existing and Future (2030) Transit map.

EXISTING MODAL SPLIT AND VEHICLE OCCUPANCY RATES

According to journey-to-work data collected in the 2000 census, single-occupant automobile trips account for approximately 78.8% of all trips to and from work reported by residents in Surfside. Carpools account for approximately 9.9%, public transit for approximately 2.1%, and walking for approximately 2.5% of all trips. Residents working at home total 5.4% of the population. For those commuting by private automobile, including carpooling, average vehicle occupancy for Town residents was 1.07 persons, which is less than the 1.10 reported for Miami-Dade County. The Southeast Florida Regional Travel Characteristics Study, also completed in 2000, reported that the average vehicle occupancy for Miami-Dade County was 1.34 persons per vehicle.

PARKING FACILITIES

The Town conducted a survey of parking facilities within the Town in 2008. The following parking estimates were collected:

Metered Parking - 671 Spaces
Non-metered - 31 Spaces
Residential - 1545 Spaces
Private – 217 Spaces

Map FLU 1 Existing Land Uses shows the locations of parking within the Town. Surfside businesses have indicated a desire for more parking. Therefore, the Town would like to investigate the feasibility of creating a parking trust fund to finance structured parking to support comprehensive plan goals and objectives.

EVACUATION

Miami-Dade County has identified three hurricane evacuation zones based upon potential storm surge. Surfside is located in Zone A, as designated by the Miami-Dade Department of Emergency Management and Homeland Security, with Miami Beach and all islands lying within Biscayne Bay, including Sunny Isles Beach, Bal Harbour, Bay Harbor Islands, Indian Creek Village, Surfside, and North Bay Village. *Map CST-2* shows the evacuation route along 96th Street/Broad Causeway. The Zones are designated based upon the SLOSH model developed by the storm surge group at the National Hurricane Center working with the U.S. Army Corps of Engineers, the U.S. Geological Survey and the Federal Emergency Management Agency in cooperation with state and local offices of emergency management. (Note: SLOSH is an acronym for "Sea Lake and Overland Surge from Hurricanes.")

Miami-Dade Transit will activate specific Emergency Evacuation Bus Pick-Up Sites by zone. These buses will only travel between the Emergency Evacuation Bus Pick-Up Site and the Hurricane Evacuation Center. The Surfside Town Hall is an evacuation pick up site. The closest Evacuation Center designated by Miami-Dade County is Charles Drew Middle School at 1801 NW 60th Street, Miami, Florida 33142.

EVACUATION TIMES

The Miami-Dade County Comprehensive Emergency Evacuation Plan provides clearance times for critical evacuation routes. The closest evacuation route is 96th Street/Broad Causeway. The following tables show clearance times for 96th Street/Broad Causeway at low and high capacities.

Table 2-4 Miami-Dade Clearance Times (Low Capacity)

Critical Roadway Segment	Clearance Times A Low Occ	Clearance Times B Low Occ	Clearance Times C Low Occ
I-95 northbound at Ft Pierce	20.89	39.64	44.50
Florida Turnpike northbound at Glades Rd in P Bch County	22.14	42.14	47.21
I-95 northbound out of Miami - Dade	8.53	14.17	17.23
Florida Turnpike northbound out of Miami - Dade	9.43	16.00	19.07
I-75 west/northbound out of Miami - Dade	5.25	7.28	10.04
US 27 northbound out of Miami - Dade	7.28	11.47	14.83
US 41 westbound out of Miami - Dade	8.95	15.43	20.05
Lehman Causeway	7.06	7.26	9.26
Sunny Isles Causeway	4.73	4.73	6.73
Broad Causeway	8.06	8.28	10.28
Kennedy Causeway	8.56	8.56	10.56
NW 79th at I-95	12.24	15.76	17.76
Julia Tuttle Causeway	6.20	6.20	8.20
Venetian Causeway	7.28	7.28	9.28
MacArthur Causeway	11.39	11.39	13.39
Homestead Ext of Fla Turnpike south of US 27	6.03	8.90	14.10

Source: Miami-Dade Comprehensive Emergency Management Plan, 2008

Table 2-5 Miami–Dade County Clearance Times (High Occupancy)

Critical Roadway Segment	Clearance Times A High Occ	Clearance Times B High Occ	Clearance Times C High Occ
I-95 northbound at Ft Pierce	27.86	50.36	58.25
Florida Turnpike northbound at Glades Rd in P Bch County	30.00	55.71	62.71
I-95 northbound out of Miami - Dade	10.07	16.23	19.33
Florida Turnpike northbound out of Miami - Dade	11.23	18.43	21.53
I-75 west/northbound out of Miami - Dade	5.78	8.09	10.84
US 27 northbound out of Miami - Dade	8.31	13.28	16.64
US 41 westbound out of Miami - Dade	10.66	17.82	22.38
Lehman Causeway	7.74	7.98	9.98
Sunny Isles Causeway	5.07	5.07	7.07
Broad Causeway	8.72	8.94	10.94
Kennedy Causeway	9.02	9.02	11.02
NW 79th at I-95	13.15	16.76	18.76
Julia Tuttle Causeway	6.53	6.53	8.53
Venetian Causeway	7.50	7.50	9.50
MacArthur Causeway	11.86	11.86	13.86
Homestead Ext of Fla Turnpike south of US 27	6.73	10.23	15.47

Source: Miami-Dade Comprehensive Emergency Management Plan, 2008

Transportation Element
Goals, Objectives and Policies

Goal: Provide a transportation system that meets the needs of the Town of Surfside and the larger community of which Surfside is a part with minimal negative community and environmental impacts on the quality of life for Surfside residents and businesses.

~~***TRAFFIC CIRCULATION OBJECTIVES and POLICIES***~~

Objective 1 – Motorized and non-motorized transportation system: In general, provide for a safe, convenient, and efficient motorized and non-motorized transportation system. In particular, achieve acceptable level of services for roads, and attractive and convenient bicycle and pedestrian facilities in order to reduce greenhouse gas emissions. This objective shall be made measurable by its implementing policies. [9J-5.007 (~~3~~4) (b) 1]

Policy 1.1 – The Town shall regulate the timing of development to maintain at least the following peak hour Level of Service standards on roadways that lie within its municipal boundaries: [9J-5.007 (~~3~~4) (c) 1]

Local roads: ~~C~~D

~~The Town shall regulate the timing of development to maintain a peak hour level of service 'D' standard.~~

Collector roads: D

~~Collector roads: C~~

~~Arterial roads: D~~

State Roadways

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

~~Policy 1.2 The Town shall evaluate the desirability of adopting the following peak hour level of service standards: [9J-5.007 (3) (c) 1]~~

~~Where extraordinary transit service such as commuter rail or express bus service exists, parallel roadways within ½ mile shall operate at no greater than 150 percent of their capacity.~~

~~Where mass transit service having headways of 20 minutes or less is provided within 1/2 mile distance, roadways shall operate at no greater than 120 percent of their capacity.~~

~~Where no public mass transit service exists, roadways shall operate at or above LOS E, in STA's 20 percent of non-State roads may operate below E.~~

Policy 1.~~3~~2 – The Town shall review all proposed developments and issue development orders only when it finds that a proposed development will not cause roadway levels of service to fall below the above standards or cause further degradation of service if conditions at the time of the review indicate that standards are already below the above standards.

Policy 1.~~4~~3 – As a condition for development approval, the Town may require that proposed new developments provide roadway improvements necessary to meet the level-of-service standards established above.

Policy 1.~~5~~4 – The Town shall utilize State Gas Tax funds and other available funding sources for a roadway repaving and reconstruction program and other transportation activities. Among the items which are specifically authorized and encouraged by this policy are the following: sidewalk repair and replacement; public transportation operations and maintenance; roadway and right-of-way maintenance and equipment; roadway and right-of-way drainage improvements; street lighting, traffic signs, traffic engineering, signalization, and pavement markings; bridge maintenance and operations; and debt service and current expenditures for transportation capital projects in each and all of the foregoing program areas. ~~Other capital expenditures in related and different projects are hereby authorized.~~

Policy 1.~~6~~5 – The Town shall enact and enforce land development code standards and a review process to control roadway access points, on-site traffic flow and on-site parking. The land development code will require the use of joint access drives for adjacent uses. It will also set minimum design standards for: 1) the spacing and design of driveway curb cuts; 2) the size of ingress and egress lanes for major land uses; 3) the spacing and design of median openings; and 4) the provision of service roads. State highway access management standards will be utilized in developing roadway access point controls, particularly on State Road AlA. The access management controls will be tailored to achieve the ends set forth in Objective 1. [9J-5.007 (~~3~~4) (c) 2]

Policy 1.~~7~~6 – The Town shall seek quick action by Miami-Dade County to replace missing road signs and repair malfunctioning traffic signals.

Policy 1.~~8~~7 – The Town shall continue a program to trim or remove roadside shrubbery which blocks visibility at intersections.

Policy 1.~~9~~8 – The Town shall maintain safe, handicapped accessible walkways ~~along heavily traveled roadways.~~to the fullest extent possible.

Policy 1.~~10~~9 The feasibility of developing bike routes shall be determined in all roadway, transit, and park and recreation projects. ~~The Town shall evaluate the feasibility of developing bicycle routes, lanes and/or paths for recreation and transportation purposes.~~ [9J-5.007 (~~3~~4) (c) 5]

Policy 1.~~11~~10 – On-site circulation and parking requirements shall be designed to ensure large circulation isles, and adequate turning radii and parking spaces. On-site traffic flow and on-site parking standards will be designed to encourage high levels of pedestrian and bicycle use, including requiring bike racks under certain conditions. Pedestrian access-ways will be required through large parking lots to connect building areas to public sidewalks. Bicycle parking racks shall be required for large scale uses. Parking regulations will establish the minimum number of parking spaces which will be required to serve uses; minimums will be based on intensity measures such as building square feet. Parking regulations will establish appropriate minimum sizes for circulation isles, parking stalls and parking stall angles. General standards will provide

for review of parking lot layout in order to ensure that the layout will be safe. ~~The minimum number of parking spaces required for multifamily residential uses shall be increased from the current one space per residential unit, which is hereby determined to be inadequate for and incompatible with the quality and character of new multifamily residential development desired for the Town.~~ [9J-5.007 (3) (c) 3]

~~Policy 1.12 The Town shall coordinate with the MPO plans to improve major arterials. [Scriveners note: Section 9J-5.007 (3) (b) 3 requires an objective which provides for the coordination described in this policy. Since coordination is an action, it seems appropriate that it be expressed in terms of a policy.] [9J-5.007 (3) (b) 3]~~

Policy 1.~~13 12~~ 11 – The Town shall monitor the impact of the Transportation Concurrency Exception Area in coordination with Miami-Dade County and the MPO. ~~The Town shall evaluate the utility of employing Transportation Concurrency Management Areas and/or Transportation Concurrency Exception Areas in the concurrency management process. Transportation Concurrency Management Areas are authorized in 9J-5.0055 (5) and Transportation Concurrency Management Exception Areas are authorized in 9J-5.0055 (6).~~

Policy 1.~~14~~ 12 – The Town shall educate residents on the environmental impacts of automobile idling.

Policy 1.~~1514~~13 – The Town shall continue to support transit ready commercial and multi-family development along major transportation corridors.

Policy 1.14 – By June 2011 the Town shall consider the financial feasibility of conducting a "Streetscape Masterplan Study" to evaluate the cost, funding techniques and sources, and timeline to complete façade improvements, wayfinding and place-making techniques and pedestrian focused improvements.

Policy 1.15 – By December 2012 the Town shall consider the financial feasibility of conducting a "Pedestrian and Bicycle Network Study" to evaluate the cost, funding techniques and sources, and timeline to create a pedestrian and bicycle network that links the Town's parks, recreational and natural amenities, and business district as identified in the November 2006 Charrette.

Objective 2 – Coordination of ~~traffic circulation~~transportation with land use: In general, coordinate the traffic circulation system with land uses shown on the future land use map. ~~In particular, provide the traffic circulation system which is shown on the Future Traffic Circulation Map.~~ This objective shall be made measurable by its implementing policies. [9J-5.007 (~~3~~4) (b) 2]

Policy 2.1 – The Town shall approve no alteration in the existing traffic circulation system which materially reduces the continuity and rights-of-way of arterials or collectors roadways. ~~shown on the Future Traffic Circulation Map. [Scriveners note: The Future Land Use Map and the Future Traffic Circulation Map both describe conditions almost identical to those which exist today. They are adequately coordinated as evidenced that the existing land uses and the existing traffic system function adequately.]~~

Policy 2.2 – The Town shall consider alterations in traffic flow which serve to reduce non local traffic through residential areas.

Policy 2.3 – The Town shall study the financially feasibility of conducting a traffic analysis in order to properly determine the practicability of reestablishing a two-way flow on Harding Avenue and Collins Avenue. The analysis should include a parking analysis, access management strategies and a review of traffic signals by June 2011.

Policy 2.4 – Maintain a financially feasible traffic calming program that includes studies of local roadways with significant cut-through traffic and implementation programs.

Policy 2.5 – Ensure roadway signage follows guidelines set forth in the Manual on Uniform Traffic Control Devices (MUTCD).

Policy 2.6 – The Town shall support County and State comprehensive traffic counting systems for annually monitoring levels of service and coordinate concurrency management with the County and FDOT.

Policy 2.7 – The Town shall support the County's implementation of a transportation demand management (TDM) program to reduce overall peak-hour demand and use of single occupant vehicles (SOV). This program will include such TDM strategies as the following:

1) van pooling and employer-based car pooling;
2) employer-based staggered and/or flexible work hours;
3) parking management;
4) telecommunicating;
5) congestion pricing;
6) park and ride lots;
7) high occupancy vehicle lanes;
8) trip reduction ordinances;
9) transportation management associations (TMA's); and
10) subsidies for transit riders.

Policy 2.8- The Town shall support the County's efforts to improve the operating efficiency of the existing thoroughfare system and reduce peak hour congestion by encouraging the application of low-cost transportation system management techniques including, but not limited to, improved signal timing, and intersection signing, marking, channelization, and on-street parking restrictions.

Policy 2.9-The Town shall evaluate neighborhood intersection operations, as financially feasible, to improve the safety of local roadways.

Objective 3 – ~~Coordination with the MPO~~Intergovernmental Coordination: Coordinate the transportation system with the plans and programs of the Miami-Dade Metropolitan Planning Organization (MPO), South Florida Regional Transportation Authority, and the Florida Department of Transportation; ~~In general, coordinate with the plans and programs of the Metropolitan Planning Organization. [9J-5.007 (3) (b) 3]~~

Policy 3.1 – The Town staff shall annually review and evaluate the Florida Department of Transportation 5-Year Transportation Plan, the Miami-Dade County Transportation Improvement Program and the traffic circulation plans and programs of Miami Beach ~~and~~ Indian Creek Islands, and Bal Harbour to determine if plans and programs contained therein necessitate any revision to this or other elements of this Comprehensive Plan.

Policy 3.2 – Appropriate Town staff shall attend selected meetings of Metropolitan Planning Organization and related ad hoc committees pertaining to traffic and transportation issues affecting the Town.

Policy 3.3 – The Town shall revise this ~~Traffic Circulation~~Transportation Element as necessary in response to the above.

Policy 3.4 – The Town shall include statements of findings in support of all modifications to this Transportation Element.

Policy 3.5- The Town shall coordinate with Miami-Dade County, local governments and regional and state agencies in the implementation of the Transportation Element, through mechanisms such as established by the Miami-Dade County MPO, FDOT Districts 4 and 6, the South Florida Regional Transportation Authority, and the South Florida Regional Planning Council.

Policy 3.6 The Town will continue to coordination with Miami-Dade County regarding left-turn signage at the intersection of Abbott Avenue and 96th Street.

Objective 4 – Coordination with transit authority: In general, coordinate with the plans and programs of the ~~Metropolitan Dade County~~Miami-Dade Transit ~~Authority~~. This objective shall be made measurable by its implementing policy. [9J-5.007 (~~3~~4) (b) 3]

Policy 4.1 – Appropriate Town staff shall attend selected meetings of ~~Metropolitan Dade County~~the Miami-Dade Transit ~~Authority~~ pertaining to levels of service for buses and other transit.

Objective 5 – Right-of-way protection: In general, protect existing rights-of-way and future rights-of-way from building encroachment including rights-of-way for mass transit. In particular, achieve zero net loss of right-of-way from building encroachment throughout the period during which this plan is in effect. [9J-5.007 (~~3~~4) (b) 45]

Policy 5.1 – The Town shall use the land development code as enacted, the land development code enforcement procedures and the building code enforcement procedures to protect existing rights-of-way through setback requirements which prohibit right-of-way encroachments of any kind. [9J-5.007 (~~3~~4) (c) 4]

Objective 6 – Adequate Parking: The Town shall help provide an adequate supply of parking to serve the business area and major community facilities. Achievement of this objective shall be quantified by the implementation of the following policy.

Policy 6.1 By June 2011 the Town shall consider the financial feasibility of conducting a "Parking Trust Fund Study" to evaluate the areas best suited for development, cost, funding techniques and sources, and timeline to construct parking garages within the business district, as identified in the November 2006 Charrette. ~~The Town shall undertake a program to upgrade its parking facilities which shall include removal of the existing concrete walls and use of landscape treatments similar to those used in the Town's Abbott Avenue Parking Lot.~~

~~Policy 6.2 The Town shall inventory existing parking, public and private, proximate to and serving the Harding Avenue Business Area and identify an amount of publicly accessible parking spaces necessary to provide the equivalent number of spaces required by the land development code to serve this vital business and service area, recognizing that a substantial portion of the historical land use patterns in the business area developed prior to the imposition of on-site code parking requirements.~~

~~Policy 6.3 The Town shall develop a long range strategy and implementation program for providing and maintaining sufficient parking to serve the Harding Avenue Business District that may include but not be limited to parking impact fees, relocation of municipally owned fleet vehicles and municipal employee vehicles utilizing public parking spaces, development of additional municipal parking lots proximate to municipal facilities to reduce the public demand on parking serving commercial businesses and services, provision of structured parking for public and municipal use, encouraging mixed uses and shared parking by businesses with different peak demand periods to optimize the use of parking, incorporating alternative mode support facilities including bicycle parking and mass trnsit stops into municipal vehicle parking facilities and instituting shuttle transportation services from municipal parking facilities to municipal parks, the Harding Avenue Business District and civic facilities and services.~~

~~MASS TRANSIT OBJECTIVES and POLICIES~~

Objective 7 – Greater use of mass transit: The Town shall encourage greater use of existing mass ~~transportation~~ transit facilities. Achievement of this objective shall be measured by the implementation of the following policies:

Policy 7.1 – The Town shall keep abreast of bus service needs and notify ~~the~~ ~~Metro~~Miami-Dade Transit ~~Agency~~ of required service changes as necessary.

Policy 7.2 – The Town shall ~~monitor use of~~ monitor its ~~M~~mini-~~B~~bus ~~System~~ system and ~~consider adding a second bus if ridership increases.~~accommodate increasing ridership as necessary.

Objective 8 – Provision of transit and coordination of transit planning: In general, provide efficient mass transit and paratransit services based on existing and proposed major trip generators. In particular, provide the ~~Metropolitan Dade County~~Miami-Dade County transportation planning agencies with ad hoc periodic development reports and other input on the status of any development or redevelopment which could alter the need for bus and paratransit services. This objective shall be made measurable by its implementing policies. [9J-5.008 (34) (b) ~~1 and 2~~4]

Policy 8.1 – The Town shall prepare a written report to be transmitted to the Technical Coordinating Committee of the Miami-Dade Metropolitan Planning Organization outlining the locations, characteristics and/or special transit needs that have developed or been identified in the year preceding the annual request for the Transportation Improvement Program Update. This report shall include: 1) estimated new employment by income; 2) estimated new patrons; 3) estimated new residential occupancy. Potential current and future mass transit needs will be suggested.

Policy 8.2 – The Town should support proposals for increased frequency of bus service on arterial roads as a means to relieve tendencies for over capacity during peak hours. Such service should be restricted to arterial and collector roads and should not be provided on local roads because it could be detrimental to neighborhood quietude.

~~Policy 8.3 – Appropriate Town staff shall attend selected meetings of the Metropolitan Dade County Transit Authority, the Metropolitan Planning Organization, the Florida Department of Transportation and any other public transportation agency offering special services for the disadvantaged.~~

~~Policy 8.4 – Transit level of service standards are hereby established in coordination with motorized traffic level ofservice standards as set forth in Policy 1.1.1 of the Traffic Circulation Sub-Element. [Scriveners note: 9J-5.008 (3) (c) 1 calls for the "Establishment of any [emphasis added] locally desired level of service standard for mass transit systems which the local government maintains or improves;..." There is no requirement to establish or adhere to a particular level of service standard for transit services which serves the municipality, but is not provided by the municipality.] [9J-5.008 (3) (c) 1]~~

Objective 9 – Coordinate with plans for "transportation disadvantaged people:" On a continual basis and throughout the effective period of this plan, the Town shall coordinate with ~~the Metropolitan~~ Miami-Dade County Transit ~~Authority~~, the Metropolitan Planning Organization, the Florida Department of Transportation and any public transportation agency offering special services for "transportation disadvantaged people." This objective shall be made measurable by its implementing policies. [9J-5.008 (~~3~~4) (b) ~~2~~4]

Policy 9.1 – Appropriate Town staff shall attend selected meetings of ~~the Metropolitan Dade County~~ Miami-Dade Transit ~~Authority~~, the Metropolitan Planning Organization, the Florida Department of Transportation and any other public transportation agency offering special services for the disadvantaged.

Policy 9.2 – The Town shall encourage the increased use of wheel-chair accessible buses on Town routes.

Policy 9.3 – Continue to provide sidewalks within two blocks of bus stops on arterials when costs permit.

~~**Objective 10 – Transit right-of-way protection:** In general, protect existing and future mass transit rights-of-way and exclusive mass transit corridors. In particular, achieve zero net loss of right-of-way from building encroachment throughout the period during which this plan is in effect. This objective shall be made measurable by its implementing policy. [9J-5.008 (3) (b) 3]~~

~~Policy 10.1 – The Town shall use the land development code as enacted, the land development code enforcement procedures and the building code enforcement procedures to protect existing rights-of-way through setback requirements which prohibit right-of-way encroachments of any kind. [9J-5.008 (3) (c) 2]~~

~~***OTHER TRANSPORTATION ELEMENT OBJECTIVES and POLICIES***~~

~~**Objective 11 – Fulfill other requirements of 9J-019:** Identify effective and useful ways in which the transportation element requirements of 9J-019, F.A.C. not previously identified in this element can be fulfilled.~~

~~Policy 11.1 — No later than 2006, identify and evaluate parking strategies that are compatible with all other elements of this plan and promote transportation goals and objectives. As part of this effort, conduct a search of the professional literature and of practice in other jurisdictions. [9J-5.019 (4) (c) 3]~~

~~Policy 11.2 — No later than 2006, identify and evaluate transportation demand management programs that are compatible with all other elements of this plan and reduce the number of vehicle miles traveled per capita. As part of this effort, coordinate with related efforts of the Metropolitan Dade County Transit Authority. [9J-5.019 (4) (c) 6]~~

~~Policy 11.3 — No later than 2006, identify and evaluate transportation system management strategies that are compatible with all other elements of this plan and improve transportation system efficiency and safety. As part of this effort, conduct a search of the professional literature and of practice in other jurisdictions. [9J-5.019 (4) (c) 7]~~

~~Policy 11.4 — No later than 2006, identify and evaluate numerical indicators (such as modal split, annual transit trips per capita and auto occupancy rates) against which mobility goals can be measured. As part of this effort, conduct a search of the professional literature and of practice in other jurisdictions. Also as part of this effort, coordinate with the efforts of the Metropolitan Dade County Transit Authority. [9J-5.019 (4) (c) 10]~~

~~9J-5.019 Objective and policy requirements fulfilled by objectives and policies pertaining to traffic circulation, mass transit and/or aviation related objectives and policies:~~

~~9J-S.019 (4) (b) 1 Provide for a safe, convenient, and energy efficient multimodal transportation system.~~

~~9J-5.019 (4) (b) 2 Coordinate the transportation system with the future land use map and ensure that existing and proposed population densities, housing and employment patterns and land uses are consistent with the transportation modes and services proposed to serve these areas.~~

~~9J-5.019 (4) (b) 3 Coordinate the transportation system with the plans and programs of any applicable metropolitan planning organization, transportation authority, Florida Transportation Plan and Florida Department of Transportation's Adopted Work Program.~~

~~9J-5.019 (4) (b) 4 Address the provision of efficient public transit services based upon existing and proposed major trip generators and attractors, safe and convenient public transit terminals, land uses and accommodation of the special needs of the transportation disadvantaged.~~

~~9J-5.019 (4) (b) 5 Provide for the protection of existing and future rights of way from building encroachment.~~

~~9J-5.019 (4) (b) 6 Meet the requirements of 9J-5.007 (3) (b), 9J-5.008 (3) (b), and 9J-5.009 (3) (b).~~

~~9J-5.019 (4) (c) 1 Establishment of level of service standards at peak hour for roads and public transit facilities within the local government's jurisdiction.~~

9J-5.019 (4) (c) 2 Control of the connections and access points of driveways and roads to roadways.

9J-5.019 (4) (c) 4 For existing and future transportation rights-of-way and corridors designated in the local government comprehensive plan, establish measure for their acquisition, preservation, or protection. See Policy 1.5.1 which fulfills 9J-5.007 (3) (c) 4.

9J-5.019 (4) (c) 5 Establishment ofland use and other strategies to promote the use of bicycles and walking. See Land Use Element Policy 1.1.6 and Transportation Element Policies 1.1.2, 1.2.2 and 1.1.5.

9J5.019 (4) (c) 8 Coordination of roadway and transit service improvements with the future needs of seaports, airports, and other related public transportation facilities. See Transportation Element Policies 1.1.6 and 1.12.2.

9J-5.019 (4) (c) 15 Meet the requirements of 9J-5.007 (3) (c), 9J-5.008 (3) (c), and 9J-5.009 (3) (c).

9J-5.007, 9J-5.008 and 9J-5.009 Objective and policy requirements not applicable to the Town of Surfside Rule 9J-5 of the Florida Administrative Code requires communities to adopt as part of their Future Land Use Element objectives and policies which address various issues, except where those issues are not reasonably applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable:

9J-5.009 (3) (b) 1 pertaining to coordinating the expansion of existing or new ports, airports, or related facilities with the future land use, coastal management, and conservation elements.

9J-5.009 (3) (b) 2 pertaining to coordinating surface transportation access ports, airports, or related facilities with the future land use, coastal management, and conservation elements.

9J-5.009 (3) (b) 3 pertaining to coordinating with plans of the United States Army Corps of Engineers, military services, or resource planning and management plans prepared pursuant to Chapter 380.

9J-5.009 (3) (b) 4 pertaining to proper integration of access routes to ports, airports, or related facilities with other modes of surface or water transportation.

9J-5.009 (3) (c) 1 pertaining to the promotion of ports, aviation, and related facilities development and expansion consistent with the future land use, coastal management, and conservation elements.

9J-5.009 (3) (c) 2 pertaining to the mitigation of adverse structural and non-structural impacts from ports, airports, or related facilities upon adjacent natural resources and land uses.

9J-S.009 (3) (c) 3 pertaining to the protection and conservation of natural resources in the context of airports and related facilities.

~~9J-5.009 (3) (c) 4 pertaining to coordination of intermodal management of surface and water transportation.~~

~~9J-5.009 (3) (c) 5 pertaining to the protection of ports, airports or related facilities from the encroachment of incompatible land uses.~~

~~9J-5.019 (4) (c) 9 Establishment ofland use, site and building design guidelines for development in exclusive public transit corridors to assure the accessibility of new development to public transit.~~

~~9J-5.019 (4) (c) 12 A coordinated and consistent policy with the future land use element to encourage land uses which promote public transportation in designated public transportation corridors.~~

~~9J-5.019 (4) (c) 13 Establishment of strategies to facilitate local traffic to use alternatives to the Florida Intrastate Highway System to protect its interregional and intrastate functions.~~

HOUSING ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Housing Element is to provide guidance for development of 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. These plans and policies address government activities, as well as provide direction and assistance to the efforts of the private sector.

Assuring the continued provision of affordable housing is an ongoing challenge as the Town is almost completely built out. Moreover, half of the Town is in a coastal high hazard area, and Florida Statutes compel local governments to direct population concentrations away from known coastal high hazard areas and limit public expenditures that subsidize development permitted in these areas. However, the Town of Surfside has made efforts to maintain an affordable housing stock through infrastructure improvements and proactive code compliance which extend the lifespan of the Town and provide for continuance of a quality area.

HOUSING INVENTORY

Information from the 2000 Census and Shimberg Center for Affordable Housing has been used to provide many of the following comparative characteristics between Surfside and Miami-Dade County as this is the best available data. Population projections are from the Miami-Dade Planning and Zoning Department.

Housing Type: Residential use is a major development characteristic of Surfside. The 3,166 total housing units reported for the Town in 2000 comprised 0.37 percent of the County's total housing stock of 852,278 reported units. As of January 2009, there were 214.34 acres that had an existing land use of residential. This represents 58.3 percent of the Town's total land area of 367.4 acres.

The 2000 Census determined approximately 60 percent (1,892 units) of housing units in Surfside were multi-family (2 or more), while single-family homes made up 40 percent (1,262 units) of the Town's housing stock. Twelve mobile homes were identified in the 2000 Census. However, there are no mobile homes existing today. Total units and the percentage of housing inventory by type of unit are shown in Table 3-1. The data comes from the Affordable Housing Needs Assessment (AHNA), prepared by the Shimberg Center for Affordable Housing for the State Department of Community Affairs.

Table 3-1
Dwelling Units by Structure Type, 2000

Dwelling Units	Surfside Number	Surfside Percent	Miami-Dade County Number	Miami-Dade County Percent
SINGLE FAMILY:	**1,262**	**40%**	**448,569**	**53%**
1, detached	*1,220*		*363,849*	
1, attached	*42*		*84,720*	
MULTI-FAMILY:	**1,892**	**60%**	**387,550**	**45%**
2	*0*		*21,913*	
3 or 4	*43*		*33,382*	
5 to 9	*124*		*43,328*	
10 to 19	*266*		*54,749*	
20 or more	*1,459*		*234,178*	
MOBILE HOMES	**12**	**0%**	**15,338**	**2%**
OTHER	**0**	**0%**	**821**	**0%**
TOTAL	**3,166**	**100%**	**852,278**	**100%**

Source: Shimberg Center for Affordable Housing.

Housing Tenure: Housing tenure refers to the occupancy of a unit, either owner-occupied or renter-occupied. The AHNA reported 70 percent of households in Surfside were owner-occupied in 2005. (Statewide, Florida's homeownership rate is 70.3 percent.) The remaining 30 percent were renter-occupied households. Housing tenure characteristics are detailed in Table 3-2.

Table 3-2
Households by Tenure, 2005

Tenure	Surfside # of Households	Surfside Percent	Miami-Dade County # of Households	Miami-Dade County Percent
Owner Occupied	1,774	70%	489,066	58%
Renter Occupied	764	30%	348,353	42%
Total Occupied Units	**2,538**	**100%**	**837,419**	**100%**

Source: Shimberg Center for Affordable Housing.

Housing Vacancy: Table 3-3 shows the housing vacancy characteristics for Surfside and Miami-Dade County as reported in the 2000 Census. At the time of the Census, 810 housing units in Surfside were vacant. This represents a vacancy rate of 25.6 percent for the Town, which is significantly more than the overall Miami-Dade County rate of 8.9 percent. This high vacancy rate is largely attributed to Surfside's seasonal residents. If units which had been rented or sold that were awaiting occupancy and units held for occasional/seasonal use were eliminated from this figure, Surfside's vacancy rate was 7.1 percent as shown in Table 3-3. There were 72 vacant housing units for sale and 82 vacant units for rent.

Table 3-3
Housing Vacancy, 2000

Status	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Units	Percent	# of Units	Percent
For rent	82	10%	20,508	27%
For sale	72	9%	10,986	15%
Other	34	4%	7,087	9%
For migrant workers	0	0%	78	0%
Seasonal, recreational, occasional use	596	74%	31,316	41%
Rented or sold, not occupied	26	3%	5,529	7%
TOTAL	**810**	**100%**	**75,504**	**100%**

Source: Shimberg Center for Affordable Housing.

Housing Age: The age of housing structures is distributed relatively evenly throughout the past several decades, with a notable increase in housing construction during the 1950s. According to data supplied by the Surfside Building Department, only 16 certificates of occupancy have been issued for new housing structures since 2000. Table 3-4 lists the age of housing structures reported in the 2000 Census. The majority of structures are now over 50 years old. Many of these are in sound condition, others have gone through renovations, and some are being demolished and replaced with new structures. Overall, the older structures are well maintained, demonstrating that the Town has been successful in maintaining adequate housing, thus minimizing any potential of deterioration.

Table 3-4
Age of Housing Structures

Year Built	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Units	Share by Decade	# of Units	Share by Decade
1999-March 2000	0	17.8%	14,019	15.2%
1995-1998	303		50,523	
1990-1994	261		64,968	
1980-1989	330	10.4%	155,186	18.2%
1970-1979	536	16.9%	191,906	22.5%
1960-1969	195	6.2%	142,827	16.8%
1950-1959	934	29.5%	140,635	16.5%
1940-1949	431	13.6%	56,783	6.7%
1939 or earlier	176	5.6%	35,431	4.2%
TOTAL	**3,166**	**100%**	**852,278**	**100%**

Source: 2000 Census of Population and Housing. Prepared by: Calvin, Giordano & Associates, Inc.

Monthly Housing Rent: Table 3-5 compares the monthly gross rents for specified renter-occupied housing units in the Town with the Miami-Dade County totals for the year 2000. The median rent paid by Surfside households in 2000 was $648 per month, compared to a countywide median rent of $647, and a statewide median rent of $641. It bears repeating this data is nearly a decade old, and rents have increased substantially since that time. In Miami-Dade County and the surrounding metro area, the HUD

Fair Market Rent in 2009, representing rent for a typical modest apartment, was $842 for a studio apartment, $953 for a one-bedroom, $1,156 for a two-bedroom, $1,479 for a three-bedroom, and $1,728 for a four-bedroom unit. Municipality-specific information for 2009 is not available.

Table 3-5
Monthly Gross Rent, Renter-Occupied Housing Units, 2000

Contract Rent	Surfside # of Units	Surfside Percent	Miami-Dade County # of Units	Miami-Dade County Percent
Less than $200	0	0%	19,076	6%
$200-299	0	0%	11,302	3%
$300-499	0	0%	53,881	16%
$500-749	387	59%	125,095	38%
$750-999	84	13%	69,880	21%
$1000-1499	62	9%	30,560	9%
$1500 or more	79	12%	7,896	2%
No cash rent	41	6%	9,143	3%
TOTAL	**653**	**100%**	**326,833**	**100%**
Median rent per month	$648		$647	

Source: 2000 Census of Population and Housing. Prepared by: Calvin, Giordano & Associates, Inc.

Housing Value: Based on figures delineated from the Miami-Dade County Property Appraiser, the average just value (fair market value) for a single family home in Surfside in 2008 was $576,234, which is significantly more than the countywide average ($398,522). Statewide, the average value of a single family home in Florida in 2008 was $248,425. Condominiums also had a significantly higher value in Surfside. In 2008, the average value of condominiums in Surfside was $424,548, compared with the County average condominium value of $267,332. Table 3-6 shows the value of owner-occupied housing units in the Town as reported in the 2000 Census.

Table 3-6
Median Home Value, 2000

Value	Surfside # of Units	Surfside Percent
Less than $50,000	0	0%
$50,000-99,999	34	3%
$100,000-149,999	123	13%
$150,000-199,999	318	33%
$200,000-299,999	340	35%
$300,000-499,999	93	10%
$500,000-999,999	17	2%
$1,000,000 or more	50	5%
TOTAL	**975**	**100%**

Source: 2000 Census of Population and Housing. Prepared by: Calvin, Giordano & Associates, Inc.

Median Sales Price: The average sales price for a single family home in Surfside was $722,854 in 2007. The median sales price that year was $650,000, compared to a countywide and statewide median sales price of $365,000 and $240,000 respectively. Table 3-7 charts the median sales price for single family homes and condominiums in Surfside and Miami-Dade County from 2001 through 2007. It is important to note that 2006 may represent peak sales prices in the real estate boom experienced in the first half of this decade. Sales prices may be lower for the remainder of the decade.

Table 3-7
Median Home Sales Prices, 2001-2007

Year	Single Family		Condominium	
	Surfside	Miami-Dade County	Surfside	Miami-Dade County
2001	$277,000	$155,000	$250,000	$118,900
2002	$315,150	$172,000	$320,000	$135,000
2003	$365,000	$195,000	$304,750	$155,000
2004	$435,000	$240,000	$347,000	$185,000
2005	$572,000	$300,000	$479,950	$226,701
2006	$680,000	$348,000	$545,000	$257,550
2007	$650,000	$365,000	$490,000	$265,000

Source: Miami-Dade County Property Appraiser tax roles, compiled by Shimberg Center – Florida Housing Data Clearinghouse

Monthly Owner-Occupied Costs: Of the total number of owner-occupied housing units in Surfside, 61 percent were mortgaged and 39 percent were not mortgaged at the time of the 2000 Census. Table 3-8 shows the monthly owner costs of owner-occupied housing units in the Town in 2000.

Table 3-8
Monthly Costs of Owner-Occupied Housing Units, 2000

Mortgage Status and Elected Monthly Costs	Surfside # of Units	Surfside Percent	Miami-Dade County # of Units	Miami-Dade County Percent
Mortgaged Units	597	61.2%	258,002	76.8%
Less than $300	*0*	*0.0%*	*421*	*0.1%*
$300-499	*0*	*0.0%*	*5,471*	*1.6%*
$500-699	*32*	*3.3%*	*18,269*	*5.4%*
$700-999	*21*	*2.2%*	*58,953*	*17.6%*
$1,000-1,499	*148*	*15.2%*	*97,592*	*29.1%*
$1,500-1,999	*191*	*19.6%*	*43,669*	*13.0%*
More than $2000	*205*	*21.0%*	*33,627*	*10.0%*
Non-Mortgaged Units	378	38.8%	77,813	23.2%
Less than $300	*20*	*2.1%*	*15,540*	*4.6%*
$300-499	*155*	*15.9%*	*35,122*	*10.5%*
$500-699	*98*	*10.1%*	*15,650*	*4.7%*
$700-999	*65*	*6.7%*	*7,041*	*2.1%*
More than $1,000	*40*	*4.1%*	*4,460*	*1.3%*
TOTAL REPORTED UNITS	**975**	**100%**	**335,815**	**100%**

Source: 2000 Census of Population and Housing. Prepared by: Calvin, Giordano & Associates, Inc.

AFFORDABLE HOUSING NEEDS

Cost Burden: Cost-burdened households pay more than 30 percent of income for rent or mortgage costs. Using household information extrapolated from the Miami-Dade Department of Planning & Zoning's estimated 2007 Surfside population of 5,159, the amount of income paid for housing is delineated below by tenure. (Miami-Dade County figures are taken directly from the Florida Housing Data Clearinghouse.) The data suggests 914 Surfside households (39 percent) paid more than 30 percent of income for housing.

Table 3-9
Amount of Income Paid for Housing
Household by Cost Burden, 2007

A. Owner-Occupied Households, 2007								
	NO COST BURDEN		**COST BURDEN**					
	0% - 30%		**30% - 50%**		**50% or more**		Total Owners	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surfside	1,066	65%	324	20%	260	16%	1,650	100%
Miami-Dade County	299,602	64%	95,923	20%	74,453	16%	469,978	100%

B. Renter-Occupied Households, 2007								
	0% - 30%		**30% - 50%**		**50% or more**		Total Renters	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Surfside	388	54%	166	23%	164	23%	718	100%
Miami-Dade County	181,866	53%	78,332	23%	83,996	24%	344,194	100%

Source: Miami-Dade County data taken from Shimberg Center – Florida Housing Data Clearinghouse. Surfside data extrapolated by Calvin, Giordano & Associates, Inc. using population data obtained from the Miami-Dade Department of Planning & Zoning and derived from Transportation Analysis Zone (TAZ).

Per Table 3-9, Surfside had a similar percentage of residents with a housing cost burden as Miami-Dade County. However, according to the 2000 Census, the per capita income in Surfside was more than twice that of Miami-Dade County ($38,375 compared to $18,497). Many Surfside residents choose to purchase homes at a higher value, resulting in a self-imposed cost burden, rather than the forced cost burden experienced throughout Miami-Dade County.

Household Income: In Table 3-10, household income is measured as a percentage of the median income for the County or area, adjusted for size. In Surfside and the surrounding metro area, the HUD-estimated median income for a family of four is $49,200 in 2008. The following figures for Surfside have been extrapolated based on population data obtained from the Miami-Dade Department of Planning & Zoning, derived from Transportation Analysis Zone (TAZ), and using the ratios provided by the University of Florida's Shimberg Center for Affordable Housing. Of the 2,368 households in Surfside in 2007, 604 (26 percent) were both cost-burdened and in the low or very-low income bracket.

Table 3-10
Households by Tenure, Income, and Cost Burden, 2007

A. Owner-Occupied Households, 2007				
	Household Income as a Percentage of Area Median Income (AMI)			
	0 – 50% AMI	50.01 – 80% AMI	80.01 – 120% AMI	120.01%+ AMI
	Very Low	Low	Moderate	Above Moderate
No Cost Burden	55	79	180	752
At 30% or More Cost Burden	49	69	103	103
At 50% or More Cost Burden	147	65	30	18

B. Renter-Occupied Households, 2007				
	Very Low	Low	Moderate	Above Moderate
No Cost Burden	70	41	105	172
At 30% or More Cost Burden	40	74	41	11
At 50% or More Cost Burden	139	21	4	0

Source: Prepared and extrapolated by Calvin, Giordano & Associates, Inc. using population data obtained from the Miami-Dade Department of Planning & Zoning and derived from Transportation Analysis Zone (TAZ).

Elderly Households: According to the same analysis, 852 households in Surfside (36 percent) were headed by a person age 65 or older in 2007. In comparison, 27 percent of households statewide were headed by elderly persons. In Surfside, 707 of elderly households (83 percent) own their homes, while 332 elderly households (39 percent) pay more than 30 percent of income for rent or mortgage costs.

HOUSING CONDITIONS

Substandard Housing: Individual housing units may be considered substandard if the unit lacks of complete plumbing for exclusive use of the residents, lack of complete kitchen facilities, lack of central heating, and overcrowding. The 2000 Census provides data regarding these interior conditions of the housing stock. Table 3-11 contains a summary of the measures of substandard housing conditions for Surfside and Miami-Dade County. In 2000, 194 housing units (8.2 percent of all units) in Surfside were statistically overcrowded, meaning they housed more than one person per room, compared to a countywide percentage of 20 percent. Surfside has more homes without heating than average of the county, which may be due to the age of the homes. However, because Surfside is a coastal community in the subtropics, the Town does not consider units without heating a substandard condition. Code enforcement operations have proven effective in ensuring that substandard housing conditions are taken care of in a timely manner.

Table 3-11
Condition of Housing Stock Summary, 2000

Substandard Condition	Surfside	Surfside	Miami-Dade County	Miami-Dade County
	# of Units	Percent	# of Units	Percent
Overcrowded (more than one person per room)	194	8.2%	155,516	20.0%
Lacking complete kitchen facilities	29	0.9%	8,095	0.9%
Lacking central heating	203	8.6%	39,311	5.1%
Lacking complete plumbing facilities	21	0.7%	7,948	0.9%

Source: 2000 Census of Population and Housing. Prepared by: Calvin, Giordano & Associates, Inc.

Subsidized Housing: Section 9J-5.010(1)(d) of the Florida Administrative Code requires local housing elements to provide an inventory of renter-occupied housing developments currently using federal, state, or local subsidies. Surfside has no such facilities.

Community Residential Facilities: Section 9J-5.010(1)(e) of the Florida Administrative Code requires local housing elements to provide an inventory of group homes licensed by the Florida Department of Children and Family Services. A "community residential home" means a dwelling unit licensed to serve residents who are clients of the Department of Elderly Affairs, the Agency for Persons with Disabilities, the Department of Juvenile Justice, or the Department of Children and Family Services. Surfside has no such facilities.

Mobile Homes: Section 9J-5.010(1)(f) of the Florida Administrative Code requires local housing elements to provide an inventory of existing mobile home parks licensed by the Florida Department of Children and Family Services. Although 12 mobile homes were inventoried in the 2000 Census, the Town has neither mobile home parks nor any more mobile homes.

Historically Significant Housing: Section 9J-5.010(1)(g) of the Florida Administrative Code requires local housing elements to provide an inventory of historically significant housing listed on the Florida Master Site File, National Register of Historic Places, or designated as historically significant by a local ordinance. According to the Florida Master Site File, there are three historically significant housing structures in Surfside: the Nichols West Apartments and Van Rel Apartments, both in the 9500 block of Collins Avenue, and a private residence on the 8800 block of Collins Avenue.

Farmworker Housing: There are no rural or farmworker households within the Town.

NEEDS ASSESSMENT

Population and Household Projections: Section 9J-5.010(2)(b) of the Florida Administrative Code requires that an affordable housing assessment be performed using methodology established by the Florida Department of Community Affairs.

While much of the information provided thus far in this Element is based on data provided by the Shimberg Center for Affordable Housing, the Town does not agree with the Center's population

projections which estimates Surfside will have 9,061 residents in 2030. The following population projections were primarily obtained from the Miami-Dade Department of Planning & Zoning and derived from Transportation Analysis Zones (TAZs). The Town will reach build-out in 2020 and the population will begin to flat-line at that time. Therefore, unlike the TAZ model, the Town forecasts its 2030 population to be unchanged from 2020. Using these population projects, the number of dwelling units and households can be estimated. Since the Town is virtually built-out and the land uses are not expected to change significantly, Surfside believes these County figures more accurately project the Town's future housing needs. Using this methodology, Surfside is expected to have ~~6,076~~5,680 residents by 2030, representing an ~~18~~10 percent growth rate over 23 years, or an average increase of ~~0.78~~0.44 percent per year. Table 3-12 summarizes the projected housing needs through 2030.

Table 3-12
Projections: Population, Households, and Dwelling Units, Surfside, 2007-2030

Year	Dwelling Units	Households	Population
2007	3,181	2,367	5,159
2010	3,255	2,422	5,280
2015	3,381	2,515	5,483
2020	3,502	2,606	5,680
2025	~~3,624~~3,502	~~2,696~~2,606	~~5,878~~5,680
2030	~~3,746~~3,502	~~2,787~~2,606	~~6,076~~5,680

Source: Population projections were obtained from the Miami-Dade Department of Planning & Zoning and derived from Transportation Analysis Zones (TAZs). Household and dwelling unit projections extrapolated by Calvin, Giordano & Associates, Inc.

With an estimated 521 additional residents projected by ~~2020~~2030, and using a household to dwelling unit ratio, it is estimated that 321 new dwelling units will be required by ~~2020~~ 2030 to accommodate the 239 additional households. This equates to ~~24.6~~14 new units per year. An inventory of vacant residential land uses determined there is room for approximately 335 additional dwelling units. Therefore, residential acreage required to accommodate projected needs for the short term ~~(5 year)~~ and long term ~~(10 year)~~ planning timeframes is sufficient. This new housing will be almost exclusively multi-family dwelling units. The private sector will continue to serve as the primary delivery vehicle for housing development in the short and long term planning timeframes. Redevelopment of existing properties is expected to address long range needs.

Although the Town is expected to have an adequate supply of existing and newly constructed residential units to meet future demand, some of the households will be faced with a cost burden. The following tables provide a more detailed needs assessment—by household size, tenure, and income—based on the methodology, data, and analysis developed by the University of Florida's Shimberg Center for Affordable Housing along with population projections obtained from Miami-Dade Department of Planning & Zoning.

Size of households: According to the 2000 Census, Surfside had an average of 2.18 persons per household. Using population projections provided by the Miami-Dade Department of Planning and Zoning, the number of Surfside households by size can be projected through 2030.

Table 3-13
Household Projections by Household Size

SIZE	2007	2010	2015	2020	2025	2030
1-2	1,137	1,164	1,208	1,252	~~1,295~~1,252	~~1,339~~1,252
3-4	841	860	893	926	~~957~~926	~~990~~926
5+	389	398	413	428	~~443~~428	~~458~~428

Source: Prepared by: Calvin, Giordano & Associates, Inc.

Affordable Housing Demand: Table 3-14 presents the very-low, low, and moderate income housing needs estimates and projections through 2030.

Table 3-14
Projected Housing Affordability by Income and Tenure, Surfside, 2007-2030

A. Owner-Occupied Households				
	Household Income as a Percentage of Area Median Income (AMI)			
	0-50% AMI	50.01-80% AMI	80.01-120% AMI	120.01+% AMI
Year	Very-Low	Low	Moderate	Above Moderate
2007	251	213	313	873
2010	252	216	318	898
2015	262	222	330	929
2020	267	230	341	959
2025	~~285~~267	~~242~~230	~~354~~341	~~988~~959
2030	~~302~~267	~~254~~230	~~367~~341	~~1,017~~959

B. Renter-Occupied Households				
Year	Very-Low	Low	Moderate	Above Moderate
2007	249	136	149	183
2010	255	139	154	190
2015	266	148	160	199
2020	277	152	169	209
2025	~~287~~277	~~156~~152	~~172~~169	~~212~~209
2030	~~297~~277	~~160~~152	~~175~~169	~~215~~209

Source: Calvin, Giordano & Associates, Inc.

The analysis suggests that ~~164~~ 77 of the additional ~~420~~ 237 households projected through 2030 will have an income less than 80 percent of the area median income. Of these low and very-low income households, ~~92~~ 33 (~~56~~ 43 percent) will be owner-occupied, while ~~72~~ 44 (~~44~~ 57 percent) will be renter-occupied. Overall, these projections point out the stability of income and population in the Town.

CONCLUSION

A major goal of the Town is to achieve a range of housing that accommodates both existing and future residents' affordable opportunities. The Town's demographics are shifting from an aging snowbird population to young families. Many of the newer residents are adding new additions and tearing down older homes to building new single family structures. Fortunately, many senior residents purchased their homes 20 to 30 years ago, when prices were much lower. While many seniors have held on to their homes and have not been negatively affected by the soaring real estate prices, many of the newcomers are in the high and upper high ranges of income, having less of a need for low and moderate income housing.

The Town has approximately three hotels and two blocks of commercial in its jurisdictional boundaries. This has limited the number of workers entering the Town and needing housing. Previously, there were a number of hotels, which would have generated the need for additional housing. These hotels have either been torn down to make way for new condominiums or they have been converted into condominiums. This has reduced the need for low and moderate income housing in the Town. Moreover, the large numbers of well maintained small single family units and older multi-family units have provided a variety of housing choices for this area.

Despite these realities, the Town recognizes the need for affordable housing in order to support economic development and sustainability of the region. The Town's geography—a barrier island bounded by the Atlantic Ocean on the east, Indian Creek and Biscayne Bay on the west—makes the provision of affordable housing even more of a challenge. Due to the area surroundings, it is contains unusually high property values. Compounding the situation, 47% of the Town is within the Coastal High Hazard Area and Rule 9J-5.010 (3) (c) (10) of the Florida Administrative Code does not permit jurisdictions to direct affordable housing into coastal high hazard areas.

The Harding Street and Collins Avenue corridors have several older multi-family dwelling units which provide some of the most affordable housing opportunities in Surfside. The Town has made efforts to maintain an affordable housing stock in these corridors through the completion of several roadway, and drainage. These infrastructure improvements, along with proactive code enforcement activities, have contributed to extending the lifespan of the neighborhood, providing for continuance of a quality area. The age and size of the units along Harding Street and Collins Avenue provide a decent amount of affordable housing in the Town and through Surfside's continuing improvement efforts, this area can maintain its affordable status.

Housing Element
Goals, Objectives and Policies

Goal: Provide decent, safe and sanitary housing in suitable locations at affordable costs to meet the needs of the Town's existing and future residents. [9J-5.010 (3) (a)]

Objective 1 – Development of new dwelling units: The Town of Surfside shall provide for adequate and affordable housing for existing and future residents, households with special housing needs, and very low, low, and moderate income households though the short term and long term planning timeframes.
~~The Town shall assist and encourage the private sector to provide 430 new dwelling units of various types, sizes and costs by the year 2000 to meet the housing needs of all existing and anticipated populations of the Town. Achievement of this objective shall be measured by the implementation of the following policies~~:

Policy 1.1 – The Town shall provide information and assistance to the private sector to maintain a housing production capacity sufficient to meet the identified demands.

Policy 1.2 – The Town Code shall ~~review ordinances, codes, regulations and permitting~~provide processes in an effort to provide more efficient mechanisms for reviewing proposed housing developments.

Policy 1.3 – The Town Code shall maintain~~, and improve where~~ appropriate ~~development code~~ regulations which enable Town officials to work with the private sector to renovate buildings as needed.

Objective 2 – Creation of affordable housing: In general, create affordable housing for all current and anticipated future residents. In particular, facilitate development of as much new affordable housing as the market economics and available subsidies can generate. This objective shall be made measurable by its implementing policies. [9J-5.010 (3) (b) 1]

Policy 2.1 – The Town manager or designee shall monitor the housing and related activities of the ~~Dade County Affordable Housing Task Force~~ Miami-Dade County Housing Within Reach Taskforce, Miami-Dade Housing Agency (MDHA), the South Florida Regional Planning Council and nearby local jurisdictions. The Town Manager shall inform the Town ~~Council~~ Commission of these activities and shall recommend, as appropriate, Town actions that could help encourage the provision of adequate sites for the distribution of very low income, low income and moderate income families in nearby communities with land values that can reasonably accommodate such housing. Among the actions that may be considered are specific agreements with other local governments concerning the provision of affordable housing as referenced in Rule 9J-5.010 (3) (c) (10). F.A.C. ~~[Scrivener's note: The referenced rule reads as follows: "The element shall contain one or more policies for each objective which address implementation activities for… [C]onfirming current arrangements with other local governments concerning affordable housing. It is not economically feasible to meet affordable housing needs within its jurisdiction because of unusually high property values within its jurisdiction or if meeting that demand within its jurisdiction would require the direction of populations toward coastal high hazard areas. A local government may satisfy this criterion by having entered into an interlocal agreement with a nearby local government...]~~ [9J-5.010 (3) (c) 1]

Policy 2.2 – The Town shall maintain and improve where appropriate land development code provisions which are consistent with the Future Land Use Map ~~(Figure 1),~~ including the land uses and the densities and intensities specified thereon and the descriptions of the requirements of those categories, which appear in this Future Land Use Element under the heading "Future Land Use Category Descriptions." The map and the descriptions are incorporated by reference into this Policy 1.1. ~~[Scriveners note: The Town has made a legislative judgment that the mix of residential uses contained thereon offers the best possibility for developing affordable housing in the Town of Surfside. Clearly articulating where housing is permitted and what density of housing is permitted is one of the best ways for a municipality to coordinate the private housing delivery process.]~~ [9J-5.010 (3) (c) 1]

Policy 2.3 – The Town shall periodically review: 1) its own development permitting procedures; 2) best current practice employed by other jurisdictions; and 3) best current practice reported in relevant professional literature. The purpose of the review shall be to determine if there are appropriate procedural and substantive changes which could facilitate more expeditious development application processing. [9J-5.010 (3) (c) 2]

Policy 2.4 – Manufactured housing shall not be prohibited in any area designated by this plan for residential use. Mobile homes shall not be permitted in the Town unless they meet the same standards as manufactured homes. [9J-5.010 (3) (b) 3 and 9J-5.010 (3) (c) 5]

Policy 2.5 – Housing for very low income, low income and moderate income households shall not be prohibited per se in any area designated by this plan for residential use. [9J-5.010 (3) (c) 5]

Objective 3 – Preservation of affordable housing: In general, preserve affordable housing for all current and anticipated future residents. In particular, preserve the existing housing stock in sound condition. This objective shall be made measurable by its implementing policies. [9J-5.010 (3) (b) 1]

Policy 3.1 – The Town shall maintain as part of its own land development code the County minimum housing standards code or an appropriate modification thereof. [9J-5.010 (3) (c) 3]

Policy 3.2 – The Town shall from time to time informally evaluate alternate strategies to guide enforcement of the County minimum housing standards code so as to achieve maximum effectiveness. It is recognized by this policy that systematic and ad hoc inspections might be most appropriate at different times and in different sub areas of the Town. [9J-5.010 (3) (c) 4]

Policy 3.3 – Through land development code ~~setback/bulk~~ regulations including minimum unit sizes, maximum building heights, and setback standards, the Town shall help assure the continuation of stable residential neighborhoods. [9J-5.010 (3) (c) 3]

Objective 4 – Eliminate substandard housing; structurally and aesthetically improve housing; conserve, rehabilitate and demolish housing: In general, eliminate substandard housing conditions [9J-5.010 (3) (b) 2], structurally and aesthetically improve housing [9J-5.010 (3) (b) 2], conserve, rehabilitate and demolish housing [9J-5.010 (3) (b) 5]. In particular~~: 1) initiate a program which encourages the renovation or razing of all substandard housing by the year 1998; and 2)~~, encourage private property owners to maintain and improve their properties so as to protect property values and ensure safe and sanitary housing. This objective shall be made measurable by its implementing policies and by the existence of no substandard housing units in the Town. [9J-5.010 (3) (b) 2 and 9J-5.010 (3) (b) 5]

Policy 4.1 – Require owners of substandard structures to promptly renovate or remove such structures~~; to this end, utilize the Dade County Minimum Housing Program where necessary~~.

Policy 4.2 – The Town shall assist owners of substandard historic housing to obtain financial assistance for renovation from Miami-Dade County, State of Florida or Federal sources.

Policy 4.3 – The Town shall work with Miami-Dade County officials to maintain an effective housing code enforcement program.

Policy 4.4 – ~~The~~ Following the 2010 Census, the Town's Building Department shall maintain an accurate inventory of the housing units within the Town~~; utilize~~ via the utility billing process ~~for this purpose~~.

~~Policy 4.5 – Policy 3.1 is herein incorporated by reference.~~

~~Policy 4.6 – Policy 3.3 is herein incorporated by reference.~~

Objective 5 – Provision of adequate sites for very low, low and moderate income households: In general, provide adequate sites for very low, low and moderate income households. In particular, facilitate development of as much new affordable housing as the market economics and available subsidies can generate. This objective shall be made measurable by its implementing policies. [9J-5.010 (3) (b) 3]

Policy 5.1 – Monitor the actions of the Miami-Dade County ~~Department of Housing and Urban~~Office of Community and Economic Development relative to the development of very low, low and moderate income housing facilities to serve County residents. The purpose of such monitoring shall be to identify activities to which the Town of Surfside may make a specific contribution.

Policy 5.2 – Assist the Miami-Dade County ~~Department of Housing and Urban~~Office of Community and Economic Development identify housing units which may be eligible for participation in the ~~Dade County Rent Subsidy Program~~ Miami-Dade Housing Finance Authority's Multi-Family Rental Program.

~~**Objective 6 – Adequate sites for manufactured homes:** Provide adequate sites for manufactured homes. This objective shall be made measurable by its implementing policies.[9J-5.010 (3) (b) 3]~~

~~Policy 6.1 – Manufactured housing shall be permitted in all areas designated by this plan for residential use.~~

Objective ~~7~~6 – Adequate sites for group homes: Accommodate ~~as many small group homes~~community residential homes and foster care facilities ~~as the market will support~~ in residential areas ~~and areas with residential character~~. This objective shall be made measurable by its implementing policies. [9J-5.010 (3) (b) 4]

Policy ~~7~~6.1 – Notify the Florida Department of ~~Health and Rehabilitative~~Children and Family Services of applications to construct ~~Adult Congregate Living Facilities~~Community Residential Facilities.

Policy ~~7~~6.2 – The Town shall maintain and improve land development code regulations which permit ~~HRS~~ Children and Family Services licensed group homes, including foster care facilities. Such regulations shall permit ~~small scale group homes~~community residential homes and foster care facilities in residential areas and areas with residential character and shall otherwise be designed to meet State law in general and Chapter 419, F.S., in particular. Prior to enactment of

such regulations, the Town shall interpret and enforce applicable existing regulations in a manner which is fully consistent with State law and administrative code requirements pertaining to group homes. [9J-5.010 (3) (c) 6]

Objective ~~8~~ 7 – Housing coordination and implementation: The Town Manager shall be responsible for achieving housing policy implementation. [9J-5.010 (3) (b) 7]

Policy ~~8~~7.1 – The Town shall maintain formal communications with appropriate public and private and non-profit housing agencies to assure that adequate information on Town housing policies flows to housing providers. This list shall include ~~Homes for South Florida~~the Miami-Dade Housing Agency, Housing Finance Authority of Miami-Dade County, the Miami-Dade Affordable Housing Foundation, the Board of Realtors and the Home Builders Association. [9J-5.010 (3) (c)]

Policy ~~8~~7.2 – The Town shall fully cooperate with any developer using County Surtax funds, the ~~County~~ Housing Finance ~~Agency~~ Authority of Miami-Dade County or other subsidy mechanisms. [9J-5.010 (3) (c) 7]

Objective 8 – Greenhouse Gas Reduction. The Town shall support energy efficiency and the use of renewable energy resources in existing housing and in the design and construction of new housing.

Policy 8.1 – The Town shall encourage support for residential construction that meets the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or other nationally recognized, high-performance green building rating system as recognized by the Florida Department of Management Services by December 2011.

Policy 8.2 – The Town shall educate Surfside residents on home energy reduction strategies.

Policy 8.3 – The Town shall not prohibit the appropriate placement of photovoltaic panels. The Town shall develop and adopt review criteria to establish the standards for the appropriate placement of photovoltaic panels.

Policy 8.4 – The Town shall provide educational materials on the strategic placement of landscape materials to reduce energy consumption.

~~**Objective 9 – Historically significant housing:** Identify and promote the preservation of at least one historically significant residential structure.~~

~~Policy 9.1 – Policies 6.1 through 6.3 of the Future Land Use Element are adopted herein by reference. [9J-5.010 (3) (c) 3]~~

~~**9J-5.010 Objective and policy requirements not applicable to Surfside:** Rule 9J-5 of the Florida Administrative Code requires communities to adopt as part of their Future Land Use Element objectives and policies which address various issues, except where those issues are not reasonably applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable:~~

~~9J-5.010 (3) (b) 1 provide adequate sites for mobile homes.~~

INFRASTRUCTURE ELEMENT

DATA INVENTORY AND ANALYSIS

POTABLE WATER

This section evaluates the potable water system serving the Town of Surfside. Potable water facilities are defined in Rule 9J-5.003, F.A.C. as "a system of structures designed to collect, treat, distribute potable water, water wells, treatment plants, reservoirs and distribution mains."

Miami Dade County Water and Sewer Department Geographic Service Area

The Town of Surfside's potable water is provided by a system operated by the Miami-Dade County Water and Sewer Department (MDWASD) which provides service for approximately two million customers in Miami-Dade County. The MDWASD water service area illustrated in Figure 2-1 (Appendix B-Miami-Dade County Water Supply Facilities Plan) is interconnected and functions as a single service area. The Town of Surfside is serviced by the Hialeah-Preston Water Treatment Plant service area which includes the northern part of Miami-Dade County.

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

Water Source

The Hialeah-Preston Water Treatment Plant (WTP) located at 200 W. 2nd Avenue and 1100 W. 2nd Avenue; both plants are interconnected with adjacent facilities with a main source of water from the Biscayne Aquifer. The WTP's are currently being modified and will receive ground water from five Upper Floridan Aquifer wells by 2010. The wells will be located in Miami Springs Wellfield and the Northwest Wellfield according to MDWASD.

Water Treatment Plant (WTP)

The Hialeah and Preston Plants are currently fed by forty five wells, including the Northwest Wellfield and the Hialeah/Preston on-site wells. The quantity of water available to serve MDWASD's North District, as reflected in permitted withdrawal allocations, provides more than adequate capacity.

The Hialeah WTP was originally designed in 1924 with a total capacity of 10 mgd. By 1935, the plant's capacity was 40 mgd. In 1946, capacity was increased to 60 mgd. There are plans to re-rate and upgrade the Hialeah WTP to a capacity of 70 mgd, if necessary. The source of water for the Hialeah WTP comes from the Hialeah-Miami Springs Wellfields, supplemented by the Northwest Wellfield. The Hialeah WTP has a current rated capacity of 60 mgd.

The John E. Preston Water Treatment Plant was originally designed as a 60 mgd plant in 1968 and upgraded to 110 mgd in 1980. The plant was rerated to a total capacity of 130 mgd in 1984. The plant reached its present capacity of 165 mgd and 185mgd in 2005 with the addition of air stripping capacity. The main source of water for the Preston WTP is from the Northwest wellfield.

Potable Water Level of Service

In order to maintain level of service town-wide, a water maintenance program will be implemented in 2010. Currently, construction documents are being prepared for a Town-wide replacement of the water mains, meters, and fire hydrants. The program will evaluate the existing infrastructure and replace pipes in poor condition and in need repairs.

The Town of Surfside currently coordinates with MDWASD and the South Florida Water Management District to meet existing and projected demands based on level of service (LOS). Town's projected water demands shown in Table 4-1 were developed by incorporating the County's average per capita value of 155 gpcd.

Table 4-1
Water Supply Level of Service

PROJECTED WATER SUPPLY			
Year	**2010**	**2015**	**2030**
Population	5,280	5,483	~~6,076~~5,680
Proposed Per Capita (gallons per day finished water)	155	155	155
(all potable volumes are finished water)	MGD	MGD	MGD
Potable Water Demand (daily average)	0.82	0.850	~~0.94~~0.88

Source: Calvin, Giordano & Associates, Inc., ~~2008~~2009.

The 155 gallons capita per day (gpcd) value is a MDWASD system wide finished water rate which was calculated from taking historical data. In 2007 the actual gpcd value for the Town of Surfside was 206 gpcd. The Town of Surfside is aware of this high gpcd value, and is currently working with MDWASD to implement water efficiency plans, public education, and BMPs to reduce the Town of Surfside's gpcd value. In addition, the planned replacement of the leaking water valves, mains, fire hydrants, meters and service laterals will reduce the total water consumption.

Table 5-2 in the Miami-Dade County Water Supply Facilities Plan indicates that there will be no deficit of finished water through 2030. Therefore, level of service will be met for Surfside in the short term and long term planning periods.

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

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

B. Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi.

C. Water quality shall meet all federal, state, and county primary standards for potable water.

D. MDWASD storage capacity for finished water shall equal no less than 15 percent of the average daily demand.

E. The level of service (LOS) standard for potable water facilities shall be 155 gallons per capita per day.

Storage Capacity
The finished water storage facilities for the Hialeah-Preston subarea consist of both "in-plant" and remote storage facilities. The total combined storage capacity between both plants is 28.28 MG. Addition information on MDWASD's capacity improvements can be found in Appendix B (Miami-Dade 20-Year Water Supply Facilities Work Plan).

Water Supply Facilities Work Plan
The purpose of the Town of Surfside 20-Year Water Supply Facilities Work Plan (Work Plan) is to identify and plan for the water supply sources, as well as facilities needed to serve the existing and new development within the local government's jurisdiction. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their Comprehensive Plans within 18 months after the water management district approves a regional water supply plan. Surfside adopted their Work Plan in December 2008. The Work Plan is developed to coordinate with MDWASD's 20-Year Water Supply Work Plan.

On a regional level, the Town falls within the South Florida Water Management District (SFWMD) and within the SFWMD's Lower East Coast (LEC) Planning Area. The *2005-2006 Lower East Coast Water Supply Plan Update* (2005-2006 LEC Plan Update), approved by the SFWMD on February 15, 2007, is one of four, long-term comprehensive regional water supply plan updates the District has developed for its planning areas. The planning horizon for the 2005-2006 LEC Plan Update is 2025.

SANITARY SEWER

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

Geographic Service Area
The Town of Surfside's sanitary sewer system is part of a system run by MDWASD. The Town's system is coextensive with the Town's boundaries. The County system includes unincorporated and incorporated areas of Miami-Dade County inside the 2005 Urban Development Boundary that have an agreement with MDWASD. The system also incorporates a small number of facilities, mostly State or County owned, outside of the Urban Development Boundary.

Treatment Facilities and Capacity
There has been a significant reduction in average flow into the regional system as a result of extensive infiltration and inflow (groundwater and rainwater) prevention projects conducted by MDWASD in recent years. Infiltration and inflow within the sewer system should be kept at a minimum to avoid hydraulic overload to the receiving treatment plant. It is pertinent for an operation and maintenance plan to be part of the county's sanitary sewer system. As a result, the

regional wastewater treatment plants operating capacity can remain in compliance with Miami-Dade County MDWASD and Florida Department of Environmental Protection (FDEP) standards.

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however, as noted in the MDWASD's 2007 Water Supply Facilities Work Plan, MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system.

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

Current Facility Demand

According to the MDWASD 2006 Comprehensive Annual Financial Report, approximately 689 million gallons of wastewater were treated by the County system from the Town of Surfside and 814 million in 2007.

In FY08, the Town began mapping all sewer and potable water lines within the municipal boundary to enhance maintenance. Also in ~~FY08~~FY09, the Town identified infiltration issues to the sanitary sewer system and has begun a program to seal manholes and smoke/video testing to identify and repair broken lines. In FY09, existing pump stations were rehabilitated in order to ensure levels of service standards are maintained. Table 4-2A shows projected sewage flow demand for the Town of Surfside and Table 4-2B show current and projected waste water capacity for the entire county.

Table 4-2A
Projected Sewage Flows

PROJECTED SEWAGE FLOWS Year	2010	2015	2030
Population	5,280	5,483	~~6,076~~5,680
Per Capita (gallons per day finished sewage)	155	155	155
(all potable volumes are finished sewage)	**MGD**	**MGD**	**MGD**
Sewage Total Flow (daily average annual)	0.82	0.85	~~0.94~~0.88

Source: Calvin, Giordano & Associates, Inc. ~~2008~~2009

The County's LOS standard requires that the "system" component of the wastewater facility operate below 102 percent of the previous year's average daily flow. A comparison of the projected treatment capacity to the 102 percent of the previous year's average annual daily flow (AADF) requirement, from 2005 to 2020, is presented below. According to the County's data, the capacity of the MDWASD sanitary sewer system will continue to remain below the 102

percent requirement through 2020. The below table confirms the availability of the sanitary sewer system to meet the needs of Surfside in the short term and long term planning period.

Table 4-2B
Miami-Dade County Current Wastewater System Capacity 2005-2020

County WWTP Capacities		Actual County Flow (mgd)	Projected County Flows (mgd)		
	Plant Capacity (mgd)	**2005**	**2010**	**2015**	**2020**
North	112.5	84.3	83.8	88.5	92.3
Central	143.0	135.3	132.5	139.6	146.4
South	112.5	75.1	76.5	82.6	87.4
Total	368.0	294.7	292.8	310.7	326.0

Source: Miami Dade Water and Sewer Department, 2009

DRAINAGE

Surfside's existing storm drainage system consists of a network of underground storm sewers that collect and direct the stormwater to Indian Creek and Biscayne Bay. A pumping station at the western end of 92nd Street assists the drainage of water from that street by pumping to an outfall. Storm sewers in the system range in diameter from 10 inches to 36 inches.

The Florida Department of Transportation (FDOT) provided storm drainage improvements on Harding and Collins Avenue in the early 1990's. Equipment which currently serves the 92nd Street pump station were replaced by FDOT and maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations. The water level of Biscayne Bay is higher than normal during storm periods and high tide, creating a back up in the outfall pipes. The Harding and Collins storm drainage improvements utilize on-site wells and control structures to provide additional capacity.

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

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

The project addresses long-term concerns regarding water backing into the streets and poor water quality in the adjacent Biscayne Bay along the Town's shores. The project directly addresses The Trust for Public Land's Biscayne Bay Accessibility report, supports the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhances level of service.

SOLID WASTE

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Each year Surfside deposits approximately 6,048 tons of waste material at the County's facility. Based on an estimated 2007 population of 5,159 a volume of just 6 pounds per person per day was calculated. Since 2007, the Town is recycling over 500 tons per year. An increase involvement of private firms in the development of solid waste disposal facilities led to an oversupply of disposal capacity and a reduction in disposal fees. As a result, existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate to meet Surfside's needs for the foreseeable future.

Table 4-3
Miami-Dade County Solid Waste Facility Capacity

Data Item / Landfill ID	South Dade Landfill	North Dade Landfill	Resources Recovery Ashfill	Total
Acreage Data:				
FDEP Landfill Type	Class I (Garbage)	Class III (Trash)	Class I (Ash)	N/A
Total Area (Acre)	300	218	80	598
Disposal Area (Acre)	180	180	66	426
Stormwater Management Area + Offices (Acre)	120	38	14	172
Formally Closed Area (Acre)	45	96	26	167
Cell filled in & Closure in progress (Acre)	45	0	20	65
Active Area (Acre)	45	84	10	139
Future Area (Acre)	45	0	10	55
Landfill peak elevation at closure (Feet)	150	138	125	N/A
Landfill average Bottom elevation (Feet)	10	12	10	N/A
Landfill Maximum Depth (+/-Feet)	140	126	115	N/A
Capacity Information				
Tons In Place (June 30, 2006)	13,799,000	10,328,000	4,077,000	28,204,000
Built out capacity in tons	21,184,000	12,581,000	6,582,000	40,347,000
Remaining Capacity in tons	7,385,000	2,253,000	2,505,000	12,143,000
Last year's disposal tonnage (7/1/05-6/30/06)	1,042,000	641,000	159,000	1,842,000
Estimated average disposal rate per year	550,000	360,000	155,000	1,065,000
Years of remaining life at Inormal disposal rate	13	6	16	N/A

Source: Miami-Dade County, 2009

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

NATURAL GROUNDWATER AQUIFER RECHARGE

The principal ground water resources for the Lower East Coast (LEC) Planning Area are the Surficial Aquifer System (SAS), including the Biscayne Aquifer, and the Floridan Aquifer System (FAS). The Surficial and Biscayne aquifers provide most of the fresh water for public water supply and agriculture within the LEC Planning Area. The 2005-2006 LEC Plan Update identifies the following:

Although the Biscayne Aquifer is part of the Surficial Aquifer System (SAS), it exists only along the coastal areas in Miami-Dade, Broward and southern Palm Beach counties. The Biscayne

Aquifer is highly productive with high-quality fresh water. The extension of the SAS through central and northern Palm Beach County is less productive, but is still used for consumptive uses, including potable water. These aquifers are shallow, generally located within 200 feet of ground surface, and are connected to surface water systems, including canals, lakes and wetlands.

The Biscayne Aquifer and the extension of the SAS into northern Palm Beach County provide more than 1 billion gallons per day of high-quality, inexpensive fresh water for the populations of Palm Beach, Broward and Miami-Dade counties and the Florida Keys portion of Monroe County. This volume is heavily supported, especially during the annual dry season, as well as in periodic droughts, by water from the regional system, primarily the Everglades. During droughts, water from Lake Okeechobee has been required to supplement water from the Everglades to meet the needs of the coastal counties.

The Biscayne Aquifer is designated as a sole source aquifer by the U.S. Environmental Protection Agency (USEPA) under the *Safe Drinking Water Act* because it is a principal source of drinking water and is highly susceptible to contamination due to its high permeability and proximity to land surface in many locations. Protection of the Biscayne Aquifer is provided for through the District's *Basis of Review for Water Use Permit Applications* (SFWMD 2003) and in Chapter 373, Florida Statutes (F.S.), which limit the water availability for consumptive uses.

The Floridan Aquifer System (FAS) exists not just in the LEC Planning Area, but throughout the entire state and portions of adjacent states. The Upper Floridan Aquifer in southeast Florida contains brackish water, and is increasingly being tapped as a source of raw water for treatment with reverse osmosis (RO) to create potable water. Brackish water from the Floridan Aquifer is also blended with fresh water prior to conventional water treatment to expand water supplies during the dry season. Additionally, the Floridan Aquifer is used for seasonal storage of treated fresh water within aquifer storage and recovery (ASR) systems. The Floridan Aquifer has been more extensively developed in the Upper East Coast (UEC) and Lower West Coast (LWC) planning areas of the South Florida Water Management District (SFWMD or District) than in the LEC Planning Area.

From Jupiter to southern Miami, water from the FAS is highly mineralized and not suitable for drinking water without specialized treatment. More than 600 feet of low permeability sediments confine this aquifer and create artesian conditions in the LEC Planning Area. Although the potentiometric surface of the aquifer is above land surface, the low permeability units of the intermediate confining unit prevent significant upward migration of saline waters into the shallower freshwater aquifers.

The top of the Upper Floridan Aquifer is approximately 900 feet in southeast Florida, and the base of the Upper Floridan extends as deep as 1,500 feet. At the base of the Lower Floridan Aquifer, there are cavernous zones with extremely high transmissivities collectively known as the boulder zone. Because of their depth and high salinity, these deeper zones of the Lower Floridan Aquifer are used primarily for disposal of treated wastewater.

The Miami-Dade Water Supply Facilities Work Plan outlines a number of strategies to recharge aquifers with reclaimed water.

Wellfield Protection Areas

There are no wellfield protection areas within the Town of Surfside.

Infrastructure Element
Goals, Objectives and Policies

Goal 1: Public utilities capacity shall be provided to adequately serve residents, visitors and business people.

Objective 1 – Correct deficiencies and increase capacity of potable water and sanitary sewer facilities: In general, correct potable water and sanitary sewer system deficiencies and increase potable water and sanitary sewer system capacity in the most cost effective manner possible. This objective shall be made measurable by its implementing policies. ~~[Scriveners note: There is no existing potable water or sanitary sewer level of service deficiency. The objective and its implementing policies will enhance the efficiency of the system and prevent deficiencies from arising at some point in the future.]~~ [9J-5.011 (3) (b) 1,2 and 3]

Policy 1.1 – The Town shall continue use of Miami-Dade County Water and Sewer Authority facilities at the Central District Wastewater Treatment Plant on Virginia Key and the Hialeah/Preston Water Treatment Plant or such other Miami-Dade County facilities as may be appropriate.

Policy 1.2 – The Town shall upgrade the potable water distribution system and the sanitary sewer collection system through ongoing maintenance. [9J-5.011 (3) (c) 1

Policy 1.3 – The Town shall continue to follow the Sanitary Sewer Evaluation Study (SSES) protocols for Phases I, II, and III, including the testing and implementation of improvements/repairs of the collection system.

Policy 1.4 – Projects and programs shall be funded to maintain adequate levels of service.

~~Policy 1.3 The Town shall undertake an engineering study to determine when it will be necessary to upgrade the existing eight inch line in Collins Avenue to a thirty inch line; it is not anticipated that this change will be needed in the near future. [9J-5.011 (3) (c) 1]~~

~~Policy 1.4 The Town shall monitor the condition of cast iron water lines in order to determine when an engineering study of replacement options is necessary; it is anticipated that such a study and an ensuing replacement program may be needed in as little as one year or not for more than 20 years. [9J-5.011 (3) (c) 1]~~

Policy 1.5 – The Town shall maintain a minimum of a five-year schedule of capital improvements for the expansion and upgrade in the capacity of water and sanitary sewage facilities in accordance with the Water Supply Facilities Work Plan.

Policy 1.6 – The Town shall ~~adopt and~~ maintain ~~a~~ the Surfside 20-Year Water Supply Facilities Work Plan, dated November 26, 2008, and shall ensure coordination between land uses and future water supply planning within 18 months of the adoption of the Lower East Coast Water Supply Plan, or its update, as required by Chapter 163, Florida Statute.

Policy 1.7 – The Town of Surfside 20-Year Water Supply Facilities Work Plan is adopted by reference into the Comprehensive Plan. The Work Plan will be updated, at a minimum every five years, concurrent with the update of the Miami-Dade County 20-Year Water Supply Facilities Work Plan.

Policy 1.8 – The Town of Surfside 20-Year Water Supply Facilities Work Plan shall be consistent with the Potable Water Level of Service standards as established in the Comprehensive Plan.

Policy 1.9 – The Town's 20-Year Water Supply Facilities Work Plan shall guide future expansion and upgrade of facilities needed to transmit and distribute potable water to meet current and future demands. The Town shall research and identify alternative, renewable sources of water to the projected increases in demand.

Policy 1.10 – The Town shall provide for the protection of water quality when using traditional and new alternative water supply sources.

Policy 1.11 – The Town shall identify traditional and alternative water supply projects and the conservation and reuse programs to meet current and future water use demands within the Town's jurisdiction consistent with the Miami-Dade County 20-Year Water Supply Facilities Work Plan and the South Florida Water Management District's Water Supply Plan.

Policy 1.12 – The Town shall issue no development order unless the Miami-Dade Water and Sewer Department (~~WASD~~MDWASD) certifies that adequate potable water supply is available for new development. The Town shall provide monthly reports to ~~WASD~~MDWASD, as required, to track the amount of water to be allocated for new uses.

Objective 2 – Correct deficiencies and increase capacity of drainage facilities: Optimize the utilization of water resources through the provision of stormwater management for the Town which reduces damage and inconvenience from flooding, promotes aquifer recharge, and minimizes degradation of water quality in surface water bodies.

~~In general, correct existing drainage facility deficiencies and increase drainage facility capacity. In particular, ensure that stormwater systems which discharge into surface water bodies do not degrade the ambient water quality. This will be accomplished by upgrading the drainage system so that storm water outfalls into Biscayne Bay (and adjacent canals) fully meet National Pollution Discharge Elimination System (NPDES) standards (as applicable to the Town under relevant interlocal agreements with Dade County and NPDES rules) no later than December 31, 1998 and the standards of Chapter 17-25, FAC and of Chapter 17-302.500, FAC. Upgrade on-site drainage standards to ensure that private properties retain at least the first one inch of stormwater on site and permit no more runoff after development than before development. [Scriveners note: The "in particular" portion of this objective is the same as the "in particular" portion of Land Use Element Objective 5. Rule 9J5.011 (3) (c) 5 states that stormwater "...standards need not be the same for all systems. Local governments shall consider Chapter 17-40, F.A.C. in formulating water quality standards and may adopt by reference Chapter 17-25, F.A.C., as standards for water quality." It also states that local governments are not required to retrofit to meet existing standards and provides other restrictions on the burden which can be imposed on local governments under the rule.] [9J5.011 (3) (b) 1, 2 and 3]~~

~~Policy 2.1 Policies 5.1 through 5.10 of the Land Use Element are incorporated herein by reference. [9J-5.011 (3) (c) 4 and 5]~~

Policy 2.1 – For site plan approval, the Town shall require that surface water management systems be designed and operated consistent with the Town's adopted drainage level of service.

Policy 2.2 – Financially feasible projects and programs shall be implemented in order to maintain adequate level of service standards, and to make preventative improvements to the system.

Policy 2.3 – The Town shall implement the stormwater improvement projects specified in the State of Florida Department of Environmental Protection (DEP) Agreement No. LP6768.

Policy 2.4 – The Town shall construct the Stormwater Treatment Trains and Rehabilitation projects specified in the State of Florida Department of Environmental Protection (DEP) Agreement No. S0374.

Policy 2.5 – The Town shall adhere to the National Pollution Discharge Elimination System-Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Policy 2.6 – The Town shall use Best Management Practices (BMPs) in accordance with its regulations and those of the South Florida Water Management District (SFWMD) and DERM.

Policy 2.7 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection and enhancement of the Biscayne Bay Aquatic Preserve.

Objective 3: Maintain sufficient solid waste capacity. The Town shall support Miami-Dade County in its provision of solid waste management facilities available to meet the Town's short-term and long-term future needs.

Policy 3.1 – The Town shall require in the land development regulations that applicants for development permits demonstrate adequacy of solid waste disposal sites or facilities prior to occupancy.

Policy 3.2 – The Town shall cooperate with Miami-Dade County to further preserve landfill space, examine the need for a comprehensive countywide yard waste program and establish clear policies regarding the construction and debris waste stream.

~~**Objective 3 – Correct deficiencies and increase capacity of solid waste facilities:** In general, correct existing solid waste system deficiencies and increase solid waste system capacity. In particular, achieve the most cost effective solid waste collection system by the year 2005. [Scriveners note: There is no existing solid waste level of service deficiency. The objective and its implementing policies could enhance the efficiency of the system and prevent deficiencies from arising at some point in the future.] [9J-5.011 (2) (b) 1, 2 and 3]~~

~~Policy 3.1 – No later than the year 2000, the Town shall carefully study the Town's solid waste collection and processing system options to determine the most cost effective method for collecting and disposing of solid waste. [9J-5.011 (2) (c) 1]~~

~~Policy 3.2 – No later than the year 2005, the Town shall implement the most cost effective system as determined pursuant to Policy 3.1. [9J-5.011 (2) (c) 1]~~

Objective 4 – Level of service: Achieve adequate facility capacity to serve new development concurrent with the impact of that development. Achievement of this objective shall be measured by the implementation of the following policies:

Policy 4.1 – The Town will enforce the following level of service standards:

Sanitary Sewers: The County-wide "maximum day flow" of the preceding year shall not exceed ~~98~~ 102 percent of the County treatment system's rated capacity. The sewage generation standard shall be ~~140~~ 155 average gallons per capita per day. [9J-5.011 (2) (c) 2a]

Potable Water: The County-wide "maximum day flow" of the preceding year shall not exceed 98 percent of the County treatment and storage system's rated capacity. The

pressure shall be at least 20 pounds per square inch at the property line. The potable water consumption standard shall be 155 average gallons per capita per day. [9J-5.011 (2) (c) 2d]

Drainage: All nonresidential development and redevelopment shall adequately accommodate runoff to meet all Federal, state and local requirements. Stormwater shall be treated in accordance with the provisions of Chapter 17-25, FAC in order to meet receiving water standards in Chapter 17-302.500, FAC. One inch of runoff shall be retained on site. Post-development runoff shall not exceed peak pre development runoff. [9J-5.011 (2) (c) 2c]

Solid Waste: The County solid waste disposal system shall maintain a minimum of five years capacity. For Town planning purposes, a generation rate of 5.2 pounds per person per calendar day shall be used. [9J-5.011 (2) (c) 2b]

Objective 5 – Water conservation: Conserve and protect potable water resources by optimizing the utilization of water resources through effective water management practices. ~~Reduce the average daily per capita water consumption by five percent no later than 2005 (dependent upon the near term ability to measure Townwide consumption).~~ [9J-5.011 (2) (b) 4]

Policy 5.1 – The Town shall maintain and improve land development code and other regulations that include: 1) water conservation-based irrigation requirements; 2) water conservation-based plant species requirements derived from the South Florida Water Management District's list of native species and other appropriate sources; 3) lawn watering restrictions; 4) mandatory use of ultra-low volume water saving devices for substantial rehabilitation and new construction; and 5) other water conservation measures, as feasible. [9J-5.011 (2) (c) 3]

Policy 5.2 – The Town shall promote education programs for residential, commercial and other uses which will discourage waste and conserve potable water. [9J-5.011 (2) (c) 3]

~~Policy 5.3 – The Town will cooperate with WASA in an effort to devise a means of tracking water consumption in the Town from customer billings or other sources.~~

~~Policy 5.4 – The Town shall cooperate with WASA efforts to ensure that the potable water distribution system shall reduce water loss to less than 16 percent of the water entering the system.[9J-5.011 (2) (c) 3]~~

9J-5.011 Objective and policy requirements not applicable to the Town of Surfside: Rule 9J-5 of the Florida Administrative Code requires communities to adopt as part of their Infrastructure Element objectives and policies which address various issues, except where those issues are not reasonably applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable to Surfside:

9J5.011 (3) (b) 3 Addressing [maximizing the use of existing facilities] and minimizing urban sprawl.

9J5.011 (3) (b) 5 Addressing the function of natural groundwater recharge areas and natural drainage features.

COASTAL MANAGEMENT ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Coastal Management Element is to protect human life and to limit public expenditures in areas that are subject to destruction by natural disaster. It is also to plan for, and where appropriate, restrict development activities where such activities would damage or destroy coastal resources.

COASTAL PLANNING AREA

Surfside is an Atlantic Ocean coastal community located on a barrier island along the southeast coast of the Florida peninsula in Miami-Dade County. The barrier island the Town is located on is separated from the mainland by the north end of the Biscayne Bay estuary. The Hurricane Storm Surge Evacuation Map prepared by the Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as hurricane vulnerable, and classified the entire barrier island as a Zone A evacuation area. Therefore, the entirety of the Town is recognized as the Coastal Planning Area (CPA).

LAND USE IN THE COASTAL PLANNING AREA

The existing land uses in the Town are identified on *Map FLU 1 Existing Land Use*. The Future Land Uses within the Town are identified on *Map FLU 7 Future Land Use*. The Future Land Use Element inventories and provides greater detail on these uses. The Town has no identified blighted areas in need of redevelopment, and has no Community Redevelopment Agency.

NATURAL RESOURCES IN THE COASTAL AREA

The natural conditions of this barrier island have been highly altered. The Town is nearly built out with only a few vacant lots. The entirety of the Town's Bayside shoreline, inclusive of Indian Creek and Point Lake, has been significantly altered and is bulkheaded, and the adjacent nearshore waters have been dredged.

The one mile length of beach and dune along the Town's ocean frontage is created from a beach renourishment program. The restoration of the federally-authorized Dade County Shore Protection Project, which included the Town of Surfside, began in 1978 and was completed in January 1982 using sand from offshore borrow sites. The project included restoration of a 20 foot wide dune at elevation +10.7 ft NGVD and a 50 foot wide level berm at elevation +8.2 ft NGVD. Additional fill material, equivalent to ten years of advance nourishment, was placed seaward of the design berm. At the time of the compilation of this data in November 2008, there is still approximately 38 acres of beach area seaward of the erosion control line within the Town. This beach area is maintained in a natural state and the vegetated dune serves as nesting habitat to marine turtles.

ACCESS FACILITIES

The entirety of the Town's one mile length of oceanfront beach is under the ownership of the State and is open to the public for recreational use. The erosion control line, which runs approximately along the crest of the dune, defines the limits of private property and the beginning of the state owned beach. The state owned beach is comprised of approximately 38 acres. Ample access to this public beach is provided via

the platted public right of ways for 88th, 90th and 92nd Streets and 94th through 96th Streets; the eastern ends of which terminate at the State-owned beach. Beach access is also provided from the Town's beach front Community Center site located at 93rd Street. The beach and dune system is maintained by the Miami-Dade County Park and Recreation Department in a natural condition. There are no piers, marinas or structures other than a lifeguard station along the beach.

The Town has established an ocean bulkhead line that applies to the private beach front properties east of Collins Avenue. The zoning code prohibits development or any redevelopment seaward of the bulkhead line. Seaward of this bulkhead line there are approximately 19 acres that are undeveloped that lie adjacent to the State owned beach. Within this undeveloped ocean bulkhead setback area, along the landward side of the dune, there is an unimproved maintenance path that is utilized by the State, the County and the Town that runs the entire length of the Town. This maintenance path is, and has historically been, a popular public walking and biking path. The landward side of the dune in this area is more sparsely vegetated than the seaward side, and the property owners have landscaped the area nearest the bulkhead on many of the properties.

To limit impacts to the dune and dune vegetation, seventeen (17) dune cross-over locations have been established and are maintained by the Town. Eight of these cross-overs correspond to the termination of the platted public right-of-ways and one is in front of the Town Community Center site. Although the remaining cross-overs are located in front of private properties, the established maintenance path provides access to these cross-overs also.

The entire shoreline along Biscayne Bay, which includes Point Lake and Indian Creek, is bulkheaded. There are approximately 1.5 miles of shoreline along the barrier island portion of the Town and approximately 0.7 miles of shoreline around the Biscaya Island neighborhood. The western ends of the platted public right of ways for 90th and 92nd through 95th Streets terminate at the Indian Creek bulkhead; the southern ends of the platted right of ways for Froude and Carlyle Avenues terminate at the Biscayne Bay bulkhead, and the platted right of ways of Biscaya Drive, Bay Drive and the west end of 89th Street each terminate at the Point Lake bulkhead. At this time there are no docks, platforms or specific improvements to facilitate water accessibility; however, the Town intends to retain these platted right of ways as public access.

There is a Town park located along Indian Creek at the corner of 96th Street and Bay Drive. The Town is in the process of obtaining grants to purchase a residential property immediately south of the 96th Street Park. The long range plans for this property have not yet been determined.

ESTUARINE POLLUTION CONDITIONS

Biscayne Bay, a sub-tropical estuary, is located along the coast of Miami-Dade and northeastern Monroe Counties; it is a marine ecosystem comprised of about 428 square miles with a watershed area of about 938 square miles. The bay can generally be divided into the north, central and south Biscayne Bay areas. North Biscayne Bay extends from Dumfoundling Bay (approximately NE 192nd Street) south to the Rickenbacker Causeway. The Town of Surfside is located along the north portion of Biscayne Bay. The bayou, referred to as Indian Creek, that separates the Town from Bay Harbor Islands and the Island of Indian Creek Village, and the dredged channels and water body referred to as Point Lake that separates Biscaya Island from the remainder of the Town are considered parts of Biscayne Bay. The northern portion of Biscayne Bay retains the most estuarine habitat that can be found throughout the bay, but it is also the most altered by dredging and bulkheading. Although remaining shallow areas contain some productive seagrass beds, roughly 40 percent of the northern bay area is too deep or too turbid to support a productive estuarine ecosystem. The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point Lake is bulkheaded and the near shore waters have been significantly altered through dredging. The mainland and barrier island of the north Biscayne Bay area are highly urbanized.

The Atlantic Intracoastal Waterway (ICW) runs through Biscayne Bay in a north south direction. The ICW is managed and maintained by the Florida Inland Navigation District (FIND), which is a special state taxing district. The increased vessel traffic and maintenance dredging, which has created spoil islands that run along the edge of the ICW, also contribute to the impacts to the estuary.

The Town has developed and adopted a Stormwater Management Master Plan (SMMP). The SMMP identifies 9 separate basins within the Town and proposed improvements for each basin. The Town's drainage includes thirteen outfalls into the bay; eleven are Town maintained and two are Florida Department of Transportation (FDOT) outfalls. Under Financial Project Number 249561-2-52-01, FDOT is currently undertaking improvements to retrofit their existing pump stations and injection wells whereby only during emergency bypass situations will discharges to the bay occur from the FDOT outfalls, which are located at 94th Street and at Carlyle Avenue. This FDOT drainage system, which addresses the drainage from the area along Collins Avenue and east of Harding Avenue, is identified as Basin 9 in the SMMP. The SMMP indicates that at present, runoff from the other 8 basins flows untreated to the remaining outfalls and into the bay.

With assistance from grant monies under FDEP Agreements S0374 and LP6787, the Town is currently retrofitting three outfall locations to install stormwater pump stations and injection wells to re-direct run-off into the groundwater, for water quality. Nutrient separating baffle boxes will be installed upstream of the pump stations to provide treatment before the runoff enters the groundwater. These improvements will occur at the ends of 95th Street (Basin 1), Carlyle Avenue (Basin 6) and Surfside Boulevard (Basin 4). The SMMP identifies how basins 1 through 6 and 8 will interconnect for better quality control and hydraulic performance.

Surveying the Town for elevations and Street alignments has been completed and an inventory of all the components of the stormwater drainage system has also been completed. The Town recently sealed all manhole covers and is in the process of repairing or replacing the sanitary sewer lines, where necessary, to decrease transmigration of e-coli and other contaminates to Biscayne Bay. The sewer rehab project improvements will be completed by December of 2010.

HISTORIC RESOURCES

The Bureau of Archaeological Research within the Florida Office of Cultural and Historic Preservation maintains the Florida Master Site File (MSF); a database that contains information on archaeological and historic resources in Florida. The state MSF also contains those sites listed on the National Register. *Map CON 2 Historic Sites,* identifies and locates the historic resources contained on the MSF. There are six (6) listed sites within the Town; a prehistoric mound, a prehistoric midden, and four (4) structures. The Indian Creek Bridge, adjacent to the Town, is also listed on the MSF.

The Town regulates the type of earth disturbing activities that may occur in the location of the midden and mound. The four structures listed on the MSF are all located along Collins Avenue and include the Surf Club lodge constructed circa 1930, a private residence also constructed circa 1930, and the Van Rel and Nichols apartment buildings constructed in 1947. The historic status of these structures should be considered when reviewing any applications for modifications or redevelopment of these structures.

INFRASTRUCTURE IN THE COASTAL AREA

The Town has an atlas with a complete inventory of the water distribution system and the sanitary sewer collection system in the Town. The Town recently completed an inventory of all signage and traffic control devices in the Town, as well as an inventory of all the components of the stormwater drainage

system. Surveying the Town for elevations and street alignments has also recently been completed. The Town has current data on the infrastructure, which is addressed in greater detail in the Infrastructure Element of this plan.

COASTAL HIGH HAZARD AREA

Pursuant to Chapter 163.3178(2)(h)F.S. the "Coastal High Hazard Areas" (also referred to as "high-hazard coastal areas") means the area below the elevation of the category 1 storm surge line as established by a Sea, Lakes, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. Map CST 1 Storm Tides shows the tide during a Category 1 storm from the US Army Corps of Engineers Hurricane Storm Tide Atlas printed in 2001. ~~*Map CST 1 Coastal High Hazard Areas,* identifies the Coastal High Hazard Area (CHHA) within the Town.~~

INFRASTRUCTURE IN THE COASTAL HIGH HAZARD AREA

The current SLOSH model indicates a significant portion of the western side of the Town falls within the CHHA. This area falls along Indian Creek and Point Lake. The land within the CHHA is built out. Other than the surface parking lot along Abbot Avenue between 95th and 96th Streets and the 96th Street Park, there is private residential development in the CHHA. These homes are served by public roads, sewer and water.

DISASTER PLANNING

Within the Town there is the potential for impacts from lightning, floods, tornadoes and tropical storms, but the most significant natural disaster threat the Town needs to plan for is the event of a hurricane. Hurricanes have the potential to occur from June through November; heavy rainfall, high winds, storm surge and widespread flooding may accompany these storms. The Miami-Dade County Comprehensive Emergency Management Plan states that southeast Florida has experienced 34 hurricanes between 1994 and 2007, nine of which have been a category 3 or greater. Records indicate that the Town has been brushed by or hit by a tropical storm or a hurricane 51 times from 1871 through 2007.

During a hurricane evacuation, a significant number of vehicles will have to be moved across the local and regional road network. The quantity of evacuating vehicles will vary depending upon the magnitude of the hurricane, publicity and warnings provided about the storm and particular behavioral response characteristics of the vulnerable population. The Town and County must be prepared to evacuate highly vulnerable populations on critical routes, often concurrently with evacuees from outside the County. There are limited route choices; *Map CST 2 Evacuation Routes* identifies the designated evacuation route for the Town. The Miami-Dade County Office of Emergency Management has identified the Town and the entire barrier island as a Zone A evacuation area.

The Town of Surfside is within the 50-mile Emergency Planning Zone (EPZ) for the Turkey Point Nuclear Power Facility located in southern Miami-Dade County. This EPZ includes the ingestion exposure pathway in which the population and animals are vulnerable to the long-term health effects associated with the ingestion of contaminated food and water. Additional manmade disasters that the Town may be subject to include other hazardous materials contamination, civil disturbances and mass migration events, terrorism, biological epidemics or coastal oil spills.

The Town has developed a Comprehensive Emergency Management Plan (CEMP). The final draft is currently under review for adoption and will be in effect by the beginning of the 2009 hurricane season. The CEMP identifies that the Emergency Planning Committee, as directed by the Public Works Director, will be responsible for annually reviewing the CEMP. The Public Works Director will be responsible for

annually updating all annexes which reference contact information and other changing information. The Basic Plan and Functional Annexes will be updated once every four years unless substantial deficiencies are demonstrated through an actual or simulated disaster response incident. The Town Manager may also direct more frequent updates as the environment, conditions, or assumptions within the Town change. The Town of Surfside is also a participant in the Miami-Dade County Local Mitigation Strategy Planning Group. The Town coordinates their Post Disaster Redevelopment with the County Emergency Management Office.

The Town has identified publicly owned locations to be utilized as temporary debris storage and reduction sites in the event of a hurricane, and has had these sites reviewed by the Miami-Dade Department of Environmental Resource Management and has forwarded this site information to FDEP. The Town has also selected a disaster management/recovery services firm and debris monitoring services firm.

Coastal Management Element
Goals, Objectives and Policies

Goal 1: Provide for conservation and environmentally sound use of natural resources and the protection of human life and property. To plan for, and where appropriate, restrict development activities where such activities would damage or destroy coastal resources, and to limit public expenditures in areas that are subject to destruction by natural disaster.

Objective 1 – Protect living marine resources and maintain and improve estuarine water: The Town shall limit the specific and cumulative impacts of development or redevelopment upon water quality by requiring that surface water management systems be designed and operated consistent with state and regional standards and the Town's adopted level of service.~~quality by implementing NPDES improvements: In general, protect, conserve or enhance living marine resources, coastal barriers, and wildlife habitat; and maintain or improve estuarine environmental quality. In particular, ensure that stormwater systems which discharge into surface water bodies do not degrade the ambient water quality. This will be accomplished by upgrading the drainage system so that storm water outfalls into Biscayne Bay waters (and adjacent canals) fully meet National Pollution Discharge Elimination System (NPDES) standards (as applicable to the Town under relevant interlocal a~reements with Dade County and NPDES rules) no later than December 31, 1998 and the standards of Chapter 17-25, FAC and of Chapter 17-302.500, FAC. Upgrade on site drainage standards to ensure that private properties retain at least the first one inch of storm water on site and permit no more runoff after development than before development. [Scriveners note: The "in particular" portion of this objective is the same as the "in particular" portion of Land Use Element Objective 5. Rule 9J-5.011 (3) (c) 5 states that stormwater "...standards need not be the same for all systems. Local governments shall consider Chapter 17-40, F.A.C. in formulating water quality standards and may adopt by reference Chapter 17-25, F.A.C., as standards for water quality." It also states that local governments are not required to retrofit to meet existing standards and provides other restrictions on the burden which can be imposed on local governments under the rule.] [9J-5. 012 (3) (b) 1 and 2]~~

Policy 1.1 – ~~Policies 5.1 through 5.10 of the Land Use Element are incorporated herein by reference. [9J-5. 012 (3) (c) 1, 2 and 3]~~ The Town shall continue to coordinate and cooperate with all applicable agencies in the appropriate management of the Biscayne Bay Aquatic Preserve, including, but not limited to, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, the National Park Service and the Biscayne Bay Shoreline Development Review Committee.

Policy 1.2 – For site plan approval, the Town shall require that surface water management systems be designed and operated consistent with the Towns adopted drainage level of service.

Policy 1.3 – The Town shall implement the Stormwater Management Master Plan adopted by the Town in February of 2008. The Town shall update the Plan as necessary.

Policy 1.4 – The Town shall construct the Stormwater Treatment Trains and Rehabilitation projects specified in the State of Florida Department of Environmental Protection Agreement No. S0374.

Policy 1.5 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection of Atlantic Ocean coastal waters, particularly relating to beach renourishment projects and Coastal Construction Control Line permitting.

Policy 1.6 – The Town shall implement the stormwater improvement projects specified in the State of Florida Department of Environmental Protection Agreement No. LP6768.

Policy 1.7 – The Town shall cooperate and coordinate with the applicable agencies to assure that solid and hazardous wastes generated within the Town are properly managed to protect the environment and the near shore waters. The Town shall report any hazardous waste violation they may become aware of to the appropriate jurisdictional agency.

Policy 1.8 – The Town shall adhere to the Nation Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Policy 1.9 – The Town shall work cooperatively with the Florida Department of Transportation (FDOT) to ensure the installation of the improvements to the DOT stormwater systems currently discharging into Biscayne Bay waters.

Policy 1.10 – When applicable, the Town shall provide development proposal information to the Biscayne Bay Shoreline Development Review Committee for review.

Policy 1.11 – The Town shall continue the infrastructure improvement program to seal the manholes, and to repair or replace the sanitary sewer lines, where necessary, to decrease contamination to Biscayne Bay. These project improvements shall be completed by December of 2010.

Objective 2 – Protect living marine resources including manatees and sea turtles: In general, protect, conserve, or enhance living marine resources. In particular, limit impacts to ~~achieve zero human induced loss of~~ manatees, sea turtle eggs, fisheries, wildlife, wildlife habitat, marine habitat and environmentally sensitive land. ~~This objective shall be measured by implementation of its supporting policies. [9J-5.012 (3)(b)1]~~

Policy 2.1 – The Town police shall maintain communications with County and State marine police in order to report any violations of the boat speed limits in the adjacent waters which are a manatee protection area. The Miami-Dade County manatee telephone hotline shall also be publicized by Town officials.

Policy 2.2 – The Town shall enact and enforce land development provisions which regulate the location and screening of lights along the beach in a way which is practical to water dependent and water related uses to assist in protecting sea turtles by minimizing the amount of light on beach locations where sea turtles may nest. In addition, the Town shall actively cooperate with Miami-Dade County efforts to protect sea turtle nests. Cooperative actions to be taken by Miami-Dade County and/or Surfside shall include the following: 1) prohibiting horseback riding and campfires on and seaward of the dune during nesting; 2) prohibiting taking, killing, touching or otherwise interfering with sea turtle nests and nesting activities; 3) regulation of coastal construction so as to minimize negative impacts on sea turtles; and 4) beach and dune stabilization and preservation. ~~The Town shall seek the acquisition of property to provide increased public access to beaches and dunes so as to permit better monitoring of activities which might have an impact on sea turtles. [9J5.012 (3)(c)1]~~

Policy 2.3 – The Town shall contact the Miami-Dade County Department of Environmental Management (DERM) if any adverse impact is observed relative to the sea grass beds in adjacent waters. ~~[9J-5.012 (3) (c) 1 and 2]~~

Policy 2.4 – The Town shall cooperate with U.S. Army Corps of Engineers for beach renourishment if such becomes necessary. Where beach restoration or renourishment is necessary, the project should be designed and managed to minimize damage to offshore grass flats, terrestrial and marine animal habitats and dune vegetation. Native dune and beach plants should be planted and maintained.

~~Policy 2.5 – The Town shall limit permits (when it has jurisdiction) for borrow areas for beach restoration or renourishment projects to areas that do not negatively affect offshore reefs or grass flats.~~

Policy 2.6~~5~~ – The Town shall maintain and enforce land development code provisions requiring minimum building setbacks from the ocean. Specifically, the Town shall retain the ocean bulkhead line setback criteria established in the zoning code. ~~Construction shall not be permitted seaward of the Coastal Construction Control Line, except that non habitable major and minor structures (as defined in 16B33.002(54), FAC) and restaurants may be permitted so long as: 1) they are approved by a Coastal Construction Control Line permit granted by the State of Florida Department of Natural Resources; and 2) at least 50 percent of the permitted area is free of any such structures.~~

~~Policy 2.7 – The Town shall prohibit dredging or filling that would result in the destruction of grass/algae flats, hard bottom or other benthic communities in any waters within the municipal limits of the Town of Surfside.~~

~~Policy 2.8 – The Town shall prohibit the deposit of solid waste or industrial waste including spent oils, gasoline by products or greases accumulated at garages, filling stations and similar establishments that create a health or environmental hazard upon any vacant, occupied or unoccupied premises, parkway or park, and in any canal, waterway, bay or the ocean within the Town.~~

Policy 2.9~~6~~ – The Town shall require all new shoreline development affecting marine habitats to be reviewed by the Miami-Dade County Department of Environmental Resource Management ~~Department~~ or other applicable jurisdictional agency.

Policy 2.~~10~~ – ~~The Town shall give preference to salt tolerant landscaping over traditional planting materials in the plant materials list used in the enactment and administration of the landscape requirements of the land development code.~~

Policy 2.~~11~~7 – ~~In general, t~~The Town shall coordinate with existing resource protection plans of other governmental agencies, including the Miami-Dade County Department of Environmental Resource Management, the South Florida Water Management District, the Florida ~~Game and Freshwater~~ Fish and Wildlife Conservation Commission, the Florida Department of Environmental Protection, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and others. ~~In particular, the Town shall coordinate with Dade County and with the Florida Department of Environmental Protection in the monitoring of coastal waters and sediments. Also, the Town shall seek the acquisition of land adjacent to water resources so as to provide maximum opportunity to carry out the directives of existing resource protection plans.~~

Policy 2.~~12~~8 – The Town shall cooperate with Federal, state and county programs designed to ensure the required use, proper maintenance and proper functioning of dockside pump out facilities.

Objective 3 – Prioritize water-related and water dependent uses: The amount of shoreline devoted to water dependent and/or water-related uses shall be maintained ~~or increased~~. ~~Water dependent uses are defined for the purpose of this objective as recreation activities which can be carried out only on, in or adjacent to water areas because the use requires access to the water body. Water related uses are defined for the purpose of this section includes activities which are not directly dependent upon access to a water body, but which provide goods and services that are directly associated with water dependent or waterway uses. This objective shall be made measurable by its implementing policies. [Scrivener's note: The definition of water dependent uses incorporated in 9J 5.003 includes the uses defined herein plus other uses which are not appropriate to the Town of Surfside. The definition of water related uses incorporated in 9J 5.003 includes the uses defined herein.] [9J 5.012 (3) (b) 3]~~

Policy 3.1 – The Town shall continue to permit water dependent hotel ~~and motel~~ uses and water-oriented residential uses east of Collins Avenue. The regulations of this area shall be consistent with the density limits established by the Future Land Use Map of this plan. ~~[9J 5.012 (3) (c) 9]~~

Policy 3.2 – Those public access areas including street ends, municipal parking facilities and municipal parks along and near coastal waters will be maintained or redesigned to provide greater public access to Biscayne Bay and the Atlantic Ocean beach areas. ~~[9J 5.012 (3) (c) 9]~~

Policy 3.3 – The Town shall design and construct signage along major thoroughfares to direct the public's attention to public shoreline parks and water-related facilities. ~~[9J 5.012 (3) (c) 9]~~

Policy 3.4 – The Town shall require ~~new marina or similar~~ water-dependent uses to meet the following criteria:

a) Construction or subsequent operation ~~of any proposed marina/water dependent project~~ shall not destroy or degrade: ~~1) hammocks, pinelands or salt marshes, or 2) Mangrove Protection Areas, or 3)~~ sea grass or hard bottom communities, or ~~4)~~ habitats used by endangered or threatened species.

b) Where applicable, ~~the proposed marina/water dependent project site shall have: 1) a minimum depth of 4 feet at mean low tide in the proposed marina basin and access channel, and direct access to the Intracoastal Waterway or to another dredged channel or area with a minimum of 6 feet at mean low tide, and 2) good land side accessibility~~ all external agency approvals shall be obtained.

c) The proposed ~~marina/water dependent~~ facility shall be: 1) compatible with existing, surrounding land uses, and 2) of sufficient size to accommodate project and the required parking.~~; and~~

d) The proposed ~~marina/water dependent~~ facility shall: 1) preserve or improve traditional public shoreline uses and public access to estuarine and coastal waters, ~~and~~ 2) preserve or enhance the quality of the estuarine and coastal waters, water circulation, tidal flushing and light penetration, ~~and~~ 3) preserve archaeological artifacts or zones and preserve, or sensitively incorporate historic sites, and 4) where applicable, provide a hurricane contingency plan.

~~[9J 5.012 (3) (c) 9]~~

Objective 4 – Protect and enhance beaches and dunes: ~~In general, t~~The Town shall protect beaches and dunes, establish construction standards which minimize the impacts of manmade structures on beach or dune systems, and restore altered beaches and dunes where feasible. ~~In particular, the Town shall restrict development or redevelopment seaward of the Coastal Construction Control Line and assist in the protection of the vegetated dune along the Atlantic Ocean frontage of the Town. This objective shall be made measurable by its implementing policies. [9J-5.012 (3) (b) 4]~~

Policy 4.1 – The Town shall continue to maintain the ~~P~~posted signs prohibiting walking on vegetated dune and/or uprooting or otherwise damaging plants. ~~[9J-5.012 (3) (c) 1]~~

Policy 4.2 – The Town shall maintain the provisions contained in the zoning code restricting development seaward of the ocean bulkhead line on the properties east of Collins Avenue. ~~Consider beach maintenance activities of Dade County and other agencies when evaluating any changes to this plan which would modify land uses and permitted activities in the vicinity of the dune and beach. [9J-5.012 (3) (c) 1]~~

Policy 4.3 – The Town shall enforce and maintain the adopted landscape provisions contained in the zoning code requiring the installation of native beach dune landscape materials seaward of the ocean bulkhead line with any new or redevelopment. ~~enact and enforce as part of the land development code minimum oceanfront setback requirements including protection of the proposed dune system. The requirements shall specify that no building may be built seaward of the coastal construction control line and that only limited boardwalks, gazebos and similar structures may be built seaward of the coastal construction control line. Buildings and other structures may be erected seaward of the coastal construction control line when necessary to preserve long standing or otherwise reasonable property rights and when approved pursuant to the provisions of Florida's Coastal Construction Control Act. The requirements shall apply to both development and redevelopment. [9J-5.012 (3) (c) 1]~~

Policy 4.4 – The Town shall continue to coordinate and cooperate with the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and with the Miami-Dade County Park and Recreation Department regarding access to and the appropriate maintenance of the beach area seaward of the erosion control line. ~~enact and enforce as part of the land development code dune related vegetation requirements in conjunction with any new beachfront development and redevelopment. Dune grading and planting requirements shall be drafted to ensure the highest level of restoration of natural conditions which are economically and technically feasible. The requirements shall apply to both development and redevelopment. [9J-5.012 (3) (c) 2]~~

Policy 4.5 – The Town shall ~~seek the acquisition of~~ regulate the property adjacent to beaches and dunes ~~so as to permit more effective~~ ensure the protection of the ecological value of beach and dune areas.

Policy 4.6 – No new dune cross over locations shall be established. The Town shall limit the dune crossovers providing access to the beach to the seventeen crossover locations that currently exist.

Objective 5 – Direct population concentrations away from coastal high hazard areas and limit coastal high hazard area infrastructure expenditures: ~~Direct population concentrations away from coastal high hazard areas and limit the expenditure of Town funds on infrastructure within the Town (all of which is within the coastal high hazard area) that would have the effect of directly subsidizing development which is significantly more intensive than authorized by this Plan. This objective shall~~

~~bemeasured by its implementing policies. [9J-5.012 (3) (b) 5 and 6]~~ The Town shall, through land use designation and development review, regulate and limit the type of uses in the predicted Coastal High Hazard Area. The Town shall direct population concentrations away from known or predicted High Hazard Areas.

Policy 5.1 – The Town shall restrict development in accordance with the Future Land Use Map of this plan. ~~[9J5.012 (3) (c) 9]~~

Policy 5.2 – ~~The Town shall limit its funding of public infrastructure expansion if such funding and such expansion would have the effect of directly subsidizing a specific private development in the Town. [9J-5.012 (3) (c) 7]~~ The Town shall limit future public expenditure for new infrastructure which will subsidize growth within the Coastal High Hazard Area; expenditures for restoration and maintenance are exempt from these limitations and expenditures for the enhancement and protection of natural resources or for public land acquisition is encouraged.

Policy 5.3 – Objective 5 and Policy 5.2 above shall not be implemented in such a way as to preclude the Town's plans to improve drainage facilities or reconfigure streets in order to provide adequate infrastructure to serve the Future Land Use Plan development pattern or development for which rights were vested prior to enactment of this Plan. ~~[9J-5.012 (3) (c) 9]~~

Policy 5.4 – Pursuant to Chapter 163.3178(2)(h) of the Florida Statutes, the "Coastal High Hazard Areas" (also referred to as "high-hazard coastal areas") means the area below the elevation of the category 1 storm surge line as established by a Sea, Lakes, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

Policy 5.5 – Consideration for the relocation, mitigation or replacement of any of the existing infrastructure in the Coastal High Hazard Area, as may be deemed appropriate by the Town, shall be coordinate with the state when state funding is anticipated to be needed for implementation of the project.

Objective 6 – ~~Hurricane evacuation~~Hurricane Preparedness: The Town shall coordinate with the County to maintain ~~the current estimated 13 11~~ a 12-hour hurricane evacuation clearance time to shelter for a category 5 storm event as measured on the Saffir-Simpson scale. ~~for Surfside residents using 96th Street (Broad Causeway) under high occupancy conditions as identified in the Miami-Dade Comprehensive Emergency Management Plan (2008). which is based on both pre-Hurricane Andrew planning and post Hurricane Andrew experience. [9J-5.012 (3) (b) 7]~~

Policy 6.1 – ~~The Town shall cooperate in the formulation and implementation of Dade County management plans designed to reduce the time period for evacuation in the event of a hurricane. [9J-5.012 (3) (c) 4]~~ To provide for safe and efficient evacuation of the residents of the Town and other local communities in the event of a hurricane, the Town shall continue to plan and coordinate with Miami-Dade County in updates of the County's Comprehensive Emergency Management Plan, including evacuation planning. This update shall enable the County and incorporated municipalities to plan for future population densities to ensure compliance with adopted level of service standards established in this Plan.

Policy 6.2 – ~~The Town shall periodically update its hurricane evacuation plan, which is based on the following approaches: 1) directional control of traffic flow with appropriate signage and police direction; 2) posting of police officers at strategic points; 3) notification of residents using a loudspeaker mounted on a police car; 4) evacuation assistance for high-rise residents; and 5) coordination with Dade County Communications Centers, both main and regional. [9J-5.012 (3)~~

~~(c) 4]~~ The Town shall continue to coordinate with the County in updating hurricane evacuation shelter assignments and in disseminating information concerning evacuation routes and evacuation scheduling.

Policy 6.3 – The Town shall conduct an ongoing hurricane evacuation information program to make all residents aware of evacuation needs and plans. ~~[9J-5.012 (3) (c) 4]~~

Policy 6.4 – The Town shall maintain its traffic level of service which in turn is based upon the Future Land Use Map, thereby achieving a reasonable hurricane evacuation time. ~~[9J-5.012 (3) (c) 4]~~

Policy 6.5 – The Town shall adopt a Comprehensive Emergency Management Plan in order to prepare for, respond to, recover from and mitigate potential hazard by December 2011.~~prepare a hurricane emergency plan based upon the experience of Hurricane Andrew; the plan shall be in concert with the 1991 County Emergency Operations Plan and the 1991 U.S. Corps of Engineers hurricane evacuation study, and any revisions thereto. [9J5.012(3) (c) 4]~~

Policy 6.6 – The Town shall maintain a contingency fund in order to cover the Town's required match for disaster assistance grants.

Objective 7 – Post-disaster redevelopment: The Town shall prepare a post-disaster redevelopment plan which will reduce the exposure of life and property to natural disasters. ~~[9J-5.012 (3) (b) 8]~~

Policy 7.1 – ~~Based upon the 1992 1993 Hurricane Andrew post-disaster assessment, clean up and housing repair experience, the Town shall prepare a post-disaster redevelopment plan in consultation with the South Florida Regional Planning Council and the Metro-Dade Office of Emergency Management. Special attention shall be devoted to the Building Official's permitting process to distinguish between minor and major repairs, require demolition or nuisance removal, and similar regulatory approaches. [9J5.012 (3) (c) 5]~~ By 2012 the Town shall have prepared and adopted a Post-Disaster Redevelopment Plan. The Plan shall ensure that actions needed to protect the public health and safety shall receive first priority in emergency permitting decisions. Priority actions include the following:

1. Repairs to potable water, wastewater and power facilities;
2. Removal of debris from roadways and necessary infrastructure;
3. Stabilization or removal of any structure which is about to collapse;
4. Minimal repairs to make structures habitable; and
5. Emergency repairs related to environmental damages.

Policy 7.2 – ~~The adopted plan shall specify that during postdisaster redevelopment, the Building Department will distinguish between those actions needed to protect public health and safety with immediate repair/cleanup and long term repair activities and redevelopment areas. Removal or relocation of damaged infrastructure and unsafe structures shall be by the Town in accordance with local procedures and those agencies and practices specified in the Metro Dade County Emergency Operations Plan. [9J 5.012 (3) (c) 5]~~ The Town shall coordinate their Post-Disaster Redevelopment Plan with the County Emergency Management Office for continuity with the County Plan. The Town's Post-Disaster Redevelopment Plan shall provide a basis to:

1. Ensure a means to restore economic activity;
2. Establish a framework for deciding whether to implement a temporary moratorium on building activity as may be required for public safety;
3. Develop procedures for reviewing and deciding upon emergency building permits;

4. Coordinate with State and federal officials to prepare disaster assistance applications;
5. Analyze and recommend to the Town Commission hazard mitigation options, including reconstruction or relocation of damaged public facilities;
6. Recommend amendments to the Town's Comprehensive Emergency Management Plan;
7. Ensure the timely re-entry of Town residents following an evacuation; and
8. Provide immediate response to post disaster situations.

Policy 7.3 – ~~During post-disaster recovery periods, after damaged areas and infrastructure requiring rehabilitation or redevelopment have been identified, appropriate Town departments shall use the post-disaster redevelopment plan to reduce the future exposure of life and property to hurricanes; incorporate recommendations of interagency hazard mitigation reports; analyze and recommend to the Town Council hazard mitigation options for damaged public facilities; and recommend amendments, if required, to the Town Comprehensive Plan. [9J-5.012 (3) (c) 5]~~ The Post Disaster Redevelopment Plan shall plan for evaluating future options for damaged public facilities; such options shall include but not be limited to abandonment, repair in place, relocation or reconstruction with structural modification. The Town shall consider these options based on the following considerations:

1. Construction and maintenance costs;
2. Recurring damages;
3. Impacts on land use, the environment, and the public sector;
4. Consistency with Federal or State funding provisions;
5. Considerations of structural integrity and safety; and
6. Consistency with the Secretary of Interior's Guidelines for Rehabilitation for any structure deemed historic according to the National Register of Historic Places, when applicable.

Policy 7.4 – ~~Unsafe conditions and inappropriate uses identified in the post-disaster recovery phase will be eliminated as opportunities arise. The Town shall make damage assessments throughout the Town and "tag" buildings to indicate that they have been inspected and what condition they are in. Building permits shall be required to repair all damage. Temporary repair permits may be granted for up to 30 days in emergency situations. The Town shall notify the owners of buildings for which a building permit is required in order to repair damage. Qualified personnel shall perform all inspections. [9J-5.012 (3) (c) 5]~~ The Post-Disaster Redevelopment Plan shall ensure the Town shall authorize redevelopment up to the actual built density in existence on the property prior to the natural disaster.

Objective 8 ~~—Increase~~ Ensure public access to beach and shorelines: The Town shall maintain all existing ~~increase~~ public access to the beach and shorelines, particularly the Atlantic Ocean and the Atlantic Ocean beach. ~~Achievement of this objective shall be measured by its implementing polices. Achievement of the objective shall be measured by implementation of these policies. [9J-5.012 (3) (b) 9]~~

Policy 8.1 – The Town shall maintain all existing street ends and public access points to the Atlantic beach and to the waters of Biscayne Bay. ~~[9J-5.012 (3) (c) 9]~~

Policy 8.2 – The Town shall beautify and enhance public accesses at 88th Street and 90th Street when funds are available and conditions merit. ~~[9J-5.012 (3) (c) 9]~~

Policy 8.3 – The Town shall ~~R~~regulate public parking near beach access points to facilitate its use by beach visitors, particularly during nonbusiness days and hours.

Policy 8.4 – The Town shall continue to work toward the redevelopment of ~~maintain and provide moderate upgrading for~~ the Surfside Community Center.

Policy 8.5 – The Town shall apply for State and Federal grant funds, such as the Florida Recreation Development Assistance Program, and the Land and Water Conservation Fund for the improvement of public recreation and open space. ~~[9J-5.012 (3) (c) 10]~~

Policy 8.6 – The Town shall design and install signage along Collins Avenue and Harding Avenue to identify the public access locations to the beach.

Objective 9 – Protect historic properties: ~~In general, the~~ The Town shall provide for protection, preservation or sensitive reuse of historic structures. ~~In particular, the Town shall identify and conserve local structures and sites which are of historic significance. Achievement of this objective shall be quantified by the implementation of its supporting policies. [Scrivener's note: the "in particular" portion of this objective and its implementing policies repeat an objective from the Future Land Use Element.] [9J-5.012 (3) (b) 10]~~

Policy 9.1 – ~~The Town shall maintain and improve where appropriate, zoning regulations which require incentives for preserving historic structures. [9J-5.012 (3) (c) 11]~~ The Town shall provide for appropriate use and protection of known historic structures through the site plan review process.

Policy 9.2 – The Town shall explore the possibility of obtaining grants, funding assistance, and other financial resources in order to undertake a survey of structures constructed prior to 1940 to determine if any structures not yet recognized as historic merit historical recognition. [9J5.012 (3) (c) 11]

Policy 9.3 – Prior to commencing any significant public construction or issuing any permits for significant private construction, not to include minor construction such as resurfacing of an existing street, construction of a residential fence and/or any other such improvement which will not disturb the archeological assets which lie well below the surface of these areas within the areas identified as the Surfside Midden and the Surfside Mound, the Town shall notify Miami-Dade County's Historic Preservation Division. ~~The modifier "significant" shall exclude minor construction such as resurfacing of an existing street, construction of a residential fence and/or any other such improvement which will not disturb the archeological assets which lie well below the surface of these areas. [9J-5.012 (3) (c) 11]~~

Policy 9.4 – The Town shall coordinate historic resource protection activities, procedures and programs with applicable state and federal laws, policies and guidelines.

Objective 10 – Level of service and public facility timing: The Town shall achieve and maintain Level-of-Service standards through a concurrency management system with a phased capital improvement schedule. ~~[9J-5.012 (3) (b) 11]~~

Policy 10.1 – The Town shall implement the concurrency management system contained in this plan and the Town shall supplement the concurrency management system with which will be further detailed in land development code capital improvements when appropriate and necessary to meet Level-of- Service standards concurrent with the impact of development. ~~[9J-5.012 (3) (c) 13]~~

Policy 10.2 – Priority shall be given to drainage system improvements for State Road AlA because it serves as a primary evacuation route.

Policy 10.3 – Potential rise in sea level due to storms shall be taken into consideration in the design of all infrastructure.

Objective 11 – Hazard mitigation: In general, the Town shall regulate development so as to minimize and mitigate hazard resulting from hurricanes. In particular, the Town shall ensure that all construction and reconstruction complies with applicable regulations designed to minimize hurricane impact on buildings and their occupants. ~~Achievement of the objective shall be measured by implementation of these policies. [Scriveners note: This objective provides a mantel for polices which respond to Rule 9J-5.012 (3) (c) 3.]~~

Policy 11.1 – ~~All new construction shall comply with the South Florida Building Code. [9J-5.012 (3) (c) 3]~~ The Town shall maintain consistency with the program policies of the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA) and shall monitor new cost effective programs for minimizing flood damage. Such programs may include modifications in construction setback requirements or other site design techniques, as well as upgraded building and construction techniques. The Town's adopted flood protection regulations shall be amended as necessitated by changes in FEMA regulations.

Policy 11.2 – When structures are renovated at a cost in excess of fifty (50) percent of the structure's pre-renovation market value, ~~then the renovation shall be sufficient to fully meet the South Florida Building Code and all other otherwise applicable regulations. [9J-5.012 (3) (c) 3]~~ the structure shall be brought into conformance to meet all current laws and ordinances, including those enacted since construction of the subject structure.

Policy 11.3 – ~~New construction east of Collins Avenue shall meet all State of Florida Coastal Construction Line regulations. The Town shall enact and enforce land development code provisions requiring minimum building setbacks from the ocean. Construction shall not be permitted seaward of the Coastal Construction Control Line, except that non habitable major and minor structures (as defined in 16B33.002(54), FAC) and restaurants may be permitted so long as: 1) they are approved by a Coastal Construction Control Line permit granted by the State of Florida Department of Natural Resources; 2) at least 50 percent of the permitted area is free of any such structures; 3) no such individual structure shall exceed 15 percent of the permitted area. Buildings and other structures which do not meet these standards may be erected seaward of the coastal construction control line when necessary to preserve long standing or otherwise reasonable property rights and when approved pursuant to the provisions of Florida's Coastal Construction Control Act. [9J-5.012 (3) (c) 3]~~ The City shall ensure that its code compliance process continues to identify and require the removal and/or rehabilitation of structures that are deemed to be a hazard to the public health, safety and welfare.

Policy 11.4 – ~~The Town shall maintain and improve land development code standards for floodplain protection. *Floodplain protection regulations* shall be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information. The Town shall revise as necessary and enforce flood hazard reduction regulations to ensure that: 1) adequate drainage paths are provided to guide storm water runoff around structures; 2) for residential buildings in AE zones, the lowest floor and significant mechanical equipment is located above the base flood elevation; 3) for~~

~~nonresidential buildings in AE zones, either the lowest floor and the mechanical equipment is located above the base flood elevation or habitable areas below the base flood elevation are flood-proofed; 4) all buildings in V zones are located according to the requirements of the Florida Coastal Zone Protection Act of 1985; 5) the elevation of all buildings in V zones is located so that the bottom of the lowest supporting horizontal member and all mechanical equipment is no lower than the base floor elevation; and 6) structural fill is prohibited. The enumeration of specific features of the flood protection regulations contained herein shall be interpreted as establishing minimum standards for Town regulations, not as precluding additional or higher standards which may have a legitimate public purpose. In addition,~~ Tthe Town shall participate in the Community Rating System of the National Flood Insurance Program. ~~[9J-5.012 (3) (c) 3]~~

Policy 11.5 – The Town shall continue to enforce regulations and codes which provide for hazard mitigation, including but not limited to, land use, building construction, placement of fill, flood elevation, sewer, water and power infrastructure, and stormwater facilities. These regulations shall be applied to eliminate unsafe conditions, inappropriate uses and reduce hazard potentials.

Policy 11.6 – The Town shall increase public awareness of hazards and their impacts by providing hazard mitigation information to the public. Information shall address evacuation, sheltering, building techniques to reduce hazards as well as other hazard mitigation issues that could help prevent loss of life and property.

Policy 11.7 – The Town shall coordinate with the Town Manager when making land use amendments, capital improvement decisions or creating significant planning initiatives.

Policy 11.8 – The Town shall continue to monitor updates to sea level rise forecasts and take into consideration the most current data when making decisions regarding land use amendments, capital improvements, infrastructure or critical public facilities projects.

Policy 11.9 – The Town shall, as deemed appropriate, incorporate the recommendation of the hazard mitigation annex of the local emergency management plan and shall analyze and consider the recommendations from interagency hazard mitigation reports.

Policy 11.10 – The Town shall include criteria in the five (5) year schedule of Capital Improvement projects to include consideration for and prioritization for projects that are hazard mitigation initiatives.

~~**Objective 12 Biscayne Bay preservation:** Assist the efforts of Metro-Dade County, the Florida Department of Environmental Protection and the National Park Service to preserve and enhance the State-designated Biscayne Bay Aquatic Preserve. This objective shall be made measurable by its implementing policies. [Scriveners note: This objective provides a mantel for polices which respond to Rule 9J-5.012 (3) (c) 14 and 15]~~

~~Policy 12.1 Policies 5.1 through 5.8 of the Future Land Use Element are adopted herein by reference. [9J-5.012 (3) (c) 13 and 14]~~

~~Policy 12.2 The Town shall contribute to the improvement of Biscayne Bay water quality by continuing to: 1) have a Town representative periodically consult with the Biscayne Bay Shoreline Development Review Committee and 2) have relevant bay front projects reviewed by the Committee. The Town shall cooperate with the regulatory functions of the Florida Department of Environmental Protection and the National Park Service. [9J-5.012 (3) (c) 14 and 15]~~

~~**Objective 13 – Hurricane damage avoidance:** Minimize damage from any hurricane storm surge. This objective shall be measured by its implementing policies.~~

~~Policy 13.3 – The Town shall enact and enforce land development code provisions limiting the amount of fill which may be added to property in conjunction with development and redevelopment. The purpose of the limit will be to minimize the high water elevation of storm surge or other flooding which may result within the Town. At a minimum, fill shall be limited so as to ensure that post development runoff does not exceed peak pre development runoff.~~

~~Policy 13.4 – The Town shall monitor: 1) changes to the County Emergency Operations Plan, including any hazard mitigation annexes that may be added thereto, and 2) future interagency hazard mitigation reports. Recommendations of such annexes and reports shall be considered for addition to the Surfside Comprehensive Plan as appropriate. Recommendations of such annexes and reports shall be considered as the basis for amending the Surfside Land Development Code as appropriate.~~

~~Policy 13.5 – Permitted population density maximums shall be reduced in accordance with the Future Land Use Map of this plan to better coordinate with the 1991 Metropolitan Dade County Emergency Operations Plan, which is the local hurricane evacuation plan for Key Biscayne, and the 1991 lower Southeast Florida Hurricane Evacuation Plan, the regional hurricane evacuation plan.~~

~~Policy 13.6 – The Town shall limit its funding of public infrastructure expansion if such funding and such expansion would have the effect of directly subsidizing a specific private development in the Town.~~

9J-5.0012 Objective and policy requirements not applicable to the Town of Surfside: Rule 9J-5 of the Florida Administrative Code requires communities to adopt as part of their Coastal Management Element objectives and policies which address various issues, except where those issues are not reasonably applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable:

9J-5.012 (3) (c) 12 pertaining to relocation of infrastructure.

9J-5.012 (3) (c) 12 pertaining to deep water ports.

<u>9J-5.012 (3) (b) 1 pertaining to protection, conservation or enhancement of remaining coastal wetlands.</u>

<u>9J-5.012 (3) (c) 1 pertaining to limiting impacts to wetlands.</u>

<u>9J-5.012 (3) (c) 2 pertaining to enhancement of degraded wetlands and programs to mitigate future disruptions or degradations.</u>

<u>9J-5.012 (3) (c) 9 pertaining to the establishment of criteria for marina siting.</u>

CONSERVATION ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Conservation Element is to promote the conservation, use, and protection of natural resources in the Town.

NATURAL ENVIRONMENT

Climate

The Southeast Regional Climate Center identifies that from 1927 to 2007, the average annual maximum temperature is 81.1 F° and the average annual minimum temperature is 71.4 F° for the barrier island the Town is located on. The average annual total precipitation is 46.85 inches. Precipitation is not distributed evenly throughout the year. Precipitation ranges from an average monthly low of 1.81 inches in December, to 7.02 inches in September. Precipitation is heaviest from June through September with 50% of the rainfall occurring during these four months. No snowfall has been reported during this recording period.

Thunderstorms are common during the summer months. Hurricanes, which occur less frequently, have the potential to occur from June through November; heavy rainfall, high winds, and widespread flooding may accompany these storms. Records indicate that the Town has been brushed by or hit by a tropical storm or hurricane 51 times from 1871 through 2007. Two of the more devastating hurricanes which occurred struck in 1926 and in 1992 when Hurricane Andrew, a category 5 hurricane, made landfall in South Miami-Dade County. The most recent hurricane events occurred in 2005 with Hurricanes Katrina and Wilma. Both of these storms caused moderate damage to the area.

Soils

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) identifies Urban Land and Beaches as the only two coverage types found within the Town. The NRCS describes Urban Lands as areas that are more than 70% covered by buildings, streets, sidewalks and other structures so the natural soil is not readily accessible. The NRCS describes beaches as nearly level to sloping, narrow, sandy strips along the Atlantic Ocean of fine to coarse sand mixed with shell fragments. *Map FLU* 2 *Soils,* provides the general distribution of soils/coverage in the Town as mapped by the NRSC.

The beach along the Town's ocean frontage is created from a beach renourishment program. The deposit material utilized for the renourishment program was sand that was harvested from off-shore borrow sites that is similar to the beach sand which would naturally occur on this barrier island.

Physiography

Surfside is an Atlantic Ocean coastal community located on a barrier island on the southeast coast of the Florida peninsula in Miami-Dade County. The Town is separated from the mainland by the north end of the Biscayne Bay. The Biscayne Bay Inlet (Bakers Haulover Cut), less than one mile north of the Town, is the northern end of the barrier island, and Government Cut, approximately seven and one half miles

south of the Town, is the southern end. The Town itself is one mile in length from its north to south end and is approximately three-fourths of a mile wide at its widest point on the south end of Town. Biscaya Island, also a part of the Town, is a small residential neighborhood at the southwest corner of the Town that is separated from the barrier island by the dredged water feature referred to as Point Lake, but connectivity is maintained via a short bridge segment, referred to as Biscaya Bridge, on Eighty-Eighth Street.

The natural conditions of this barrier island have been highly altered. The one mile length of beach and dune along the Town's ocean frontage is created from a beach renourishment program. The restoration of the federally-authorized Dade County Shore Protection Project, which included the Town of Surfside, began in 1978 and was completed in January 1982. The project utilized sand from offshore borrow sites. The project included restoration of a 20 foot wide dune at elevation +10.7 ft NGVD and a 50 foot wide level berm at elevation +8.2 ft NGVD. Additional fill material equivalent to ten years of advance nourishment was placed seaward of the design berm. Though nourishment of several areas of the initial project was conducted between 1987 and 1990, the overall project has exceeded performance expectations. At the time of the compilation of this data in November of 2008, there is approximately 38.2 acres of beach seaward of the erosion control line within the Town.

The entirety of the Town's bay side shoreline, inclusive of Indian Creek and Point Lake, has been significantly altered and is bulkheaded, and the adjacent nearshore waters have been dredged. *Map FLU 5 Water Bodies,* identifies the water bodies that abut the limits of the Town.

Map FLU 3 Topography identifies the topography of the Town. The Town is nearly flat with elevations ranging only from 0 to 10 feet. The vast majority of the Town is 5 feet or less. The lowest elevation is found along the oceanfront coastline. The highest elevation is a narrow linear strip that runs approximately along Collins Avenue.

Soil Erosion

The entire length of ocean shoreline along the barrier island the Town is located on is recognized as 'Critically Eroded' by the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and is part of a long term beach renourishment program. The Bureau defines critically eroded as a segment of the shoreline where natural processes or human activity have caused or contributed to erosion and recession of the beach or dune system to such a degree that upland development, recreational interests, wildlife habitat, or important cultural resources are threatened or lost. Critically eroded areas may also include peripheral segments or gaps between identified critically eroded areas which, although they may be stable or slightly erosional now, their inclusion is necessary for continuity of management of the coastal system or for the design integrity of adjacent beach management projects.

The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point Lake is bulkheaded and the remainder of the Town is developed and does not experience erosion problems.

Commercially Valuable Minerals

There are no extractable, commercially valuable minerals in the Town.

Floodplains

The National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA) has identified the following flood zones within the Town:

Table 6-1. National Flood Insurance Program Flood Zones	
Zone	**Description**
VE	Coastal areas with a 1 percent or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26 percent chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AE	Areas with a 1 percent annual chance of flooding and a 26 percent chance of flooding over the life of a 30-year mortgage. In most instances, base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
X	Areas outside the 1 percent annual chance floodplain, areas of 1 percent annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1 percent annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1 percent annual chance flood by levees. No base flood elevations or depths are shown within this zone. Insurance purchase is not required in this zone.
X500	Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. An area inundated by 0.2 percent annual chance flooding.

Map FLU 4 FEMA Flood Zones, locates the flood zones within the Town. Nearly the entirety of the Town is an AE zone; this zone falls generally west of Collins Avenue. The X zone falls generally east of Collins Avenue; the VE zone is located in a narrow strip along the beach; and the X-500 is represented as a narrow strip located along the north end of Collins Avenue and also along the beach. Existing land uses found within these flood zones are illustrated in the *Future Land Use* map and described in the Future Land Use Element.

Land use, as it relates to the discharge of stormwater and to the use of natural drainage, is regulated through the South Florida Water Management District. The Florida Building Code regulates construction as it relates to flood zones.

Air

Air quality in the Town is generally good. Based upon ambient air quality monitoring, conducted by the Florida Department of Environmental Protection (FDEP) and documented in the *2006 Florida Air Monitoring Report*, Miami-Dade County (and now all of Florida) is an attainment area for the six major air contaminants measured. These contaminates are carbon monoxide, lead, nitrogen dioxide, particulate matter, ozone, and sulfur dioxide. The attainment area designation indicates that the concentrations of major pollutants are within the acceptable limits set by the FDEP and the U.S. Environmental Protection Agency. Air quality is a matter that must be addressed at a regional level requiring the local, County and regional entities to coordinate air quality maintenance and improvement efforts.

Water Resources

The predominant water resources that are present are the Atlantic Ocean and Biscayne Bay. Indian Creek is a channel that separates the Town from the Islands of Indian Creek Village and Bay Harbor Islands, and Point Lake, the dredged channel and water body that separate Biscaya Island from the remainder of the Town, is considered part of Biscayne Bay.

Biscayne Bay, a sub-tropical estuary, is located along the coast of Miami-Dade and northeastern Monroe Counties. It is a marine ecosystem comprised of about 428 square miles with a watershed area of about 938 square miles. The bay can be divided into three general areas, north, central and south Biscayne Bay.

North Biscayne Bay extends from Dumfoundling Bay (approximately NE 192nd Street) south to the Rickenbacker Causeway. The Town of Surfside is located adjacent to the north portion of Biscayne Bay. This northern portion of the bay retains the most estuarine habitat found throughout the bay, but it is also the most altered by dredging and bulkheading. Although remaining shallow areas contain some productive seagrass beds, roughly 40 percent of this area is too deep or too turbid to support a productive estuarine ecosystem. The entirety of the Town's bayside shoreline, inclusive of Indian Creek and Point lake has been significantly altered through dredging and is bulkheaded.

Central Biscayne Bay, extending from the Rickenbacker Causeway south to Black Point, is more of a marine system that is heavily influenced by daily tidal flushing. Estuarine areas are limited to near shores areas close to major sources of freshwater inflow (canals). Seagrass meadows are extensive. A narrow band of mangrove-forested coastal wetlands begins at Matheson Hammock Park and extends southward along the shoreline.

Southern Biscayne Bay extends from Black Point to Jewfish Creek. This southern area is most profoundly affected by the reduction in historical freshwater flows and tends to become hypersaline during periods of low rainfall. The near shore freshwater wetlands have been significantly reduced and a transition to mangrove species is occurring. This southern area encompasses Biscayne National Park as well as Card and Barnes Sounds, which are both included in the Florida Keys National Marine Sanctuary.

The Bay supports a wide variety of plants and animals, some of which are important for fisheries. Many rare, threatened and endangered species inhabit this estuarine ecosystem including manatees and crocodiles. Historically, it is clear water supported a diversity of productive communities of seagrass, corals and sponges, and prior to settlement, mangroves and coastal wetlands rimmed the bay. Oyster bars and estuarine species like red and black drum were common. However, intensive development of the watershed has altered the natural cycle of freshwater inflows into the bay. Northern and central Biscayne Bay are strongly affected by the urban development associated with the growth of Miami-Dade County. Southern Biscayne Bay is influenced by drainage from the Everglades, which has been altered by canals and agricultural activities. Overall, Biscayne Bay shows increasing signs of distress; declines in fisheries, increased pollution and dramatic changes in near shore vegetation. Today, the bay is a pulsed system that alternates between marine conditions and extreme low salinities near the discharges of 19 major canals.

Biscayne Bay is now designated as an Outstanding Florida Water and an Aquatic Preserve under Florida statutes. The Biscayne Bay Aquatic Preserve was established by the Florida Legislature in 1974 and covers approximately 69,000 acres of state submerged land. The Aquatic Preserve consists of two separate areas of the bay, the northern part and the southern portion which is separated by Biscayne National Park, a submerged lands park encompassing the central portion of the bay. A variety of organizations have monitoring and research underway in Biscayne Bay and its watershed. The western edge of the Town abuts the northern portion of the Biscayne Bay Aquatic Preserve.

LAND COVER

Map FLU 6 Aerial, best exemplifies the land coverage within the Town. The land coverage can be categorized as Developed and Beach. Other than the beach and beach dune system, the Town is built out. There are no native preserves or remaining native habitats or wetlands within the Town. The beach and dune system, although created through a beach renourishment program, is owned by the State and maintained in a natural condition.

Natural Habitats

There is 38.2 acres of state owned beach seaward of the erosion control line, which runs approximately along the crest of the dune. This beach is maintained under an agreement with the State by the Miami-Dade Park and Recreation Department. The seaward face of the dune is vegetated. The beach is

recognized as nesting habitat for the federally listed loggerhead, green, hawksbill, and leatherback sea turtles. Sea turtles typically nest at night from March through November, with incubation lasting approximately 55 days. Threats to sea turtle nests are both man-made and naturally occurring. Detrimental activities include: physical disturbance of dune systems by development; the placement of physical obstructions on the beach entrapping adults and hatchlings; high raccoon predator populations; nest disturbance by stray or unleashed pets; or the disorientation of hatchlings from direct lighting of the beaches at night. Natural occurring coastal erosion which can cause cliffing and, although not frequent, hurricanes causing serious beach erosion or accretion are also detrimental to nesting success.

Along beachfront private properties, the Town has an established ocean bulkhead line. The zoning code prohibits development or any redevelopment seaward of this ocean bulkhead line. Seaward of the ocean bulkhead line there is approximately 19 acres that are undeveloped that lie adjacent to the State owned beach. Within this undeveloped ocean bulkhead setback area along the landward side of the dune, there is an unimproved maintenance path that is utilized by the State, the County and the Town that runs the entire length of the Town. This maintenance path is a popular public walking and biking path. The landward side of the dune in this area is more sparsely vegetated than the seaward side, and the property owners have landscaped the area nearest the bulkhead on many of the properties.

To limit impacts to the dune and dune vegetation, access to the beach is limited to seventeen (17) dune cross-over locations. Eight of these cross-overs correspond to the termination of the platted public right of ways that terminate at the State beach area and one is in front of the Town's Community Center site providing direct public access to the beach. Although the remaining cross-overs are located in front of private properties, the established maintenance path provides open public access to these cross-overs also.

Appendix 6-A. *Listed Wildlife Species* identifies those federal and state listed animal species that may be found within the Town. Listed and other animal species depend on native vegetative communities for refuge, foraging, nesting, and denning. The size, quality and connectivity of native communities all influence wildlife utilization. Due to the highly urbanized nature of the Town the listed species that may occur are limited to those that utilize the bay or coastal waters, or beach habitat.

Appendix 6-B. *Native Plant Species* contains a list of native plant species having the most likely potential to occur in the Town, and it identifies those species that are recognized as either threatened or endangered by the State or the federal government. This list contains dune and beach habitat vegetation along with coastal tree or shrub species that are recognized as native to Miami-Dade County.

Appendix 6-C. *Invasive Pest Plant Species* identifies the invasive exotic pest plant species that are problematic throughout South Florida and may occur in the Town. Due to the highly urbanized nature of the Town occurrence of these pest plant species will be limited, but may still occur and create problems on the beach and within landscaped areas if not maintained.

Conservation Opportunities

Conservation opportunities are enhanced through the public ownership of land. There is approximately 38 acres of state owned beach seaward of the erosion control line. The beach is maintained under an agreement with the State by the Miami-Dade Park and Recreation Department. The beach is maintained in a natural state. The Town has been built out since the 1980's; there are no preserves, wetlands or natural habitats within the Town other than the beach habitat. The Park and Recreation Element inventories and identified the parks located in the Town.

Potable Water

The Town of Surfside purchases their potable water supply directly from the Miami-Dade County Water and Sewer Department (WASD). Under this arrangement, the Town of Surfside coordinates with Miami-Dade County to ensure that adequate capacity is available for existing and future customers. The Biscayne Aquifer, an underground geologic formation, is the source of raw water for WASD. Approximately 330 million gallons per day are withdrawn from the aquifer through wells extending an average of 80 feet below the ground surface to meet the needs of the County.

The Town is served by the WASD Hialeah-Preston subarea, which lies generally north of Flagler Street. The Hialeah and the John E. Preston water treatment plants (WTPs) serving this subarea are located at 200 W. 2nd Avenue and 1100 W. 2nd Avenue, respectively. These adjacent facilities located in Hialeah share interconnected source water and finished water storage capacity and have similar treatment processes. There are no public wellfields or wellfield protection zones located in the Town of Surfside.

On a regional level the Town falls within the South Florida Water Management District (SFWMD) and within the SFWMD's Lower East Coast (LEC) Planning Area. The *2005-2006 Lower East Coast Water Supply Plan Update* (2005-2006 LEC Plan Update), approved by the SFWMD on February 15, 2007, is one of four, long-term comprehensive regional water supply plan updates the District has developed for its planning areas. Previous water supply plans for the Lower East Coast (LEC) Planning Area include the *1998 Interim Plan for Lower East Coast Regional Water Supply*, which provided recommendations to improve water resource management and benefit water users until the long-term regional water supply plan was completed, and the *2000 Lower East Coast Regional Water Supply Plan* (2000 LEC Plan), which was completed in May 2000. The planning horizon for the 2000 LEC Plan was 2020; the planning horizon for the 2005-2006 LEC Plan Update is 2025.

As the state agency responsible for water supply in the region, including the Lower East Coast planning area, the SFWMD plays a vital role in resource protection. As a component of the District's Consumptive Use Permitting Program, the Regional Water Availability Rule was also adopted by the SFWMD Governing Board on February 15, 2007. This rule mandates the development of alternative water supplies, and increasing conservation and reuse to reduce the reliance on the regional system for future water supply needs. The Town of Surfside is working with WASD's Water Use Efficiency Section to identify the water conservation best management practices (BMPs) applicable to the Town to develop the Town's Water Conservation Plan as required by Miami-Dade County Ordinance 06-177.

The Town has completed their Utility Profile, and entered this data into the *Conserve Florida* on-line database, currently located at the conservefloridawater.org website. This data base is a component of Florida's Statewide Comprehensive Water Conservation Program.

Ground Water

The principal ground water resources for the LEC Planning Area are the Surficial Aquifer System (SAS), including the Biscayne aquifer, and the Floridian Aquifer System (FAS). The Surficial and Biscayne aquifers provide most of the fresh water for public water supply and agriculture within the LEC Planning Area. The 2005-2006 LEC Plan Update identifies the following:

> Although the Biscayne Aquifer is part of the Surficial Aquifer System (SAS), it exists only along the coastal areas in Miami-Dade, Broward and southern Palm Beach counties. The Biscayne Aquifer is highly productive with high-quality fresh water. The extension of the SAS through central and northern Palm Beach County is less productive, but is still used for consumptive uses, including potable water. These aquifers are shallow, generally

located within 200 feet of ground surface, and are connected to surface water systems, including canals, lakes and wetlands.

The Biscayne Aquifer and the extension of the SAS into northern Palm Beach County provide more than 1 billion gallons per day of high-quality, inexpensive fresh water for the populations of Palm Beach, Broward and Miami-Dade counties and the Florida Keys portion of Monroe County. This volume is heavily supported, especially during the annual dry season, as well as in periodic droughts, by water from the regional system, primarily the Everglades. During droughts, water from Lake Okeechobee has been required to supplement water from the Everglades to meet the needs of the coastal counties.

The Biscayne Aquifer is designated as a sole source aquifer by the U.S. Environmental Protection Agency (USEPA) under the *Safe Drinking Water Act* because it is a principal source of drinking water and is highly susceptible to contamination due to its high permeability and proximity to land surface in many locations. Protection of the Biscayne Aquifer is provided for through the District's *Basis of Review for Water Use Permit Applications* (SFWMD 2003) and in Chapter 373, Florida Statutes (F.S.), which limit the water availability for consumptive uses.

The Floridan Aquifer System (FAS) exists not just in the LEC Planning Area, but throughout the entire state and portions of adjacent states. The Upper Floridan Aquifer in southeast Florida contains brackish water and is increasingly being tapped as a source of raw water for treatment with reverse osmosis (RO) to create potable water. Brackish water from the Floridan Aquifer is also blended with fresh water prior to conventional water treatment to expand water supplies during the dry season. Additionally, the Floridan Aquifer is used for seasonal storage of treated fresh water within aquifer storage and recovery (ASR) systems. The Floridan Aquifer has been more extensively developed in the Upper East Coast (UEC) and Lower West Coast (LWC) planning areas of the South Florida Water Management District (SFWMD or District) than in the LEC Planning Area.

From Jupiter to southern Miami, water from the FAS is highly mineralized and not suitable for drinking water without specialized treatment. More than 600 feet of low permeability sediments confine this aquifer and create artesian conditions in the LEC Planning Area. Although the potentiometric surface of the aquifer is above land surface, the low permeability units of the intermediate confining unit prevent significant upward migration of saline waters into the shallower freshwater aquifers.

The top of the Upper Floridan Aquifer is approximately 900 feet in southeast Florida, and the base of the Upper Floridan extends as deep as 1,500 feet. At the base of the Lower Floridan Aquifer, there are cavernous zones with extremely high transmissivities collectively known as the boulder zone. Because of their depth and high salinity, these deeper zones of the Lower Floridan Aquifer are used primarily for disposal of treated wastewater.

Surface Water

Surface waters tend to contain silts and suspended sediments, algae, dissolved organic matter from topsoil, and chemical and microbiological contaminants from municipal wastewater discharges, stormwater runoff, and industrial and agricultural activities. Traditionally, surface water has not been used extensively for public supply in the LEC planning area.

Storm water throughout the developed areas of the SFWMD is often captured in constructed stormwater drainage and retention/detention systems. Water from these systems can be directly used to meet many non-potable water needs, such as golf course irrigation and other irrigation water needs. Stormwater, because of its diffuse and intermittent nature, is generally not considered a viable option for direct public-supply applications where reliability is a major consideration.

Pollutants

Waste generators, solid waste facilities, above and underground storage tanks, and dry cleaning facilities are licensed by the Florida Department of Environmental Protection (FDEP). Current information on these facilities is available through the Florida Department of Environmental Protection Division of Waste Management. Information on contaminated sites is also available through the U.S. Environmental Protection Agency (EPA) Resource Conservation Recovery Act (RCRA), Superfund, National Priorities List and the brownfield databases.

Within Miami-Dade County the Department of Environmental Resource Management (DERM) Pollution Remediation Section is currently contracted with the Florida Department of Environmental Protection (FDEP) to inspect all petroleum storage facilities in the County and oversee the cleanup of petroleum contamination in accordance with Chapters 62-761 and 62-770, Florida Administrative Code (F.A.C.), the stationary tank rule and the petroleum contamination cleanup criteria rule, respectively. The primary responsibility of DERM is to provide the technical oversight, management, and administrative activities necessary to prioritize, assess, and clean up sites contaminated by discharges of petroleum and petroleum products from stationary petroleum storage systems.

A November 2008 database search identifies that at this time there are no sites in the Town listed on the U.S. Environmental Protection Agency's (EPA) Federal Superfund list or the National Priorities List (NPL). There are no designated or candidate brownfields in the Town. Within the Town several sites are recognized by FDEP as having or had contamination issues. There are two operating dry cleaning facilities that are registered in the State Dry Cleaning Solvent Cleanup Program and awaiting cleanup, one closed dry cleaning facility with no tank or site information listed, and a closed petroleum facility with records indicating that all tanks had been removed by May of 1988.

The Town's Sanitary Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. The Town can provide public information regarding the safe disposal of household chemicals for its residents. Specifically, information can be made available on the free disposal of household hazardous wastes, information on disposal contractors available to small businesses and the special waste programs available for landfill disposal of non-typical materials, such as spill clean-ups and contaminated soils. Additionally the Town may consider contracting with a licensed hazardous waste hauler to execute a *Household Hazardous Waste Mobil Collection Event.* The Contractor would receive, catalog, inventory and prepare the manifest of disposal for the household products that are dropped off, as well as place them in appropriate containers and haul them away. Setting-up a system where the residents just drive up and 'pop the trunk' and let the contractor deal with the products from that point is an effective means to reduce the potential of contaminates being disposed of in inappropriate or detrimental ways. The Town could do this in conjunction with distributing informational handouts or gathering survey data from the event participants. Running it near Earth Day or in conjunction with spring cleaning drives has proven to increase participation. It is optimal to hold such an event in a paved area, and not near a school or park or an environmentally sensitive area to avoid the perception of putting environmentally sensitive sites at risk.

Greenhouse Gas Reduction Strategies

Climate change is largely attributed to the buildup of carbon dioxide and other greenhouse gas (GHG) concentrations in the atmosphere. Global emissions of GHG from human activities, such as the burning of fossil fuels and deforestation, have increased by 70% between 1970 and 2004 according to The American Planning Association (APA). In the April 2008, *Policy Guide on Planning and Climate Change*, the APA provides guidance for local governments toward the reduction of GHG emissions and on energy efficient land use decisions. The APA document indicates that effective actions to address GHG emissions should include a mix of education, incentives, subsidies, and regulation. The APA has suggested the following strategies for local governments to facilitate a reduction in GHG emissions: providing shopping, recreational and employment opportunities near residential areas, energy efficient buildings, convenient intermodal transportation systems, and the reduction of heat island effects through green spaces.

As currently developed, the Town of Surfside is a compact, walkable community that provides recreational, shopping, and employment opportunities completely within the municipality. The Future Land Use Element provides that the Town support green building standards through the Design Guidelines, consider all new residential development utilize green building standards and that all new municipal buildings will be build with nationally recognized green building standards.

Surfside already has convenient access to Miami-Dade Transit bus routes. The Future Land Use Element and Transportation Elements propose developing a Pedestrial and Bicyle Network Study to enhance links to parks, the business district and other Town amenities. The Town will also continue to support transit ready development and coordinate with Miami-Dade County on transit. To further reduce greenhouse gas production through transportation, the Town will support the Surfside Farmer's Market which promotes local agriculture, continue to allow home based businesses and continue curbise recycling programs.

In addition, the Town has significant open space and landscape requirements to diminish heat island effects. The Comprehensive Plan also includes policies to educate the public on the placement of canopy trees and other landscape materials to strategically provide shade, and educating the public on home energy reduction strategies and automobile idling.

Other policies that support energy efficiency include allowing for electric substations and use solar panels. Because of the compact, walkable nature of the Town, a map showing the energy conservation areas and features was not included.

Conservation Element
Goals, Objectives and Policies

Goal 1: Regulate the development and use of land in such a manner as to maintain and enhance environmental quality.

Objective 1 – Air quality<u>and Greenhouse Gas Reduction</u>: In general, protect air quality. In particular, promote improved air quality for the region. ~~Achievement of the objective shall be measured by implementation of these policies. [9J-5.013 (2) (b) 1]~~

Policy 1.1 – Support <u>Miami-</u>Dade County's efforts to conduct regular monitoring of air quality.

Policy 1.2 – <u>Educate residents and business owners on the cost and environmental effects of automobile idling.</u>~~Require new development to provide adequate means of vehicular ingress and egress to minimize idling time.~~

Policy 1.3 – Facilitate more efficient transportation services and facilities (including public transit facilities, bicycle facilities and pedestrian facilities) by pursuing the objectives and policies set forth in the Transportation Element.

Policy 1.4 – ~~Emissions of fumes and vapors from all hazardous waste facilities shall be controlled, and these facilities shall comply with Lowest Achievable Emission Rates. Vapor control systems shall be required to reduce hydrocarbon emissions from vehicles being filled at gas stations. [9J-5.013 (2) (c) 10]~~ <u>Enforce all adopted measures to contain and stabilize exposed or destabilized soil surfaces at construction sites to prevent erosion and the degradation of ambient air quality caused by the generation of dust particles.</u>

Policy 1.5 – Require oxygen renourishing landscaping as a part of new private development.

Policy 1.6 – Provide oxygen renourishing landscaping for public grounds.

Policy 1.7 – Maintain, and improve where appropriate, zoning or other development code regulations which protect existing trees in a way consistent with the standards of the broader community.

<u>Policy 1.8– The zoning code shall allow for use of alternate, renewable sources of energy including the use of solar panels.</u>

<u>Policy 1.9 – In accordance with Section 255.2575, F.S. the Town will construct all future municipal buildings to meet the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by the Florida Department of Management Services.</u>

<u>Policy 1.10 – The Town shall maintain and improve adopted Design Guideline provisions which encourage the use of the United States Green Building Council (USGBC) Leadership in</u>

Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system for both residential and commercial properties. Within two (2) year of adoption of this element, the Town shall explore incentives for use of green building standards in new development and redevelopment.

Policy 1.11 – Within two (2) years of the adoption of this element the Town shall consider the feasibility of requiring all new single family and multi-family structures to meet the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by the Florida Department of Management Services.

Policy 1.12 – The Town shall coordinate with and support the efforts of the South Florida Regional Planning Council and Miami-Dade County in pursuing a grant to conduct a neighborhood-wide building retro-fit program. The Town shall coordinate and support the implementation of the program is the funding is provided.

Objective 2 – Water quality: ~~In general, c~~Conserve, appropriately use, and protect the quality and quantity of current and projected water sources and waters that flow into estuarine waters or oceanic waters. ~~In particular, ensure that stormwater systems which discharge into surface water bodies do not degrade the ambient water quality. This will be accomplished by upgrading the drainage system so that storm water outfalls into Biscayne Bay (and adjacent canals) fully meet National Pollution Discharge Elimination System (NPDES) standards (as applicable to the Town under relevant interlocal a~reementswith Dade County and NPDES rules) no later than *December* 31, 1998 and the standards of Chapter 17-25, FAC and of Chapter 17-302.500, FAC. Upgrade on site drainage standards to ensure that private properties retain at least the first one inch of storm water on site and permit no more runoff after development than before development. [Scriveners note: The "in particular" portion of this objective is the same as the "in particular" portion of Land Use Element Objective 5. Rule 9J 5.011 (3) (c) 5 states that stormwater "…standards need not be the same for all systems. Local governments shall consider Chapter 17-40, F.A.C. in formulating water quality standards and may adopt by reference Chapter 17-25, F.A.C., as standards for water quality." It also states that local governments are not required to retrofit to meet existing standards and provides other restrictions on the burden which can be imposed on local governments under the rule.] [9J-5. 013 (2) (b) 2]~~

Policy 2.1 – ~~Policies 5.1 through 5.8 of the Land Use Element are incorporated herein by reference. [9J-5. 012 (3) (c) 1, 2 and 3]~~ For site plan approval, the Town shall require that surface water management systems be designed and operated consistent with the Town's adopted drainage level of service.

Policy 2.2 – The Town shall construct the Stormwater Treatment Trains and Rehabilitation projects specified in the State of Florida Department of Environmental Protection (DEP) Agreement No. S0374.

Policy 2.3 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection and enhancement of the Biscayne Bay Aquatic Preserve.

Policy 2.4 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection of Atlantic Ocean coastal waters, particularly relating to beach renourishment projects.

Policy 2.5 – The Town shall implement the stormwater improvement projects specified in the State of Florida Department of Environmental Protection (DEP) Agreement No. LP6768.

Policy 2.6 – The Town shall cooperate and coordinate with the applicable agencies to assure that solid and hazardous wastes generated within the Town are properly managed to protect the environment and near shore waters. The Town shall report any hazardous waste violation they may become aware of to the appropriate jurisdictional agency.

Policy 2.7 – The Town shall adhere to the National Pollution Discharge Elimination System-Municipal Separate Storm Sewer System (NPDES-MS4) Permit and shall implement the permit conditions including monitoring of outfalls and improving stormwater management practices.

Objective 3 – Water quantity: ~~In general, c~~Conserve, appropriately use, and protect the quality and quantity of current and projected water sources. ~~and water that flow into estuarine waters or oceanic waters. In particular, achieve a reduction of at least 10 percent in per capita water consumption in the event of a water supply emergency (dependent upon the near term ability to measure Town wide consumption). [9J 5.013 (2) (b) 2]~~

Policy 3.1 – The Town shall maintain or improve an emergency water conservation ordinance based on both the South Florida Water Management District model ordinance and any specific South Florida Water Management District requirements of the emergency in question. ~~[9J 5.013 (2) (c) 4]~~

Policy 3.2 – The Town shall assess projected water needs and sources for the 20-year planning period by creating and maintaining a 20-Year Water Supply Facilities Work Plan. Future water supply planning shall emphasize the efficient use of water resources and where possible and financially feasible, utilize alternative water sources.

Policy 3.3 – The Town shall submit a Water Conservation Plan to the County's Water and Sewer Department's Water Use Efficiency Section, pursuant to the Miami-Dade County Code Section 32-83.1. The Plan shall be updated for the County's approval every five years following submittal, and Conserve Florida Guide generated reports shall be filed annually at the close of the fiscal year.

Policy 3.4 – The Town shall participate in the development of the Regional Water Supply Plan in conjunction with the South Florida Water Management District.

Policy 3.5 – The Town shall conserve potable water resources and implement reuse programs and potable water conservation strategies and techniques consistent with the Miami Dade County 20-Year Water Supply Facilities Work Plan.

Policy 3.6 – The Town shall ensure coordination between land use and future water supply planning by ~~the adoption and~~ implementation of the 20-Year Water Supply Facilities Work Plan within 18 months of the adoption of the Lower East Coast Water Supply Plan, as required by Chapter 163, Florida Statutes.

Policy 3.7 – The Town shall continue to decrease potable water consumption and achieve at a minimum a 5% per capita reduction in water consumption by the year 2011, from the rate of 165 gallons per capita per day documented for 2007 in the Town's 20 year Water Supply Plan.

Policy 3.8 – The Town shall work towards the further education of the public regarding various methods of water conservation at the household and small business level.

Policy 3.9 – The Town shall support water conservation goals through the support and enforcement of landscape and irrigation ordinances, inclusive of all applicable Miami-Dade Ordinances.

Objective 4 – Vegetative communities and soils, wildlife habitat and wildlife: Conserve, appropriately use and protect native vegetative communities for their own sake and to protect soils, wildlife habitat and wildlife. ~~This objective shall be made measurable by its implementing policies.. [9J5.013 (2) (b) 3 and 4]~~

Policy 4.1 ~~– Policy 1.1 and Policies 2.1 through 2.13 of the Coastal Management Element are incorporated herein by reference~~ The Town shall encourage and educate the public in the planting and maintenance of trees.

Policy 4.2 ~~– Certain exotic pest plants shall not be sold propar:ated, or planted within the Town of Surfside. If existing on a development site. they shall be removed prior to development. Certain other exotic plant species (which are documented by the Florida Exotic Pest Plant Council, the Dade County Park and Recreation Department's Natural Area's Management Program and the Dade County Department of Environmental Resources Management to be invasive pests in natural areas) may not be planted within 500 feet of the native plant communities that they are known to invade. These species referenced in this policy are listed in a Exhibit 1~~ The Town shall require the owner/applicant to remove all Class I and II invasive exotic vegetation, as recognized by the Florida Exotic Pest Plant Council, from the subject site as a condition for new development or redevelopment.

Policy 4.3 – The Town shall maintain a survey of vegetation on property for which it has maintenance responsibility. The Town administration shall make recommendations for enhancing native vegetation. ~~[9J 5.13 (2) (e) 3]~~

Policy 4.4 – The Town shall evaluate the feasibility of incorporating recommendations derived from the implementation of Policy 4.3 above into the Capital Improvements Budget or the operating budget.

Policy 4.5 ~~– Policies 1.7 and 1.8 of the Land Use Element are incorporated herein by reference~~ The Town shall strictly enforce the adopted landscape standards which require the preservation of existing native species, the removal of invasive species and the promotion of native plant materials.

Policy 4.6 – The Town shall continue to coordinate and cooperate with the County, the State and the U.S. Fish and Wildlife Service on the protection of the beach dune system which is nesting habitat for marine turtles.

Objective 5 – Floodplain protection: Protect and conserve the natural functions of existing floodplains. ~~This objective shall be measured by implementation of its supporting policies. Included in actions to be given specific consideration shall be the removal of any and all of the plant types named in Policy 4.2 above from properties owned by the Town or over which the Town has maintenance responsibility.~~

Policy 5.1 – The Town shall maintain and improve land development code provisions governing floodplain protection. *Floodplain protection regulations* shall be consistent with applicable standards promulgated by the South Florida Water Management District, the South Florida Regional Planning Council, the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, and/or other agencies with relevant jurisdiction and/or information. The Town shall revise as necessary and enforce flood hazard reduction regulations ~~to ensure that: 1) adequate drainage paths are provided to guide storm water runoff around structures; 2) for residential buildings in AE zones, the lowest floor and significant mechanical equipment is located above the base flood elevation; 3) for nonresidential buildings in AE zones, either the lowest floor and the mechanical equipment is located above the base flood elevation or habitable areas below the base flood elevation are flood-proofed; 4) all buildings in V zones are located according to the requirements of the Florida Coastal Zone Protection Act of 1985; 5) the elevation of all buildings in V zones is located so that the bottom of the lowest supporting horizontal member and all mechanical equipment is no lower than the base floor elevation; and 6) structural fill is prohibited. The enumeration of specific features of the flood protection regulations contained herein shall be interpreted as establishing minimum standards for Town regulations, not as precluding additional or higher standards which may have a legitimate public purpose~~. In addition, the Town shall participate in the Community Rating System of the National Flood Insurance Program. ~~[9J5.013 (2) (c) 6 with respect to floodplains]~~

9J-5.013 Objective and policy requirements not applicable to the Town of Surfside: Rule 9J–5 of the Florida Administrative Code requires communities to adopt as part of their Conservation Element objectives and policies which address various issues, except where those issues are not reasonably applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable:

9J5.013 (2) (b) 3 Conserve, appropriately use and protect minerals and native vegetative communities.

9J5.013 (2) (c) 2 Conservation, appropriate use and protection of areas suitable for extraction of minerals.

9J5.013 (2) (c) 6 Protection and conservation of the natural functions of existing [soils], fisheries, wildlife habitats, rivers, bays, lakes, [floodplains], harbors, wetlands including estuarine marshes, freshwater beaches and shores, and marine habitats.

9J5.013 (2) (c) 7 Protection of existing natural reservations identified in the recreation and open space element.

9J5.013 (2) (c) 8 Continuing cooperation with adjacent local governments to conserve, appropriately use, or protect unique vegetative communities located within more than one local jurisdiction.

9J5.013 (2) (c) 9 Designation of environmentally sensitive lands for protection.

9J5.013 (3) (a) Protection and conservation of wetlands.

9J5.013 (3) (b) Protection and conservation of wetlands.

Appendix 6-A. Listed Wildlife Species

Common Name	Scientific Name	State	Federal
American crocodile	Crocodylus acutus	E	T
loggerhead seaturtle	Caretta caretta	T	T
green seaturtle	Chelonia mydas	E	E
leatherback seaturtle	Dermochelys coriacea	E	E
hawksbill seaturtle	Eretmochelys imbricata	E	E
brown pelican	Pelecanus occidentalis	SSC (1)	
osprey	Pandion haliaetus	SSC2 (1,2)	
Florida manatee	Trichechus manatus latirostris	E	E

E = Endangered
T= Threatened
SSC = Species of Special Concern
Reasons for SSC listings prior to January 1, 2001 are indicated by the number in parenthesis under the following criteria:
(1) has a significant vulnerability to habitat modification, environmental alteration, human disturbance, or human exploitation which, in the foreseeable future, may result in its becoming a threatened species unless appropriate protective or management techniques are initiated or maintained;
(2) may already meet certain criteria for designation as a threatened species but for which conclusive data are limited or lacking.

Appendix 6-B. Native Plant Species

Scientific Name	Common Name	Family	Federal	State
Abutilon permolle	COASTAL INDIAN MALLOW	MALVACEAE		
Acacia choriophylla	CINNECORD; TAMARINDILLO	FABACEAE		E
Acoelorraphe wrightii	EVERGLADES PALM	ARECACEAE		T
Agalinis fasciculata	BEACH FALSE FOXGLOVE	OROBANCHACEAE		
Agave decipiens	FALSE SISAL	AGAVACEAE		
Alternanthera maritima	SEASIDE JOYWEED	AMARANTHACEAE		
Amphitecna latifolia	BLACK CALABASH	BIGNONIACEAE		
Amyris elemifera	SEA TORCHWOOD	RUTACEAE		
Ardisia escallonioides	MARLBERRY	MYRSINACEAE		
Argemone mexicana	MEXICAN PRICKLYPOPPY	PAPAVERACEAE		
Argusia gnaphalodes	SEA ROSEMARY; SEA LAVENDER	BORAGINACEAE		E
Atriplex cristata	CRESTED SALTBUSH	AMARANTHACEAE		
Avicennia germinans	BLACK MANGROVE	AVICENNIACEAE		
Balduina angustifolia	COASTALPLAIN HONEYCOMBHEAD	ASTERACEAE		
Borrichia arborescens	TREE SEASIDE OXEYE	ASTERACEAE		
Borrichia frutescens	BUSHY SEASIDE OXEYE	ASTERACEAE		
Bourreria cassinifolia	SMOOTH STRONGBARK; LITTLE STRONGBARK	BORAGINACEAE		E
Bourreria succulenta	BAHAMA STRONGBARK; BODYWOOD	BORAGINACEAE		E
Bucida molinetii	SPINY BLACK OLIVE	COMBRETACEAE		
Bursera simaruba	GUMBO-LIMBO	BURSERACEAE		
Cakile lanceolata	COASTAL SEAROCKET	BRASSICACEAE		
Callicarpa americana	AMERICAN BEAUTYBERRY	LAMIACEAE		
Calyptranthes pallens	PALE LIDFLOWER; SPICEWOOD	MYRTACEAE		T
Calyptranthes zuzygium	MYRTLE-OF-THE-RIVER	MYRTACEAE		E
Canavalia rosea	BAYBEAN; SEASIDE JACKBEAN	FABACEAE		
Canella winterana	CINNAMON BARK; WILD CINNAMON	CANELLACEAE		E
Capparis cynophallophora	JAMAICAN CAPERTREE	BRASSICACEAE		
Capparis flexuosa	BAYLEAF CAPERTREE	BRASSICACEAE		
Carya floridana	SCRUB HICKORY	JUGLANDACEAE		
Cassytha filiformis	LOVE VINE; DEVIL'S GUT	LAURACEAE		
Celtis laevigata	SUGARBERRY; HACKBERRY	CELTIDACEAE		
Cenchrus spinifex	COASTAL SANDBUR	POACEAE		
Cenchrus tribuloides	SANDDUNE SANDBUR	POACEAE		

Appendix 6-B. Native Plant Species

Scientific Name	Common Name	Family	Federal	State
Ceratiola ericoides	FLORIDA ROSEMARY; SAND HEATH	ERICACEAE		
Chamaesyce bombensis	DIXIE SANDMAT	EUPHORBIACEAE		
Chamaesyce hyssopifolia	HYSSOPLEAF SANDMAT	EUPHORBIACEAE		
Chamaesyce maculata	SPOTTED SANDMAT	EUPHORBIACEAE		
Chamaesyce mesembrianthemifolia	COASTAL BEACH SANDMAT	EUPHORBIACEAE		
Chamaesyce prostrata	PROSTRATE SANDMAT	EUPHORBIACEAE		
Chamaesyce thymifolia	GULF SANDMAT	EUPHORBIACEAE		
Chrysobalanus icaco	COCO PLUM	CHRYSOBALANACEAE		
Chrysophyllum oliviforme	SATINLEAF	SAPOTACEAE		T
Citharexylum spinosum	FLORIDA FIDDLEWOOD	VERBENACEAE		
Clusia rosea	PITCHAPPLE	CLUSIACEAE		
Coccoloba diversifolia	TIETONGUE; PIGEON PLUM	POLYGONACEAE		
Coccoloba uvifera	SEAGRAPE	POLYGONACEAE		
Coccothrinax argentata	FLORIDA SILVER PALM	ARECACEAE		T
Colubrina arborescens	GREENHEART	RHAMNACEAE		E
Colubrina cubensis var. floridana	CUBAN NAKEDWOOD	RHAMNACEAE		E
Colubrina elliptica	SOLDIERWOOD	RHAMNACEAE		E
Commelina erecta	WHITEMOUTH DAYFLOWER	COMMELINACEAE		
Conocarpus erectus	BUTTONWOOD	COMBRETACEAE		
Conoclinium coelestinum	BLUE MISTFLOWER	ASTERACEAE		
Cordia bahamensis	BAHAMA MANJACK	BORAGINACEAE		
Cordia globosa	CURACAO BUSH	BORAGINACEAE		
Coreopsis floridana	FLORIDA TICKSEED	ASTERACEAE		E
Coreopsis leavenworthii	LEAVENWORTH'S TICKSEED	ASTERACEAE		
Crinum americanum	SEVEN-SISTERS; STRING-LILY	AMARYLLIDACEAE		
Croton punctatus	GULF CROTON; BEACH TEA	EUPHORBIACEAE		
Cynanchum angustifolium	GULF COAST SWALLOWWORT	APOCYNACEAE		
Cyperus pedunculatus	BEACHSTAR	CYPERACEAE		E
Dalbergia brownei	BROWNE'S INDIAN ROSEWOOD	FABACEAE		E
Dalbergia ecastaphyllum	COINVINE	FABACEAE		
Datura stramonium	JIMSONWEED	SOLANACEAE		
Dicliptera sexangularis	SIXANGLE FOLDWING	ACANTHACEAE		
Diospyros virginiana	COMMON PERSIMMON	EBENACEAE		

Appendix 6-B. Native Plant Species

Scientific Name	Common Name	Family	Federal	State
Dodonaea viscosa	VARNISHLEAF; FLORIDA HOPBUSH	SAPINDACEAE		
Drypetes diversifolia	WHITEWOOD; MILKBARK	EUPHORBIACEAE		E
Drypetes lateriflora	GUIANA PLUM	EUPHORBIACEAE		T
Echites umbellatus	DEVIL'S POTATO; RUBBERVINE	APOCYNACEAE		
Erithalis fruticosa	BLACKTORCH	RUBIACEAE		T
Ernodea cokeri	COKER'S BEACH CREEPER; ONE-NERVED ERNODEA	RUBIACEAE		E
Ernodea littoralis	BEACH CREEPER; COUGHBUSH	RUBIACEAE		
Eugenia axillaris	WHITE STOPPER	MYRTACEAE		
Eugenia confusa	REDBERRY STOPPER; REDBERRY EUGENIA	MYRTACEAE		E
Eugenia foetida	SPANISH STOPPER; BOXLEAF STOPPER	MYRTACEAE		
Eugenia rhombea	RED STOPPER	MYRTACEAE		E
Euphorbia polyphylla	LESSER FLORIDA SPURGE	EUPHORBIACEAE		
Euphorbia trichotoma	SANDDUNE SPURGE	EUPHORBIACEAE		
Evolvulus alsinoides	SLENDER DWARF MORNING-GLORY	CONVOLVULACEAE		
Evolvulus convolvuloides	BINDWEED DWARF MORNING-GLORY	CONVOLVULACEAE		E
Evolvulus sericeus	SILVER DWARF MORNING-GLORY	CONVOLVULACEAE		
Exostema caribaeum	CARIBBEAN PRINCEWOOD	RUBIACEAE		E
Exothea paniculata	INKWOOD; BUTTERBOUGH	SAPINDACEAE		
Ficus aurea	STRANGLER FIG; GOLDEN FIG	MORACEAE		
Ficus citrifolia	WILD BANYAN TREE	MORACEAE		
Galium hispidulum	COASTAL BEDSTRAW	RUBIACEAE		
Genipa clusiifolia	SEVENYEAR APPLE	RUBIACEAE		
Glandularia maritima	COASTAL MOCK VERVAIN	VERBENACEAE		E
Gossypium hirsutum	UPLAND COTTON; WILD COTTON	MALVACEAE		E
Guaiacum sanctum	HOLYWOOD LIGNUMVITAE	ZYGOPHYLLACEAE		E
Guapira discolor	BEEFTREE; BLOLLY	NYCTAGINACEAE		
Gymnanthes lucida	CRABWOOD; OYSTERWOOD	EUPHORBIACEAE		
Halodule wrightii	SHOALWEED	CYMODOCEACEAE		
Halophila decipiens	CARIBBEAN SEAGRASS	HYDROCHARITACEAE		
Halophila engelmannii	ENGELMANN'S SEAGRASS	HYDROCHARITACEAE		
Halophila johnsonii	JOHNSON'S SEAGRASS	HYDROCHARITACEAE	T	
Hamelia patens	FIREBUSH	RUBIACEAE		
Helianthus debilis	EAST COAST DUNE SUNFLOWER	ASTERACEAE		

Appendix 6-B. Native Plant Species

Scientific Name	Common Name	Family	Federal	State
Heliotropium angiospermum	SCORPIONSTAIL	BORAGINACEAE		
Heliotropium curassavicum	SEASIDE HELIOTROPE; SALT HELIOTROPE	BORAGINACEAE		
Hieracium megacephalon	COASTALPLAIN HAWKWEED	ASTERACEAE		
Hymenocallis latifolia	MANGROVE SPIDERLILY; PERFUMED SPIDERLILY	AMARYLLIDACEAE		
Hymenocallis palmeri	ALLIGATORLILY	AMARYLLIDACEAE		
Hymenocallis tridentata	FLORIDA SPIDERLILY	AMARYLLIDACEAE		
Hypelate trifoliata	WHITE IRONWOOD	SAPINDACEAE		E
Ilex cassine	DAHOON	AQUIFOLIACEAE		
Ilex glabra	INKBERRY; GALLBERRY	AQUIFOLIACEAE		
Ilex krugiana	TAWNYBERRY HOLLY; KRUG'S HOLLY	AQUIFOLIACEAE		T
Indigofera caroliniana	CAROLINA INDIGO	FABACEAE		
Indigofera miniata var. florida	FLORIDA COASTAL INDIGO	FABACEAE		
Ipomoea alba	MOONFLOWERS; TROPICAL WHITE MORNING-GLORY	CONVOLVULACEAE		
Ipomoea cordatotriloba	TIEVINE	CONVOLVULACEAE		
Ipomoea hederacea	IVYLEAF MORNING-GLORY	CONVOLVULACEAE		
Ipomoea hederifolia	SCARLETCREEPER	CONVOLVULACEAE		
Ipomoea imperati	BEACH MORNING-GLORY	CONVOLVULACEAE		
Ipomoea indica	OCEANBLUE MORNING-GLORY	CONVOLVULACEAE		
Ipomoea lacunosa	WHITESTAR	CONVOLVULACEAE		
Ipomoea microdactyla	WILD-POTATO MORNING-GLORY	CONVOLVULACEAE		E
Ipomoea pes-caprae subsp. brasiliensis	RAILROAD VINE; BAYHOPS	CONVOLVULACEAE		
Ipomoea sagittata	SALTMARSH MORNING-GLORY	CONVOLVULACEAE		
Ipomoea violacea	HEAVENLYBLUE MORNING-GLORY	CONVOLVULACEAE		
Iva imbricata	SEACOAST MARSHELDER	ASTERACEAE		
Jacquemontia pentanthos	SKYBLUE CLUSTERVINE	CONVOLVULACEAE		E
Jacquemontia reclinata	BEACH CLUSTERVINE; BEACH JACQUEMONTIA	CONVOLVULACEAE	E	E
Jacquemontia tamnifolia	HAIRY CLUSTERVINE	CONVOLVULACEAE		
Jacquinia keyensis	JOEWOOD	THEOPHRASTACEAE		T
Juniperus virginiana	RED CEDAR	CUPRESSACEAE		
Kosteletzkya pentacarpos	VIRGINIA SALTMARSH MALLOW	MALVACEAE		
Krugiodendron ferreum	BLACK IRONWOOD; LEADWOOD	RHAMNACEAE		
Laguncularia racemosa	WHITE MANGROVE	COMBRETACEAE		
Limonium carolinianum	CAROLINA SEALAVENDER	PLUMBAGINACEAE		

Appendix 6-B. Native Plant Species

Scientific Name	Common Name	Family	Federal	State
Ludwigia maritima	SEASIDE PRIMROSEWILLOW	ONAGRACEAE		
Lysiloma latisiliquum	FALSE TAMARIND	FABACEAE		
Magnolia virginiana	SWEETBAY	MAGNOLIACEAE		
Manilkara jaimiqui subsp. emarginata	WILD DILLY	SAPOTACEAE		T
Maytenus phyllanthoides	FLORIDA MAYTEN	CELASTRACEAE		T
Metopium toxiferum	FLORIDA POISONTREE; POISONWOOD	ANACARDIACEAE		
Morinda royoc	REDGAL	RUBIACEAE		
Morus rubra	RED MULBERRY	MORACEAE		
Muhlenbergia capillaris var. filipes	GULF HAIRAWN MUHLY	POACEAE		
Myrcianthes fragrans	TWINBERRY; SIMPSON'S STOPPER	MYRTACEAE		T
Myrica cerifera	SOUTHERN BAYBERRY; WAX MYRTLE	MYRICACEAE		
Ocotea coriacea	LANCEWOOD	LAURACEAE		
Okenia hypogaea	BURROWING FOUR-O'CLOCK; BEACH PEANUT	NYCTAGINACEAE		E
Opuntia humifusa	PRICKLYPEAR	CACTACEAE		
Opuntia stricta	ERECT PRICKLYPEAR; SHELL-MOUND PRICKLYPEAR	CACTACEAE		T
Palafoxia integrifolia	COASTALPLAIN PALAFOX	ASTERACEAE		
Parthenocissus quinquefolia	VIRGINIA CREEPER; WOODBINE	VITACEAE		
Passiflora incarnata	PURPLE PASSIONFLOWER	PASSIFLORACEAE		
Passiflora multiflora	WHITEFLOWER PASSIONFLOWER	PASSIFLORACEAE		E
Passiflora suberosa	CORKYSTEM PASSIONFLOWER	PASSIFLORACEAE		
Pectis glaucescens	SANDDUNE CINCHWEED	ASTERACEAE		
Pectis linearifolia	FLORIDA CINCHWEED	ASTERACEAE		
Pectis prostrata	SPREADING CINCHWEED	ASTERACEAE		
Pedilanthus tithymaloides subsp. smallii	JACOB'S LADDER; REDBIRD FLOWER	EUPHORBIACEAE		
Penstemon multiflorus	MANYFLOWER BEARDTONGUE	VERONICACEAE		
Peperomia humilis	LOW PEPEROMIA	PIPERACEAE		E
Peperomia magnoliifolia	SPOONLEAF PEPEROMIA; SPATHULATE PEPEROMIA	PIPERACEAE		E
Peperomia obtusifolia	FLORIDA PEPEROMIA; BABY RUBBERPLANT	PIPERACEAE		E
Persea borbonia	RED BAY	LAURACEAE		
Pilea microphylla	ARTILLERY PLANT; ROCKWEED	URTICACEAE		
Pinus elliottii	SLASH PINE	PINACEAE		
Piscidia piscipula	FLORIDA FISHPOISON TREE; JAMAICAN DOGWOOD	FABACEAE		
Portulaca pilosa	PINK PURSLANE; KISS-ME-QUICK	PORTULACACEAE		

Appendix 6-B. Native Plant Species

Scientific Name	Common Name	Family	Federal	State
Portulaca rubricaulis	REDSTEM PURSLANE	PORTULACACEAE		
Prunus myrtifolia	WEST INDIAN CHERRY	ROSACEAE		T
Pseudophoenix sargentii	SARGENT'S CHERRY PALM	ARECACEAE		E
Psychotria ligustrifolia	BAHAMA WILD COFFEE	RUBIACEAE		E
Psychotria nervosa	WILD COFFEE	RUBIACEAE		
Psychotria sulzneri	SHORTLEAF WILD COFFEE	RUBIACEAE		
Quercus laurifolia	LAUREL OAK; DIAMOND OAK	FAGACEAE		
Quercus minima	DWARF LIVE OAK	FAGACEAE		
Quercus pumila	RUNNING OAK	FAGACEAE		
Quercus virginiana	LIVE OAK	FAGACEAE		
Randia aculeata	WHITE INDIGOBERRY	RUBIACEAE		
Reynosia septentrionalis	DARLINGPLUM	RHAMNACEAE		T
Rhabdadenia biflora	RUBBERVINE; MANGROVEVINE	APOCYNACEAE		
Rhizophora mangle	RED MANGROVE	RHIZOPHORACEAE		
Roystonea regia	FLORIDA ROYAL PALM	ARECACEAE		E
Rudbeckia hirta	BLACKEYED SUSAN	ASTERACEAE		
Sabal etonia	SCRUB PALMETTO	ARECACEAE		
Sabal palmetto	CABBAGE PALM	ARECACEAE		
Sachsia polycephala	BAHAMA SACHSIA	ASTERACEAE		T
Sapindus saponaria	SOAPBERRY	SAPINDACEAE		
Sarcostemma clausum	WHITE TWINEVINE	APOCYNACEAE		
Scaevola plumieri	BEACHBERRY; INKBERRY; GULLFEED	GOODENIACEAE		T
Schaefferia frutescens	FLORIDA BOXWOOD	CELASTRACEAE		E
Schoepfia chrysophylloides	GRAYTWIG	OLACACEAE		
Serenoa repens	SAW PALMETTO	ARECACEAE		
Sesbania herbacea	DANGLEPOD	FABACEAE		
Sesbania vesicaria	BLADDERPOD; BAGPOD	FABACEAE		
Sesuvium maritimum	SLENDER SEAPURSLANE	AIZOACEAE		
Sesuvium portulacastrum	SHORELINE SEAPURSLANE	AIZOACEAE		
Sideroxylon celastrinum	SAFFRON PLUM	SAPOTACEAE		
Sideroxylon foetidissimum	FALSE MASTIC	SAPOTACEAE		
Sideroxylon reclinatum	FLORIDA BULLY	SAPOTACEAE		
Sideroxylon salicifolium	WILLOW BUSTIC; WHITE BULLY	SAPOTACEAE		

Appendix 6-B. Native Plant Species

Scientific Name	Common Name	Family	Federal	State
Sideroxylon tenax	TOUGH BULLY	SAPOTACEAE		
Simarouba glauca	PARADISETREE	SIMAROUBACEAE		
Sisyrinchium angustifolium	NARROWLEAF BLUE-EYED GRASS	IRIDACEAE		
Sisyrinchium nashii	NASH'S BLUE-EYED GRASS	IRIDACEAE		
Sisyrinchium xerophyllum	JEWELED BLUE-EYED GRASS	IRIDACEAE		
Solanum americanum	AMERICAN BLACK NIGHTSHADE	SOLANACEAE		
Solanum bahamense	BAHAMA NIGHTSHADE; CANKERBERRY	SOLANACEAE		
Solanum capsicoides	SODA APPLE; COCKROACHBERRY	SOLANACEAE		
Solanum erianthum	POTATOTREE	SOLANACEAE		
Sophora tomentosa var. truncata	YELLOW NECKLACEPOD	FABACEAE		
Stachytarpheta jamaicensis	BLUE PORTERWEED; JOEE	VERBENACEAE		
Stenotaphrum secundatum	ST. AUGUSTINEGRASS	POACEAE		
Stylisma villosa	HAIRY DAWNFLOWER	CONVOLVULACEAE		
Suriana maritima	BAY CEDAR	SURIANACEAE		
Swietenia mahagoni	WEST INDIAN MAHOGANY	MELIACEAE		T
Thalassia testudinum	TURTLEGRASS	HYDROCHARITACEAE		
Thrinax morrisii	BRITTLE THATCH PALM; KEY THATCH PALM	ARECACEAE		E
Thrinax radiata	FLORIDA THATCH PALM	ARECACEAE		E
Uniola paniculata	SEAOATS	POACEAE		
Vallesia antillana	TEARSHRUB	APOCYNACEAE		E
Viola sororia	COMMON BLUE VIOLET	VIOLACEAE		
Yucca aloifolia	SPANISH BAYONET; ALOE YUCCA	AGAVACEAE		
Zamia pumila	FLORIDA ARROWROOT; COONTIE	ZAMIACEAE		
Zanthoxylum coriaceum	BISCAYNE PRICKLYASH	RUTACEAE		E
Zanthoxylum fagara	WILD LIME; LIME PRICKLYASH	RUTACEAE		

Appendix 6-C. Invasive Pest Plant Species

Category I - Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused.

Scientific Name	Common Name(s)	Status
Abrus precatorius	rosary pea	N
Acacia auriculiformis	earleaf acacia	
Albizia lebbeck	woman's tongue	
Ardisia crenata (= A. crenulata)	coral ardisia	
Ardisia elliptica (=A humilis)	shoebutton ardisia	N
Asparagus aethiopicus (= A. sprengeri; A. densiflorus misapplied)	asparagus-fern	
Bauhinia variegata	orchid tree	
Bischofia javanica	bishopwood	
Calophyllum antillanum (=C. calaba; C. inophyllum misapplied)	santa maria ("mast wood," "Alexandrian laurel" used in cultivation)	
Casuarina equisetifolia	Australian pine	P, N
Casuarina glauca	suckering Australian pine	P, N
Cinnamomum camphora	camphor-tree	
Colocasia esculenta	wild taro	
Colubrina asiatica	lather leaf	N
Cupaniopsis anacardioides	carrotwood	N
Dioscorea alata	winged yam	N
Dioscorea bulbifera	air-potato	N
Eichhornia crassipes	water-hyacinth	P
Eugenia uniflora	Surinam cherry	
Ficus microcarpa (F. nitida and F. retusa var. nitida misapplied)	laurel fig	
Hydrilla verticillata	hydrilla	P, U
Hygrophila polysperma	green hygro	P, U
Hymenachne amplexicaulis	West Indian marsh grass	
Imperata cylindrica (I. brasiliensis misapplied)	cogon grass	N, U
Jasminum dichotomum	Gold Coast jasmine	
Jasminum fluminense	Brazilian jasmine	
Lantana camara	lantana, shrub verbena	
Ligustrum sinense	Chinese privet, hedge privet	
Lonicera japonica	Japanese honeysuckle	

Appendix 6-C. Invasive Pest Plant Species

Scientific Name	Common Name(s)	Status
Ludwigia peruviana	Peruvian primrosewillow	
Lygodium japonicum	Japanese climbing fern	N
Lygodium microphyllum	Old World climbing fern	N
Macfadyena unguis-cati	cat's claw vine	
Manilkara zapota	sapodilla	
Melaleuca quinquenervia	melaleuca, paper bark	P, N, U
Mimosa pigra	catclaw mimosa	P, N, U
Nephrolepis cordifolia	sword fern	
Nephrolepis multiflora	Asian sword fern	
Neyraudia reynaudiana	Burma reed, cane grass	N
Paederia cruddasiana	sewer vine, onion vine	N
Paederia foetida	skunk vine	N
Panicum repens	torpedo grass	
Pennisetum purpureum	Napier grass	
Pistia stratiotes	waterlettuce	P
Psidium cattleianum (=P. littorale)	strawberry guava	
Psidium guajava	guava	
Pueraria montana var. lobata (=P. lobata)	kudzu	N
Rhodomyrtus tomentosa	downy rose-myrtle	N
Rhynchelytrum repens	Natal grass	
Ruellia tweediana (= R. brittoniana)	Mexican petunia	
Sapium sebiferum (= Triadeca sebifera)	popcorn tree, Chinese tallow tree	N
Scaevola taccada (=Scaevola sericea, S. frutescens)	scaevola, half-flower, beach naupaka	N
Schefflera actinophylla (=Brassaia actinophylla)	schefflera, Queensland umbrella tree	
Schinus terebinthifolius	Brazilian pepper	P, N
Senna pendula var. glabrata (=Cassia coluteoides)	climbing cassia, Christmas cassia, Christmas senna	
Solanum tampicense (=S. houstonii)	wetland night shade, aquatic soda apple	N, U
Solanum viarum	tropical soda apple	N, U
Syngonium podophyllum	arrowhead vine	
Syzygium cumini	jambolan, Java plum	
Tectaria incisa	incised halberd fern	
Thespesia populnea	seaside mahoe	
Urochloa mutica (= Brachiaria mutica)	Pará grass	

Appendix 6-C. Invasive Pest Plant Species

Category II - Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. These species may become ranked Category I, if ecological damage is demonstrated.

Scientific Name	Common Name(s)	Status
Adenanthera pavonina	red sandalwood	
Agave sisalana	sisal hemp	
Alstonia macrophylla	devil-tree	
Alternanthera philoxeroides	alligator weed	P
Antigonon leptopus	coral vine	
Aristolochia littoralis	calico flower	
Asystasia gangetica	Ganges primrose	
Begonia cucullata	wax begonia	
Blechum pyramidatum	green shrimp plant, Browne's blechum	
Broussonetia papyrifera	paper mulberry	
Callisia fragrans	inch plant, spironema	
Casuarina cunninghamiana	Australian pine	P
Cecropia palmata	trumpet tree	
Cestrum diurnum	day jessamine	
Chamaedorea seifrizii	bamboo palm	
Cryptostegia madagascariensis	rubber vine	
Cyperus involucratus (C. alternifolius misapplied)	umbrella plant	
Cyperus prolifer	dwarf papyrus	
Dalbergia sissoo	Indian rosewood, sissoo	
Epipremnum pinnatum cv. Aureum	pothos	
Ficus altissima	false banyan, council tree	
Flacourtia indica	governor's plum	
Hemarthria altissima	limpo grass	
Hibiscus tiliaceus	mahoe, sea hibiscus	
Ipomoea fistulosa (= I.carnea ssp. fistulosa)	shrub morning-glory	P
Jasminum sambac	Arabian jasmine	
Kalanchoe pinnata	life plant	
Koelreuteria elegans ssp. formosana (= K. formosana; K. paniculata)	flamegold tree	
Leucaena leucocephala	lead tree	N
Limnophila sessiliflora	Asian marshweed	P, U
Livistona chinensis	Chinese fan palm	

Appendix 6-C. Invasive Pest Plant Species

Scientific Name	Common Name(s)	Status
Melia azedarach	Chinaberry	
Melinis minutiflora	Molasssesgrass	
Merremia tuberosa	wood-rose	
Murraya paniculata	orange-jessamine	
Myriophyllum spicatum	Eurasian water-milfoil	P
Nymphoides cristata	snowflake	
Panicum maximum	Guinea grass	
Passiflora biflora	two-flowered passion vine	
Pennisetum setaceum	green fountain grass	
Phoenix reclinata	Senegal date palm	
Pittosporum pentandrum	Philippine pittosporum, Taiwanese cheesewood	
Pteris vittata	Chinese brake fern	
Ptychosperma elegans	solitary palm	
Rhoeo spathacea (see Tradescantia spathacea)		
Ricinus communis	castor bean	
Rotala rotundifolia	roundleaf toothcup, dwarf Rotala	
Sansevieria hyacinthoides	bowstring hemp	
Scleria lacustris	Wright's nutrush	
Sesbania punicea	purple sesban, rattlebox	
Solanum diphyllum	Two-leaf nightshade	
Solanum torvum	susumber, turkey berry	N, U
Sphagneticola trilobata (= Wedelia trilobata)	wedelia	
Stachytarpheta urticifolia (= S. cayennensis)	nettle-leaf porterweed	
Syagrus romanzoffiana (= Arecastrum romanzoffianum)	queen palm	
Syzygium jambos	rose-apple	
Terminalia catappa	tropical almond	
Terminalia muelleri	Australian almond	
Tradescantia spathacea (=Rhoeo spathacea, Rhoeo discolor)	oyster plant	
Tribulus cistoides	puncture vine, burr-nut	
Urena lobata	Caesar's weed	
Vitex trifolia	simple-leaf chaste tree	
Washingtonia robusta	Washington fan palm	
Wedelia (see Sphagneticola above)		

Appendix 6-C. Invasive Pest Plant Species

Scientific Name	Common Name(s)	Status
Wisteria sinensis	Chinese wisteria	
Xanthosoma sagittifolium	malanga, elephant ear	

This 2007 list was prepared by the FLEPPC Plant List Committee.
FLEPPC. 2007. List of Florida's Invasive Species. Florida Exotic Pest Plant Council. Internet: http://www.fleppc.org

Abbreviations used:
for "Gov. list": **P** = Prohibited by Fla. Dept. of Environmental Protection, **N** = Noxious weed listed by Fla. Dept. of Agriculture & Consumer Services
U = Noxious weed listed by U.S. Department of Agriculture.

RECREATION AND OPEN SPACE ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Recreation and Open Space Element as set forth in Section 163.3177(6)(e), Florida Statutes (F.S.), is to plan for a comprehensive system of public and private sites for recreation, including, but not limited to, natural reservations, parks and playgrounds, parkways, beaches and public access to beaches, open spaces, waterways, and other recreational facilities. Although Section 163.3177, F.S., lists the Recreation and Open Space Element as a required element within comprehensive plans, the data and analysis requirements have been deleted from Chapter 9J-5, Florida Administrative Code.

An assessment of current and projected levels of service and recreation needs provides a basis for standards defining the level of services desired by the Town. Statements of a goal, objectives, and policies for guiding the Town's implementation actions conclude the element. These statements provide direction for the municipal recreation programs and maintenance of parks, open space, and recreation facilities to assure that the needs of Surfside residents will be met in the future.

EXISTING FACILITIES

As shown in Map 7-1, the Town is served by four Town-owned recreation facilities. These include (1) Hawthorne Park Tot Lot on Hawthorne Avenue and 90th Street, (2) Veterans Park/Surfside Tennis Center on 87th Terrace between Collins and Harding Avenues, (3) 96th Street Park on Bay Drive and 96th Street, and (4) the Surfside Community Center on the ocean at 93rd Street. A description of these facilities is provided below.

Hawthorne Park Tot Lot: This facility serves as a neighborhood tot lot. In addition, the park has one playground, two picnic tables, and two benches.

Veterans Park/Surfside Tennis Center: This park includes three tennis courts (with six court lights), six benches, Veterans memorial, three flag poles, an office, a restroom, and a WWII cannon.

96th Street Park: Facilities provided at this site include a ball field (with six field lights), two basketball courts, two raquetball courts, a tot lot, a playground, restrooms, six benches, an office, and an irrigation system. Through a grant, the Town is slated to purchase the home immediately south of the park. In addition to a swimming pool, this acquisition may also provide for the addition of a boat launch for kayaks and other non-motorized boats. The property may ultimately serve as a possible nature center or Surfside historic museum.

Surfside Community Center: In 1962, Surfside built the Community Center, on the ocean at 93rd Street. For years this unique multi-purpose facility housed the Surf-Bal-Bay Library, the Tourist Bureau and Recreation Department, an Olympic size swimming pool, a toddlers' pool, public beach access, a snack bar, meeting rooms and an auditorium for shows, special events and receptions.

In 2008 due to growing safety concerns regarding a number of elements of the structure, the complex was demolished. The Town is currently evaluating financing for the new Community Center, which will be built on the same site, along with an additional parcel just south of the former complex. In the interim, the site will continue to offer limited recreational opportunities.

Other Recreation Facilities: In addition to these facilities, other public recreation and open space lands in Surfside include the State-owned beachfront which comprises approximately 38 acres and stretches for just over a mile along the Atlantic Ocean and several existing street ends and associated rights-of-way allowing for beach access. Private recreation facilities include the Surf Club on Collins Avenue between 90th and 92nd Streets, and beachfront property west of the erosion control line, paralleling the State owned beach. Moreover, additional public recreational opportunities can be found within a three mile radius of the Town including Haulover Beach Park and Oleta River State Park.

ANALYSIS OF THE NEED FOR FACILITIES

The Surfside Parks and Recreation Department operates a number of Town facilities and a wide range of community programs. Facilities include the aformentioned Hawthorne Park Tot Lot, 96th Street Park, Veterans Park/Surfside Tennis Center, temporary Modular Community Center facilities, as well as the Administrative Offices and 93rd Street Beach Lifeguard Stand. The Parks and Recreation Department sponsors adult education classes, holiday celebrations, youth programs and sports, and special events designed to provide entertainment, education, and recreation for all Town residents and visitors.

The Town, recognizes that parks and recreation are vital components of the overall community. Following is an acreage inventory of Surfside's public recreation facilities.

Table 7-1
Parks and Recreation Inventory

FACILITY	ACREAGE
Hawthorne Park Tot Lot	0.22
Veterans Park/Surfside Tennis Center	0.75
96th Street Park	0.92
Surfside Community Center	1.26
public beach	38.17
pocket parks and r-o-w dead ends	0.45
TOTAL:	**41.77**

Source: Calvin, Giordano & Associates, Inc. 2009

While the public beach does not generally offer Parks and Recreation Department programming, this acreage will be included for the level of service (LOS) analysis because it is an intregal part of the Town. Using the 41.77 acres of public recreation, along with the Miami-Dade Planning and Zoning's population projections, Surfside's LOS for recreation can be projected through 2030. The LOS standard for publicly-owned recreation lands in Surfside is six (6) acres per one thousand (1,000) permanent population. As the following table shows, this standard will be met through 2030.

Table 7-2
Projected Park LOS

Year	2007	2010	2014 (~~5-yr~~short term planning timeframe)	2015	~~2019 (10-yr planning timefra me)~~	2020	2025	2030 (long term planning timeframe)
Projected population	5,159	5,280	5,442	5,483	~~5,641~~	5,680	~~5,878~~ 5,680	~~6,076~~ 5,680
Total park acreage	41.8	41.8	41.8	41.8	~~41.8~~	41.8	41.8	41.8
Park acreage needed to maintain LOS	31.0	31.7	32.7	32.9	~~33.8~~	34.1	~~35.3~~	~~36.5~~ 34.1
Surplus/ deficit acreage	+ 10.8	+ 10.1	+ 9.1	+ 8.9	~~+ 7.9~~	+ 7.7	~~+ 6.5~~ 7.7	~~+ 5.3~~ + 7.7

Source: Calvin, Giordano & Associates, Inc. 2009

Recreation and Open Space Element
Goals, Objectives and Policies

Goal 1: Provide adequate recreation and open space facilities to serve the Town's residents.

Objective 1 – Access to recreation sites: In general, ensure public access to identified recreation sites. ~~In particular, protect public access to existing recreation sites, and the Atlantic Ocean beach~~ by creating a pedestrian and bicycle network that links the Town's parks, recreational, and natural amenities into an "emerald necklace." This objective shall be measured by implementing ~~of~~ its supporting policies. ~~[9J-5.014 (3) (b) 1]~~

Policy 1.1 – The Town shall give priority to maintaining and upgrading existing public access sites, but it shall acquire new sites when resources are available. Priority shall be given to sites which offer the potential for: 1) creating natural area greenways consisting of environmentally sensitive lands or lands in which plant species characteristic of and/or compatible with environmentally sensitive lands predominate or can be cultivated; and 2) ~~removing existing structures and creating unique geological areas by exposing the Appalachian Mountain sand of which the barrier island on which the Town rests is naturally composed; and 3)~~ removing invasive or otherwise undesirable plant species including those listed in Conservation Element Policy 4.2. ~~[9J-5.014 (3) (c) 3]~~

Policy 1.2 – All beach access facilities shall be accessible from public roads. The Town shall map all road rights-of-way that dead-end at the Atlantic beach and shall provide benches, picnic tables or other improvements at these sites to create "pocket parks."

Policy 1.3 – The Town shall explore the feasibility of enhancing each of the street-ends east of Collins Avenue to create "pocket parks" where appropriate.

Policy 1.~~3~~ 4 – The Town shall provide barrier-free access for the handicapped to all public recreation facilities.

Policy 1.~~4~~ 5 – By December 2010, ~~Bicycle~~ bicycle parking facilities shall be provided at strategic beach access points and at public parks.

Objective 2 – Public-private coordination: In general, coordinate public and private resources to meet recreation demand. This objective shall be measured by implementing its supporting ~~policy~~policies. ~~[9J-5.014 (3) (b) 2]~~

Policy 2.1 – The Town of Surfside shall work with public agencies, such as ~~Metro~~Miami-Dade County Department of Environmental Resources Management, the Army Corps of Engineers, the Florida Department of Environmental Protection and private sector organizations and corporations, through the zoning process, to enhance and improve existing recreation/open space facilities in the Town.

Policy 2.2 – The Town shall explore the financial feasibility of a Beachwalk Master Plan, including the associated sustainable landscaping

Policy 2.3 – By December 2010, the Town shall consider and evaluate the establishment of a cooperative interlocal agreement with Indian Creek Village to convert the empty lot at the 91st Street bridge into a park for general use by both communities, providing additional recreational opportunities along the bay.

Objective 3 – Adequate and efficient provision of public recreation facilities and open space: In general, ensure that parks and recreation facilities are adequately and efficiently provided. In particular, maintain a system of public park and recreation lands which provides at least ~~0.70~~6.0 acres per 1,000 people permanent population together with ~~the~~ an appropriate range of facilities. This standard is based on existing resources and the anticipated population. ~~It is recognized as minimal. It will be the long-term objective of the Town to set a higher standard in the future based on the acquisition of additional land. [9J-5.014 (3) (b) 3 and 4]~~

Policy 3.1 – The Town shall reserve for recreation use all of the Town-owned land designated for recreation on the Future Land Use Map, including the following specific facilities: 1) Hawthorne Park Tot Lot, 2) Veterans Park/Surfside Tennis Center, 3) ~~Surfside Park~~96th Street Park, and 4) Surfside Community Center. These facilities shall remain as public recreation facilities unless comparable facilities are provided to replace them. ~~[9J-5.014 (3) (c) 1 and 2]~~

Policy 3.2 – The Town shall ~~apply~~ continue to seek ~~for~~ State and Federal grant funds for Town park enhancements., ~~such as the Florida Recreation Development Assistance Program, the Land and Water Conservation Fund and the~~
~~Florida Inland Navigational District Fund~~ for the acquisition and improvement of public recreation and open space. ~~Priority shall be given to sites which offer the potential for: 1) creating natural area greenways consisting of environmentally sensitive lands or lands in which plant species characteristic of and/or compatible with environmentally sensitive lands predominate or can be cultivated; 2) removing existing structures and creating unique geological areas by exposing the Appalachian Mountain sand of which the barrier island on which the Town rests is naturally composed; and 3) removing invasive or otherwise undesirable plant species including those listed in Conservation Element Policy 4.2. [9J-5.014 (3) (c) 2]~~

Policy 3.3 – The Town shall give priority to upgrading existing public recreation lands, but it shall acquire new sites when resources are available. ~~Priority shall be given to sites which offer the potential for: 1) creating natural area greenways consisting of environmentally sensitive lands or lands in which plant species characteristic of and/or compatible with environmentally sensitive lands predominate or can be cultivated; 2) removing existing structures and creating unique geological areas by exposing the Appalachian Mountain sand of which the barrier island on which the Town rests is naturally composed; and 3) removing invasive or otherwise undesirable plant species including those listed in Conservation Element Policy 4.2.~~

~~Policy 3.4 The Town shall continue to maintain and provide moderate upgrading for the Surfside Community Center.~~

Policy 3.~~5~~ 4 – For public recreational sites, a minimum level of service standard shall be set at ~~0.70~~six (6) acres ~~of~~ per one thousand (1,000) permanent population. ~~This standard shall be incorporated in the Land Development Code.[9J-5.015 (3) (c) 4]~~

~~Policy 3.6 The Town shall seek to acquire an additional Mini-Park/Tot Lot at the approximate location indicated in Figure ROS-3.[9J-5.014 (3) (c) 5]~~

~~Policy 3.7 – The following level of service standards for recreation facilities shall be part of the Town's development code: [9J-5.014 (3) (c) 4].~~

~~Ball Diamond: 1/6,000 people age 10-45~~
~~Tennis Court: 1/4,000 people age 12-64~~
~~Basketball Court: 1/500 people age 12-19~~
~~Tot Lot: 1/500 people age 3-12~~
~~Picnic Area: 1 acre/6,000 people~~

Policy 3.5- The Town shall continue to ensure high quality and safe recreational facilities for Town residents.

Policy 3.6 – By December 2011 the Town shall consider the financial feasibility of a "Park Enhancement Study" to evaluate the development of under-utilized park land and Town-owned land including street-end parks, as identified in the November 2006 Charrette.

Objective 4 – Provision of private open space: Assure the provision of open space by private enterprise. This objective shall be measured by implementing its supporting policy.~~[9J5.014 (3) (b) 4]~~

Policy 4.1 – The Town shall maintain and improve land development code standards and incentives to achieve open space and landscaping requirements. Open space and landscaping requirements shall specify above average quantities of plant and other landscaping material and extensive use of xeriscape plant materials and design techniques for non-residential uses. Landscaping regulations shall include, but not necessarily be limited to, establishing a minimum number of trees based on lot size and/or lot frontage, establishing minimum requirements for other plant material, and establishing irrigation restrictions which minimize water loss due to evaporation. Regulations shall address site perimeters, parking lots and residential buffers. ~~[9J-5.014 (3) (c) 1]~~

~~**9J-5.014 Objective and policy requirements not applicable to the Town of Surfside:** Rule 9J-5 of the Florida Administrative Code requires communities to adopt as part of their Recreation Element objectives and policies which address various issues, except where those issues are not reasonable applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable:~~

~~9J5.014 (3) (c) 3 Maintain or improve existing levels of beach land shore access] including those beach access routes and beach access facilities required to be identified in the coastal management element [and access to waterways required to be shown on the future land use map].~~

INTERGOVERNMENTAL COORDINATION ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Intergovernmental Coordination element is to identify and resolve incompatibilities between Surfside's comprehensive planning processes and those of other governmental entities with interests in or related to the Town's area of concern. The areas of concern for Surfside include adjacent municipalities, Miami-Dade County, Miami-Dade County School Board, the South Florida Water Management District, South Florida Regional Planning Council, state government, federal government, and utility companies.

Specific coordination needs within each of the elements of the Surfside comprehensive plan that would benefit from improved or additional intergovernmental coordination and mechanisms for satisfying these needs are also identified, as appropriate.

EXISTING DATA AND CONDITIONS

Surfside currently has either formal or informal coordination agreements, or interacts through standard operating procedures under statutory authority, with the following agencies or jurisdictions:

Municipal Government

- Bal Harbour
- Bay Harbor Islands
- Indian Creek
- Miami Beach
- Miami Shores

Miami-Dade County Departments

- Biscayne Bay Shoreline Development Review Committee
- Department of Emergency Management (DEM) and Homeland Security (HS)
- Department of Environmental Resources Management (DERM)
- Fire Department
- Housing Agency (MDHA)
- Metropolitan Planning Organization (MPO)
- Miami-Dade Transit (MDT)
- Parks and Recreation Department
- Property Appraiser
- Public Works
- Solid Waste Management
- Water and Sewer Department (WASD)

Schools

- Miami-Dade County Public Schools

Other

Miami-Dade League of Cities

Florida Departments and Agencies

Community Affairs, Division of Community Planning
Community Affairs, Division of Emergency Management
Department of Business and Professional Regulation
Department of Children and Family Services
Department of Environmental Protection (DEP)
Department of Transportation
Division of Historic Resources
Fish and Wildlife Conservation Commission
South Florida Regional Planning Council
South Florida Water Management District

United States Departments and Agencies

Army Corps of Engineers
Commerce, Census Bureau
Environmental Protection Agency
Federal Emergency Management Agency
U.S. Fish and Wildlife Service
U.S. Postal Service
Transportation

Regulated Utilities

AT&T
Comcast
Florida Power & Light

EVALUATION OF EXISTING COORDINATION MECHANISMS

For each agency listed above, Table 8-1 briefly describes the existing coordination mechanisms indicating the subject, nature of the relationship and the office with primary responsibility for coordination.

JOINT PLANNING AREAS

Comparison with Regional Policy Plan

The Strategic Regional Policy Plan for South Florida (2004) has been reviewed and considered during the process of writing this Comprehensive Plan. The Comprehensive Plan conforms to the Regional Policy Plan.

Specific Coordination Issues in Each Element

Following is a summary the interagency coordination needs associated with each element of this Comprehensive Plan.

Future Land Use

Within this element interagency coordination includes communicating development projections with the Miami-Dade Department of Emergency Management (DEM) and Homeland Security (HS) in order to assist in their hurricane evacuation planning. Further, the Town requires development along the

bulkheads to be in accordance with State and County regulations. In particular the Town continues to work with the Florida Department of Environmental Protection and Miami-Dade Department of Environmental Resource Management (DERM) for review of permits within the bulkhead areas.

Coastal Management
This element's efforts are largely related to the management of the Biscayne Bay Aquatic Preserve. Coordinating agencies for this include the Miami-Dade County Department of Environmental Resource Management, the Florida Department of Environmental Protection, the National Park Service and the Biscayne Bay Shoreline Development Review Committee. Additionally, the Town is working with the Florida Department of Transportation (FDOT) to ensure the installation of the improvements to the DOT stormwater systems currently discharging into Biscayne Bay waters. When applicable, the Town shall provide development proposal information to the Biscayne Bay Shoreline Development Review Committee for review. Regarding coastal management law enforcement, Town police shall maintain communications with County and State marine police in order to report any violations of the boat speed limits in the adjacent waters which are a manatee protection area. The Town shall contact DERM if any adverse impact is observed relative to the sea grass beds in adjacent waters.

Beach maintenance and restoration requires intergovernmental coordination efforts. To that end, the Town shall cooperate with U.S. Army Corps of Engineers for beach renourishment as needed. Similarly, the Town shall continue to coordinate and cooperate with the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems and with the Miami-Dade County Park and Recreation Department regarding access to and the appropriate maintenance of the beach area seaward of the erosion control line. The Town will also coordinate with relevant agencies on planning for sea level rise.

Transportation
The Town coordinates with the Miami-Dade Metropolitan Planning Organization (MPO) and the Florida Department of Transportation on capital improvements and level of service for SR AIA/Harding Avenue and SR 922/96th Street. Miami-Dade County Transit (MDT) provides six routes through the Town connecting residents and employees to Miami Beach, downtown Miami, and the MetroRail. As needed, the Town will also coordinate with the Southeast Florida Transportation Council.

Housing
The Town shall monitor the housing and related activities of the Miami-Dade County Housing Within Reach Taskforce, Miami-Dade Housing Agency (MDHA), South Florida Regional Planning Council and nearby local jurisdictions. The Town shall work with the US Department of Commerce to ensure accurate population and housing information is provided for the 2010 Census. Additionally, the Town shall dialogue with the Florida Department of Children and Family Services to ensure an accurate inventory for any subsidized rental housing, group homes, or mobile home parks that may exist within the Town. An inventory of historically significant housing is required for the Comprehensive Plan, and therefore periodic coordination and communication with the State's Division of Historic Resources, Florida Master Site File is necessary.

Infrastructure
The Town of Surfside purchases its water directly from the Miami-Dade County Water and Sewer Department (WASD). The Town's Water Supply Facilities Work Plan was adopted in December 2008 and coordinated with the Miami-Dade County 20-Year Water Supply Facilities Work Plan and the South Florida Water Management District's Lower East Coast Water Supply Plan. Further coordination with the Florida Department of Environmental Protection (DEP) will be important to ensure stormwater quality and impacts on the Biscayne Bay.

Recreation and Open Space
There are 38.2 acres of state-owned beach seaward of the erosion control line, which runs approximately along the crest of the dune. This beach is maintained under an agreement with the State by the Miami-Dade Park and Recreation Department. Additionally, the Town shall consider and evaluate the establishment of an interlocal agreement with Indian Creek Village to convert the empty lot on the north side of the 91st Street bridge into a park for general use by both communities, providing additional recreational opportunities along the bay.

Conservation
The Florida DEP's Bureau of Beaches and Coastal Systems considers Surfside's beach to be "critically eroded". As part of the beach renourishment program coordination efforts with this and other agencies are required. Land use, as it relates to the discharge of stormwater and to the use of natural drainage, is regulated through the South Florida Water Management District (SFWMD).

The Town of Surfside purchases their potable water supply directly from Miami-Dade WASD. The Town is also working with WASD's Water Use Efficiency Section to identify the water conservation best management practices (BMPs) applicable to the Town, which is a water wholesaler, and to develop the Town's Water Conservation Plan as required by Miami-Dade County Ordinance 06-177.

Capital Improvements
The Town shall coordinate with Miami-Dade County Public Schools, WASD, the MPO, and FDOT to ensure projects affecting level of service are included in the annual update of the Capital Improvements Element.

Areas of Critical State Concern

There are no areas of critical state concern in the Town of Surfside.

The following abbreviations are used in Table 8-1.

AE - Advise and Encourage
AP - Approval, Permit
CA - Town Agency
FA – Formal Agreement
FN - Formal Notice
IN - Informal Notice
OA - Outside Agencies
PM - Periodic Meetings to Coordinate Programs
TA - Technical Assistance

TABLE 8-1
COORDINATING AGENCIES

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
MUNICIPALITIES:					
Bal Harbour	Comprehensive planning	AE	Informal coordination	Effective	Planning, Town Manager
Bay Harbor Islands	Comprehensive planning	AE	Informal coordination	Effective	Planning, Town Manager
Indian Creek	Comprehensive planning	AE	Informal coordination	Effective	Planning, Town Manager
Miami Beach	Comprehensive planning	AE	Informal coordination	Effective	Planning, Town Manager
Miami Shores	Aquatic Center	FA	Interlocal Agreement	Effective	Parks and Recreation
MIAMI-DADE COUNTY DEPARTMENTS AND AGENCIES:					
Biscayne Bay Shoreline Development Review Committee	Shoreline environmental and conservation issues	AE, TA	Informal coordination	Effective	Public Works, Town Manager
Department of Emergency Management (DEM) and Homeland Security (HS)	Emergency management planning	PM, AE	Informal coordination	Effective	Town Manager
Department of Environmental Resources	Water quality, air quality,	IN, PM	Interlocal Agreement	Effective	Public Works, Town

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
Management (DERM)	noise impact, septic tanks, water use permits, wastewater management				Manager
Fire Department	Fire-rescue services	FA	Interlocal Agreement	Ineffective	Surfside Police Dept.
Housing Agency (MDHA)	Affordable housing	AE	Informal coordination	Effective	Town Manager
Metropolitan Planning Organization (MPO)	Transportation planning	PM, AE	Informal coordination	Effective	Planning
Miami-Dade Transit (MDT)	Transit	AE	Informal coordination with Surfside Mini-Bus	Effective	Town Manager
Parks and Recreation Department	Beach maintenance, open space areas, regional plans	PM, AE	Informal coordination	Effective	Parks and Recreation
Property Appraiser	Tax revenues	PM, TA	Interlocal Agreement	Effective	Town Manager, Finance
Public Works	Highway construction, right of way, alignments, access control transit	PM, TA	Informal coordination	Effective	Public Works
Solid Waste Management	Waste management	FA	Interlocal Agreement – Curbside Recycling Program	Effective	Public Works
Water and Sewer Department (WASD)	Water quality, water facility development, wastewater treatment, wastewater management	AP, TA	Interlocal Agreement	Effective	Public Works
SCHOOLS:					

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
Miami-Dade County Public Schools	School facilities and concurrency	FA	Interlocal Agreement	Effective	Town Manager, Finance
OTHER:					
Miami-Dade League of Cities	Intergovernmental issues	AE, PM	Monthly meetings	Effective	Town Mayor
FLORIDA DEPARTMENTS AND AGENCIES:					
Community Affairs, Division of Community Planning	Comprehensive planning	AP, TA	Oversight of Comprehensive Plan, EAR, Regulation of Land Development Code	Effective	Planning
Community Affairs, Division of Emergency Management	Mutual Aid Agreement	OA, TA	Informal coordination	Effective	Town Manager
Department of Business and Professional Regulation	Various licenses	AP	Informal coordination	Effective	Planning
Department of Children and Family Services	Group homes, foster care facilities	FN, OA	Informal coordination	Effective	Building and Zoning
Department of Environmental Protection	Water management, water quality, air quality, beaches/land, solid waste, septic tanks, water facility development, water use permits, wastewater management	AP	Permitting, informal coordination	Effective	Public Works, Town Manager

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
Division Of Historic Resources	Historic lands and buildings	TA, AE	Informal coordination	Effective	Planning
Department of Transportation	Transportation planning, highway construction, right of way, alignments, access control transit	AE, TA	Informal coordination	Effective	Public Works
Fish and Wildlife Conservation Commission	Conservation issues	AE, TA	Permitting, informal coordination	Effective	Town Manager
South Florida Regional Planning Council	Comprehensive planning	TA, AE, AP	Review of Comprehensive Plan and EAR	Effective	Planning
South Florida Water Management District	Stormwater management, wetlands mitigation, water use	TA, AE, AP	Quarterly meetings	Effective	Public Works
UNITED STATES DEPARTMENTS AND AGENCIES:					
Army Corps of Engineers	Beach erosion control	AE, PM, TA, AP	Informal coordination	Effective	Public Works
Commerce, Census Bureau	Decennial Census	TA	Informal coordination	Effective	Planning
Environmental Protection Agency	Hazardous waste sites	TA, AP	Informal coordination	Effective	Public Works
Federal Emergency Management Agency	Hurricane mitigation	AE, PM, TA	Informal coordination	Effective	Public Works, Planning

Agency	Subject Coordination	Nature of Relations	Existing and Anticipated Coordination Mechanisms	Effectiveness of Existing Coordination Mechanisms	Surfside Office with Primary Responsibility For Coordination
U.S. Fish and Wildlife Service	Coastal conservation	AE, TA	Informal coordination	Effective	Public Works
U.S. Postal Service	Address development, mail delivery	OA	Informal coordination	Effective	Town Manager, Planning
Transportation	Transportation planning	AE, AP, PM, TA	Informal coordination	Effective	Public Works, Planning
REGULATED UTILITIES:					
AT&T	Telephone service	OA	Informal coordination	Effective	Public Works
Comcast Cable Television	Cable services, underground utilities	OA	Informal coordination	Effective	Public Works
Florida Power and Light Company	Underground utilities	OA	Informal coordination	Effective	Public Works

Source: Town of Surfside

Intergovernmental Coordination Element
Goals, Objectives, and Policies

Goal: Establish and maintain processes to help assure coordination with other governmental entities where necessary to implement this plan.

Objective 1 – Coordination with Miami-Dade County and other agencies: In general, coordinate the Town of Surfside Comprehensive Plan with the plans of the Miami-Dade County School Board, Miami-Dade County and adjacent municipalities. In particular, achieve maximum feasible levels of consistency between the plans for Surfside, the Miami-Dade County School Board, Miami-Dade County, Miami Beach, Bal Harbour, Indian Creek, and Bay Harbor Islands. This objective shall be measured by implementing its implementing policy. [9J-5.015 (3) (b) 1]

Policy 1.1 – The Town shall monitor the Miami-Dade County Comprehensive Plan process as the County Plan is updated and revised in conjunction with its Evaluation and Appraisal Report. The Town will also review the comprehensive plans of Miami Beach, Bal Harbour, Indian Creek, and Bay Harbor Islands. [9J-5.015 (3) (c) 5]

Policy 1.2 – The Town of Surfside and Miami-Dade County Public Schools shall follow the procedures established in the adopted "Amended and Restated Interlocal Agreement for Public Schools Facilities Planning in Miami-Dade County" and the Comprehensive Land Use Plan's Educational Element and Capital Improvements Element for coordination and collaborative planning and decision making of land uses, public school facilities siting, decision making on population projections, and the location and extension of public facilities subject to concurrency. The Town shall ~~execute~~ implement the Interlocal Agreement with Miami-Dade County Public Schools, Miami-Dade County, and other –nonexempt municipalities pursuant to Section 163.3177, Florida Statutes, and the Comprehensive Plan's Public School Facilities Element, Intergovernmental Coordination Element, and Capital Improvements Element. Coordination of the Interlocal Agreement, and the Town's obligations therein, shall be achieved via participation in the established Working Group of the Interlocal Agreement.

Policy 1.3 – The Town shall consider as appropriate the informal mediation process of the South Florida Regional Planning Council in order to try to resolve annexation and other conflicts with other governmental entities; the Town will enter into mediations on a nonbinding basis. [9J-5.015 (3) (c) 2 and 4]

Policy 1.4 – The Town will thoroughly review and compare proposed development in Miami-Dade County, Miami Beach, Bal Harbour, Indian Creek, and Bay Harbor Islands with proposed development in the Surfside Comprehensive Plan for consistencies and conflicts between identical elements and between plans as a whole. Where appropriate, Surfside will respond at public hearings, through memoranda, or through the regional planning council's mediation process. [9J-5.015 (3) (c) 7]

Policy 1.5 – The Town shall continue to ensure coordination of activities in its Comprehensive Plan with the plans of Miami-Dade County School Board, Miami-Dade County, and other state or regional entities through regular exchange of information. This information shall include, but not be limited to, building permits, zoning cases, planned land use amendments, engineering plans, demographics, proposed annexation areas, socio-economic information, and utility service areas and capacity. [9J-5.015 (3) (c) 7]

Policy 1.6 – The Town will continue participation in the Miami-Dade Planner's Technical Committee in order to coordinate local comprehensive planning issues and processes.

Policy 1.7- The Town shall coordinate with relevant agencies on planning for sea level rise considering the best available and credible data.

Objective 2 – Comprehensive Plan Impact and Implementation Coordination: Establish mechanisms to coordinate the impact of development proposed in the Surfside Comprehensive Plan with other jurisdictions. [9J-5.015 (3) (b) 2]

Policy 2.1 – Surfside shall ~~consider initiating, revising and maintaining~~ maintain and revise where appropriate~~, as may be appropriate,~~ interlocal agreements generally of the type described below:

Potable Water: An agreement with Miami-Dade Water and Sewer Department for potable water service.

Sewers: An agreement ~~to cooperate and coordinate with appropriate County agencies~~with Miami-Dade Water and Sewer Department for wastewater treatment.

Solid Waste: An agreement to cooperate and coordinate with the County Solid Waste Management Department for the disposal of solid waste generated in the Town. [9J-5.015 (3) (c) 1]

Transit: ~~The County Transit Agency~~Miami-Dade Transit bus schedules for routes within the Town.

Schools: "Interlocal Agreement for Public School Facility Planning in Miami-Dade County" – pursuant to Section 163.3177 FS and Section 163.3180 (g) FS

Policy 2.2 – The Town shall assist the County in providing information to the residents of the Town about services provided directly or indirectly by the County, e.g., solid waste, potable water, sewers, transit and hurricane response planning. Such information may be disseminated through a Town newsletter, Town Hall counter handouts, notices posted at the Town Hall, and/or other appropriate means. [9J-5.015 (3) (c) 3]

Policy 2.3 – The Town shall contribute to the improvement of the water quality of Biscayne Bay through implementation of outfall improvements described in the Infrastructure Element. [9J-5.015 (3) (c) 6]

Policy 2.4 – The Town shall cooperate with the regulatory functions of the Florida Department of Environmental Protection. [9J-5.015 (3) (c) 6]

Policy 2.5 – As required by the Interlocal Agreement, The Town shall notify the School Board of all new residential development projects or modifications to existing residential developments which increase density as part of the review process for school concurrency.

Policy 2.6 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection and enhancement of the Biscayne Bay Aquatic Preserve.

Policy 2.7 – The Town shall coordinate and cooperate with all applicable local, regional, state and federal agencies relating to the protection of Atlantic Ocean coastal waters and beach renourishment projects.

Policy 2.8 – The Town will utilize the following procedures to identify and implement joint planning areas (JPAs) for the purpose of addressing issues related to joint infrastructure service areas:

a) Use the South Florida Regional Planning Council's informal mediation process to resolve conflicts with other local governments, when agreed to by all affected parties;

b) Siting of facilities with county-wide significance including locally unwanted land uses;

c) Making demographic and social-economic information and services available for county, school board and municipal planning activities.

Policy 2.9 – The Town shall consider and evaluate the establishment of a cooperative interlocal agreement with Indian Creek Village to convert the empty lot on the north side of the 91st Street bridge into a park for general use by both communities, providing additional recreational opportunities along the bay.

Policy 2.10 – The Town shall coordinate with FDOT and neighboring municipalities in its study of reestablishing a two-way traffic flow on Harding Avenue and Collins Avenue.

Policy 2.11- The Towns shall continue coordination with Miami-Dade Transit on energy efficient modes of transportation.

Policy 2.12- The Town shall coordinate with neighboring jurisdictions and the South Florida Regional Planning Council in regards to affordable housing.

Objective 3 – Level of service standards coordination: Ensure coordination with Miami-Dade County in establishing level-of-service standards for sewage, and potable water. [9J-5.015 (3) (b) 3]

Policy 3.1 – The Town shall monitor changes to the adopted level-of-service standards of Miami-Dade County, the Florida Department of Transportation, and Miami-Dade Public Schools, and appropriately adjust its own level-of-service standards accordingly. [9J-5.015 (3) (c) 7]

Objective 4 – The Town shall coordinate with all applicable local, State and Federal agencies regarding implementation of the 20-Year Water Supply Facilities Work Plan.

Policy 4.1 – The Town shall review the most recently published Lower East Coast Water Supply Plan and coordinate with the South Florida Water Management District staff in projecting the

future supply and demand of potable water and alternative sources and preparing amendments to the Water Supply Facilities Work Plan on an as-needed basis by sharing and updating information.

Policy 4.2 – The Town shall participate in continuing and on-going collaborative efforts with the Miami-Dade Water and Sewer Department and other governments and agencies regarding water supply needs, long-term alternative water supply projects, sharing of information and establishing level of service standards. The Town shall participate in, at a minimum, annual meetings with water providers and the South Florida Water Management District to discuss population projections, land use changes and implementation of conservation reuse programs and alternative water supplies.

Policy 4.3 – The Town shall coordinate with Miami-Dade County Water and Sewer Department in the implementation of alternative water supply projects, establishment of level-of-service-standards and resource allocations.

Policy 4.4 – The Town shall coordinate land uses and future land use changes with the availability of water supplies and water supply facilities.

Policy 4.5 – The Town shall coordinate with Miami-Dade County in the implementation of alternative water supply projects, establishment of level-of-service standards and resource allocations and changes in service areas.

Policy 4.6 – The Town shall coordinate with the Miami-Dade County Water and Sewer Department's Water Use Efficiency Section in the implementation of water conservation efforts and preparation of a Water Conservation Plan through regular and on-going communication and information sharing.

9J-5.0015 Objective and policy requirements not applicable to the Town of Surfside: Rule 9J-5 of the Florida Administrative Code requires communities to adopt as part of their Intergovernmental Coordination Element objectives and policies which address various issues, except where those issues are not reasonably applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable:

9J5.015 (3) (b) 4 Ensure coordination in the designation of new dredge spoil disposal sites for counties and municipalities located in the coastal area.

9J5.015 (3) (c) 4 Resolving annexation issues.

9J5.015 (3) (c) 8 Involving ...[a variety of agencies and the public] ... in providing for and identifying dredge spoil disposal sites through the Coastal Resources Interagency Management Committee's dispute resolution process.

9J5.015 (3) (c) 9 Resolving conflicts between a coastal local government and a public agency seeking a dredge spoil disposal site through the Coastal Resources Interagency Management Committee's dispute resolution process.

CAPITAL IMPROVEMENTS ELEMENT

DATA INVENTORY AND ANALYSIS

PURPOSE

The purpose of the Capital Improvements Element is to evaluate the need for public facilities as identified in the other comprehensive plan elements and as defined in the applicable definitions for each type of public facility, to estimate the cost of improvements for which the local government has fiscal responsibility, to analyze the fiscal capability of the local government to finance and construct improvements, to adopt financial policies to guide the funding of improvements and to schedule the funding and construction of improvements in a manner necessary to ensure that capital improvements are provided when required based on needs identified in the other comprehensive plan elements. The element shall also include the requirements to ensure that an adequate concurrency management system will be implemented by local governments pursuant to Rule 9J-5.0055, F.A.C., of this chapter.

Public Facility Needs

TRANSPORTATION

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

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

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

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

Currently, the only roadway capital improvements planned in Surfside are FDOT resurfacing projects that do not affect level of service.

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

De Minimis Impacts

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

POTABLE WATER

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

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

Water Source

The Hialeah and Preston Water Treatment Plants (WTPs) located at 200 W. 2nd Avenue and 1100 W. 2nd Avenue are interconnected with adjacent facilities with a main source of water from the Biscayne Aquifer. The WTPs are currently being modified and will receive groundwater from five Upper Floridan Aquifer wells by 2010. The wells will be located in Miami Springs Wellfield and the Northwest Wellfield according to MDWASD.

Water Treatment Plants (WTPs)

The Hialeah and Preston Plants are currently fed by forty five wells, including the Northwest Wellfield and the Hialeah/Preston on-site wells. The quantity of water available to serve MDWASD's North District, as reflected in permitted withdrawal allocations, provides more than adequate capacity.

The Hialeah WTP was originally designed in 1924 with a total capacity of 10 mgd. By 1935, the plant's capacity was 40 mgd. In 1946, capacity was increased to 60 mgd. There are plans to re-rate and upgrade the Hialeah WTP to a capacity of 70 mgd, if necessary. The source of water for the Hialeah WTP comes from the Hialeah-Miami Springs Wellfields, supplemented by the Northwest Wellfield. The Hialeah WTP has a current rated capacity of 60 mgd.

The John E. Preston Water Treatment Plant was originally designed as a 60 mgd plant in 1968 and upgraded to 110 mgd in 1980. The plant was rerated to a total capacity of 130 mgd in 1984. The plant reached its present capacity of 165 mgd and 185 mgd in 2005 with the addition of air stripping capacity. The main source of water for the Preston WTP is from the Northwest wellfield.

Potable Water Level of Service

In order to maintain level of service ~~town~~Town-wide, a water maintenance program will be implemented in 2010. Currently, construction documents are being prepared for a Town-wide replacement of the water mains, meters, and fire hydrants. The program will evaluate the existing infrastructure and replace pipes in poor condition and in need of repairs. The project and funding source is listed in Table 9-8B of the Schedule of Capital Improvements.

The Town of Surfside currently coordinates with MDWASD and the South Florida Water Management District to meet existing and projected demands based on level of service (LOS). The Town's projected water demands shown in Table 9-1 were developed by incorporating the county's average per capita value of 155 gpcd.

Table 9-1
Water Supply Level of Service

PROJECTED WATER SUPPLY			
Year	**2010**	**2015**	**2030**
Population	5,280	5,483	~~6,076~~ 5,680
Proposed Per Capita (gallons per day finished water)	155	155	155
(all potable volumes are finished water)	MGD	MGD	MGD
Potable Water Demand (daily average)	0.82	0.85	~~0.94~~ 0.88

Source: Calvin, Giordano & Associates, Inc., ~~2008~~2009.

The 155 gallons per capita per day (gpcd) value is a MDWASD system-wide finished water rate which was calculated from taking historical data. In 2007 the actual gpcd value for the Town of Surfside was 206 gpcd. The Town of Surfside is aware of this higher gpcd value, and is currently working with MDWASD to implement water efficiency plans, public education, and BMPs to reduce the Town of Surfside's gpcd value. In addition, the planned replacement of the leaking water valves, mains, fire hydrants, meters and service laterals will reduce the total water consumption.

Table 5-2 in the Water Supply Facilities Work Plan indicates that there will be no deficit of finished water through 2030. Therefore, level of service will be met for Surfside in the short term and long term planning periods.

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

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

B. Water shall be delivered to users at a pressure no less than 20 pounds per square inch (psi) and no greater than 100 psi.

C. Water quality shall meet all federal, state, and county primary standards for potable water.

D. MDWASD storage capacity for finished water shall equal no less than 15 percent of the average daily demand.

E. The level of service (LOS) standard for potable water facilities shall be 155 gallons per capita per day.

Storage Capacity
The finished water storage facilities for the Hialeah-Preston subarea consist of both "in-plant" and remote storage facilities. The total combined storage capacity between both plants is 28.28 MG.

SANITARY SEWER

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

Geographic Service Area

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

Treatment Facilities and Capacity

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

The Town of Surfside is located in the MDWASD Central District Sanitary sewer system; however, as noted in the MDWASD's 2007 Water Supply Facilities Work Plan, MDWASD operates two additional regional wastewater treatment plants in the North and South Districts. Because the system is interconnected, the service districts have flexible boundaries, and some flows from one district can be diverted to other plants in the system.

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

Current Facility Demand

According to the MDWASD 2006 Comprehensive Annual Financial Report, approximately 689 million gallons of wastewater were treated by the County system from the Town of Surfside and 814 million in 2007.

In FY08, the Town began mapping all sewer and potable water lines within the municipal boundary to enhance maintenance. Also in FY0908, the Town identified infiltration issues to the sanitary sewer

system and has completed a program to seal manholes to identify and inventory broken lines. In FY09, existing pump stations were rehabilitated in order to ensure levels of service standards are maintained. Table 9-2 shows projected sewage flow demands for the Town of Surfside and Table 9-2B show current and projected wastewater capacity for the entire county.

Table 9-2A
Projected Sewage Flows

PROJECTED SEWAGE FLOWS Year	2010	2015	2030
Population	5,280	5,483	~~6,076~~5,680
Per Capita (gallons per day finished sewage)	155	155	155
(all potable volumes are finished sewage)	**MGD**	**MGD**	**MGD**
Sewage Total Flow (daily average annual)	0.82	0.85	~~0.94~~0.88

Source: Calvin, Giordano & Associates, Inc. ~~2008~~2009

Table 9-2B
Miami-Dade County Current Wastewater System Capacity 2005-2020

County WWTP Capacities		Actual County Flow (mgd)	Projected County Flows (mgd)		
	Plant Capacity (mgd)	**2005**	**2010**	**2015**	**2020**
North	112.5	84.3	83.8	88.5	92.3
Central	143.0	135.3	132.5	139.6	146.4
South	112.5	75.1	76.5	82.6	87.4
Total	368.0	294.7	292.8	310.7	326.0

Source: Miami Dade Water and Sewer Department, 2009

DRAINAGE

Surfside's existing storm drainage system consists of a network of underground storm sewers that collect and direct stormwater to Indian Creek and Biscayne Bay. A pumping station at the western end of 92nd Street assists the drainage of water from that street by pumping to an outfall. Storm sewers in the system range in diameter from 10 inches to 36 inches.

The Florida Department of Transportation (FDOT) provided storm drainage improvements on Harding and Collins Avenue in the early 1990's. Equipment which currently serves the 92nd Street pump station were replaced by FDOT and will be maintained by the Town; however, even with these modifications, water may still reach curb level in various locations due to tidal fluctuations. The water level of Biscayne Bay is higher than normal during high- high tide, creating a back up in the outfall pipes. The Harding and Collins storm drainage improvements utilize on-site wells and control structures to provide additional capacity.

In 2002 FDOT completed the Stormwater Pump Station System Operational Evaluation and Recommended Improvements (OERI) Report which provided three alternatives to improve stormwater pump systems along Harding. It was determined that the most feasible alternatives are those that have an

appropriate overflow capacity, once the wells reach capacity. This was achieved by introducing an emergency gravity bypass in the event that the pumps fail. The alternative consists of new pump stations at the existing vault locations. These new stations required the existing gravity system to be extended to the Intracoastal Waterway seawalls (at 88th Street and 94th Street), a new 36-inch force main to connect to existing wells; new pumps, structures, controls, and a new gravity bypass drainage pipe.

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

The project will addresses long-term concerns regarding water backing into the streets and poor water quality that discharges into Biscayne Bay. The project directly addresses The Trust for Public Land's Biscayne Bay Accessibility report, supports the SFWMD's Biscayne Bay Partnership Initiative (BBPI), and enhances level of service.

SOLID WASTE

The Town's Public Works Department has three garbage trucks which collect trash and garbage on a weekly basis and haul it to Miami-Dade County's Resource Recovery Plant west of Miami International Airport and other Miami-Dade County landfills. Each year Surfside deposits approximately 6,048 tons of waste material at the county's facility. Based on an estimated 2007 population of 5,159, approximately 6 pounds per person per day was collected. Since 2007, the Town is recycling over 500 tons per year. An increase involvement of private firms in the development of solid waste disposal facilities led to an oversupply of disposal capacity and a reduction in disposal fees. As a result, existing disposal capacity at the North Dade Landfill and the South Dade Landfill and the Resource Recovery Plan appear to have adequate to meet Surfside's needs for the foreseeable future.

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

Data Item / Landfill ID	South Dade Landfill	North Dade Landfill	Resources Recovery Ashfill	Total
Acreage Data:				
FDEP Landfill Type	Class I (Garbage)	Class III (Trash)	Class I (Ash)	N/A
Total Area (Acre)	300	218	80	598
Disposal Area (Acre)	180	180	66	426
Stormwater Management Area + Offices (Acre)	120	38	14	172
Formally Closed Area (Acre)	45	96	26	167
Cell filled in & Closure in progress (Acre)	45	0	20	65
Active Area (Acre)	45	84	10	139
Future Area (Acre)	45	0	10	55
Landfill peak elevation at closure (Feet)	150	138	125	N/A
Landfill average Bottom elevation (Feet)	10	12	10	N/A
Landfill Maximum Depth (+/-Feet)	140	126	115	N/A
Capacity Information				
Tons In Place (June 30, 2006)	13,799,000	10,328,000	4,077,000	28,204,000
Built out capacity in tons	21,184,000	12,581,000	6,582,000	40,347,000
Remaining Capacity in tons	7,385,000	2,253,000	2,505,000	12,143,000
Last year's disposal tonnage (7/1/05-6/30/06)	1,042,000	641,000	159,000	1,842,000
Estimated average disposal rate per year	550,000	360,000	155,000	1,065,000
Years of remaining life at Inormal disposal rate	13	6	16	N/A

Source: Miami-Dade County, 2009

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

PARKS

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

Table 9-3
Park Inventory

FACILITY	ACREAGE
Hawthorne Park Tot Lot	0.22
Veterans Park/Surfside Tennis Center	0.75
96th Street Park	0.92
Surfside Community Center	1.26
Public beach	38.17
Street ends	0.45
TOTAL:	**41.77**

Source: Calvin, Giordano & Associates, Inc., 2009

While the public beach does not generally offer Parks and Recreation Department programming, this acreage will be included for the level of service (LOS) analysis because it is an intregal part of the Town. Using the 41.78 acres of public recreation, along with the Miami-Dade Planning and Zoning's population projections, Surfside's LOS for recreation can be projected through 2030. The LOS standard for publicly-owned recreation lands in Surfside is six (6) acres per one thousand (1,000) permanent population. As the following table shows, this standard will be met through 2030.

Table 9-4
Projected Park LOS

Year	2007	2010	2014 (~~5-yr~~ short term planning timeframe)	2015	~~2019 (10-yr planning timeframe)~~	2020	2025	2030 (long term planning timeframe)
Projected population	5,159	5,280	5,442	5,483	~~5,641~~	5,680	~~5,878~~ 5,680	~~6,076~~ 5,680
Total park acreage	41.8	41.8	41.8	41.8	~~41.8~~	41.8	41.8	41.8
Park acreage needed to maintain LOS	31.0	31.7	32.7	32.9	~~33.8~~	34.1	~~35.3~~ 34.1	~~36.5~~ 34.1
Surplus/ deficit acreage	+ 10.8	+ 10.1	+ 9.1	+ 8.9	~~+ 7.9~~	+ 7.7	~~+ 6.5~~ 7.7	+ ~~5.3~~ 7.7

Source: Calvin, Giordano & Associates, Inc., 2008.

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

SCHOOLS

Surfside is within District 3 of the Miami-Dade County School District. Although there are no public schools within the Town limits of Surfside, there are currently two elementary schools, one middle school and one high school in which students residing in Town of Surfside may attend.

Although there are no public schools within the limits of Surfside, the following table shows student enrollment and capacity in 2009 of the schools serving Surfside. Each school is operating below capacity.

Table 9-5
Public Schools Serving Surfside
Capacity and Enrollment (2009)

School	Enrollment	Capacity	Percent Capacity Utilized
Elementary Schools			
Ruth K. Broad Bay Harbor	895	979	91.4%
Middle School			
Nautilus	947	1047	90.4%
High School			
Miami Beach Senior High	2,023	2,100	96.3%

Source: Miami-Dade Public Schools, 2009

The School District adopted their Five-Year Facilities Work Program for ~~2008-09 through 2012-13 on September 10, 2008~~2009-10 through 2013-14 on September 9, 2009, which is incorporated by reference. Per the Town of Surfside Public School Facilities Element, the schools that serve Surfside students will remain under capacity.

PUBLIC HEALTH SYSTEM

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

Aventura Hospital & Medical Center
20900 Biscayne Blvd, Aventura

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

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

North Miami Center
Women, Infants & Children (WIC)
14101 NW 8th Ave.
Miami, FL 33168

North Miami Sr. High School
(Pioneer Health Center)
Contact: Joan Christopher, ARNP
800 NE 137 St.
Miami, FL 33161

PET Center
615 Collins Avenue
Miami Beach, FL 33139

LOCAL POLICIES AND PRACTICES

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

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

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

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

FUNDING SOURCES

Existing Revenue Sources

Ad Valorem Tax

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

Sales and Use Taxes

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

Franchise & Utility Taxes

The Town collects three types of franchise and utility taxes: electric utility taxes, gas utility taxes, and Surfside Occupational License Taxes. The former taxes, utility taxes, may be levied at a maximum rate of

10% for each utility. This later item has traditionally not been considered a franchise tax. However, the State of Florida's Department of Financial Services now requires that it be represented as a tax. Since Fiscal Year 2002, the Town has been prohibited from collecting taxes on telephone franchises, telephone utility taxes, and cable television franchise taxes. These taxes are now collected by the State of Florida's Department of Revenue and re-distributed to municipalities according to use records at a rate of 5.22%.

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

Intergovernmental Revenue
The Town receives recurring revenues from revenue sharing programs with the State of Florida. The Town receives periodic intergovernmental revenues from the federal government in the form of assistance grants for specific projects. All disbursements of State revenues are based on receipts by the State and the Town's population. The Department of Revenue will be releasing projected revenues in late June or July of this year. The Town is required to use these numbers as a base for budgeting, so revisions will be required.

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

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

Miscellaneous Revenues
Any revenues that the Town receives which do not reasonably conform to any of the above identified categories is included in this category. This category includes interest earnings, receipts from the disposition of assets by sale, and similar items. Interfund Transfers between other funds may also be captured here.

Revenue and Expense Projections

The Town of Surfside develops operating costs based on a zero-based budget model. Departments are encouraged to review prior spending as a way of reminding themselves of on-going obligations. Each request for funding must, however, be accompanied by a detailed justification. The practice of incremental budgeting (identifying operational budgets by increasing/decreasing the prior years' expenditures by a percentage) is an option which the Town has rejected. The following tables illustrate the projected Revenue and Expense Projections for FY2010-FY2014 based upon a projected 12% project decrease in property values and a 3% decrease in other funds in FY 11 and a 3% overall increase yearly FY12-FY14.

Table 9-6
Projected General Fund Revenues (FY10-FY14)

Department	2009 (Projected)	2010	2011	2012	2013	2014
Property Tax	6,297,112	5,273,378	4,640,573	4,779,790	4,923,184	5,070,879
Sales and Use Taxes	331,896	335,874	325,798	335,572	345,639	356,008
Franchise and Utility Tax	1,282,683	1,248,727	1,211,265	1,247,603	1,285,031	1,323,582
Permits/Licenses/Inspection	108,203	114,100	110,677	113,997	117,417	120,940
Intergovernmental-Federal/State	480,851	448,991	435,521	448,587	462,045	475,906
Services Revenues	138,865	182,540	177,064	182,376	187,847	193,482
Fines & Forfeitures	166,921	166,000	161,020	165,851	170,826	175,951
Miscellaneous Revenues	207,278	285,898	688,082	708,724	729,986	751,886
Appropriated Fund Balance		5,000,000				
Total General Fund	**9,013,809**	**13,055,508**	**7,750,000**	**7,982,500**	**8,221,975**	**8,468,634**

Source: Calvin, Giordano and Associates, Inc. (Based upon Town of Surfide Adopted Budget Fiscal Year 2009/2010)

Table 9-7
Projected General Fund Expenditures (FY10-FY14)

Department	2009 (Projected)	2010	2011	2012	2013	2014
Personnel	6,351,937	5,850,166	5,674,661	5,844,901	6,020,248	6,200,855
Operating Expenses	2,512,842	2,141,209	2,076,973	2,139,282	2,203,460	2,269,564
Capital Outlay	49,730	17,174	16,659	17,159	17,673	18,203
Debt Service	0	0	0	0	0	0
Non-Operating Expenses	99,300	5,046,959	22,500	23,175	23,870	24,586
Total General Fund	**9,013,809**	**13,055,508**	**7,750,000**	**7,982,500**	**8,221,975**	**8,468,634**

Source: Calvin, Giordano and Associates, Inc. (Based upon Town of Surfide Adopted Budget Fiscal Year 2009/2010)

~~Table 9-6~~
~~Projected General Fund Expenditures (FY10-FY14)~~

Department	2009 (Projected)	2010 (Proposed June 2009)	2011	2012	2013	2014
Property Tax	6,297,112	6,297,080	6,108,168	6,291,413	6,480,155	6,674,560
Sales and Use Taxes	331,896	335,874	325,798	335,572	345,639	356,008
Franchise Tax	472,210	495,771	480,898	495,325	510,185	525,490
~~Utility Tax~~	~~810,473~~	~~814,957~~	~~790,508~~	~~814,224~~	~~838,650~~	~~863,810~~
Permits/Licenses/Inspection	108,203	114,100	110,677	113,997	117,417	120,940
Intergovernmental-Federal/State	480,851	449,888	436,391	449,483	462,968	476,857
Services Revenues	138,865	138,125	133,981	138,001	142,141	146,405
Fines & Forfeitures	166,921	166,000	161,020	165,851	170,826	175,951
Miscellaneous Revenues	196,328	2,423,498	2,350,793	2,421,317	2,493,956	2,568,775
Total General Fund	**9,002,859**	**11,235,293**	**10,898,234**	**11,225,181**	**11,561,937**	**11,908,795**

~~Source: Town of Surfide Proposed Budget Fiscal Year 2009/2010, Calvin, Giordano and Associates, Inc.~~
~~Note: The projections will be revised when the Town Commission approves the budget for FY10.~~

~~Table 9-7~~
~~Projected General Fund Expenditures (FY10-FY14)~~

Department	2009 (Projected)	2010 (Proposed June 2009)	2011	2012	2013	2014
Personnel	6,406,302	6,283,655	6,095,145	6,278,000	6,466,340	6,660,330
~~Operating Expenses~~	~~2,512,842~~	~~2,668,768~~	~~2,588,705~~	~~2,666,366~~	~~2,746,357~~	~~2,828,748~~
Capital Outlay	49,730	88,545	85,889	88,465	91,119	93,853
Debt Service	0	0	0	0	0	0
Non-Operating Expenses	99,300	2,194,325	2,128,495	2,192,350	2,258,121	2,325,864
Total General Fund	**9,068,174**	**11,235,293**	**10,898,234**	**11,225,181**	**11,561,937**	**11,908,795**

~~Source: Town of Surfide Proposed Budget Fiscal Year 2009/2010, Calvin, Giordano and Associates, Inc.~~
~~Note: The projections will be revised when the Town Commission approves the budget for FY10.~~

Debt Capacity
Town currently has no long term debt or bond issues and relatively few long term liabilities.

Capital Improvement Element
Goals, Objectives and Policies

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

Objective 1 – In general, use the capital improvements element as a means to meet the needs for capital facilities necessary to meet existing deficiencies, accommodate desired future growth and replace obsolete or worn-out facilities. In particular achieve annual Town Commission use of this element as the framework to monitor public facility needs as a basis for annual capital budget and five-year program preparation. [9J-5.016(3)(b)1]

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

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

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

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

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

Environmental enhancement projects: any project which would enhance the environmental quality of the Atlantic Ocean, the Atlantic Ocean beach and dune system, Biscayne Bay or other natural resources. [9J-5.016(3)(c) 1 and 3]

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

Use funds for the expansion, enhancement, and upgrade of the water supply facilities in accordance with the 20-Year Water Supply Facilities Work Plan.

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

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

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

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

The Town shall incorporate by reference the potable water projects for the FY10-14 period in the Miami-Dade Water Supply Facilities Work Plan adopted on April 24, 2008.

Policy 1.2 – The Town shall prudently limit the amount of debt it assumes for capital improvements or other purposes. At a minimum, the Town shall not assume debt obligations which would result in the Town exceeding the debt ratios established by state law. [9J-5.016(3)(c)2]

Policy 1.3 – The Town shall maintain a current inventory of all Town-owned capital facilities, to include information on type, capacity, location and condition. [9J-5.016(3)(c)3]

Policy 1.4 – The Town shall regularly schedule inspections of all capital facilities to monitor and record the condition of each. [9J-5.016(3)(c)3]

Policy 1.5 – The Town shall use designated funding mechanisms such as the sewer assessments thereby freeing up general funds (and general obligation bonds) for such Town-wide projects identified in the policies of other Comprehensive Plan elements. [9J-5.016(3)(c)9]

Policy 1.6 – The Town shall prepare and adopt each year a five year capital improvements program and a one-year capital budget, to include all projects which entail expenditures of at least $10,000 and a life of at least three years. Staff studies, engineering studies and other appropriate studies shall form the basis for preparation of a five-year capital improvement program, including one year capital budget. Among items which are specifically authorized and encouraged by this policy are the following: sidewalk repair and replacement; roadway and right-of-way drainage; street lighting; traffic signs, traffic engineer, signalization, and pavement markings; parking improvements serving the Harding Avenue Business District, ~~expansion of municipal services and facilities as identified in and supported by needs analyses, continued improvement of the Town Hall Civic Center and related facilities;~~ and debt service and current expenditures for transportation capital projects in the foregoing program areas (including construction or reconstruction of roads). The preceding list is intended to be illustrative of appropriate expenditure categories. Other capital expenditures in related and different projects are hereby authorized. [9J-5.016(3)(c)7]

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

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

- Revise Schedule of Capital Improvements and update Capital Improvement Element in October.

Policy 1.8 – The Town will implement the projects listed in the capital improvement program and in the Implementation Schedule of this capital improvements element according to the schedule listed in this Element. [9J-5.016(3)(c)7]

Policy 1.9 –Capital improvements associated with the construction of educational facilities are not addressed in the Town's Capital Improvement Plan or Schedule of Capital Improvements, but rather are the responsibility of the Miami-Dade County Public Schools. To address financial feasibility associated with school concurrency, the Miami-Dade County Public School Facilities Work Program, dated September ~~10~~9, ~~2008~~2009, for educational facilities ~~will be~~is incorporated by reference into the CIE.

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

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

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

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

Objective 2 – In general, the coordination of land use decisions and available or projected fiscal resources with a schedule of capital improvements which maintains adopted level of service standards and meets existing and future facility needs. In particular, achieve coordinated Town use of: 1) existing and already approved development; 2) the Future Land Use Plan; 3) the financial analyses in this Element, and 4) the established Level of Service Standards in both reviewing development applications and in preparing the annual schedule of capital improvements. ~~[Scrivener's notes: The title and in the "in general" statement for this objective reflect the mandate 9J-5.016(3)(b)5. The mandate of 9J-5.016(3)(b)5 is verbose and vague, at least to the scrivener. It appears to be mostly redundant to the mandate of 9J-5.016(3)(b)3. It does indicate that existing approved development must be considered in concurrency management, a provision not apparent in 9J-5.016(3)(b)3. That provision is reflected in the "in particular" portion of the language employed herein.]~~

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

Streets:
~~*Local Roads*~~
~~The Town shall regulate the timing of development to maintain a peak hour Level of Service 'D' standard.~~

Local roads: D

Collector roads: D

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

Sanitary Sewers: The County-wide "maximum day flow" of the preceding year shall not exceed ~~98~~ 102 percent of the County treatment system's rated capacity. The sewage generation standard shall be ~~140~~ 155average gallons per capita per day.

Potable Water: The County-wide "maximum day flow" of the preceding year shall not exceed 98 percent of the County treatment and storage system's rated capacity. The pressure shall be at least 20 pounds per square inch at the property line. The potable water consumption standard shall be ~~270~~ 155 average gallons per capita per day.

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

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

Parks: The Town shall achieve and maintain a Level of Service standard of at least 6 acres of public recreation sites per 1,000 permanent population. [9J-5.016(3)(c)4]

Public Schools: The adopted level of service (LOS) standard for all public school facilities is 100% utilization of Florida Inventory of School Houses (FISH) Capacity (with Relocatable Classrooms). This LOS standard, except for Magnet Schools, shall be applicable in each public school concurrency service area (CSA), defined as the public school attendance boundary established by the Miami-Dade County Public Schools. The adopted LOS standard for Magnet Schools is 100% of FISH (with Relocatable Classrooms), which shall be calculated on a districtwide basis. Level of Service standards for public school facilities apply to those traditional educational facilities, owned and operated by the Miami-Dade County Public Schools, that are required to serve the residential development within their established Concurrency Service Area. Levels of Service standards do not apply to charter schools. However, the capacity of both charter and magnet schools will be credited against the impact of development.

Policy 2.2 – The concurrency management system formulas shall include the public facility demands to be created by "committed" development and the capital improvement schedule shall include the project implications of such committed development to assure facilities are provided concurrent with the impact of development. 9J-5.016(3) (c) 5]

Policy 2.3 – The Town shall not give development approval to any new construction, redevelopment, or renovation project which creates a need for new or expanded public capital improvement unless the project pays a proportional share of the costs of these improvements.[9J-5.017(3)(b) 4 and (c) 8]

Policy 2.4 – The Town shall maintain and improve as part of the land development code a concurrency management system which meets the requirements of 9J-5.0055. The concurrency management system shall specify that no development permit shall be issued unless the public facilities necessitated by a development (in order to meet level of service standards specified in the ~~Traffic Circulation~~Transportation, Recreation and Open Space, Infrastructure and Public School Facilities) will be in place concurrent with the impacts of the development or the permit is conditional to assure that they will be in place. The requirement that no development permit shall be issued unless public facilities necessitated by the project are in place concurrent with the impacts of development shall be effective immediately and shall be interpreted pursuant to the provisions of Policy 1.4 of the Future Land Use Element. [9J-5.016(3)(c)6]

9J-5.0016 Objective and Policy Requirements Not Applicable to Surfside: Rule 9J-5 of the Florida Administrative Code requires communities to adopt as part of their Future Land Use Element objectives and policies which address various issues, except where those issues are not reasonable applicable to a particular community. The following objective and policy provisions of Rule 9J-5 are deemed by the Town of Surfside to be inapplicable:

9J5.016(3)(b)2 – The limitation of public expenditures that subsidize development in high hazard coastal areas.

~~9J5.016(3)(b)4 – The extent to which future development will bear a proportionate cost of facility improvements necessitated by the development in order to adequately maintain adopted level of service standards.~~

~~9J5.016(3)(c)8 – Assessing new developments a pro rata share of the costs necessary to finance public facility improvements necessitated by development in order to adequately maintain adopted levels of service standards.~~

CAPITAL IMPROVEMENT ELEMENT IMPLEMENTATION SYSTEMS [9J-5.016(4)(a)]

Five-Year Schedule of Capital Improvements: See schedule nearby in this element. [9J-5.016(4)(a) 1 and 2]

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

- Continue the annual capital programming and budgeting including use of the project selection criteria contained on Policy 1.1; related thereto will be the annual review of the Element.
- Amendments to the existing land development code to assure conformance to the "concurrency" requirements relative to development orders, levels of service and public facility timing as outlined in C below. [9J-5.016(4)(b)]

Monitoring and Evaluation: The Town Manager or designee shall annually prepare a status report on this Capital Improvement Element for submittal to the Town Commission. The primary purpose is to update the five-year schedule including the basis for next year's capital budget. The project evaluation criteria shall be used in the project list review and special attention shall be devoted to maintenance of the level of service standards. This entire evaluation process shall be integrated into the Town's annual budget process. [9J-5.016(5)]

Concurrency Management: Concurrency management shall be implemented as articulated in Land Use Element Policy 1.4 and Capital Improvement Element Policy 2.3. [9J-5.016(4)(b) and 9J-5.0055]

MONITORING, UPDATING AND EVALUATION PROCEDURES as required by 9J-5.005(7), F.A.C.

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

~~Five-Year~~ Evaluation and Appraisal Report (EAR): ~~In early 2001~~, tThe Town Manager or designee shall prepare an ~~Five-Year~~ Evaluation and Appraisal Report in conformance with statutory requirements and with special emphasis on the extent to which the ~~1996~~ Comprehensive Plan objectives and policies have been achieved. The report will pinpoint obstacles to plan implementation and update baseline data.

Revised Objectives and Policies: As part of this EAR process, amendments to the goals, measurable objectives and policies based upon the above review, focusing ~~on the 2001-2006 period but also including longer-term~~ short and long term community objectives. The citizen participation procedures used in preparing the ~~1996~~ Comprehensive Plan plus any future modifications thereto) shall be used in amending the Plan.

Concurrency Management System Standards

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

"A" equals the total ***design capacity*** of existing facilities;

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

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

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

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

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

Sewage: the capacity of the County sewage treatment system.

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

Solid Waste: the capacity of the County disposal system.

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

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

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

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

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

(a) Sanitary sewer, solid waste, drainage, adequate water supplies, and potable water facilities shall be in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy or its functional equivalent. Prior to approval of a building permit or its functional equivalent, the Town shall determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the Town of a certificate of occupancy or its functional equivalent.

(b) Parks and recreation facilities to serve new development shall be in place or under actual construction no later than 1 year after issuance by the local government of a certificate of occupancy or its functional equivalent. However, the acreage for such facilities shall be dedicated or be acquired by the Town prior to issuance of a certificate of occupancy or its functional equivalent, or funds in the amount of the developer's fair share shall be committed no later than the local government's approval to commence construction.

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

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

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

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

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

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

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

Schedule of Capital Improvements by Category and Funding Sources
Tables 9-8 A-C and Table 9-9 make up the Town's schedule of Capital Improvements. Funding sources are shown where applicable.

Table 9-8A
Stormwater Projects

Town Stormwater Projects							
Project Name	**Location**	**FY 2010**	**FY2011**	**FY2012**	**FY2013**	**FY2014**	**Total**
Stormwater Pollution Control Project	**Townwide**	472,000	151,000	172,000	172,000	172,000	1,139,000
			-	-	-	-	
Total Cost of Stormwater Projects	-	472,000	151,000	172,000	172,000	172,000	1,139,000
Funding Sources	**Florida Dept. of Environmental Protection**	134,500	151,000	172,000	172,000	172,000	801,500
	Stormwater Fund Balance	337,500	-	-	-	-	337,500
			-	-	-	-	
Total Funding Available for Stormwater Pollution Control Project	-	472,000	151,000	172,000	172,000	172,000	1,139,000
Balance	-	0	0	0	0	0	0

Source: Town of Surfside, Calvin, Giordano and Associates, Inc.
Notes: The FDEP grant for the stormwater improvements was signed on February 26, 2008. FDOT funds –agreement approved January 9, 2008.

~~Town Stormwater Projects~~							
~~Project Name~~	~~Location~~	~~FY 2009~~	~~FY2010~~	~~FY2011~~	~~FY2012~~	~~FY2013~~	~~Total~~
~~Stormwater Pollution Control Project~~	~~Townwide~~	~~472,000~~	~~151,000~~	~~172,000~~	~~172,000~~	~~172,000~~	~~1,139,000~~
~~Stormwater Pump Stations~~	~~Townwide~~	~~3,500,000~~	-	-	-	-	~~3,500,000~~
~~Total Cost of Stormwater Projects~~	-	~~3,972,000~~	~~151,000~~	~~172,000~~	~~172,000~~	~~172,000~~	~~4,639,000~~
~~Funding Sources~~	~~Florida Dept. of Environmental Protection~~	~~134,500~~	~~151,000~~	~~172,000~~	~~172,000~~	~~172,000~~	~~801,500~~
	~~Stormwater fund Balance~~	~~337,500~~	-	-	-	-	~~337,500~~
	~~FDOT~~	~~3,500,000~~	-	-	-	-	~~3,500,000~~
~~Total Funding Available for Stormwater Pollution Control Project~~	-	~~3,972,000~~	~~151,000~~	~~172,000~~	~~172,000~~	~~172,000~~	~~4,639,000~~
~~Balance~~	-	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~

~~Source: Town of Surfside 2008/2009 Budget Report.~~

Table 9-8B
Wastewater and Potable Water Projects

Town Wastewater and Potable Water Projects							
Project Name	Location	FY 2010	FY2011	FY2012	FY2013	FY2014	Total
Wastewater System Rehabilitation Program	Townwide	1,145,000	1,145,000	725,000	20,000	20,000	3,055,000
Water System Program	Townwide	1,428,000	285,600	285,600	285,600	285,600	2,570,400
Total Cost of Projects	-	2,573,000	1,430,600	1,010,600	305,600	305,600	5,625,400
Funding Sources	Water and Sewer Fund- Fund Balance	1,533,328	1,910,593	2,159,126	2,245,491	2,335,311	10,183,849
	General Fund	210,672					
	General Obligation Bond	829,000					829,000
Total Funding Available for Stormwater Pollution Control Project	-	2,362,328	1,910,593	2,159,126	2,245,491	2,335,311	11,012,849
Balance		0	479,993	1,148,5260	1,939,891	2,029,711	5,387,449

Source: Town of Surfside , ~~2008/2009 Budget Report~~ 1,Calvin, Giordano and Associates, Inc.

Notes: Description of Wastewater Rehabilitation Program: The Wastewater Rehabilitation Plan will be broken into three phases. Phase I will bring the town into partial compliance with the mandates from DERM (place full dish gaskets on manhole openings). Phase II (repair pipes determined to have inflow/infiltration issues) and III (renovating pump stations) will complete the requirements as outlined in the Sanitary Sewer Evaluation Study (SSES).

Description of Water System Program: This project provides for several miles of water system pipe known to be in particularly poor repair. This pipe replacement program will address those existing iron water pipes that are undersized, corroded or both.

The Town Commission approved water and sewer service charge increases on October 14, 2008. Therefore, the fund balances for FY2010 and FY2011 can be considered committed sources of funding.

~~Town Wastewater and Potable Water Projects~~							
~~Project Name~~	~~Location~~	~~FY 2009~~	~~FY2010~~	~~FY2011~~	~~FY2012~~	~~FY2013~~	~~Total~~
~~Wastewater System Rehabilitation Program~~	~~Townwide~~	~~1,145,000~~	~~1,145,000~~	~~725,000~~	~~20,000~~	~~20,000~~	~~3,055,000~~
~~Water System Program~~	~~Townwide~~	~~285,600~~	~~285,600~~	~~285,600~~	~~285,600~~	~~285,600~~	~~1,428,000~~
~~Total Cost of Projects~~	~~-~~	~~1,430,600~~	~~1,430,600~~	~~1,010,600~~	~~305,600~~	~~305,600~~	~~4,483,000~~
~~Funding Sources~~	~~Water and Sewer Fund Fund Balance~~	~~1,533,328~~	~~1,910,593~~	~~2,159,126~~	~~2,245,491~~	~~2,335,311~~	~~10,183,849~~
~~Total Funding Available for Stormwater Pollution Control Project~~	~~-~~	~~1,533,328~~	~~1,910,593~~	~~2,159,126~~	~~2,245,491~~	~~2,335,311~~	~~10,183,849~~
~~Balance~~		~~102,7280~~	~~479,993~~	~~1,148,5260~~	~~1,939,891~~	~~2,029,711~~	~~5,700,849~~

~~Source: Town of Surfside 2008/2009 Budget Report~~

Table 9-8C
FDOT Projects

FDOT Projects							
Project Name	**Location**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**Total**
SRAIA/CollinsAvenue Resurfacing FDOT Item No. 4198581	150 feet north of 75th Street to north of 96th Street			$5,156,000			$5,516,000
SRA1A/Harding Avenue Resurfacing FDOT Item No. 4198601	75 Street to 91st Street			$1,462,000			$1,462,000
SRA1A/Harding Avenue Resurfacing FDOT Item No. 4198231	From Bal Harbour Shop Entrance to to 94th Street		$1,056,000				$1,056,000
Total Cost of FDOT Projects			**$1,056,000**	**$6,978000**			**$8,034,000**

Source: FY2010-2014 Transportation Improvement Program, Miami-Dade Metropolitan Planning Organization

~~FDOT Projects~~							
~~**Project Name**~~	~~**Location**~~	~~**FY 2009**~~	~~**FY2010**~~	~~**FY2011**~~	~~**FY2012**~~	~~**FY2013**~~	~~**Total**~~
~~**Harding Avenue Street Resurfacing**~~	~~**NE 87th Street to Bal Harbour**~~	~~1,275,191~~	~~1,275,191~~	~~1,240,819~~	-	-	~~3,791,201~~
~~**Total Cost of FDOT Projects**~~		~~**$1,275,191**~~	~~**1,275,191**~~	~~**1,240,819**~~	**0**	**0**	~~**3,791,201**~~

~~Source: Florida Department of Transportation FY09-FY13 Work Program~~

~~Table 9-9~~
~~MDWASD Water/Alternative Water Supply CIE Program~~

Project Name And Location	Purpose* / Year of Completion	Prior Years	Expenditures Revenues (In Millions of Dollars) 2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Six Year Totals
Alternative Water Supply									
A. ASR Ultraviolet(UV)Disinfection System	3/2011	0.98	2.50	3.52	0.75	0.00	0.00	0.00	6.77
for ASR Syst @W&SW Wellfield (7.4 mgd ASR&bl)		7.47	0.00	0.26	0.00	0.00	0.00	0.00	0.26
B. Southwest Wellfield-UFA Monitoring Well	1/2007	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southwest		1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C. Floridan Aquifer Blending Wellfield	3/2009	0.73	6.00	3.50	2.88	0.00	0.00	0.00	12.38
at Hialeah-Preston (4.7 mgd blending)		7.01	3.22	0.00	2.88	0.00	0.00	0.00	6.10
D. Hialeah Floridan Aquifer Reverse	1/2011	10.00	7.47	22.64	18.12	0.00	0.00	0.00	48.23
Osmosis (RO) WTP Ph I (10 mgd)		47.11	4.37	1.00	5.75	0.00	0.00	0.00	11.12
E. Hialeah Floridan Aquifer Reverse	2/2017	0.00	0.00	0.00	0.00	0.00	5.23	5.22	10.45
Osmosis (RO) WTP Ph II (5 mgd)		0.00	0.00	0.00	0.00	0.00	5.23	5.22	10.45
F. Hialeah Floridan Aquifer Reverse	2/2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Osmosis (RO) WTP Ph III (2.5 mgd)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G. ASR - 20 Year Water Use Permit	3/2028	0.00	0.62	0.87	0.51	0.04	0.00	0.00	2.04
Regional Impact Projects		0.00	0.62	0.87	0.51	0.04	0.00	0.00	2.04

(Previously adopted table for FY09 CIE Update to be deleted at adoption)

Project Name	Expenditure[a] (In Millions of Dollars)						Six Year Totals
	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	
Sewer Facilities							
Village of Key Biscayne Reuse Distr. System	2.85	0.00	0.00	0.00	0.00	0.00	2.85
Biscayne Bay Coastal Wetlands Rehydr. Pilot.	0.11	2.98	9.12	5.56	0.00	0.00	17.77
Aquifer Recharge Pilot Study (20,000 gpd)	0.24	2.00	0.00	0.00	0.00	0.00	2.24
North District W.W.T.P. Reuse Projects (7.0 mgd)	1.53	6.17	12.93	6.16	0.00	0.00	26.79
Central District W.W.T.P. Reuse Project (1.0 mgd)	0.90	3.36	7.03	4.00	0.00	0.00	15.29
South District W.R.P. Groundwater Recharge Ph 1 (18.6 mgd)	8.93	17.87	34.48	78.81	121.40	96.00	357.49
West District W.R.P. Canal Recharge Ph 2 (21 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
West District W.R.P. Canal Recharge Ph 3 (16 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Biscayne Bay Coast. Wetlands Reh. (75.7 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Facilities							
South Miami Heights W.T.P. & Wellfield	13.14	19.12	26.58	12.92	12.48	0.00	84.24
ASR Ultraviolet (UV) Disinfection System for ASR Syst. @W&SW Wellfield(7.2 mgd ASR&bl)	6.83	0.00	0.00	0.00	0.00	0.00	6.83
Floridan Aquifer Blending at Hialeah/Preston(4.7 mgd)	0.82	2.57	6.60	0.00	0.00	0.00	9.99
Hialeah Floridan Aquifer R.O. W.T.P. Phase 1 (10.0 mgd)	10.49	18.29	34.44	26.67	2.66	0.00	92.55
Hialeah Floridan Aquifer R.O. W.T.P. Phase 2 (5.0 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hialeah Floridan Aquifer R.O. W.T.P. Phase 3 (2.5 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	**45.84**	**72.36**	**131.18**	**134.12**	**136.54**	**96.00**	**616.04**

Source: MDWASD CDMP CIE

[a] December, 2006 Dollars (ENR CCI=7888)

Existing Land Use

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Existing Land Use

- Community Facilities
- General Retail Services
- Multi Family Residential
- Parking
- Private Recreation
- Single Family Residential
- Vacant

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Map Number : FLU 1
Print Date : November 2008
Source : Calvin Giordano and Associates

GIS

Soils

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Soils

- URBAN LAND
- BEACHES
- WATER

0 450 900 1,350 1,800 Feet

Map Number : FLU 2

Print Date : November 2008

Source : U.S. Department of Agriculture

Calvin, Giordano & Associates, Inc.

Topography

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Surfside Contours
  - 5 Feet
  - 10 Feet

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.

Map Number : FLU 3

Print Date : November 2008

Source: U.S. Geological Survey

GIS Produced and maintained by the CGA Geographic Information Systems Services

FEMA Flood Zones

Legend

- Surfside Boundary
- Surfside Streets

FloodZone

- AE
- VE
- X
- X-500
- Beach Area

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Map Number : FLU 4
Print Date : November 2008
Source : Federal Emergency Management Assoc.

GIS Produced and maintained by the CGA Geographic Information Systems Services

Water Bodies

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

0 450 900 1,350 1,800 Feet

Map Number : FLU 5

Print Date : November 2008

Source : Calvin Giordano and Associates

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL EXPERIENCE

GIS

Aerial

Legend

Streets

Surfside Boundary

0 450 900 1,350 1,800 Feet

Map Number : FLU 6

Print Date : November 2008

Source : Calvin Giordano and Associates

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Future Land Use

Legend

- Surfside Boundary
- Surfside Streets

Future Land Use

- Community Facility
- General Retail / Services
- High Density Residential / Tourist
- Low Density Residential
- Moderate Low Density Residential
- Moderate Density Residential / Tourist
- Moderate High Density Residential
- Parking
- Private Recreation
- Public Buildings
- Public Recreation

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Map Number : FLU 7
Print Date : November 2008
Source : Calvin Giordano and Associates

GIS Produced and maintained by the CGA Geographic Information Systems Services

Existing and Future Number of Lanes

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Existing and Future Number of Lanes

- 4 Lanes Divided
- 3 Lane-One Way
- 2 Lanes

0 450 900 1,350 1,800 Feet

Map Number : TRN 1

Print Date : November 2008

Source : Town of Surfside
Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS Produced and maintained by the CGA Geographic Information System Services

Existing and Future Functional Classification

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Functional Classification
Existing and Future

- State Major Arterial
- State Minor Arterial

0 450 900 1,350 1,800 Feet

Map Number : TRN 2
Print Date : November 2008
Source : Town of Surfside
Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Existing Roadway Level of Service

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Existing Level of Service: D

0 450 900 1,350 1,800 Feet

Map Number : TRN 3

Print Date : November 2008

Source : Town of Surfside
Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL EXPERIENCE

Future Roadway Level of Service

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Future Level of Service: D

0 450 900 1,350 1,800 Feet

Map Number : TRN 4
Print Date : November 2008
Source : Town of Surfside
Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Existing and Future Pedestrian Facilities

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Pedestrian Facilities
- Sidewalk
- Beachwalk

0 450 900 1,350 1,800 Feet

Map Number : TRN 5

Print Date : November 2008

Source : Town of Surfside
Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS Produced and maintained by the GIS Geographic Information Systems Services

Existing and Future (2030) Transit

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Existing and Future Transit

Bus Routes

- Beach Max, Route's G, H, K, S
- Route R

0 450 900 1,350 1,800 Feet

Map Number : TRN 6
Print Date : January 2009
Source : Miami-Dade Transit, 2009

Calvin, Giordano & Associates, Inc.

Existing and Future Traffic Generators

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion stem boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Business District
- Town Hall

Parks

- Public Recreation
- Community Center

0 450 900 1,350 1,800 Feet

Map Number : TRN 7
Print Date : February 2009
Source : Town of Surfside

Calvin, Giordano & Associates, Inc.

Coastal High Hazard Area

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Coastal High Hazard Area
- Surfside Streets
- Beach Area

0 450 900 1,350 1,800 Feet

Map Number : CST 1

Print Date : November 2008

Source : Florida Department of Emergency Management

Calvin, Giordano & Associates, Inc.

GIS

Evacuation Routes

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Evacuation Routes
- Beach Area

0 450 900 1,350 1,800 Feet

Map Number : CST 2

Print Date : November 2008

Source : Florida Department of Emergency Management

Calvin, Giordano & Associates, Inc.

GIS

Contaminated Sites

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Hazardous Waste Compliance

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.

Map Number : CON 1

Print Date : November 2008

Source : Dept of Environmental Protection

Historic Sites, Structures and Bridges

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Historic Structures
- Historic Sites
- Historic Bridges

0 480 960 1,440 1,92(Ft

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Map Number : CON 2
Print Date : November 2008
Source : Dept of Historical Resources

GIS

Parks and Recreation

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets

Parks

- Street End Beach Access
- Public Recreation
- Community Center

0 450 900 1,350 1,800 Feet

Map Number : REC 1

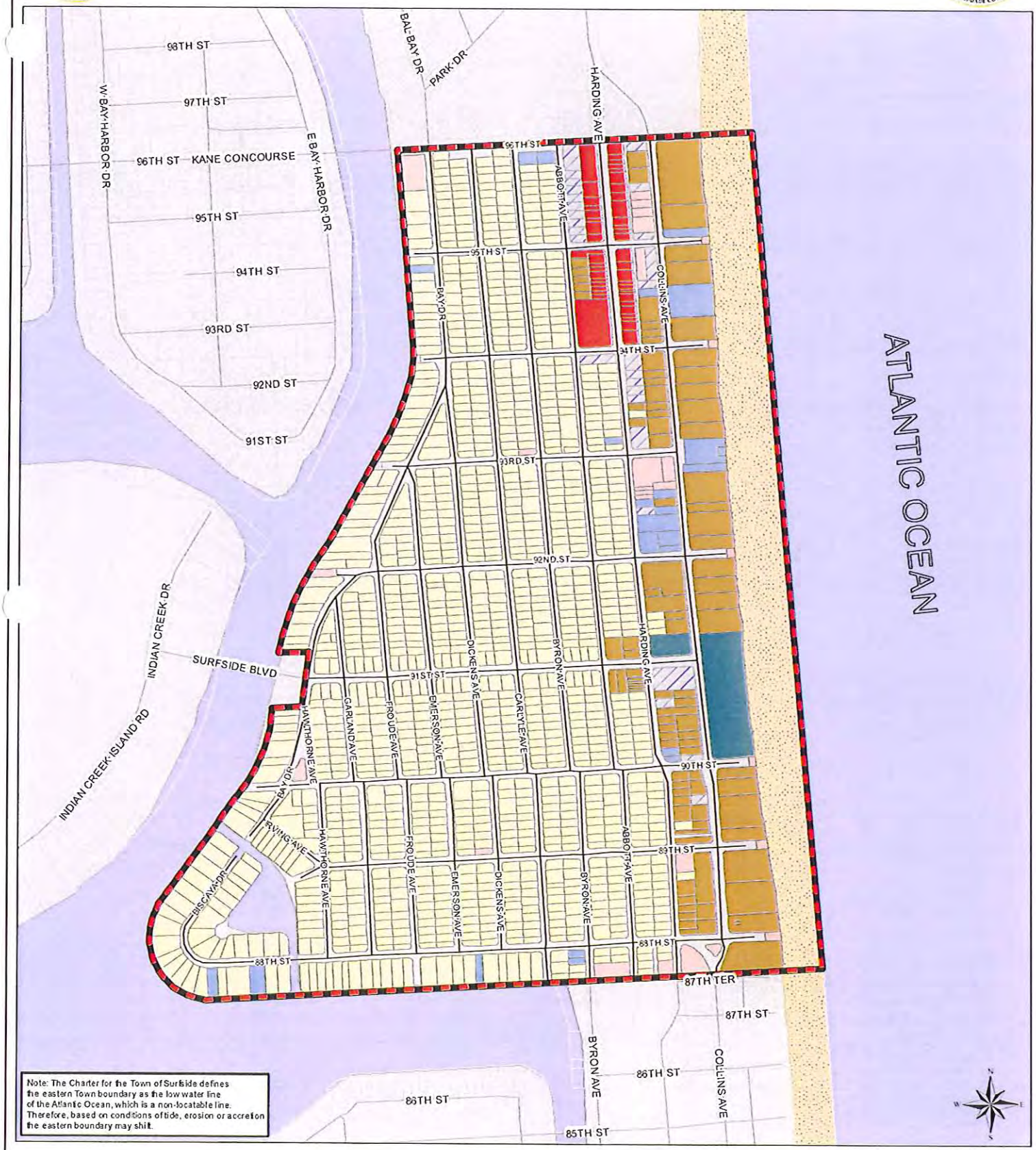
Print Date : November 2008

Source : Calvin Giordano and Associates

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Existing Land Use



Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Existing Land Use

- Community Facilities
- General Retail Services
- Multi Family Residential
- Parking
- Private Recreation
- Single Family Residential
- Vacant

0 450 900 1,350 1,800 Feet

Map Number : FLU 1
Print Date : November 2008
Source : Calvin Giordano and Associates

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS Produced and maintained by the GIS Geographic Information Systems Division

Soils

gend

- Surfside Boundary
- Surfside Streets
- Beach Area

Soils

- URBAN LAND
- BEACHES
- WATER

0 450 900 1,350 1,800 Feet

Map Number : FLU 2

Print Date : November 2008

Source : U.S. Department of Agriculture

Calvin, Giordano & Associates, Inc.

Topography

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Surfside Contours

- 5 Feet
- 10 Feet

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Map Number : FLU 3
Print Date : November 2008
Source: U.S. Geological Survey

GIS Produced and maintained by the CGA Geographic Information Systems Services

FEMA Flood Zones

gend

Surfside Boundary
Surfside Streets

FloodZone

AE
VE
X
X-500
Beach Area

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL EXPERIENCE

Map Number : FLU 4
Print Date : November 2008
Source : Federal Emergency Management Assoc.

GIS Produced and maintained by the CGA Geographic Information Systems Services

Water Bodies

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

0 450 900 1,350 1,800 Feet

Map Number : FLU 5

Print Date : November 2008

Source : Calvin Giordano and Associates

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Aerial

gend

Streets

Surfside Boundary

0 450 900 1,350 1,800 Feet

Map Number : FLU 6

Print Date : November 2008

Source : Calvin Giordano and Associates

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Future Land Use (2030)

Legend

- Surfside Boundary
- Surfside Streets

Future Land Use

- Community Facility
- General Retail / Services
- High Density Residential / Tourist
- Low Density Residential
- Moderate Low Density Residential
- Moderate Density Residential / Tourist
- Moderate High Density Residential
- Parking
- Private Recreation
- Public Buildings
- Public Recreation

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Map Number : FLU 7
Print Date : November 2008
Source : Calvin Giordano and Associates

GIS

Existing and Future (2030) Number of Lanes

gend

- Surfside Boundary
- Surfside Streets
- Beach Area

Existing and Future Number of Lanes

- 4 Lanes Divided
- 3 Lane-One Way
- 2 Lanes

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.

Map Number : TRN 1

Print Date : November 2008

Source : Town of Surfside
Miami Dade MPO

GIS

Existing and Future (2030) Functional Classification

gend

- Surfside Boundary
- Surfside Streets
- Beach Area

Functional Classification
Existing and Future

- Collector Road
- State Major Arterial
- State Minor Arterial

0 450 900 1,350 1,800 Feet

Map Number : TRN 2
Print Date : November 2008
Source : Town of Surfside, FDOT, Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS Produced and maintained by the CGA Geographic Information Systems Services

Existing Roadway Level of Service

gend

Surfside Boundary

Surfside Streets

Beach Area

Existing Level of Service

D

0 450 900 1,350 1,800 Feet

Map Number : TRN 3

Print Date : November 2008

Source : Town of Surfside
Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Future (2030) Roadway Level of Service

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Future Level of Service

- D

0 450 900 1,350 1,800 Feet

Map Number : TRN 4
Print Date : November 2008
Source : Town of Surfside
Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Existing and Future (2030) Pedestrian Facilities

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Pedestrian Facilities
  - Sidewalk
  - Beachwalk

0 450 900 1,350 1,800 Feet

Map Number : TRN 5

Print Date : November 2008

Source : Town of Surfside
Miami Dade MPO

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Existing and Future (2030) Transit

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area

Existing and Future Transit

Bus Routes

- Beach Max, Route's G, H, K, S
- Route R

0 450 900 1,350 1,800 Feet

Map Number : TRN 6
Print Date : January 2009
Source : Miami-Dade Transit, 2009

Calvin, Giordano & Associates, Inc.

GIS Produced and maintained by the CGA Geographic Information Systems Services

Existing and Future (2030) Traffic Generators

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Business District
- Town Hall

Parks

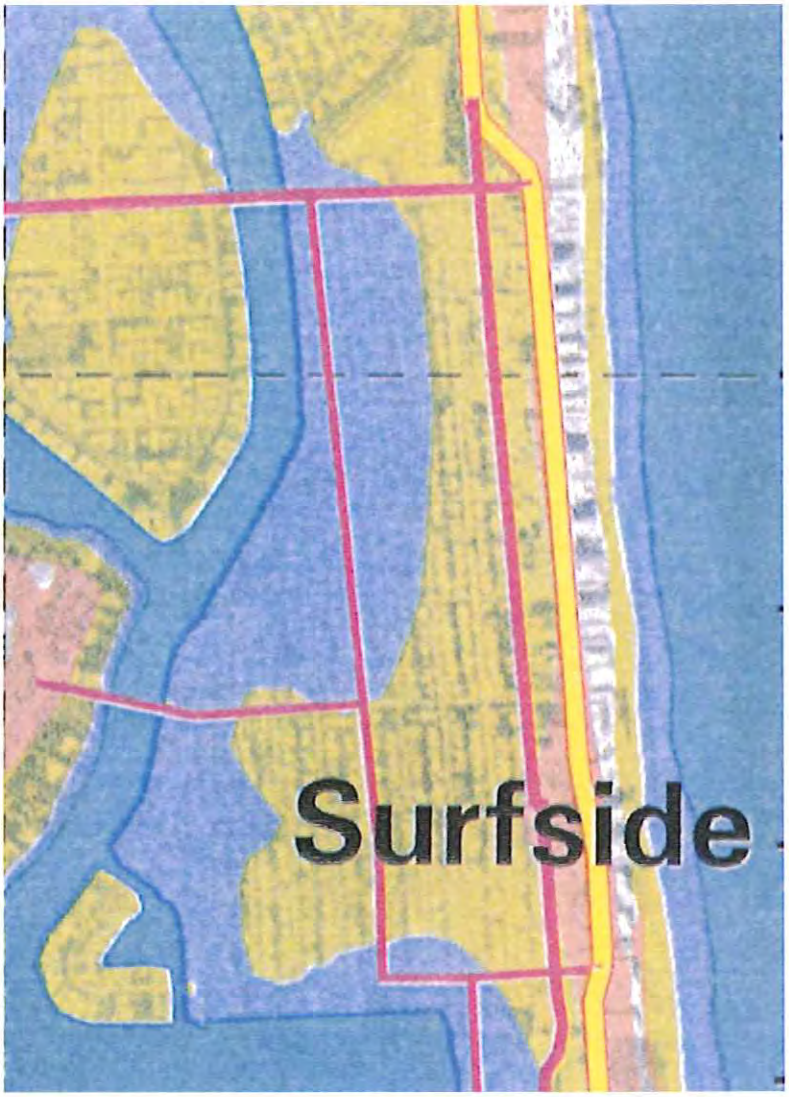
- Public Recreation
- Community Center

0 450 900 1,350 1,800 Feet

Map Number : TRN 7
Print Date : February 2009
Source : Town of Surfside

Calvin, Giordano & Associates, Inc.

CST 1 Coastal High Hazard Area



- Category 1 Storm Tide
- Category 3 Storm Tide
- Category 5 Storm Tide
- FEMA 100 Year Flood
- Normal Ocean Level
- Time History Point
- County Boundary
- Municipal Boundary
- Controled Access Hwy
- Divided Hwy
- Other Routes

Storm Tide Heights at Selected Points (feet)

Point	Category 1		Category 3		Category 5		Ground
Num.	Elev.	Depth	Elev.	Depth	Elev.	Depth	Elev.
1	2.5	-	4.0	---	6.6	1.8	4.8
2	3.0	---	5.0	1.3	5.5	1.8	3.7
3	2.6	-	4.2	---	6.6	0.5	6.1
4	---	---	---	---	5.2	1.3	3.9
5	3.0	0.6	5.4	3.0	8.5	6.1	2.4
6	3.1	-	5.3	1.4	8.7	4.9	3.8
7	3.1	---	6.2	2.4	8.4	4.6	3.8

Source: US Army Corps of Engineers, 2001

Evacuation Routes

gend

- Surfside Boundary
- Surfside Streets
- Evacuation Routes
- Beach Area

0 450 900 1,350 1,800 Feet

Map Number : CST 2

Print Date : November 2008

Source : Florida Department of Emergency Management

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS

Contaminated Sites

gend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Hazardous Waste Compliance

0 450 900 1,350 1,800 Feet

Calvin, Giordano & Associates, Inc.

Map Number : CON 1

Print Date : November 2008

Source : Dept of Environmental Protection

Historic Sites, Structures and Bridges

Note: The Charter for the Town of Surfside defines the eastern Town boundary as the low water line of the Atlantic Ocean, which is a non-locatable line. Therefore, based on conditions of tide, erosion or accretion the eastern boundary may shift.

Legend

- Surfside Boundary
- Surfside Streets
- Beach Area
- Historic Structures
- Historic Sites
- Historic Bridges

0 480 960 1,440 1,92(F

Calvin, Giordano & Associates, Inc.

Map Number : CON 2

Print Date : November 2008

Source : Dept of Historical Resources

GIS

Parks and Recreation

gend

- Surfside Boundary
- Surfside Streets

Parks

- Street End Beach Access
- Public Recreation
- Community Center

0 450 900 1,350 1,800 Feet

Map Number : REC 1
Print Date : November 2008
Source : Calvin Giordano and Associates

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS Produced and maintained by the GIS Geographic Information Systems Service