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 B evacuation area. Zone B is at greatest risk for storm surge for Category 2 and higher storms., 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 in2017, 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, 89th, 90th ,92nd,94th, 95th and 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 near 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.

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 completed 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, addressed the drainage from the area along Collins Avenue and east of Harding Avenue.

With assistance from grant monies under FDEP Agreements S0374 and LP6787, the Town completed 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 were installed upstream of the pump stations to provide treatment before the runoff enters the groundwater. These improvements occurred 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 was completed. The Town also sealed all manhole covers and repaired or replaced the sanitary sewer lines, where necessary, to decrease transmigration of e-coli and other contaminates to Biscayne Bay..

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. 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 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 2018.

Miami-Dade County storm surge planning zones have been drawn in relation to updated data which supersedes the previously-used SLOSH model. The newest generation of SLOSH model reflects major improvements, including higher resolution basin and grid data. The Storm Surge Planning Zones are used to identify risk of storm surge and is based on all directions of storms. As a storm is approaching, Miami-Dade County Emergency Management will identify which areas should evacuate for that particular storm. Evacuation Zones will be all of or a portion of the Storm Surge Planning Zones. The entire Town of Surfside is recognized as a Zone B. Surge Planning Zone B is defined as at greatest risk for storm surge for Category 2 and higher storms. A Surge Planning Zone A is at risk for for storm surge for Category 1 and higher storms. The Miami-Dade County website provides an on-line mapping tool to determine if a specific location is within a storm surge planning zone, the mapping tool can be found at:
http://gisweb.miamidade.gov/communityservices/?ShowWhat=OEM

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. Records indicate that the Town has been brushed by or hit by a tropical storm or a hurricane 73 times from 1871 through2016.

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 B 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 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.

RESILIENCY PLANNING

The Town of Surfside is an older, built-out community that has been addressing resiliency concerns on an ongoing basis. This is a commitment by this Town and continues to be an ongoing process. Below is a brief overview of some of the action taken that began at least a decade ago.

By the end of 2009 the Town completed a Stormwater Management Master Plan to address water quality issues and to reduce flooding within the Town. The Master Plan included a complete engineering analysis based on engineered computer models. The report included the best approach to reduce or eliminate pollutant discharge loadings into Biscayne Bay and targeted improvement in hydraulic performance of the Town's drainage system to reduce stormwater flooding. The report informed the actions of the significant drainage system improvements the Town then undertook.

The storm sewer improvements were a part of an overall utility rehabilitation project that included the sanitary sewer and potable water systems. This was a significant project that consisted of the replacement of over 32,000 linear feet of water main, 1,587 water services, 1,278 new water meters and 46 additional fire hydrants. The sanitary sewer upgrades included over 50,000 linear feet of sanitary sewer main being CIPP lined or replaced, two (2) sewage pump stations being completely rebuilt with updated and more efficient pumps including SCADA controls, the force mains from the pump stations to the shared transmission main being replaced, and placing full dish gaskets on all manhole openings.

The storm sewer system was upgraded to include 3 SCADA controlled pump stations, 9 shallow injection drainage wells, 20 control structures and the required RCP pipeline to interconnect the existing gravity drainage system with the newly installed pumped well system. It also included the installation of over 45,000 linear feet of curb and 167,000 square yards of asphalt roadway resurfacing, sealing all stormwater manholes and installing back flow preventers on outfalls.

The Town searched for and obtained funding assistance for this project, which included the Miami Dade Building Better Communities General Obligation Bond, FDEP Grants, Regions Bank publically bid bond issuance and the FDEP's State Revolving fund program.

The Town obtained two Florida Inland Navigation District (FIND) grants to financially assist in replacing and elevating all Town owned seawalls. This project was completed by the end of 2017. The Town also adopted an ordinance that specifically requires the following: "The elevation for the top of shore end of all groins or other shore protective work shall be plus five feet above mean low water; the elevation for the top of seaward end of all groins and other shore protective work shall be plus 2&half feet above mean low water; and the elevation of the top of all seawalls fronting on the waters of Biscayne Bay, Indian Creek and Point Lake shall be plus five feet above mean low water." This ordinance provides for an initial, and for an ever increasing height as the mean low water line increases.

Reflective of recommendations of the Regional Climate Action Plan, in April of 2016, the Town Commission officially formed the Sustainability Subcommittee of the Planning and Zoning Board. The purpose of the Subcommittee is to study and recommend policies and programs that strengthen the resiliency of the community. The Subcommittee's goals include:

1. Adapting and mitigating to climate change and sea level rise;
2. Promoting green and sustainable building, construction and operations;
3. Protecting, restoring, optimizing and creating green spaces;
4. Improving alternative transportation and mobility; and
5. Increased environmental awareness and stewardship of our treasured ecosystems.

The Town amended their flood ordinance to specify the following within the A zones:

- Residential construction. All new construction and substantial improvements of any residential building (including manufactured home) shall have the lowest floor, including basement, elevated to no lower than one foot above the base flood elevation.
- Nonresidential construction. All new construction and substantial improvements of any commercial, industrial, or nonresidential building (including manufactured home) shall have the lowest floor, including basement, elevated to no lower than one foot above the base flood elevation.

Additionally, all new construction and substantial improvements in V zones shall be elevated on pilings or columns so that:

- The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to no lower than one foot above the base flood elevation.

The Town also requires all development other than single family residential be developed in accordance with Leadership in Energy & Environmental Design (LEED) or Florida Green Building Coalition (FGBC) building design and construction standards to ensure the incorporation of sustainable development practices.

In the Town's ongoing efforts to develop accurate, effective and comprehensive flood peril strategies, the Town has obtain and reviewed a proposal for the following project and will be including the funding for this project in the fiscal year 2019 budget.

> Project: Obtain elevation data at all of the street centerline intersections of public rights-of-way within the Town, and obtain beach dune height topographic survey with a grid of cross section elevations traversing from the Bulkhead line to the edge-of-water along the Atlantic coastline. The Town will also produce a Beach and Dune Use Best Management Practices document and develop Beach Use regulations.
>
> The street intersection data will produce specific and accurate information on the lowest (most vulnerable) locations within the Town. This data will be incorporated into the Town's GIS database to cross reference FIRM data, infrastructure data, historic site data and all other data layers the Town has developed. The analysis of this data will enable the Town to direct planning

efforts and strategies toward the infrastructure, critical facilities and adjacent properties in these locations; direct Capital Improvements funds most effectively; and assist the Town in assessing and developing effective freeboard criteria as needs arise.

The Town recognizes the protective value of the beach and dune system, particularly to the Town's commercial corridor, and main thorough fairs that are also main thorough fairs for the entire barrier island. The baseline data obtained on the current geo/topographic conditions of the dune and beach will also be incorporated into the Town GIS database; allowing the data to be placed over a current aerial photograph to identify the limits of the dune vegetation. Analysis of the survey information will enable the Town to identify any vulnerable areas that may need restoration or replanting, provide the baseline for the Town to be able to monitor changes, and to establish geo/topographic goals to strive for. The Town will research best protective management practices for the beach and dune system and produce a Beach and Dune Use Best Management Practices document. The information obtained will also guide the Town in the development of beach use regulations to ensure this natural resource remains an effective protection system for the Town.

The Town has also reviewed the requirements, feasibility and resource allocations associated with pursing and obtaining a Certification through the Florida Green Building Coalitions. The will be pursing FGBC certification and will additionally be putting funding for this project in the fiscal year 2019 budget.

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.

Policy 1.1 – 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 continue to review and update as needed the adopted Stormwater Management Master Plan.

Policy 1.4 – 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 and Coastal Construction Control Line permitting.

Policy 1.5 – 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 1.6 – 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 1.7 – When applicable, the Town shall provide development proposal information to the Biscayne Bay Shoreline Development Review Committee for review.

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 manatees, sea turtle eggs, fisheries, wildlife, wildlife habitat, marine habitat and environmentally sensitive land.

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.

Policy 2.3 – The Town shall contact the Miami-Dade County Division of Environmental Management (DERM) if any adverse impact is observed relative to the sea grass beds in adjacent waters.

Policy 2.4 – The Town shall cooperate with the 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 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.

Policy 2.6 – The Town shall require all new shoreline development affecting marine habitats to be reviewed by the Miami-Dade County Division of Environmental Resource Management or other applicable jurisdictional agency.

Policy 2.7 –The Town shall coordinate with existing resource protection plans of other governmental agencies, including the Miami-Dade County Division of Environmental Resource Management, the South Florida Water Management District, the Florida 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.

Policy 2.8 – 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.

Policy 3.1 – The Town shall continue to permit water dependent hotel 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.

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.

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.

Policy 3.4 – The Town shall require water-dependent uses to meet the following criteria:

a) Construction or subsequent operation shall not destroy or degrade sea grass or hard bottom communities, or habitats used by endangered or threatened species.

b) Where applicable, all external agency approvals shall be obtained.

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

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

Objective 4 – Protect and enhance beaches and dunes: 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.

Policy 4.1 – The Town shall continue to maintain the posted signs prohibiting walking on vegetated dune and/or uprooting or otherwise damaging plants.

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 and shall require all construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.

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.

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.

Policy 4.5 – The Town shall regulate the property adjacent to beaches and dunes to 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.

Policy 4.7 – The Town shall enforce and maintain the adopted Beach Sand Quality Ordinance.

Objective 5 – Direct population concentrations away from coastal high hazard areas and limit coastal high hazard area infrastructure expenditures: 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 require development activities be consistent with, or more stringent than, the flood–resistant construction requirements in the Florida Building Code and applicable floodplain Management regulations set forth in 44 C.F.R. part 60, and shall require all construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.

Policy 5.2 – 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, adapt to climate change, or development for which rights were vested prior to enactment of this Plan.

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 Preparedness: The Town shall coordinate with the County to maintain a 12-hour hurricane evacuation clearance time to shelter for a category 5 storm event as measured on the Saffir-Simpson scale.

Policy 6.1 – 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 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.

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.

Policy 6.5 – The Town shall continue to update its Comprehensive Emergency Management Plan in order to be prepared for, respond to, and recover from potential hazard.

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 – Emergency Preparedness: The Town shall plan and coordinate response for emergency preparedness and/or post-disaster management in the context of climate change.

Policy 7.1 **–** The Town shall ensure adequate planning and response for emergency management in the context of climate change by maximizing the resilience and self-sufficiency of, and providing access to, public structures, schools, hospitals and other shelters and critical facilities.

Policy 7.2 **–** The Town shall continue to communicate and collaboratively plan with other local, regional, state and federal agencies on emergency preparedness and disaster management strategies including incorporating climate change impacts into updates of local mitigation plans, water management plans, shelter placement and capacity, review of major trafficways and evacuation routes, and cost analysis of post disaster redevelopment strategies.

Policy 7.3 **–** The Town shall consider the public health consequences of climate change, such as extreme temperatures and vector-borne diseases, and take steps to build capacity to respond to or support other agency responders.

Objective 8 –Ensure public access to beach and shorelines: The Town shall maintain all existing public access to the beach and shorelines, particularly the Atlantic Ocean and the Atlantic Ocean beach.

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.

Policy 8.2 – The Town shall beautify and enhancebeach accesses at the public street ends east of Collins Avenue when funds are available and conditions merit.

Policy 8.3 – The Town shall 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 provide beach access from ~~of~~ 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.

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: The Town shall provide for protection, preservation or sensitive reuse of historic structures.

Policy 9.1 **–** The Town shall provide for appropriate use and protection of known historic structures through the site plan review process.

Policy 9.2 – 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.

Policy 9.3 – 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.

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.

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 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.

Policy 11.1 – 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, 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 – 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 participate in the Community Rating System of the National Flood Insurance Program

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 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 11.8 – 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 11.9 – 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 – Sea Level Rise: The Town shall plan for and prepare for the impacts of sea level rise.

Policy 12.1 **–** The Town shall support the efforts of state environmental and planning agencies to jointly develop, assess, and recommend a suite of planning tools and climate change adaptation strategies for local municipalities to maximize opportunities to protect the beach and dune systems and other coastal resources from the impacts of sea level rise and shall require all construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.

Policy 12.2 **–** The Town shall cooperate with federal and State agencies on any beach and dune renourishment programs, and any coral reef protection or establishment programs to enhance coastal resiliency and storm protection.

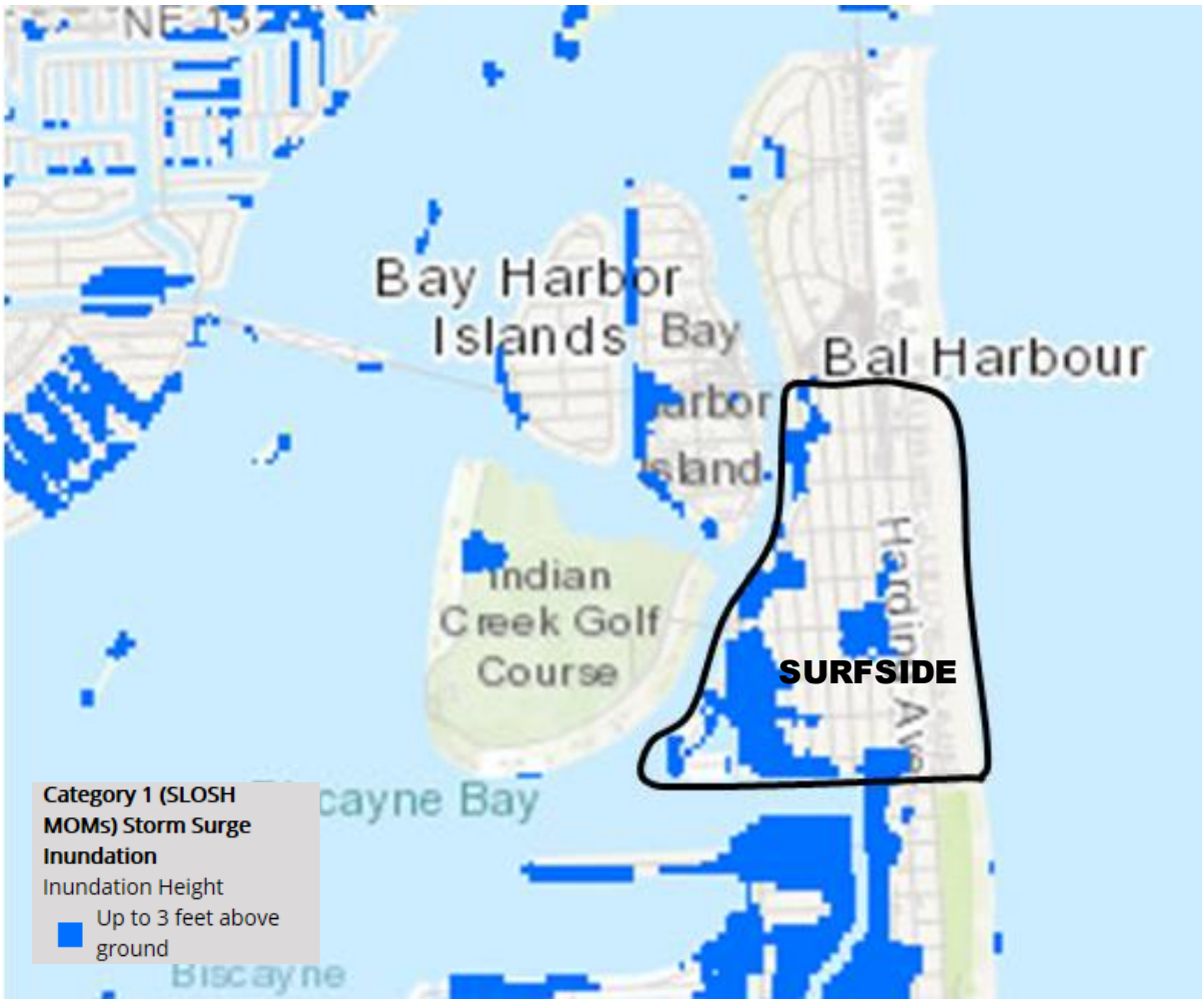
Policy 12.3 **–** The Town shall continue to review updated mapping studies to aid in identifying areas of the Town most vulnerable to sea level rise, tidal flooding, and other impacts of climate change.

Policy 12.4 **–** The Town shall continue to review the best available data and designate areas that are at increased risk of flooding due to, or exacerbated by, sea level rise over the next 50 years, and work to make these areas more climate resilient by discouraging density increases and encouraging the use of adaptation and mitigation strategies.

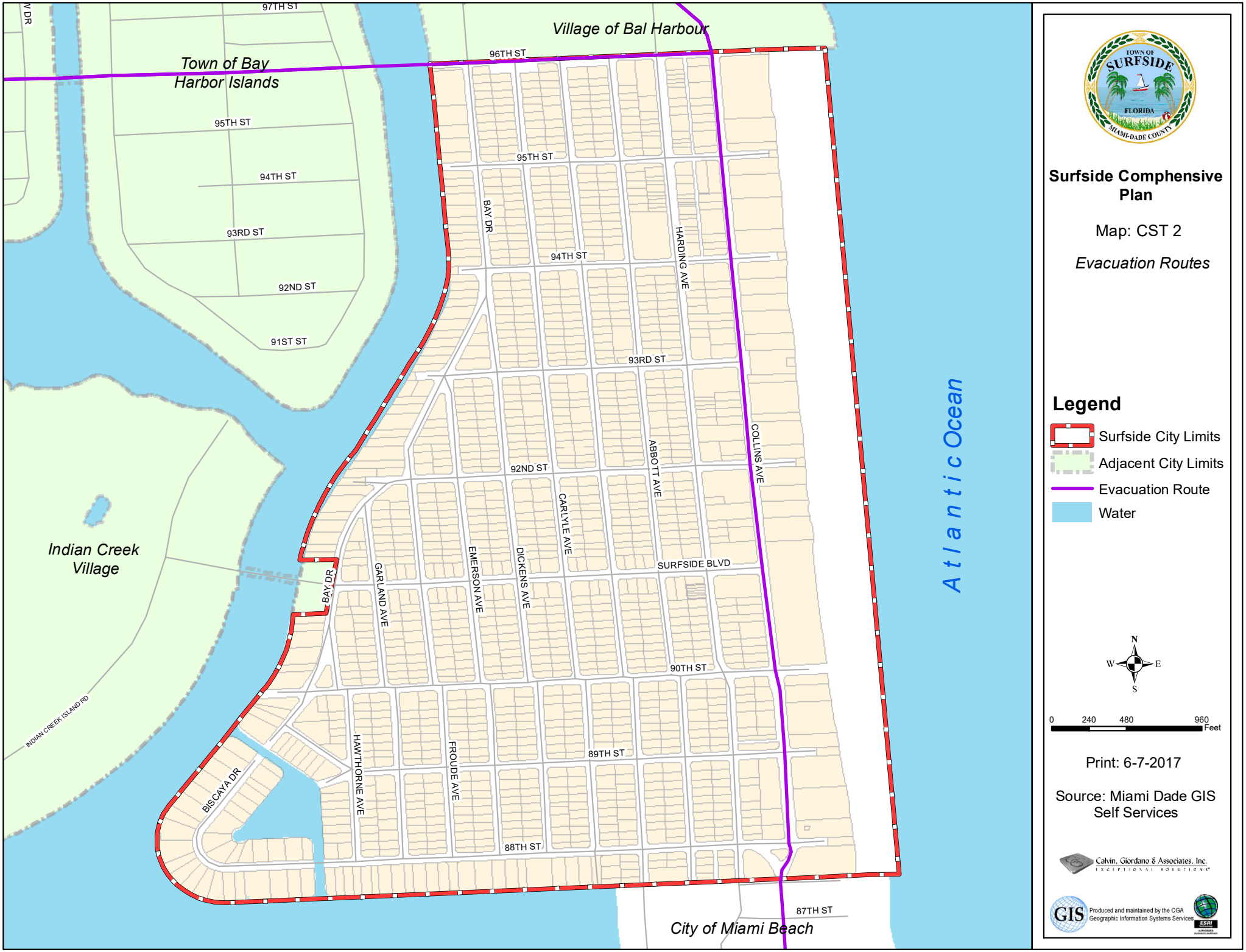
Policy 12.5 **–** The Town shall continue to review and implement available data that is applicable to the Town from governmental entities such as the Regional Climate Compact or the County that identifies development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.

Policy 12.6 – The Town shall continue its program to replace all Town owned seawalls and continue to implement the increased elevations for seawalls and groins as specified in the Town code of ordinances.

CST 1 Storm Tides: NATIONAL STORM SURGE HAZARD MAPS - SLOSH CATEGORY 1 MAP



Source: NOAA/NWS/NHC Storm Surge Unit



Surfside Comphensive Plan

Map: CST 2

Evacuation Routes

Legend

- Surfside City Limits
- Adjacent City Limits
- Evacuation Route
- Water

N
W E
S

0 240 480 960 Feet

Print: 6-7-2017

Source: Miami Dade GIS Self Services

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

GIS Produced and maintained by the CGA Geographic Information Systems Services