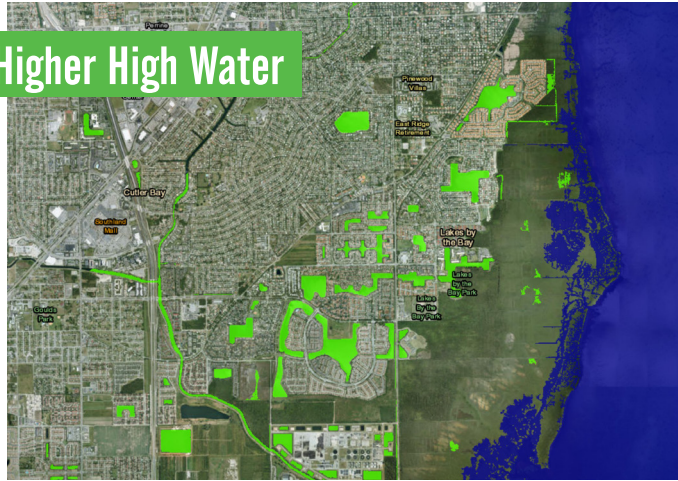




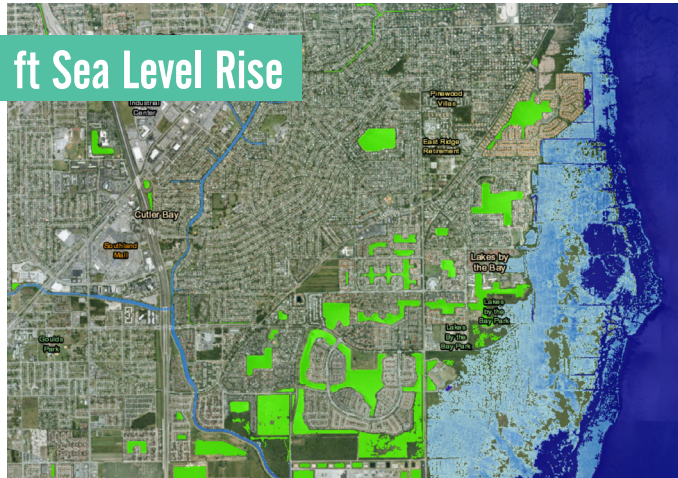
TOWN OF CUTLER BAY

2019 Resiliency Planning Study and Recommendations

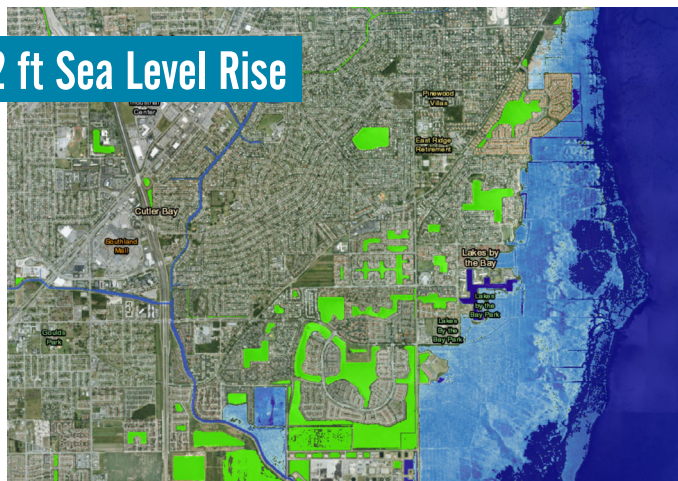
NOAA Mean Higher High Water



NOAA 1 ft Sea Level Rise



NOAA 2 ft Sea Level Rise

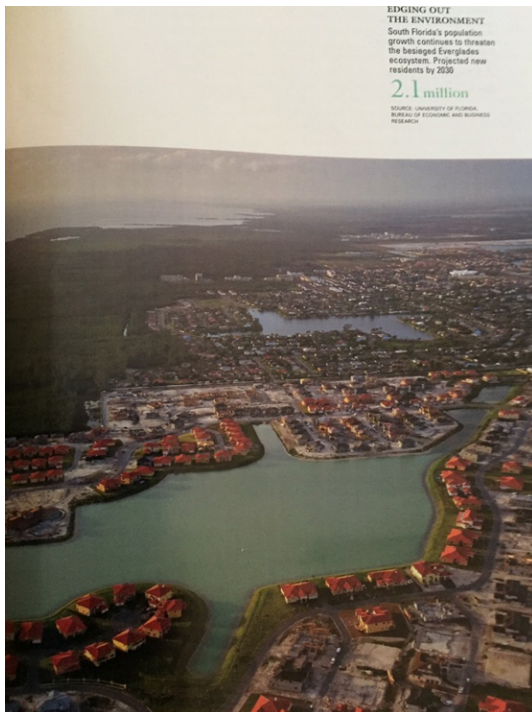


Prepared by:
THE CORRADINO GROUP

INTRODUCTION

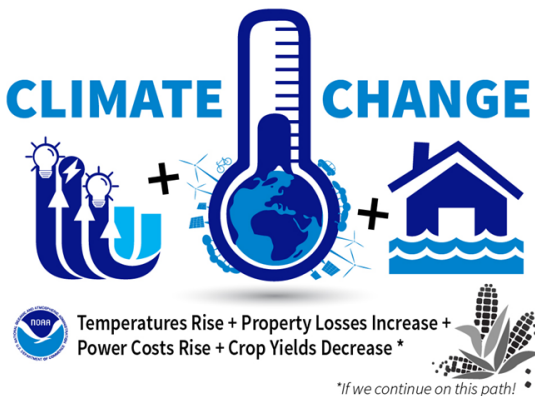
In 2006, The Town of Cutler Bay was held up as a national example of urban sprawl and development encroaching into the mangroves at the edge of Biscayne National Park. In the October 2006 issue of National Geographic (p. 78), the following describes the development of Cutler Cay in the north east corner of the Town:

At the edge of Biscayne National Park (right), Miami sprawl gulps up green space. Plans for a new 500-home community call for 58 acres of wetlands within its boundaries to be destroyed, and just 6.7 acres preserved. Government-mandated efforts to mitigate the development's environmental impacts cost the developer slightly less than a million dollars; the selling price of just one of its Italianate "mansions."



The “government” quoted in the article was referring to Miami-Dade County, prior to the Town’s incorporation. One of the most significant reasons the residents in the Cutler/Perrine area decided to incorporate was to take control of land use decisions and emphasize conservation. Ever since incorporation; including the initial draft of the Growth Management Plan (GMP) and the Land Development Regulations (LDR’s) the Town has focused on ways to further conservation efforts. In addition to the first two significant planning efforts, the Town continued to put an emphasis on environmental stewardship, initiating the following additional plans:

- Strategic Master Plan
- Parks Master Plan
- Bicycle and Pedestrian Master Plan
- Transportation Master Plan
- Stormwater Master Plan
- Street Tree Master Plan
- Flood Mitigation Plan
- Complete Streets Corridors
- FGBC “Green City” Application
- Green Master Plan



Most recently, the Town has initiated a moratorium on development for the purpose of creating stricter development guidelines, standards and bonuses that will address issues facing the Town because of impacts to the environment, including sea level rise.

The area east of Old Cutler Road is the focus for this study due to the proximity and potential impacts to the waters of Biscayne Bay, one of the region’s most significant natural resources. This area includes approximately 55% of the Town. The Town has

made efforts in the past to preserve and protect the natural open space along the eastern boundary by creating the Conservation designation on the Growth Management Plan Future Land Use Map (FLUM). The Land Development Regulations (LDRs) already include Green Development Standards. It is the Town’s desire to review and incorporate updated technologies and policies within the GMP and LDRs, with the goal of further protecting the environment from the harmful effects of land development.



This study is presented in three parts. **Section One** includes recommended actions the Town could engage in. For example, participating in area-wide peer exchange committees; or partnering with nonprofit groups to expand their reach and resources in the efforts to combat sea-level rise. The Growth Management Plan was reviewed in **Section Two** and recommendations were made to update and revise existing goals, policies or objectives that could further strengthen conservation efforts and addressing sea level rise related issues. The **third section** of this study includes recommended updates and amendments to strengthen the Land Development Regulations for the purpose of addressing impacts to the environment and planning for a resilient future.

Climate Change Facts:

- By 2050, up to \$106 billion worth of coastal property will likely be below sea level (if we continue on the current path).
- Over the next five to 25 years, greenhouse gas-driven temperature rises will likely necessitate the construction of new power generation that would cost ratepayers up to \$12 billion per year.
- Without adapting to the changing climate, some Midwestern and southern counties could see a decline in yields of more than 10% over the next five to 25 years, with a 1-in-20 chance of losses of crops by more than 20%.



*Climate Change Facts and
Graphic Source: NOAA*

SECTION 1. RECOMMENDED ACTIONS

Introduction

Sea level rise is projected to be a growing threat to the future prosperity of South Florida, including the Town of Cutler Bay. The Town is mindful of this reality, and has historically taken action and initiated planning studies to address various disciplines. The following section includes a number of recommendations for actions the Town can pursue to address various sea level rise adaptation options. The recommendations to consider are not prioritized, as such, each option can be considered as it relates to the Town's available resources, including finances and staff availability.

Action A: Prioritize Green Building Funds

Prioritize Town improvements allowed for the Green Building Fund for the area east of Old Cutler Road. Expand the Clean Energy Green Corridor District to include the area immediately adjacent to Old Cutler Road (This District currently exists along US-1)

Action B: Establish a Homeowner Grant Program

Create a new grant program and/or promote FEMA's grant program for eligible home-owners that have experienced repeat flooding to provide financial assistance in the expenses of raising HVAC systems, plumbing and electrical meters. Homeowners experiencing repeated flooding can raise HVAC systems, plumbing, and electric meters currently on ground level to above flood levels. This can prevent future damage to expensive systems and could reduce flood insurance premiums as well. The average cost to raise equipment is \$6,000.

Action C: Solar Panel Building Height Bonuses

The Town could consider additional building height bonuses for buildings installing roof mounted solar panels and to account for freeboarding.

Action D: Create Goals to Green the Fleet and Expand Golf Cart Usage

A new comprehensive plan policy could be adopted to set a goal to electrify the Town owned vehicle fleet to 75% of all vehicles by 2025 using the annual vehicle replacement budget in the Capital Budget. In support of the green fleet goal, the Town could set a goal for at least 10 electric vehicle (EV) charging stations within the Town (public and or private) by 2025 and 20 charging stations by 2030. The Town will install one EV charging station in each park by 2022. The LDRs can be amended to include regulations that all new and re-paved parking areas in the Town include EV charging stations. Additionally, the Town could require all non-residential buildings greater than 1,250 square feet in size to provide at least one (1) EV charging station in the parking lot no later than December 2025. In support of expanding the usage of golf carts as an alternative to cars for local trips within the Town, golf cart parking could be required for all non-residential over 5,000 square feet no later than December 2025.

Action E: Foster Intergovernmental Relationships

As a stakeholder with an interest in the enhancing the natural systems, the Town could send a representative to participate in the County initiated Biscayne Bay restoration peer-to-peer network of natural resource managers. The purpose of the network is to strengthen relationships and improve communication among natural resource practitioners, build capacity across the region, and coordinate efforts related to Biscayne Bay management that accelerate action and maximize impact. The network will share best practices and align multi-jurisdictional projects related to Biscayne Bay restoration at quarterly round table meetings. Additionally, the network will create a database that includes governmental natural resource managers from the area.



Land Cover Change



Coastal land cover changes twice as fast as the rest of the nation.

Amount: 41.6 million acres—an area larger than Florida—from 1996 - 2010

As a coastal Town, with an interest in the quality of the Great Florida coral reef, the Town will collaborate with and support the enhancement efforts of Miami-Dade County; South Florida Water Management District; other local coastal government agencies; the U.S. Army Corps of Engineers; NOAA; Florida Department of Environmental Protection; Florida Fish and Wildlife Conservation Commission. Through the Artificial Reef Program, the County and agencies will seek to further enhance nearshore recreational benefits, provide additional habitat structure, and look for opportunities to further reduce storm-related coastal impacts.

The Town can support and participate in recent planning efforts of the County which will catalyze the resilience work across Miami-Dade County by providing peer exchange and connecting local government practitioners through the planned Resilient 35 in the 305 Network (Resilience 305). The 305 Network will facilitate intergovernmental collaborative work among practitioners by enhancing and supporting the sharing of communication and resources between cities in Miami-Dade County to advance resilience work. The 305 Network will support its member cities in their resilience work, develop multi-city collaboration projects, influence the development of policies at the local and regional level,

and build a network of trusting relationship between peers. To participate in the 305 Network, cities commit to creating a Community Resource Officer (CRO) position or identifying a person responsible for CRO duties. 305 Network members will be able to transfer knowledge learned from their peers to their own work and thereby synergistically advance resilience within their municipality. Through the 305 Network, GM&B municipalities will be able to leverage resources to become better prepared to overcome the shocks and stressors the region faces.

The Town could collaborate with the Federal government on the Miami-Dade Back Bay Coastal Storm Risk Management Feasibility Study which is currently being prepared by the U.S. Army Corp of Engineers. The study is examining the impacts of and potential responses to storm-surge damage in Miami-Dade County. The study area includes the coastal and inland areas of Miami-Dade County that are at risk from coastal-storm flooding and sea-level rise. The study will examine current and future strategies and measures to address these coastal risks. It will evaluate current studies, scientific consensus, guidelines and design standards to recommend a project that increases resilience for infrastructure systems and the built environment. Analyses will include assessments of engineering feasibility, costs, economic benefits, and impacts to the environment and local communities.

Supplemental funding will allow the Corps of Engineers to complete a three-year feasibility study that evaluates measures for coastal-storm risk management, sea-level rise and chronic back-bay flooding issues for Miami-Dade County. The federal funding for this study is \$3 million.

Action F: Create Living Classrooms Pilot Projects

The Town could create at least two pilot projects with Town parks utilizing open spaces as living classrooms. The pilot projects could be examples of how resilient design provides a dynamic educational opportunity for residents and visitors. Innovative resilient design offers children who attend programs the chance to participate in living classrooms to learn about water resources, green infrastructure, and living shorelines, among other concepts. The parks can also serve as living laboratories for innovative resilience design and measures that lead the way for best practices such as Leadership in Energy & Environmental Design (LEED) site planning guidelines.

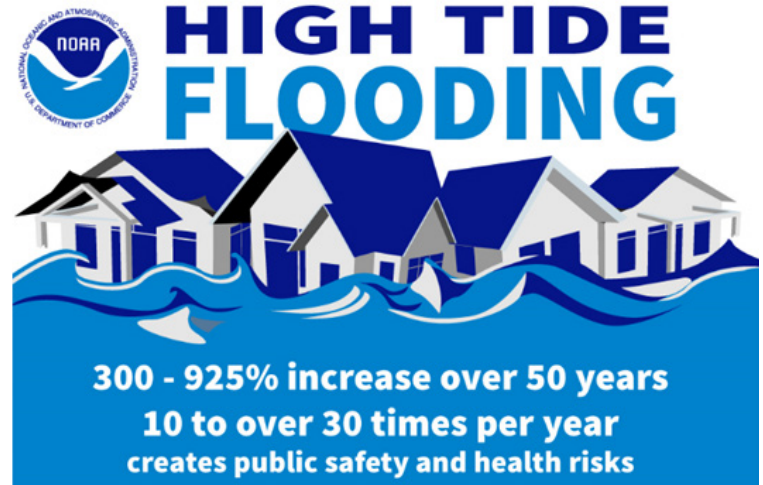
The Town could work with developers and seek opportunities to enter into development agreements for funding for new park projects which would incorporate resiliency and sustainable practices in the design.

Action G: Create a Sea-Level Rise Checklist

The Town could work with the County, which is in the process of creating a template, for a “sea-level rise checklist” for capital projects. The checklist will help ensure that new infrastructure is built to withstand future floods and storms and that there is a consistent approach across departments to integrate climate change considerations into project designs. A checklist and a clear process will help various departments adopt consistent standards, information, and the best practices for capital projects. The Town can also work with the County which is currently creating an easy-to-use online tool that provides the data necessary to complete the requested information in the checklist, such as parcel-level information about elevations and flood risk.

Action H: Create a Process for Development to Address Adaptation

The Town can adopt development review criteria for new development east of Old Cutler Road that will ensure all new buildings consider and address climate adaptation and mitigation during the review process. The applicant will address the criteria in the letter of intent and will result in buildings that are more resilient to extreme weather, more energy efficient and increasingly adaptable to rising seas.



Action I: Create Growing Green Bus Stops

The Town can initiate a Growing Green Bus Stop pilot program, starting with the bus routes east of Old Cutler Road. The program is designed to raise awareness of the importance of trees by planting them where they will provide the most benefit to people standing in the heat. The project consists of planting two canopy trees, consistent with the Town's approved landscape guidelines, at un-shaded bus stops. The benefits include an enhanced transit experience, beautification of the roadways and increasing the overall tree canopy of the Town. Additionally, the Town should add recycle bins at all bus stops to encourage recycling.

Action J: Become a SolSmart Community

The Town could set a goal to achieve at least bronze SolSmart status by 2025. SolSmart is a national technical assistance and designation program that guides communities in lowering the costs and barriers for community members to go solar and encourages solar energy development. The South Florida Regional Planning Council (SFRPC) recently received a technical assistance grant that provided for a SolSmart Advisor to work full-time since November 2018. The SolSmart Advisor provides expertise and dedicated support to communities within and outside of the greater Miami region to encourage local solar energy growth with the goal of achieving the SolSmart designation.



Note: The red line in the graphic above and to the right depicts the current salt water intrusion line.

Action K: Create a Demonstration Project of a Living Shoreline

Create at least one pilot project that will be open to the public to educate residents on ways to build living shorelines and alternative shoreline stabilization projects.

Living shorelines generally refer to the use of native plants or other alternative means to shoreline stabilization such as oyster reef restoration. Where water conditions are appropriate, living shorelines provide a resilient alternative to hard structures such as bulkheads. The Town can create policies in the LDR's to make living shorelines the preferred alternative. Living shorelines are erosion management techniques, such as the strategic placement of plants, stone, sand, and other structural and organic materials, that are used primarily in areas with low to moderate wave energy, and are designed to mimic natural coastal processes.



These living shorelines have a number of advantages over grey infrastructure such as sea walls or bulkheads. Living shorelines can help protect the community from storms and will help the shoreline gradually adapt to rising sea levels. If the living shoreline is healthy and has adequate sediment inputs the ecosystem can keep up with rising waters by gradually accreting soil. Some living shoreline projects use a hybrid of man-made (or 'grey') infrastructure and natural infrastructure such as mangroves.

Action L: Implement the Building Efficiency 305 Program

In cooperation with and support of Miami-Dade County, the Town could implement the Building Efficiency 305 (BE 305) program. The BE 305 program will promote more efficient buildings through initiatives that improve energy and water use in large, existing buildings, both private and public. The BE 305 program includes a variety of strategies including:

- Local governments leading by example through benchmarking and improving municipal building performance;
- Promoting financing mechanisms, such as PACE, to assist building owners and managers make efficiency improvements;
- Enhancing building performance through code compliance education and assessments;
- Establishing building performance policies to include annual benchmarking requirements for residential and non-residential buildings;
- Facilitating community training and other educational opportunities focused on improving building performance.

The BE 305 program is an innovative approach that uses the deployment of building performance data to drive decision making and transform the marketplace. It aligns with Miami-Dade County's vision to create jobs, enhance economic productivity, improve grid resilience, reduce the residential utility burden on low-income residents, bolster healthy and resilient communities, and initiate progress toward its resilience goals.

Action M: Partner with Nonprofit Organizations

There are several nonprofit organizations in the region dedicated to building literacy and grassroots engagement on climate change, water impacts, and resilience. The Town can create a goal to engage with at least one nonprofit organization to work with residents and schools in the area. A more informed and civically engaged public will help advocate for and generate policies that strengthen communities and support residents. A few examples are:

- Active in South Florida for over a decade, **Dream in Green (DIG)** educates individuals about environmental challenges and eco-friendly behaviors. The DIG Academy focuses on building environmental literacy and stewardship in K-12 schools through STEM curriculum alignment, developing classroom activities for teachers, and funding student-led sustainability initiatives.
- Since 2010, **The CLEO Institute** has been working to educate and empower all sectors of society on climate change basics. Its signature "Climate 101" trainings have been offered in the community since 2012. Past offerings have included training tailored for municipal staff members, elected officials, and homeowners associations.
- **Catalyst Miami, Inc.** launched its CLEAR (Community Leadership on the Environment, Advocacy, and Resilience) Miami program in the fall of 2016. CLEAR Miami increases participants' understanding of climate resilience, ways to get involved in their communities, and the intersectionality of climate, environmental, and social issues.

Action N: Improve Disaster Recovery

The Town can adopt the Resilient Land Use Essentials Guide which was recently developed during Resilient305 Strategy development phase. It is a guide for governments and other urban stakeholders in the local region that contains recommendations for land use actions that local governments can implement before a disaster to facilitate post-disaster recovery and potentially minimize negative impacts, particularly in the face of climate-induced flooding and sea level rise. In this context, land use planning refers to rules and guidelines governing the disposal of public and private land to promote the physical security of urban communities. The guide is intended for every city planner, with notice to the city manager and emergency manager.

SECTION 2. RECOMMENDED AMENDMENTS TO THE GROWTH MANAGEMENT PLAN

Introduction

The following are recommended amendments to the Elements in Town's Growth Management Plan that could strengthen planning for a more resilient community and further protecting the environment. Changes to the Growth Management plan require two public hearings as well as review by the State Department of Economic Opportunity.

Future Land Use

Policy FLU-4D: The Town shall implement strategies to improve residential neighborhoods, including but not limited to, mitigate flooding, providing resilient neighborhoods, and ensuring the long term protection of neighborhoods located east of Old Cutler Road that are more vulnerable to the ultimate affects of sea levels and storm surges.

Policy FLU-6B: The Town, on an ongoing basis, shall investigate the availability of grants and other funding sources to implement redevelopment programs and achieve redevelopment goals with a focus to mitigate the adverse impacts of flooding and other disasters. Priority for funding will go to repetitive loss properties. Mitigation may include purchasing repetitive loss properties.

Policy FLU-6C: The Town shall implement, to the extent financially feasible, capital improvements to address the needs of residential neighborhoods, including, but not limited to, street connectivity, and multi-modal infrastructure.

New POLICY FLU-13G: The Town shall ensure residential areas east of Old Cutler Road are not negatively impacted by future development by not allowing inconsistent land uses within these areas. In addition, any development located within this area will be reviewed to ensure that there are no adverse impacts to the community. The Town will continue to maintain Conservation FLUM Designations in the wetlands and when feasible, seek to purchase lands designated as Conservation.

Housing

Policy H1-2B: Coordinate with Miami-Dade County and other agencies as appropriate, including non-profit organizations, to ensure the availability of housing assistance to qualified households, homeowners, as well as other individuals that are displaced from their residence by natural disasters and other acts of god.

Policy H1-2D: The Town shall, at a minimum, annually reach out to community stakeholders and continue to implement strategies that continue to meet the needs of specific residential neighborhoods, and may identify subareas that warrant special studies with a focus on providing a resilient and sustainable future.

Policy H2-3B: The Town shall coordinate with the County to ensure the availability of adequate emergency shelters, transitional housing, and relocation assistance for low and moderate income households who might be displaced by natural disasters as part of its emergency response and post-disaster recovery efforts. The Town shall create, maintain, and distribute a list of adequate emergency shelters, transitional housing options, and relocation assistance programs.

New Policy H#-XX: Encourage the redevelopment of underperforming commercial and multifamily residential properties that support and complement the surrounding neighborhood's use and scale.

New Objective H#:XX: Develop mechanisms that allow property owners to recover economic value lost to flooding.

New Policy H#.XX: The Town shall examine potential tools, such as a temporary relaxation of regulations on accessory uses or short-term rentals, which would allow for a property to be utilized for additional economic purposes, a TDR program, and other mechanisms that allow property owners to recover the lands value as a result of flood damages.

Transportation

New Policy T-XX: The Town will examine and maintain the connectivity for all modes of transit between the most resilient areas of the Town to all other areas, such as East of Old Cutler Road, to ensure a safe, resilient route provides access to services, goods, jobs, entertainment, and, emergency services at all times.

Policy T1-8B: The Town shall maintain, regularly update, and publish on the Town's website an Emergency Response Plan (ERP) addressing disaster-preparedness, flooding, hurricane evacuation and post disaster redevelopment plans, procedures and personnel duties.

Policy T1-8C: Work with Miami-Dade County to ensure that Town employees are adequately trained in the policies and procedures required during and after a disaster emergency and the long-term post disaster. Annually evaluate and provide updated training plans for Town employees to ensure individuals are trained with the most up to date technology, plans, and post-disaster procedures.

Recreation and Open Space

Policy ROS-5B: Those portions of park properties containing important natural, historic, or archaeological resources will be developed and managed for long-term viability and integrity of the resource. The Town will assure that land in the vicinity of such park properties is developed for a use that is compatible with the protection of the natural, historic or archaeological resources. The Town shall examine techniques to protect natural, historic and archaeological resources from sea level rise and natural disasters.

Policy ROS-5C: The Town will use native plant materials for park landscaping and land owned by the Town where appropriate and shall use it especially in developing and maintaining environmentally sensitive parklands.

Infrastructure

New Policy XX: The Town shall maintain a GIS, or similar, file showing the locations of key infrastructure including, but not limited to, water and sewer lines, potable water facilities, storm drainage infrastructure, key civic buildings, facilities housing emergency responders and other services.

Policy I1-3E: The Town will assist South Florida Water Management District in providing educational materials on innovative ways homeowners can landscape and install devices such as rain barrels to collect rainwater for reuse within their own yards. In addition, the Town will examine ways to provide incentives for homeowners to incorporate such devices, as well as educational materials and demonstration projects at Town sponsored events.

Policy I3-4A: The Town will review the Land Development Regulations on an annual basis to ensure that all feasible options are being utilized to protect water quality and enhance groundwater recharge.

Policy I4-1F: The Town will enforce that prior to a storm event, construction sites will be required to be clean of excess debris and fully secure all equipment and construction materials.

Coastal Management Element

Policy CM-1C: Consistent with the Miami-Dade County Comprehensive Development Master Plan, coastal mangroves and scrub forests within and adjacent to Biscayne National Park shall be designated as “Mangrove Protection Areas”. In these areas, no cutting, trimming, pruning or other alteration of mangrove shall be permitted. However, approval for a permit may be obtained for purposes of surveying or for projects that the trimming is observed by a qualified expert and that provide evidence showing the project is: 1) necessary to prevent or eliminate a threat to public health, safety or welfare; 2) water dependent; or 3) clearly in the public interest and where no reasonable upland alternative exists. In such cases, the trimming or alteration shall be kept to a minimum, and done in a manner which preserves the functions of the mangrove system, and does not reduce or adversely affect habitat used by endangered or threatened species. 4) required for natural system restoration and enhancement.

Policy CM-2C: The Town will maintain and regularly re-examine the standards for stormwater management techniques that emphasize retention, infiltration, back-slopping and berming in order to hydrate the coastal area.

New Policy CM-XX: Through a combination of hard and green infrastructure, the Town shall examine techniques to expand the flood protection system, specifically in the areas east of Old Cutler Road.

Policy CM-8A: The Town shall develop and distribute on the Town’s website a Town Emergency Response Plan and update it every two years to provide comprehensive pre-disaster planning for pre- and post-disaster activities, development and redevelopment consistent with the County’s Comprehensive Emergency Management Plan.

Policy CM-9A: To facilitate post-disaster recovery and redevelopment following a major hurricane and consistent with available personnel and funding, the Town shall maintain, implement, and distribute on the Town’s website an Emergency Response Plan (ERP).

Conservation

Policy C-2N: Through the development review process, the Town will enforce landscape regulations as follows: ~~The Town will encourage~~ the use of Florida Friendly Landscape guidelines and principles for all developments; gutter downspouts, roof runoff, and rain harvesting through the use of rain barrels and directing runoff to landscaped areas; drip irrigation or micro-sprinklers; and the use of porous surface materials (brick, gravel, turf block, mulch, pervious concrete, etc) on walkways, driveways and patios.

New Policy C-XX: The Town will enforce other resilient and sustainable principles, such as green roofs and waterproofing ground level floors, for all new future developments.

Policy C-12E: The Town will require all buildings taller than ~~18~~ 6 stories to be LEED certified or similar.

New Policy C-XX: The Town shall continue to support Building Efficiency 305 (BE305) countywide water and energy efficient strategies for existing large public and private sector buildings.

Intergovernmental Coordination

New Policy IC-XX: The Town shall coordinate with the Village of Palmetto Bay, Miami-Dade County, and the other South Miami-Dade County Region municipalities in order to collaborate to create a long range resiliency plan.

New Policy IC- XX: The Town shall explore additional funding options, such as the National Disaster Resilience Competition through the Federal Department of Housing and Urban Development, for assistance with disaster recovery and long-term community resilience.

New Policy IC- XX: The Town shall continue to support Miami-Dade County's Office of Resilience.

New Policy IC- XX: The Town shall continue to support Miami Resilient 305 Strategy, addressing resilience challenges prioritized through intergovernmental and community collaboration.

Educational Facilities

Policy EDU-3A: It is the policy of Cutler Bay that Miami-Dade County Public Schools shall not purchase sites for schools nor build new schools outside of the Urban Development Boundary (UDB), and that new elementary schools constructed should be located at least 1/4 mile inside the UDB; new middle schools should be located at least 1/2 mile inside the UDB, and; new senior high schools should be located at least one mile inside the UDB. In substantially developed areas of the County where suitable sites in full conformance with the foregoing are not available and a site or portion of a site for a new school must encroach closer to the UDB, the majority of the site should conform with the foregoing location criteria and the principal school buildings and entrances should be placed as far as functionally practical from the UDB. The locations of these schools should also be in low flood risk areas, whenever feasible. The same criteria of this paragraph that apply to public schools also pertain to private schools.

Policy EDU-3E: When considering a site for possible use as an educational facility, Miami-Dade County Public Schools should review the adequacy and proximity of other public facilities and services necessary to the site such as roadway access, transportation, fire flow and portable water, sanitary sewers, drainage, solid waste, police and fire services, flood zones, and means by which to assure safe access to schools, including sidewalks, bicycle paths, turn lanes, and signalization.

Capital Improvements

New Policy CI-XX: Address social inequalities by ensuring adequate public infrastructure is either budgeted for or is in place throughout the community. This includes, but is not limited to, utilities, sidewalks, and public transit routes.

Climate Change

Policy CC-1B: The Town of Cutler Bay shall develop building standards that promote the increased use of solar, wind, geothermal, and ocean powered electricity in the community, and shall monitor the initiatives of Miami-Dade County and other agencies in the development of additional renewable energy sources.

Policy CC-1D: The Town of Cutler Bay shall implement expedited permitting for the installation of renewable energy infrastructure, such as solar panels, alternative fuel, and electric vehicle charging infrastructure.

Policy CC-2B: The Town of Cutler Bay shall evaluate risk from sea level rise or climate change related impacts in the location and design of new infrastructure, as well as the fortification or retrofitting of existing infrastructure, specifically within areas east of Old Cutler Road.

Policy CC-6B: The Town of Cutler Bay shall collaborate with the South Florida Water Management District in order to review, develop and implement strategies to address impacts of rising sea levels on the operation of the flood and salinity control structures, specifically in areas east of Old Cutler Road.

SECTION 3. RECOMMENDED AMENDMENTS TO THE LAND DEVELOPMENT REGULATIONS

Introduction

Land Development Regulation provide the regulatory framework that governs a community's use and development of land, arguably the most powerful tool that local governments have to manage and prevent hazards stemming from sea level rise. Avoiding the construction of unsustainable development in the first place is often the most efficient way to deal with it. The following final Section of this documents is a number of recommendations to strengthen the Town's Land Development Regulations to address impacts to the environment and plan for a resilient future.

The following are recommended changes to Chapter 14 Environmental Protection, Article II Protection of Public Trees to strengthen the Town's regulations and management of coastal mangroves.

Mangrove Protection

Impacts to mangroves are protected by the Florida Mangrove Trimming and Preservation Act. Locally mangrove trimming and removal is regulated by Miami-Dade County Department of Regulatory and Environmental Resources, by obtaining a Class 1 Permit. Mangroves act as buffers to protect the shoreline from hurricanes and help prevent soil erosion. They are also breeding and nursery grounds for marine organisms, including shrimp, crab and fish species. Trimming mangroves can have an adverse impact on the health of the surrounding ecosystem.

While the State and the County have regulations for trimming and removing mangroves, it is recommended that the Town create more restrictive rules in the Land Development Regulations to further limit the impacts to the significant natural forest community located along the eastern boundary of the Town. Such regulations could be added to Chapter 14 Environmental Protection, Article II Protection of Public Trees. Some more restrictive regulations could include:

- When trimming is approved, it shall be to a height no lower than 8', versus the height currently allowed (no lower than 6').
- When trimming is approved, the Town shall be more restrictive in the number of months that trimming can occur, currently the window is 6 months. This could be shortened to 3.5 or 4 months.
- Require a Professional Mangrove Trimmer without any exceptions.

- Require a Town approved Natural Resources expert to inspect the mangroves prior to trimming and during trimming.

Additional Definitions to be added:

Environmentally-sensitive tree resources shall mean a specimen tree, natural forest community, or any other tree or trees that substantially contribute(s) to the aesthetics of an area, and which are not exempted from permit requirements under Section 24-49(4)(f).

Mangrove tree shall mean any of the following species, regardless of size, including mangrove trees as small as rooted seedlings: *Avicennia germinans* (black mangrove), *Rhizophora mangle* (red mangrove), *Laguncularia racemosa* (white mangrove). Notwithstanding the foregoing, mangrove tree shall not include seedlings smaller than 3-5 leaf stage rooted seedlings.

Native plant species shall mean a plant species with a geographic distribution indigenous to all or part of Miami-Dade County. Plants which are described as being native to Miami-Dade County in botanical manuals such as, but not limited to, "A Flora of Tropical Florida" by Long and Lakela and "The Biology of Trees Native to Tropical Florida" by P.B. Tomlinson, are native plant species within the meaning of this definition. Plant species which have been introduced into Miami-Dade County by man are not native plant species.

Natural forest community shall mean all stands of trees (including their associated understory) which were designated as Natural Forest Communities on the Miami-Dade County Natural Forest Community Maps and approved by the Board of County Commissioners, pursuant to Resolution No. R-1764-84. These maps may be revised from time to time by resolution in order to reflect current conditions and to insure that, at a minimum, the canopy and understory of designated natural forest communities are dominated by native plant species, as defined herein. The Department shall evaluate the following additional factors when reviewing existing and proposed natural forest community sites:

- (1) The presence of endangered, threatened, rare or endemic species included on the Federal List of Endangered and Threatened Species, the Florida Game and Fresh Water Fish Commission List of Endangered and Potentially Endangered Fauna and Flora in Florida, or the Miami-Dade County Comprehensive Development Master Plan List of Endangered, Threatened, Rare and Endemic Plants in Miami-Dade County.
- (2) Overall plant species diversity of the site.
- (3) Size of the trees.
- (4) Size of the site.
- (5) Wildlife habitat value of the site.
- (6) Geological features of the site.
- (7) Percentage of the site covered by exotic (non-native) species.

The following are recommended changes to Chapter 3, Article V Green Standards, Sec. 3-72 Standards:

(c) Hybrid electric vehicles and inherently low emission vehicle parking. Nonresidential and/or multifamily development requiring 20 or more parking spaces or when located east of Old Cutler Road, 10 or more parking spaces shall provide an area for parking hybrid electric vehicles (HEV), inherently low emission vehicles (ILEV), and golf carts equal to five percent of the off-street parking required for the site. Such parking spaces shall be clearly marked and reserved for such vehicles and are to be located close to the handicapped parking spaces. Vehicles parking in these spaces must display a current state division of motor vehicles issued decal.

The following are recommended changes to Chapter 3, Article IV Districts and Development Standards, Sec. 3-63 and Sec 3-64:

Sec. 3-63. - CON, Conservation District.

(1) Permitted uses.

- a. Elevated walkway (with railing).
- b. Undeveloped passive park and open space.
- c. Scenic viewing tower.
- d. Recreational facility (limited to trail, interpretive centers, viewing areas and other recreation uses deemed to be of low intensity).
- e. Living shorelines and alternative shoreline stabilization

Sec. 3-64. - WU, Water Use District.

(1) Permitted uses.

- a. Public and privately owned bodies of water, including ponds, lakes and canals.
- b. Boat ramp, dock and pier incidental to residential uses and marinas where such activities are permitted uses on upland property abutting a WU district. Site plan approval is required for all uses.
- c. Living shorelines and alternative shoreline stabilization

(2) Site development standards.

Ramps, docks, and piers shall be similar in design, height, and appearance to those on adjoining lots. They are limited to one per lot with a minimum width of four feet and extending no more than 20 feet waterward of the lot line for lakes and no more than six feet for canals. Structures shall be setback a minimum of ten feet from side property lines and 20 feet from adjoining docks. Where shoreline stabilization structures are determined to be needed, the preferred structures will be living shorelines and other alternatives to bulkheads or similar hard engineered protective devices.

The following are recommended changes to Chapter __ Sec __ for the purpose of combating erosion, excessive dust from construction sites and cleared areas, and nuisance odors from industrial/business uses.

(a) Prior to the issuance of the Building Permit, the Applicant shall submit plans for the construction of an appropriate barrier between construction site and adjoining properties to minimize blowing of dust and construction debris. Applicant shall use its good faith efforts to minimize vibration, odors and noise during construction of the project.

The following are recommended changes to Chapter __ Sec __ for the purpose **protecting** wetlands through stringent standards for existing high functioning wetlands.

Lands classified as disturbed wetlands of moderate or low functional capacity may be filled for development if adequate mitigation is provided:

(1) Approvals or exemptions from the state department of environmental protection (DEP) and the U.S. Army Corps of Engineers (USACE) shall accompany all applications proposing development in wetlands.

- (2) Less sensitive habitats on the subject parcel must be developed before disturbed wetlands are filled.
- (3) Disturbed wetlands proposed for filling will be evaluated by a qualified biologist using the Keys Wetlands Evaluation Procedure (KEYWEP) as follows:
- - a. "Red-flag" wetlands are those wetlands whose high level of functional capacity and lack of disturbance prohibit development under any circumstances.
 - b. High functional capacity wetlands are those wetlands that score at 5.5 or higher, regardless of previous disturbance. Development is prohibited under any circumstances.
 - c. Moderate functional capacity wetlands are those wetlands that score below 5.5, but greater than or equal to 4.6. These wetlands are suitable for development with appropriate mitigation.
 - d. Low functional capacity wetlands are those wetlands that score less than 4.6 and are assigned a "green flag" designation as suitable for development, these wetlands are suitable for development with appropriate mitigation.
 - e. Wetlands determined by KEYWEP to have a high functional capacity, being those wetlands that score at or above 7.0 and those wetlands that are assigned a "red flag," shall have an open space ratio of 1.0.
 - f. Wetlands determined by KEYWEP to have moderate or low functional capacity, being those wetlands that score below 7.0 or are assigned a "green flag," may be filled to a non-wetland elevation and shall be thus converted to a "disturbed" habitat. The open space ratio for a filled wetland will be 0.20.
 - g. Debit Value: Wetland mitigation may be on-site or off-site, as determined by the USACE and DEP. The Town shall review the determinations of the USACE and DEP to ensure that no net loss of wetlands occurs and may require additional mitigation as necessary.
 - h. Notwithstanding any of the provisions of this division, a minimum vegetated setback of 25 feet shall be maintained as an open space buffer adjacent to all types of wetlands. The setback must be planted with a landscape bufferyard utilizing vegetation suitable for the habitat as determined by the Director of Community and Development services.
 - i. No structures shall be permitted within the wetland setback other than utility pilings.
 - j. The wetland setback required by this subsection shall not apply to tidally influenced mangrove fringes occurring along canals.

The following are recommended changes to Chapter 3, Sec 3-33, Site Plan Application to establish LEED 'Neighborhood Green Standards' or similar criteria to use in reviewing site plans.

- (2) *Approval criteria.* The town council shall use the following criteria in making their decision regarding approval or disapproval of a site plan application:
- a. The development permitted by the application, if granted, conforms to the growth management plan, is consistent with applicable area or neighborhood studies or plans, and would serve a public benefit warranting the granting of the application at the time it is considered.
 - b. The development permitted by the application, if granted, will have a favorable impact on the environmental and natural resources of the town, including consideration of the means and estimated cost necessary to minimize the adverse impacts, the extent to which alternatives to alleviate adverse impacts may have a substantial impact on the natural and human environment, and whether any irreversible or irretrievable commitment of natural resources will occur as a result of the proposed development. The development will demonstrate at least three (3) criteria to advance the Town's desire to conform with LEED "Neighborhood Green Standards" or similar criteria.

The following are recommended changes to Chapter __ Sec __ for the purpose of requiring an environmental report, including impact on threatened or endangered species, and identifying invasive species for all potential development sites.

Habitat analysis.

(a) Habitat analysis required.

As part of a development application on lands classified as, or containing, tropical hardwood hammock, the applicant shall prepare and submit a habitat analysis that evaluates the distribution and quality of tropical hardwood hammock and/or wetlands within the parcel proposed to be developed in accordance with the standards of this division. Once a development permit has been issued and site preparation commenced, the habitat quality rating either resulting from the habitat analysis shall remain in perpetuity. All future development of the parcel shall conform to the applicable hammock so analyzed or stipulated and any undeveloped portion of the habitat shall be subject to the quality and open space requirements in effect at the time of each subsequent development application. This shall be assured by attachment of a conservation easement to run with the land, stating the amount of required open space. A habitat analysis which is part of a development application or permit, which application for development is then denied or abandoned or which permit is abandoned or expired without site preparation having commenced, shall be revised and resubmitted according to the applicable standards at the time of submittal of a new application for development.

(b) Preparation.

The habitat analysis shall be prepared in accordance with the procedures and methods specified herein by a biologist qualified under this section, however, all habitat analyses are subject to the approval of the director of planning and development services. An applicant for development approval may utilize a biologist not employed by the Town for a required field survey provided that the biologist is a professional familiar with the natural environment within Southeast Florida. Biological assessments by alternative biologists are subject to review and approval by the planning and development services department.

(c) Waiver of habitat analysis.

The director of planning and development services may, after a site visit, waive or limit the requirements for a habitat analysis if it is determined that hardwood hammock is not present on the parcel proposed for development. Additionally, a habitat analysis is not required if the applicant stipulates that the tropical hardwood hammock is high quality.

(d) Habitat analysis objective.

The habitat analysis shall evaluate the relative ecological value of the remaining tropical hardwood hammocks in the Town with respect to their inherent character, integrity and context within the landscape.

(e) Automatic high quality forest classification.

Tropical hardwood hammocks of five acres or more in size shall be classified as high quality hammocks without the need for a habitat analysis. Tropical hardwood hammocks of five acres or more in size are important ecological resources due to their relatively large size and undisturbed character.

(f) Habitat analysis definitions and approach.

If the tropical hardwood hammock does not automatically qualify as high quality, a habitat analysis to determine the quality must be completed as required by this division. The specific methods and

procedures approved for performing the habitat analysis shall be set forth in a procedural handbook prepared and maintained by the director of planning and development services. The handbook shall include official lists of invasive exotic plants used in the habitat analysis, procedural methods for estimating invasive exotic coverage, and approved techniques for calculating hardwood hammock size and contiguous habitat types.

(g) The following information shall be provided with the habitat analysis:

- (1) A vegetation survey;
- (2) A list of wildlife species or their signs observed on the site;
- (3) The extent to which the hammock serves as habitat for animal species, specifically referencing threatened, endangered animals or species of special concern. This shall include observations, visible evidence of their presence, and whether the habitat is of sufficient size, topography, or substrate to serve as habitat for these species; and
- (4) Identification of any significant environmental features such as wells, trenches, solution holes, etc.

(h) Habitat analysis for tropical hardwood hammocks.

The quality of tropical hardwood hammocks shall be analyzed on the basis of the following variables and corresponding point scores:

- (1) Hammock patch size. Hammock size is by far the most important factor in considering the value and quality of a hammock. Larger hammocks contain a higher diversity of plant and animal species, provide diverse habitat functions for resident and migratory wildlife, exhibit low edge effects, and are more resistant to invasive species relative to smaller hammocks. Large hammocks are also cost effective to manage and provide unique educational and recreational opportunities for the community relative to smaller hammocks. Hammock size is based on the entire contiguous forest cover regardless of ownership, not only the parcel being evaluated. Hammock boundaries may be delineated by ecotones with other habitat types (e.g., transitional wetlands, mangroves), and borders along developed areas. Primary roads shall constitute a hammock boundary, but secondary roads shall not constitute a hammock boundary. Points will be awarded to hammocks based on the following criteria:

Hammock Patch Size	Points Awarded
<u>4-5 acres</u>	<u>75</u>
<u>3-4 acres</u>	<u>65</u>
<u>2-3 acres</u>	<u>55</u>
<u>1-2 acres</u>	<u>45</u>
<u>0.5-1 acre</u>	<u>35</u>
<u><0.5 acre (21,780 sq. ft.)</u>	<u>25</u>

- (2) Landscape ecology. The position of a hammock within the context of other natural communities is an important aspect of hammock quality. Hammocks that are contiguous to other natural plant communities such as transitional wetlands or mangroves have more biological value in the landscape than hammocks isolated in a developed matrix. Points will be awarded to hammocks based on the following criteria:

<u>Position of Hammock in Landscape</u>	<u>Points Awarded</u>
<u>The hammock is contiguous with native plant communities including transitional wetlands and mangroves to create a total contiguous area of 20 acres or greater</u>	<u>15</u>
<u>The hammock is contiguous with native plant communities including transitional wetlands and mangroves to create a total contiguous area of 10-20 acres</u>	<u>10</u>
<u>The hammock is contiguous with native plant communities including transitional wetlands and mangroves to create a total contiguous area of 5-10 acres</u>	<u>5</u>

(3) *Invasive exotic plant species.* The extent to which a hammock is infested with invasive exotic plants is considered a measure of the ecological integrity of the hammock and thus hammock quality. Extensive infestation of a tropical hardwood hammock by invasive exotic plants is usually an indication of past ecological disturbance, and may reduce hammock quality by displacing native plant species and reducing wildlife habitat value.. Invasive exotic plants are easily removed, and exotics removal is a routine habitat management practice. Because of the ease in restoring hammocks through exotics removal, the presence of invasive exotic plants is not considered a serious long-term problem, and only extensive infestations will significantly reduce hammock quality. The total invasive exotic plant coverage within the limits of the parcel being evaluated will be estimated and points will be awarded to hammocks based on the following criteria:

<u>Estimated Invasive Exotic Plant Coverage</u>	<u>Points Awarded</u>
<u><25% coverage</u>	<u>10</u>
<u>25-50% coverage</u>	<u>5</u>
<u>>50% coverage</u>	<u>0</u>

(i) *Quality determination of tropical hardwood hammocks.*

The quality of a tropical hardwood hammock shall be determined on the basis of the cumulative point scores derived under this section using the following criteria:

<u>Quality Determination</u>	<u>Cumulative Score</u>
<u>High</u>	<u>85-100</u>
<u>Moderate</u>	<u>50-84</u>
<u>Low</u>	<u><50</u>

The following are recommended changes to Chapter 3, Sec 3-36 Variance, and Sec 3-38 Rezoning to prohibiting rezoning or variances that will increase impervious surface area of new or renovated parking lots.

Sec. 3-36. - Variance.

Owners of lands or structures may apply to the town council for a variance from the requirements or restrictions of the land development regulations, except that no variance for use or density issues shall be considered. Variances shall be submitted in writing through the department, stating the specific variance(s) requested. Each variance of a code requirement necessitates a separate variance application and process. The town council, after a public hearing, may approve, approve with conditions or deny the application.

- (2) *Approval standards.* The applicant shall have the burden of proof and provide a written statement describing the manner and degree of compliance with the following standards:
- a. The variance will result in conditions that maintain and are consistent in all material respects with the intent and purpose of these regulations, and that the general welfare, stability and appearance of the community will be protected and maintained.
 - b. The variance will be compatible with the surrounding land uses, and otherwise consistent with these regulations and the comprehensive plan, and will not be detrimental to the community.
 - c. The request for a variance is not based on an economic disadvantage to the owner or occupant of the property upon which the variance is sought.
 - d. No variance shall be approved if the result will increase impervious surface area of new or renovated parking lots.

Sec. 3-38. - Rezoning.

The town council may rezone property, in conformity with the provisions of this section. Rezones may be initiated by the town, petition of the owner or owner's agent, or contract purchaser with the owner's written consent, which is the subject of the proposed map amendment.

Approval criteria. The town council shall use the following criteria in making their decision regarding approval or disapproval of a rezoning application:

- a. The proposed rezone is consistent with goals, objectives and policies of the town's growth management plan.
- b. The proposed zoning district is compatible with the surrounding area's zoning designation(s) and existing uses.
- c. The subject property is physically suitable for the uses permitted in the proposed district.
- d. No variance shall be approved if the result will increase impervious surface area of new or renovated parking lots.

The following are recommended changes to Chapter 3, Sec 3-212 Uses and for the purpose of requiring all new car washes (self-serve and automatic) to utilize BMPs required by State Law 62-660, 803

(2) *Automotive/boat/truck sales, service, and repair (transit corridor and town center districts).*

- a. Large surface parking/display lots shall be visually and functionally segmented into several smaller lots, no larger than 36 parking spaces, 18 feet long and nine feet wide each.
- b. The size of any single lot shall be limited to one and one-half acres, unless divided by a street, principal building, or 15-foot landscape buffer area. All areas shall be connected internally with sidewalks and landscaping following the requirements of this code.
- c. No outdoor public address system shall be permitted which can be heard beyond the boundaries of the property.
- d. Service and repair activities shall operate during regular business hours, no earlier than 7:00 a.m. and no later than 8:00 p.m.
- e. Service and repair activities are not permitted outdoor.
- f. All new car washes (self-serve and automatic) shall utilize Best Management Practices required by State Law 62-660, 803.

The following are recommended changes to Chapter 8, Sec 8-10 Schedule of Civil Penalties to increase the fine for littering from \$100.00 to \$1,000.00.

26-219 (c)	Failure to remove litter from premises or abutting rights-of-way	\$100.00	\$1,000.00
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The following are recommended changes to Chapter __ Sec __ for the purpose of regulating the use of fertilizer and minimizing the contribution to adverse effect on surface and/or ground water.

Applicability

This regulation shall be applicable to and shall regulate any and all applications of fertilizer and areas of application of fertilizer within the Town of Cutler Bay, unless such areas of applicator is specifically exempted by the regulation.

Timing of Fertilizer Application

No applicator shall apply fertilizer containing nitrogen and/or phosphorous to turf and/or landscape plants during the Prohibited Application Period, or to saturated soils, in addition, fertilizer containing nitrogen or phosphorous shall not be applied to turf or landscape plants during the Restricted Application Period, which is defined as June 1 to September 30.

Fertilizer shall only be applied to actively growing turf.

Fertilizer containing nitrogen or phosphorous shall not be applied before seeding or sodding a site, and shall not be applied for the first 30 days after seeding or sodding, except when hydro-seeding for temporary or permanent erosion control in an emergency situation or in accordance with the Stormwater Pollution Prevention Plan for that site.

Fertilizer Free Zones

Fertilizer shall not be applied within fifteen (15) feet of any pond, stream, watercourse, lake, canal, or wetland as defined by the Florida Department of Environmental Protection (F.A.C. 62-340) or from the top of a seawall. If more stringent County Code regulations apply This provision does not relieve the requirement to adhere to the more stringent regulations. Newly planted turf and/or landscape plants may be fertilized in this Zone only for a sixty (60) day period beginning 30 days after planting if needed to allow the plants to become well established. Caution shall be used to prevent direct deposition of nutrients into the water.

Low Maintenance Zones

A voluntary ten (10) foot low maintenance zone is strongly recommended, but not mandated, from any pond, stream, water course, lake, wetland or from the top of a seawall. A swale/berm system is recommended for installation at the landward edge of this low maintenance zone to capture and filter runoff. If more stringent County Code regulations apply, this provision does not relieve the requirement to adhere to the more stringent regulations. No mowed or cut vegetative material may be deposited or left remaining in this zone or deposited in the water. Care should be taken to prevent the over-spray of aquatic weed products in this zone.

Fertilizer Content and Application Rates

Fertilizers applied to turf and/or landscape plants within the county shall be applied in accordance with directions provided by Rule 5E-1.003(2), F.A.C, Labeling Requirements for Urban Turf Fertilizers.

Nitrogen or phosphorous fertilizer shall not be applied to turf or landscape plants except as provided in (a) above for turf, or in US/IFAS recommendations for landscape plants, vegetable gardens, and fruit trees and shrubs, unless a soil or tissue deficiency has been verified by an approved test.

Fertilizer should be applied to turf and/or landscape at the lowest rate necessary. Nitrogen shall not be applied at an application rate greater than 0.7 lbs of readily available nitrogen per one thousand (1,000) square feet at any one time based on the soluble fraction of formulated fertilizer, with no more than one (1) pound total nitrogen per one thousand (1,000) square feet applied at any one time, and not to exceed the nitrogen recommendations set forth below on an annual basis:

<u>Grass Species</u>	<u>Maximum N application rate (lbs/1,000 sq ft/Year)</u>
<u>Bahiagrass</u>	<u>4</u>
<u>Bermudagrass</u>	<u>7</u>
<u>Centipedegrass</u>	<u>3</u>
<u>St. Augustinegrass</u>	<u>6</u>
<u>Zoysia</u>	<u>4.5</u>

No phosphorous fertilizer shall be applied to existing turf and/or landscape plants within the county at application rates which exceed 0.25 pounds phosphorous per one thousand (1,000) square feet per application nor exceed 0.50 pounds phosphorous per one thousand (1,000) square feet per year.

The nitrogen content of fertilizer applied to turf or landscape plants within the county shall contain at least 50% slow release, controlled release, timed release, slowly available, or water insoluble nitrogen per guaranteed analysis label. Caution shall be used to prevent direct deposition of nutrients in the water.

Fertilizers labeled for sports turf at golf courses, parks and athletic fields shall:

- Have directions for use not to exceed rates recommended in the document titled SL191 "Recommendation for N, P, K and Mg for Golf Course and Athletic Field Fertilization Based on Mehlich I Extractant", dated March 2007, which is hereby adopted and incorporated by reference into this rule.
- Have direction for use in accordance with the recommendations in "BMPs for the Enhancement of Environmental Quality on Florida Golf Courses", published by the Florida Department of Environmental Protection, dated October 2012. Note that this does not exempt applicators at these sites from the required basic Green Industry BMP training.

Application Practices

Spreader deflector shields are required when fertilizing via rotary (broadcast) spreaders. Deflectors must be positioned such that fertilizer granules are deflected away from all impervious surfaces, fertilizer-free zones and water bodies, including wetlands.

Fertilizer shall not be applied, spilled, or otherwise deposited on any impervious surfaces.

Any fertilizer applied, spilled, or deposited, either intentionally or accidentally, on any impervious surface shall be immediately and completely removed to the greatest extent practicable.

Fertilizer released on an impervious surface must be immediately contained and either legally applied to turf or any other legal site or returned to the original or other appropriate container.

In no case shall fertilizer be washed, swept, or blown off impervious surfaces into stormwater drains, ditches, conveyances or water bodies.

Management of Grass Clippings and Vegetative Matter

In no case shall grass clippings, vegetative material and/or vegetative debris be washed, swept, or blown off into stormwater drains, ditches, conveyances, water bodies, wetlands or sidewalks or roadways. Any material that is accidentally so deposited shall be immediately removed to the maximum extent practicable.

Exemptions

The provisions set forth in these regulations shall not apply to:

- Bona fide farm operations as defined in the Florida Right to Farm Act, Section 823.14 Florida Statutes provided that fertilizers are applied in accordance with the appropriate Best Management Practices Manual adopted by the State Department of Agriculture and Consumer Services, office of agricultural water policy for the crop in question;
- Other properties not subject to or covered under the Florida Right to Farm Act that have pastures for grazing livestock provided that fertilizers are applied in accordance with the appropriate Best Management Practices Manual adopted by the state Department of Agriculture and Consumer Services, office of agricultural water policy for the crop in question; and
- Any lands used for bona fide scientific research including, but not limited to, research on the effect of fertilizer use on urban stormwater, water quality, agronomics or horticulture.

Training

All commercial and institutional applicators of fertilizer within the Town of Cutler Bay's jurisdiction shall abide by and successfully complete the six-hour training program in the "Florida-friendly Best Management Practices for Protection of Water Resources by the Green Industries" offered by the Florida Department of Environmental Protection through the University of Florida Extension "Florida-Friendly Landscapes" program or an approved equivalent.

Private, non-commercial applicators are required to follow the recommendations of the University of Florida IFAS Florida Yards and Neighborhoods program when applying fertilizers.

Licensing of Commercial Applicators

Prior to January 2021, all commercial applicators of fertilizer within the Town of Cutler Bay's jurisdiction shall abide by and successfully completed training and continued education requirements as stated above, prior to obtaining a Town Business Tax Receipt or renewal. Commercial Fertilizer Applicators shall provide proof of completion of the program to the Town of Cutler Bay within 180 days of the effective date of these regulations.

After December 31, 2021, all commercial applicators of fertilizer within the Town's jurisdiction shall have and carry in their possession at all times when applying fertilizer, evidence of certification by the Florida Department of Agriculture and Consumer Services as a Commercial Fertilizer Applicator per 5E-14.117(18) F.A.C.

All businesses applying fertilizer to turf and/or landscape plants (including but not limited to residential lawns, commercial properties, and multi-family and condominium properties) must ensure that at least one employee has a "Florida-friendly Best Management Practices for Protection of Water Resources by the Green Industries" training certificate prior to the business owner obtaining a Local Business Tax Receipt.

Enforcement

Funds generated by penalties imposed under this section shall be used by the Town for the administration and enforcement of section 403.9337 Florida Statutes, and the corresponding section of these regulations and to further water conservation and nonpoint pollution prevention activities.

Penalties

Violation of any provision of this article shall be subject to the following penalties:

- First violation, written notification and education
- Second violation, Fifty dollars (\$50.00)
- Third violation, One hundred dollars (\$100.00)
- Fourth and any subsequent violations Five hundred dollars (\$500.00) increasing 10-fold with each violation.

Each day in violation of these regulations within a three hundred sixty-five (365) days period, beginning the date of the first violation, shall constitute a separate offense. The Town Council may take any other appropriate legal action, including but not limited to emergency injunctive action, to enforce the provisions of this code.