
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 and a long term planning period ending FY 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 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. Between 2007 and 2030 the Town is projected to see an additional 521 residents, which represents 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	5,680	521
2030	5,680	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 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.
- Identify 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 Plant 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 and long term 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.