Cutler Bay Green Master Plan 2018 - 2022

Taking Community Sustainability to the Next Level



Town of Cutler Bay

Green Master Plan 2018-2022



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Executive Summary

Since its incorporation 12 years ago, the Town of Cutler Bay has risen to the forefront of green communities in Florida. In 2009, it achieved 'Silver' certification from the Florida Green Building Coalition (FGBC) for implementing over 40 green practices designed to reduce energy consumption and conserve local natural resources. The Town earned the FGBC 'Silver' recertification in 2016.



The Town would now like to accelerate and diversify its current green policies, projects and programs in order to reach a higher level of sustainability in the next 5 years and beyond. Specifically, the Town would like to achieve the "Gold" level in the FGBC re-certification process due in 2021. A well-conceived Green Master Plan can provide the road map required to achieve this goal. Such a plan would need to be a visionary but also very specific and implementation-oriented document designed to move the Town forward in a more aggressive and structured manner toward its best possible sustainable future.

This Green Master Plan will enable Cutler Bay to achieve its ambitious sustainability goals and will help guide the Town's annual budget process so that planned green projects and programs can be addressed in the budget each year. This critical linkage between the Town's green goals and its actual budgeted items is the key to successful implementation of the Green Master Plan.

The process for developing this Green Master Plan is illustrated on page 3. A key first step in the green master planning process is to organize the Town's existing green policies and activities into the essential <u>Green Community Elements</u> (GCEs) listed below.

- 1. Air Quality
- 2. Community Education
- 3. Energy Conservation and Renewables
- 4. Environmental Resources
- 5. Green Buildings and Development
- 6. Green Town Government
- 7. Groundwater Quality and Quantity
- 8. Hazardous Materials
- 9. Landscape and Wildlife
- 10. Land use and Zoning
- 11. Local Agriculture
- 12. Multi-modal Transportation
- 13. Parks and Open Green Space
- 14. Surface Water Quality and Quantity
- 15. Waste Reduction, Recycling and Reuse
- 16. Water Conservation and Quality.



In order to develop a comprehensive inventory of the Town's current green objectives, policies and activities, a number of plans, studies and other documents were consulted including:

- * Growth Management Plan
- Strategic Master Plan
- Land Development Regulations

- * 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

Public involvement is a crucial part of any planning process and is particularly important in green master planning. In February, the Town sponsored a public workshop on the Town's green programs and their



future direction. Workshop participants provided a number of good ideas for new green activities. They also helped develop and agreed on the following Green Mission Statement:

"To protect and improve the Town's built and natural environment through the use of land in a manner that enhances existing neighborhoods, conserves resources, ensures the availability of needed public facilities and services, and realizes the community's vision for its future."

The most important component of this Green Master Plan is the Five-Year Green Improvement Program on page 36 which addresses current Town green activities which will require future implementation as well as activities proposed to take the Town to the next level of sustainability. The Program assigns responsibility for implementation and projects a completion timeframe for each new activity. Some of the more notable new green policies and activities contained in the Green Improvement Program (GIP) include:

- + Renovate/build Town buildings to "Gold" LEED standard
- + Adopt an official Town environmental mission statement
- + Conduct a Greenhouse Gas Emissions Study for Town facilities
- + Adopt "Florida Friendly" landscape Code standards
- + Continue to plant average of 125 street trees per year
- + Prepare Town Circulator Master Plan for future operations
- + Build bicycle lanes & pedestrian improvements
- + Provide golf cart / electric car parking and charging stations
- + Address flooding in Adaptation Action Areas
- + Ban use of plastic bags
- + Prepare feasibility study for bicycle-sharing program
- Continue to design/build Complete Streets which include green stormwater elements
- + Construct a 2nd organic community garden



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I. Introduction and Purpose

Since its incorporation in 2005, the Town of Cutler Bay has risen to the forefront of green communities in Florida. In 2009, it achieved 'Silver' certification from the Florida Green Building Coalition (FGBC) for implementing over 40 green practices designed to reduce energy consumption and conserve local natural resources. The Town was recertified last year by the FGBC and maintained its 'Silver' certification. Cutler Bay would now like to accelerate and diversify its current green policies, projects and programs, and reach a higher level of sustainability in the next 5 years and far beyond. A specific green

goal of the Town is to achieve the "Gold" level in the FGBC re-certification process scheduled for 2021.

The Green Master Plan provides the planning and operational roadmap for a community to become more sustainable. It's a visionary but very specific, implementation-oriented document designed to move a community forward in a more aggressive and planned manner toward its best possible sustainable future. The key to the Green Master Plan is the Five-Year Green Improvement Program (GIP) which addresses current Town green activities which will require future implementation and all new proposed activities which will take Cutler Bay to the next level of sustainability. The GIP assigns implementation responsibility and projects a timeframe to complete each activity. It is designed to be an important input into Town's annual budget process so that planned green projects and programs can be addressed in the budget each year. This is a critical linkage and is the key to successful implementation.

II. Green Master Plan Approach

The first step in the green master planning process is to identify the myriad of existing resources and activities currently being implemented by the Town, and organize them according to the 16 core Green Community Elements (GCEs) listed below. These GCEs were developed to comprehensively encompass all green policies and activities currently implemented by the Town and proposed in the future. They will form the basis for the development of the Town's Green Master Plan.

Green Community Elements

- 1. Air Quality
- 2. Community Education
- 3. Energy Conservation and Renewables
- 4. Environmental Resources
- 5. Green Buildings and Development
- 6. Green Town Government
- 7. Groundwater Quality and Quantity
- 8. Hazardous Materials
- 9. Landscape and Wildlife
- 10. Land Use and Zoning
- 11. Local Agriculture
- 12. Multi-modal Transportation
- 13. Parks and Open Green Space
- 14. Surface Water Quality and Quantity
- 15. Waste Reduction, Recycling and Reuse
- 16. Water Conservation and Quality.



An important source of Cutler Bay's green goals and activities is the Growth Management Plan which contains a large number of objectives and policies directed toward maintaining and enhancing community sustainability. The Town also prepared a 2014-2019 Strategic Master Plan containing relevant green actions and policies. In addition, the Land Development Regulations play a large role in setting and implementing the Town's green goals and policies, because they establish zoning and development rules for the private sector which govern the development of the built environment and its corresponding environmental impact.

Cutler Bay also has a number of specific plans for important public facilities, parks and landscape which directly address many aspects of the Green Community Elements. These plans include:

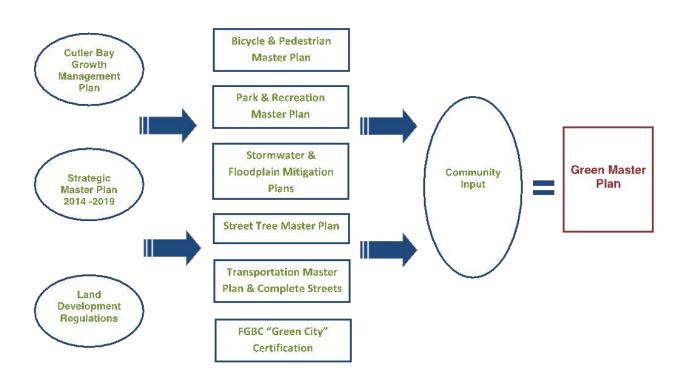
- * Parks Master Plan
- * Bicycle and Pedestrian Master Plan
- * Transportation Master Plan
- * Stormwater Master Plan
- * Street Tree Master Plan
- * Flood Mitigation Plan
- Complete Streets Corridors Analysis

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In addition to these green plans and regulations, the Town is certified at the Silver level by the FGBC as discussed earlier. The green activities the Town is implementing to qualify for that certification are directly relevant to the Green Master Plan process.

This Green Master Plan will analyze the green goals, policies, projects and activities contained in the plans, regulations and FGBC certification mentioned above, and group them into the Town's 16 core Green Community Elements (GCEs) presented above. It will also pinpoint areas where the Town has adequate green program implementation and other areas where additional policies, projects and activities are needed to ensure a comprehensive approach to Cutler Bay's current and future sustainability. The Green Master Plan process is graphically depicted below.

Green Master Planning Process



III. Current Green Goals, Policies and Activities

This section provides a comprehensive summary of the diverse array of existing green objectives, policies and activities contained in the Town's relevant plans, studies and other documents listed below. The bulk of the items come from the Town's Growth Management plan but there are many other important items included from the various other sources as well. The items are organized within the Town's 16 Green Community Elements (GCEs) which serve as the organizational framework of the Green Master Plan. The source is indicated in parentheses after each item according to the acronyms assigned to each of the source documents described below.

A. Information Sources

Growth Management Plan (GMP)

As noted earlier, the Town's Growth Management Plan (GMP) contains the most comprehensive array of green objectives and policies, and thus provides the primary green policy direction for Cutler Bay. All of the Green Community Elements are addressed except for Element 2 – Community Education.

Strategic Master Plan (SMP)

In October 2014, the Town Council adopted an updated Strategic Master Plan for the 2014-2019 period. The Plan is structured around 9 overall Strategic Achievement Categories (SAC) composed of a goal statement, objectives, activities, measures and milestones. Several of the SACs are directly relevant to green master planning.

Land Development Regulations (LDRs)

To implement the Growth Management Plan green objectives and policies, the Town's adopted

Land Development Regulations (LDRs) contain several green requirements for private development in Article V. Green Standards.

As stated in the LDRs, "the purpose of the Green Standards is to establish a program and administrative procedures which minimizes the negative environmental impacts of development; reduces the use of natural resources, creates a healthier and more sustainable living environment: reduces



greenhouse gas emissions; promotes economic and environmental health through sustainable and environmentally friendly design parameters; while providing leadership to both the private and public sectors in the area of green building practices in the Town."

Floodplain Mitigation Master Plan (FMMP)

In 2015, the Town adopted a Floodplain Mitigation Plan in order to reduce or eliminate risk to people and property from flood hazards. The Plan has 4 primary goals:

- 1. Protect the health, safety and welfare of the citizens of Cutler Bay from the effects of flooding;
- 2. Promote a public education program to encourage residents to undertake mitigation measures that reduce the effects of flood damage on private property;
- 3. Protect critical and essential facilities from flood damage; and
- 4. Reduce the number of repetitively flooded structures.

The Plan also contains an objective and several recommended actions relevant to several Green Community Elements.

Complete Streets Corridors Analysis (CSCA)

In recent years, the Town of Cutler Bay has initiated an aggressive transportation planning effort to retrofit existing and build new roads according to 'Complete Streets" principles. These principles have 2 primary features:

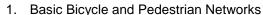
- 1. Create safe and inviting places to bicycle and walk through the implementation of pedestrian and bicycle friendly design and amenities; and
- 2. Create "places to be" through the addition of landscaping, wayfinding, street furniture, public art and encouraging innovation.



The main considerations in designing Complete Corridors involve vehicular travel, transit, bicycle facilities, sidewalks and crosswalks, lighting, landscaping and drainage. The CSCA contains several green activities and objectives included in Green Community Element 12 - Multi-Modal Transportation.

Bicycle and Pedestrian Master Plan (BPMP)

The Town of Cutler Bay prepared a Bicycle and Pedestrian Master Plan in 2011 which was recognized as "a step towards achieving a very safe community where a higher percentage of non-motorized trips are taken." The Plan identified the areas in greatest need of bicycle and pedestrian improvements and focused improvements at those locations. Existing conditions were analyzed and public input obtained which led to the development of 70+projects within 3 project classifications:





- 2. Regional Connections
- 3. Policy / Non-capital Efforts.

The BPMP includes green activities relevant to Green Community Element 12 - Multi-modal Transportation.

Street Tree Master Plan (STMP)

Within a few years after incorporation in 2005, the Town initiated preparation of a Street Tree Master Plan to guide the proper addition of trees along public rights-of-way. In 2008, a goal of Town leaders was for Cutler Bay to qualify as a "Tree City USA" which was achieved. The STMP includes activities relevant to Green Community Element 9 - Landscape and Wildlife.

Parks Master Plan (PMP)

The Town prepared a Parks Master Plan in 2008 in order to identify parks needs and plan future improvements to address those needs over time. The PMP contains activities related to Green Community Element 13 - Parks and Open Green Space.



Transportation Master Plan (TMP)

In 2014, the Town updated its Transportation Master Plan (2008). Using a prioritization process, the update identified 62 transportation projects to be included in the Town's 5-year Capital Improvement Program. The 8 criteria used in establishing project priorities were:

- * Ease of implementation
- * Efficiency
- * Effectiveness
- * Promotes safety
- * Environmentally friendly
- * Promotes casual flow
- * Maintains/enhances Town character
- * Reduces traffic intrusion

Several Capital Improvement Program projects and policy recommendations involve alternative transportation modes, such as bicycle and pedestrian improvements, which are relevant to increasing community sustainability and fall within Green Community Element 12 - Multi-modal Transportation.

Stormwater Master Plan (SWMP)

The Town's Stormwater Master Plan, prepared in 2008, contains stormwater management projects prioritized for each of the 17 drainage sub-basins in the Town. The Town has steadily implemented that Plan over the past 9 years. While the Stormwater Plan identified a number of specific drainage projects, it also recommended operation and maintenance practices that are directly relevant to green planning, especially surface water quantity and quality. These activities fall within Green Community Element 14. Surface Water Quality and Quantity.

Florida Green Building Council Silver Certification (FGBC)

Since its incorporation in 2005, the Town of Cutler Bay has risen to the forefront of sustainable green communities in Florida. In 2009, the Town achieved the 'Silver' level certification from the Florida Green Building Coalition (FGBC) for implementing over 40 green practices impacting Town facilities and operations, and private development. Just last year, the Town was re-certified by the FGBC again at the 'Silver' level for implementing 66 green activities which are documented within 13 of the 16 Green Community Elements.

B. Green Community Elements

Using the "green" sources identified and discussed in the previous section, existing green policies, activities and programs are organized below according to the 16 Green Community Elements.

Element 1. Air Quality

Objective C-1: Sustain the Town of Cutler Bay's high ambient air quality and protect it from potential degradation to the maximum extent feasible. (GMP)

<u>Policy C-1B</u>: The Town will develop language and standards in the Land Development Regulations that combat erosion, the generation of excessive airborne dust from construction sites and cleared areas and nuisance odors from industrial and business uses. (GMP)

<u>Open Burning Regulations</u>: Open burning regulations have been in place since incorporation and before under the Miami-Dade County Code. In 2016, Cutler Bay adopted Ordinance #2016-41 which incorporated open burning regulations into the Town Code similar to the County requirements. (FGBC)

<u>Air Quality Index</u>: The Town's website contains the latest air quality information for the Cutler Bay area. (FGBC)

Element 2. Community Education

<u>Green Building Fund</u>: Funds that become available from the forfeiture of the green performance bonds shall be deposited in a green building fund to be used for green education and training for the public and Town staff, energy efficiency improvements to Town facilities; open/green space improvements; traffic calming; pollution mitigation; low impact drainage; and sanitary sewer improvements. (LDRs)

Floodplain Action: Promote an Enviro-Scape model to elementary school students. (FMMP)

Education & Outreach: The Town purchases, prints and distributes green educational material to the public such as brochures, booklets, and promotional items during community outreach events. Information is also posted on Town bulletin boards and kiosks. (FGBC)

<u>Teacher/Student Education:</u> Every year Cutler Bay participates in Earth Day and environmental education activities with local schools in the community. Activities include:



- * Helping install butterfly gardens at schools;
- * Tree plantings at schools and Town parks in collaboration with teachers/students; and
- School grounds landscaping and beautification projects for all 8 community schools.
 (FGBC)

<u>MAST Academy</u>: Town staff is working with the local MAST Academy to develop eco-tourism classes for students. (FGBC)

<u>Floodplain Mitigation</u>: The Town has an active and robust mitigation education program. A Floodplain Mitigation Plan was completed in 2015 and approved by the Florida Department of Environmental Protection and U.S. FEMA. Press releases are regularly issued about the program and education material is distributed to residents and businesses. (FGBC)

Stormwater Management: In 2015, the Town completed the SW 212 Street Drainage Improvement Project and before/during the project, distributed educational material on the principles of proper stormwater management and posted it on the website. Students from nearby Cutler Bay Senior High School attended project planning meetings and toured the construction site. After project completion, the Town developed a permanent educational sign to place at the site. (FGBC)

Recycling: Town staff regularly attend meetings of local Homeowner's Associations and present the Town's "Going Green Initiative" which contains a major component on waste reduction and recycling. Public information documents include: Fast facts about Waste Reduction; Recycling 11 Facts; Recycling Quick Facts; Stop Junk Mail, Email, Phone Calls. (FGBC)

<u>Website</u>: Cutler Bay provides a diverse array of 'green' information on the Town's website including daily air quality index, surface water quality testing results, Town 'green' programs, interesting environmental content, water conservation information, transit route searching capability, and alternative commuting information. (FGBC)



Element 3. Energy Conservation and Renewables

<u>Policy CC-1B</u>: The Town of Cutler Bay shall develop building standards that promote the increased use of solar electricity in the community, and shall monitor the initiatives of Miami-Dade County and other agencies in the development of renewable energy sources, including wind, geothermal and ocean energy technologies. (GMP)

<u>Policy CC-1A</u>: The Town of Cutler Bay shall quantify greenhouse gas emissions resulting from its governmental operations by 2020, and develop a plan to reduce these emissions by 25% by 2030. (GMP)

<u>PACE Program</u>: Through Cutler Bay's efforts, a "Clean Energy Green Corridor District" was created for the south U.S. 1 corridor several years ago. The District provides 100% long-term financing to commercial and residential property owners for energy efficiency, renewable energy and water conservation improvements. (FGBC)

<u>AFV/Bicycle Police Patrols</u>: The Town Police force has 5 bicycles and 2 Segway vehicles used for light duty such as patrolling special events and high traffic shopping centers like Southland Mall. (FGBC)

Energy Use: Cutler Bay tracks its energy use on a regular basis. (FGBC)

<u>Park Lighting</u>: The Town has installed energy efficient lighting and controls at its recreation areas. (FGBC)

<u>Clotheslines</u>: The Town Code allows clotheslines to be placed in all side and rear building setback areas. (FGBC)

<u>Solar Panels</u>: Solar equipment is permitted to encroach into the rear and side building setback areas of a parcel, and may exceed zoned height limitations. (FGBC)

Element 4. Environmental Resources

Objective FLU-9: Natural Resource Protection. The Town shall ensure the preservation and conservation of natural resources within its boundaries and in adjacent areas. (GMP)

<u>Policy FLU-9B</u>: The Town, through its Conservation Element, shall ensure that development and redevelopment does not negatively impact natural resources. (GMP)

Objective C-5: The Town will conserve and protect the remaining natural systems of Cutler Bay in recognition of the inherent values of these areas left in their natural state. (GMP)

<u>Policy C-5A</u>: The Town will set management standards in the Land Development Regulations for environmentally sensitive natural systems. The standards will cover water resources, wetlands, and native habitats of flora and fauna. (GMP)

<u>Policy C-5C</u>: The Town will work with Miami-Dade County to implement the Environmentally Endangered Lands (EEL) program. The Town will work with Miami-Dade County to secure additional land within the Town for conservation land use when feasible. (GMP)

<u>Policy C-5D</u>: The Town will recommend to Miami-Dade County and SFWMD to purchase land that is designated Conservation on the Future Land Use Map. (GMP)

<u>Objective C-6</u>: Ensure that identified wetlands under county, regional, state or federal jurisdiction are protected from unlawful, intrusive actions that could result in environmental damage or degradation. (GMP)

<u>Policy C-6C</u>: The Town will protect and conserve remaining coastal wetlands, living marine resources and wildlife habitats as evident within the coastal areas of Cutler Bay through policies outlined in this element and in the Coastal Management Element. (GMP)

<u>Policy FLU-9N</u>: The Town shall use conservation easements, transfer of development rights, purchase of development rights, fee simple purchase, and other strategies to facilitate the protection of environmentally sensitive areas and natural resources within its boundaries. (GMP)

<u>Objective C-11</u>: The Town will continually seek opportunities for public acquisition of additional areas for nature preserves and passive open spaces to expand the opportunities for conservation and increase public appreciation of natural habitats within the community. (GMP)

<u>Policy C-11A</u>: The Town will pursue available grant opportunities for preservation of natural areas. (GMP)

<u>Policy CM-1G</u>: Wherever low-grade wetlands are degraded or destroyed, a wetland within the Town with an equal or greater amount of habitat value shall be created or restored, maintained and monitored for three years or until such time as a viable self-perpetuating wetland habitat is established. Created habitats shall be perpetually maintained free of invasive exotic vegetation. Habitats of endangered or threatened species shall not be degraded or destroyed. (GMP)

Objective CM-1: Protect, conserve and enhance coastal wetlands and living marine resources within the coastal area of the Town of Cutler Bay. (GMP)

<u>Policy CM-1A</u>: The Town of Cutler Bay will limit the impacts of development and redevelopment upon wetlands, water quality, water quantity, wildlife habitat and living marine resources through the development review process. (GMP)

<u>Policy CM-1C</u>: 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 except for purposes of surveying or for public natural resource maintenance and/or enhancement projects. (GMP)

<u>Policy CM-1E</u>: Where shoreline access is to be provided through Mangrove Protection Areas, elevated boardwalks, designed to minimize the impact of <u>on</u> wetland vegetation, shall be utilized. (GMP)

<u>Policy CM-1F</u>: Where development or redevelopment is to occur, mangrove forest, coastal hammock or other natural vegetative communities shall be maintained, protected, and incorporated into landscape plans. (GMP)

<u>Policy CM-1H</u>: Replanting of mangroves and marsh grasses shall be used, as appropriate, to enhance parks and other public or semi-public areas along the coastline. (GMP)

<u>Policy CM-4D</u>: The Town shall minimize the disturbance of natural shorelines that provide stabilization and protect landward areas from storm impacts. (GMP)

<u>SAC Goal #5 - Objective</u>: Foster more Community pride as it relates to cleanliness and an overall sense of community. <u>Activity</u>: 1. Identify ways to preserve existing natural lands (i.e., wetlands, bird sanctuaries) by possibly encouraging volunteer cleanup and maintenance efforts. (SMP)

<u>Floodplain Action</u>: Protect the natural floodplain functions within the Town including the Cutler Wetlands. (FMMP)

Element 5. Green Buildings and Development

<u>Policy C-12E</u>: The Town will include requirements in the Land Development Regulations that will require all buildings taller than 18 stories must be LEED certified or similar. (GMP)

<u>Policy C-12F</u>: All buildings and developments constructed by the Town will be LEED certified or meet similar standards. (GMP)

<u>Objective C-12</u>: The Town will take measurable steps towards becoming a "sustainable" community by providing a healthy setting for residents, workers, and visitors and increase public and private awareness of green building practices. (GMP)

<u>Policy C-12B</u>: The Town will encourage participation in green building practices for public and private buildings, such as choosing local, energy efficient and recycled materials. (GMP)

<u>Policy CC-2A</u>: The Town of Cutler Bay shall encourage greener, more energy-efficient and climate resilient construction practices by:

- a) requiring construction or renovation of Town-owned facilities meet Florida Green Building Coalition (FGBC) or similar "green" building certification standard;
- b) encouraging commercial builders to require that construction or renovation meet Florida Green Building Coalition (FGBC) or similar "green" building certification standard:
- c) encouraging licensed Town personnel to maintain LEED Green Associate certification;
- d) re-evaluating finish floor elevation standards with respect to projected sea level rise scenarios and flooding potential; and
- e) incorporating building design specifications that increase resistance to more frequent and/or intense storm events. (GMP)

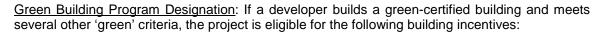
<u>Low Emitting Building Materials</u>. Development must use low emitting materials for paints, coatings, adhesives and other building materials. (LDRs)

<u>Water Conservation</u>. All developments must comply with the Miami-Dade County Water- Use Efficiency Standards Manual. (LDRs)

<u>Paving Materials</u>. Must use materials for parking lots, sidewalks and courtyards with minimum solar reflective index (SRI) of 29. (LDRs)

Roof Finishes. Must have minimum SRI of between 25-65, over at least 75% of roof surface. (LDRs)

<u>Shower Facilities</u>. Larger nonresidential developments must provide 1 shower facility per building. (LDRs)



- * Increased floor area of between 10-20%.
- * Increased height up to GMP maximum
- Reduction in parking up to 10%
- * Expedited site and building plan review
- * Expedited building inspections
- * Reduced site plan review fee
- Eligibility for Town green building award
- * Reduction in parking for shower facilities up to 10%. (LDRs)

<u>Incentives for Green Building Development</u>. The City's Code offers generous green building incentives to private developers who plan and build using a recognized green building certification such as Florida Green Building Coalition (FGBC) or Leadership in Energy and Environmental Design (LEED). The incentives include:



- * Increased floor area and/or height;
- * Required parking reduction;
- * Expedited plans review and inspections, and fee waiver;
- * Reduced site plan review fee;
- * Parking reduction for bicycle racks and/or shower facilities; and
- * Eligibility for Town's Green Building Award (FGBC)

<u>Florida Friendly Landscape</u>: In 2009, the Town adopted 'Green Land Development Regulations' including a requirement that the landscape plan for all developments comply with the Florida Friendly Landscaping guiding principles of the Florida Yard and Neighborhood Program. The Town's standard policy is to also follow these same best practices for landscaping on Town-owned buildings and facilities. To support this requirement, Town staff regularly provides information brochures and conducts demonstration activities to educate homeowners about proper tree maintenance and landscaping. Homeowners can also schedule a one-on-one consultation with the Town's Certified Arborist. (FGBC)

Element 6. Green Town Government

<u>Policy C- 12A</u>: The Town will aspire to be recognized by the Florida Green Development Standard. (GMP)

SAC Goal #5 - Objective: "The Town has achieved "Certified Silver" status in the Florida Green Building Coalition's "Green City" program." The next goal is to achieve "Gold" status.

Activities:

- 1. Town Planning staff should evaluate what would be required so that those improvements can be budgeted and accomplished over a reasonable period.
- Provide incentives for green development education and include environmental education on the Town's website. (SMP)



<u>Public Facilities</u>: All Town buildings must meet the Leadership in Energy and Environmental Design (LEED) rating system standard or an equivalent standard. (LDRs)

<u>"GOLD" Town Buildings:</u> In 2016, the Cutler Bay Town Council adopted Ordinance #16-03 requiring all new and renovated Town facilities in the future be constructed to meet the 'Gold' certification level of the Leadership in Energy and Environmental Design (LEED) or an equivalent certification. (FGBC)

Staff and Police Education: As a member of the U.S. Green Building Council, the Town receives 30 hours of access to the 'Education@USGBC' on-line training program. Employees may select training options from the 2,600 courses listed on the website. Employees are also encouraged by the Town Manager to identify and attend courses and seminars on green practices. In addition, 1 Town police officer is a certified practitioner of the Crime Prevention Through Environmental Design (CPTED) Program and 4 Public Works employees have completed the Florida Green Industries Best Management Practices Training Program and were awarded the 'GI-BMP' Certificate. (FGBC)

<u>Police Practices</u>: The Town's Police officers attend the firing range at the Miami-Dade Public Safety Training Institute; this range traps and collects all bullet fragments. The department also uses digital cameras exclusively and thus produces no photo processing waste. (FGBC)

<u>Buy Environmental</u>: Cutler Bay has developed and implemented an Environmentally-Preferred Purchasing (EPP) Program for all for the products and services it uses. (FGBC)

<u>Green Cleaning:</u> The company Cutler Bay subcontracts with for cleaning services uses non-toxic and non-allergenic products. (FGBC)

<u>Employee Orientation</u>: The Town provides a reusable mug or water bottle to all new employees and conveys information on Cutler Bay's green policies and programs. (FGBC)

Green Activism: Cutler Bay participates and is a member of the following 'green' organizations:

- * Cities for Climate Protection' campaign
- * U.S. Green Building Coalition
- * Florida Green Building Coalition
- * Florida Local Environmental Resources Agencies (FGBC)

<u>Green Coordinator</u>: The Town has a designated 'Green Coordinator' on staff to facilitate and implement green policies and programs. (FGBC)

Element 7. Groundwater Quality and Quantity

Objective C-4: Protect the 100-year floodplain, groundwater aquifer recharge, and the natural drainage features within the Town of Cutler Bay. (GMP)

<u>Policy C-4A:</u> The Town will develop language and standards in the Land Development Regulations by 2008-2009 to preserve and enhance the functions of natural groundwater aquifer re-charge and natural drainage features and to protect water quality. (GMP)

<u>Policy C-4C</u>: The Town will create its first Stormwater Master Plan to identify areas within the Town that are experiencing drainage problems and to set priorities for stormwater system improvement projects. The Stormwater Master Plan will include a cost estimate of each project which will be

included in the Capital Improvements Element as appropriate during the yearly updates. (GMP)

<u>Policy C-4E</u>: The Town will monitor new, costeffective programs for minimizing flood damage, including modification to construction setback requirements or other site design techniques, as well as upgraded building and construction techniques. (GMP)

<u>Policy C-4H</u>: The Town will encourage appropriate aquifer recharge projects that would assist with either stabilizing the salt-intrusion line or moving it coastward. (GMP)



<u>Policy FLU-9G</u>: The Town shall ensure that adequate pervious surface areas are maintained and protected as prime aquifer recharge areas. (GMP)

<u>Policy FLU-9H</u>: The Town, through the Land Development Regulations, shall require adequate pervious surface areas by zoning districts. (GMP)

<u>Policy I5-2A</u>: The Town will continue to enforce the on-site water retention standards for new development and redevelopment projects. (GMP)

<u>Policy I5-2B</u>: The Town will develop language and standards such that all new development and redevelopment projects shall use retention, infiltration and detention systems pursuant to applicable regional and state standards. (GMP)

<u>Policy I2-3A</u>: The Town will assist Miami-Dade County WASD any way possible to install treated re-used (grey) water lines in Cutler Bay for use in parks, on road Rights-of-Way and other appropriate landscaped areas within the Town limits. (GMP)

<u>Policy I5-1A</u>: The Town will maintain and enhance, where appropriate, the capacity and periodicity of natural surface water drainage and recharge. (GMP)

Element 8. Hazardous Materials

<u>Policy C-9B</u>: The Town will develop language and standards in the Land Development Regulations by 2008-2009 that incorporate development restrictions of uses and management of hazardous materials. (GMP)

<u>Policy FLU-9J</u>: Land uses that produce hazardous wastes or that are otherwise detrimental to potable water wells shall be separated from wellfields through distance criteria. (GMP)

<u>Policy I4-3B</u>: The Town will develop language and standards in the Land Development Regulations that incorporate development restrictions of uses and management of hazardous materials. (GMP)

<u>Green Fleet</u>: The Town's vehicle maintenance and repair vendor utilizes over 75% of the green practices contained in the Fleet Management and Vehicle Maintenance Module prepared by the Florida Green Building Coalition (FGBC). In addition, Cutler Bay leases an electric car for use by all employees at Town Hall for administrative purposes. (FGBC)

Element 9. Landscape and Wildlife

<u>Policy FLU-5F</u>: The Town shall require aesthetically pleasing and environmentally sensitive landscaping as an important component of development and redevelopment projects. To the maximum extent feasible, existing on-site native vegetation shall be preserved. (GMP)

Objective CM-5: The Town will support the protection of endangered and threatened animal species and the restoration and management of coastal habitats to improve wildlife values. (GMP)

<u>Policy CM-5A</u>: Areas that are used for nesting, feeding or congregation by endangered and threatened species shall be protected from alteration and human activities that would further imperil those species. (GMP)

<u>Policy CM-5C</u>: Travel corridors used by endangered or threatened species shall be protected to the extent possible from alteration and human activities that would further imperil those species. (GMP)

<u>Policy CM-1B</u>: Threatened or endangered species shall be identified on potential development sites by the preparation of an environmental report to record the occurrence of listed plant and animal species. (GMP)

<u>Policy C-5E</u>: The Town will work to increase public awareness of critical wildlife areas and natural preserves. (GMP)

<u>Objective C-7</u>: The Town will ensure that wildlife and plant species listed as endangered, threatened, or of special concern that inhabit the environments in Cutler Bay are protected and enhanced where possible. (GMP)

<u>Policy C-7B</u>: The Town will develop language and standards in the Land Development Regulations to protect wildlife and vegetative habitats that are endangered, threatened or species of special concern. The Town shall further protect these habitats by promoting public acquisition and the dedication of conservation easements or reservations where appropriate. (GMP)

<u>Policy C-7D</u>: The Town will make every effort to increase public appreciation and awareness of native wildlife and plant habitats in and around the community through various means which may include the official Town website. (GMP)

<u>Policy C-7E</u>: The Town will require the preservation of native trees during development or redevelopment wherever possible and if any native trees must be removed, the same type of native trees shall be planted to replace the removed tree. More than one replacement tree shall be planted for every single tree that is removed. (GMP)



<u>Policy C-12J</u>: The Town will include requirements in Land Development Regulations to have new development contribute to significantly increasing the tree canopy of the Town. (GMP)

<u>Landscape Requirements</u>. All development must comply with the Florida-friendly landscaping guiding principles. (LDRs)

The Street Tree Master Plan contains an inventory and assessment of the existing Town tree coverage along public streets. It determined projected planting requirements and provided guidelines for placement, protection and maintenance of street trees and a list of suitable street trees. Based on field surveys, it was determined that the approximate number of shade trees needed to create mostly continuous shade along Town streets would be over 6,700. (STMP)

<u>Tree Preservation</u>: The City has adopted tree preservation and protection regulations, requiring that a Town permit be obtained prior to any land clearing. The permitting process is coordinated with the County's Department of Regulatory and Economic Resources to ensure it is also consistent with County Code Section 24-49. (FGBC)

<u>Tree Canopy</u>: Cutler Bay has earned the Tree City USA designation every year since 2009 and the Growth Award annually since 2012. The Town adopted a Tree Master Plan in 2009 with the primary goal to create tree canopy throughout the public streets. (FGBC)

Landscape Expertise: The Town employs a certified arborist to oversee landscaping and tree maintenance activities conducted by Town staff and contractors. The arborist is also available for meetings with residents regarding proper tree trimming and maintenance. (FGBC)

Street Trees: Based on a Street Tree Master Plan, Cutler Bay set a goal in 2005 to plant 6,700 street trees in order to provide adequate tree cover. As of April 2016, the Town had planted 3,135 trees, almost halfway to its goal. (FGBC)



Element 10. Land Use and Zoning

Objective FLU-2: Town Center. The area designated "Town Center" on the Future Land Use Map shall be redeveloped as a high quality, design-unified, mixed use downtown for Cutler Bay. (GMP)

Objective FLU-3: Mixed Use Districts. The areas designated "Mixed Use" on the Future Land Use Map shall be developed or redeveloped through the Land Development Regulations as design unified horizontal and vertical mixed-use areas in accordance with adopted plans and studies that reflect the community's vision. (GMP)

<u>Policy FLU-5B</u>: Development and redevelopment in the Town shall provide for pedestrian friendly street design, an interconnected street network and hierarchy to reduce congestion and improve traffic flow, design that promotes the use of non-motorized transportation modes, connectivity to transit, and a range of uses in a compact area to reduce the need for external trips. (GMP)

<u>Policy FLU-5D</u>: The Land Development Regulations shall promote energy efficient design and water conservation in new development and redevelopment. (GMP)

<u>Policy FLU-12E</u>: The Town, through the Land Development Regulations, may create development bonuses, as appropriate, to further the achievement of adopted urban design, economic development, affordable housing, conservation, public education, and/or recreation and open space goals, objectives, and policies. (GMP)

<u>Policy FLU-50:</u> The Town will review and incorporate "green incentives" such as fast track permitting, tax credits administrative adjustments for siting to accommodate green building practices, and fee adjustments. (GMP)

<u>Policy FLU-5P</u>: The Town will revise existing site review standards to include management of the waste stream to promote the reduction, recycling and reuse of waste materials. (GMP)

<u>Policy FLU-5Q</u>: The Town will advocate the use of building materials proposed for use that are more environmentally appropriate through the site review process. (GMP)

<u>Policy FLU-5R</u>: The Town will utilize the subdivision review process and the site plan review process to improve site orientation for reduction in solar gain and to take advantage of prevailing winds to the maximum extent possible. (GMP)

<u>Policy FLU-5S</u>: The Town will establish LEED Neighborhood "green standards" or similar criteria when reviewing subdivision and site plans through the Land Development Regulations. (GMP)

Policy C-12D: The Town encourages mixed-use development and infill development. (GMP)

<u>Policy C-12L</u>: The Town will utilize the site development review process to reduce heat island effects thru provisions in the Land Development Regulations that provide green space with development. (GMP)

<u>Solar Equipment</u> may encroach into rear and side setbacks and may exceed height limitations in the applicable zoning district. (LDRs)

Rain Barrels are permitted within side and rear setbacks. (LDRs)

<u>Clotheslines</u> may be located within the rear yard, or side yard for corner lots. (LDRs)

<u>Mixed Use Development</u>: From its inception, Cutler Bay has encouraged mixed use land use and zoning in appropriate higher intensity areas. While the large majority of its land area is developed with single-family homes, the Town has provided mixed use policies and regulations in its Growth Management Plan (GMP) and Land Development Regulations (LDRs). The GMP has 2 mixed use categories: Mixed Use and Town Center. In the LDRs, the Transit Corridor District, Neighborhood Center District and Town Center District allow for mixed use. (FGBCS

<u>Urban Service Area</u>: To promote the efficiency of urban service provision, the Town maintains an Urban Development Boundary (UDB) on its Future Land Use Map and included policies in its GMP prohibiting urban services extension beyond the UDB. (FGBC)

Element 11. Local Agriculture

<u>Community Garden</u>: The Cutler Bay Parks and Recreation Department currently manages a 32-bed organic community garden at Cutler Ridge Park. Residents are not charged to use a portion of the garden and can eat what they grow. Also, area youth enrolled in the Town's After-School Program visit the garden twice a week. Garden features include water barrels, compost storage, raised wide beds and no pesticide use. (FGBC)

Element 12. Multi-modal Transportation

<u>Policy T1-8A</u>: The Town shall identify within its Land Development Regulations areas of appropriate intensity and land use mix to provide incentive to the



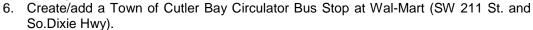
use of transit, pedestrian facilities and discourage the use of the automobile. These incentives should concentrate on the three Charrette areas, the Old Cutler Road, the US-1 Corridor, and Urban Center District Charrettes, as well as planned Busway stations. (GMP)

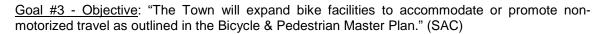
<u>Policy T1-8D</u>: Retrofitted or reconstructed streets, wherever practical as determined by the Town, shall include amenities such as shade trees and benches, curb, gutter and adequate drainage infrastructure, as well as pedestrian safe designs; such as, refuge medians where more than two-lane roadways exist, raised pavements to alert motorists to pedestrian crossings, and sidewalk bulb-outs where there is on-street parking. (GMP)

<u>Goal #3 - Objective</u>: "Town will ensure that Town Circulator meets the growing needs of the community." (SAC)

Activities:

- 1. Conduct a circulation and schedule study to maximize benefits for the public utilizing the Town's Municipal Circulator Bus service.
- ZIdentify opportunities for circulator interconnections with neighboring jurisdictions (Palmetto Bay, Pinecrest).
- Create/add a Town Circulator Bus Stop within the Southland Mall property to allow easy access to regional shopping center.
- 4. Establish a dedicated bus stop in front of East Ridge Retirement Village.
- Continue to monitor ridership and explore the need for additional municipal circulators.





Activities:

- 1. Create dedicated bike lanes on SW 87 Avenue and other Miami-Dade arterial roadways, schools, shopping districts, and other popular destinations.
- 2. Expand the dedicated bike lane along Caribbean Blvd. Corridor (east and west bound).
- 3. Install pedestrian lighting on Marlin Rd. and Old Cutler Rd. to accommodate cyclists/pedestrians. (SMP)

<u>Bicycle Parking/Storage</u>. Bicycle spaces required for all non-residential, townhouse and multifamily developments. (LDRs)

<u>Hybrid Electric and Low Emission Vehicle Parking</u>. Larger non-residential and multi-family developments must provide spaces for these types of vehicles, including golf carts. (LDRs)

<u>Complete Streets.</u> The Town has identified the 4 roadway corridors below in which to implement Complete Streets principles and incorporate them into the Cutler Bay 5-Year Capital Improvement Program.

- * SW 87th Avenue
- * Franio Road / SW 97th Avenue
- * Gulfstream Road
- * Marlin Road

The Town has previously won awards for its design and construction of Old Cutler Road between SW 87th Avenue and SW 97th Avenue and Caribbean Boulevard. These improvements all utilized a number of Complete Street principles. (CSCA)

<u>Bicycle and Pedestrian Master Plan</u>: Pedestrian and bicycle improvements were recommended for SW 216 Street, Marlin Road, SW 186 Street, SW 184 Street, SW 97 Avenue, Franjo Road, Old Cutler Road and Caribbean Boulevard. A number of these improvements have been made over the past 6 years. (BPMP)



<u>Urban Design</u>. Revise development regulations to encourage pedestrian friendly urban design and buildings at street edge. Place buildings closer to street ROW and parking behind buildings. (TMP)

<u>Town-wide Streetscape Program - Livable Communities Program</u>. Continue to evaluate main corridor rights of way and implement street scape programs, including street trees, benches, trash cans, lighting, and other street furniture. (TMP)

Adopt and Encourage Further Development of County Bicycle Network. Support Miami-Dade County in development of additional bicycling infrastructure in the South Dade Area. (TMP)

<u>Bicycle/Pedestrian Committee</u>. Implement a Bicycle/Pedestrian Committee, to meet on a quarterly basis. (TMP)

<u>Complete Streets/Connections</u>. Create and adopt specific and consistent guidelines for streets to accommodate all modes of travel. (TMP)

<u>Designate and Implement Shared Parking</u>. Designate locations close to commercial areas in Cutler Bay and build shared parking with pedestrian connections to local businesses. (TMP)

<u>Park and Ride Facilities</u>. Study locations within Cutler Bay for shared parking which can be placed near Busway and/or the Circulator, and provide for land use designations as necessary. (TMP)

Golf Carts on County Roads. Examine feasibility of being able to utilize golf carts on County roads. May need reexamination of Town Ordinance 10-03. (TMP)

Town Circulator Comprehensive Operations Analysis. Conduct study and operational analysis of the Town Circulator with consideration of headway times and expansion of days of service, improvement to the bus stop facilities for ADA compliance and general services, and route adjustments to connect to Southland Mall, high schools, and circulators in adjacent communities. (TMP)



<u>Bicycling Data</u>. Develop technology and applications to collect real-time bicycling data

for alternative mode transportation planning. Develop and implement usage of bicycling and pedestrian pathways application to collect real-time data for pedestrian/bicycle planning. (TMP)

<u>Bicycle Projects</u>. Install Bicycle lanes in Cutler Bay - Gulfstream Road, SW 216th St between SW 87th Avenue and Old Cutler Road to South Dade Trail, SW 97th Ave. between SW 216th Street and SW 212th Street, from Performing Arts Center to Black Creek Trail, shared use paths. (TMP)

<u>US-1 Corridor Transit</u>. Install necessary crossing points and pedestrian pathways from major generators to transit points. Provide a Park and Ride feasibility study for the US-1 Busway. Study feasibility of cross access easements. (TMP)

<u>Connect Urban Center District</u>. Build multiple sidewalk connections to Town Hall from the rest of the network. Provide landscaping along path. (TMP)

<u>Implement Bicycle and Pedestrian Master Plan.</u> Upgrade sidewalk facilities and remove obstacles in the right-of-way to ensure ADA compliance. Install and repaint crosswalks where necessary. Continuous evaluation and maintenance of existing and

future sidewalk needs. (TMP)

Healthy and Walkable Streets: The Town has incorporated the FDOT's "12 Steps Toward Walkable Communities" into its road planning and design. These principles were utilized in the Old Cutler Road, Caribbean Boulevard and U.S. 1 Corridor improvements. The Old Cutler Road project was selected by the 2015 Complete Streets Forum as an example of how a roadway can be designed to protect pedestrians, cyclists and motorists. Several master plans have been prepared and are now being implemented that utilize healthy and walkable road designs including the Transportation Master Plan,



Sidewalk Assessment and Bicycle Pedestrian Master Plan. The Town would like to prepare a Complete Streets Master Plan in the near future. (FGBC)

<u>Connectivity</u>: An important principle in green planning is the provision of good connectivity between transit, bicycle and pedestrian facilities. This was a major goal of the Bicycle and Pedestrian Master Plan. Recent road improvements for Old Cutler Road and Caribbean Boulevard included sidewalks and bikeways along both sides of the road interconnecting with transit stops. (FGBC)

<u>Alternative Fuel Vehicles (AFVs):</u> Cutler Bay has allowed golf carts on Town-owned streets since 2010, however County roads were off-limits. Though the Town's strong legislative efforts, State law was changed in 2015 to allow golf carts on County roads and they are allowed on all County and Town roads in Cutler Bay. (FGBC)

<u>Cutler Bay Transit Circulator</u>: The Town operates a transit circulator bus service connecting commercial, neighborhood and community areas. (FGBC)

<u>Website Information</u>: The Town's website provides transit route searching capability and alternative commuting information to the public. (FGBC)

<u>Bicycle/Pedestrian Coordinator</u>: Cutler Bay maintains a bicycle/pedestrian coordinator on staff to facilitate and implement bicycle and pedestrian policies and projects. (FGBCS)

<u>Bicycle Racks</u>: Bicycle parking and storage racks are now installed at all 8 Town parks and at Town Hall. (FGBC)

Element 13. Parks and Open Green Space

Objective ROS-1: Maintain a coordinated system of parks, recreational land and open spaces serving the residents of Cutler Bay at a Level of Service of 3.0 acres per 1,000 residents through the year 2020. (GMP)

<u>Policy ROS-1A</u>: The Town shall provide local recreation open spaces to serve the close to home recreation and open space needs of the residents of Cuter Bay. Active open spaces shall be provided at a Level-of-Service of 1.2 acres per 1,000 residents and consist of local parks and public school playfields. (GMP)

<u>Policy ROS-1C</u>: The Town will ensure private open space is provided to serve the recreational and open space needs of the residents of Cutler Bay. Private open space shall be provided at a Level-

of-Service of 0.9 acres per 1,000 residents. (GMP)

<u>Policy ROS-1D</u>: The Town will ensure conservation open space is provided to serve the environmental and health needs of the residents of Cutler Bay. Conservation open space shall be provided at a Level-of-Service of 0.9 acres per 1,000

residents. (GMP)

Objective ROS-3: The Town will develop and implement a Park and Recreation Master Plan that reflects the current and emerging needs of the community of Cutler Bay. (GMP)

Objective ROS-5: In coordination with the Coastal Management Element, the Town shall place a high priority in the acquisition of unprotected coastal lands for use as parks and preservation that provide public access for residents and visitors to the shoreline. (GMP)



Policy CM-3B: The Town will place a high priority on

the acquisition of unprotected coastal lands for use as passive parks and preserves. (GMP)

<u>Open Space Standards</u>. The Town's LDRs contain standards in the eight (8) primary zoning districts for minimum landscaped open space and maximum lot coverage by impervious surfaces. The standards are provided below and expressed in terms of a % of the total lot size. (LDRs)

Zoning District	Minimum Open Space %	Maximum Lot Coverage %
ER – Estate Residential	40	50
SR- Single-Family Residential	40	60
MR – Multifamily Residential	55	65
NR-Neighborhood Residential	0	70
TRC, Transit Corridor	15	100
Town Center	15	100
INT - Institutional	25	50

Objective 1.2: Preserve open space areas, especially where there are sensitive natural areas. (FMMP)

<u>Parks Master Plan</u>: The PMP included specific improvement recommendations for the following parks:

- * Bel Aire Park
- * Cutler Ridge Park
- * Franjo Park
- * Lakes By The Bay Park
- * Lincoln City Park
- * Saga Bay Park
- * Saga Lake Park
- * Whispering Pines Park. (PMP)

Element 14. Surface Water Quality and Quantity

Objective 13-4: The Town will use the Land Development Regulations to ensure that private development and public infrastructure projects maintain required surface water quality standards

and serve to recharge the groundwater aquifer. (GMP)

<u>Policy I3-4A</u>: The Town will review the Land Development Regulations on a regular basis to ensure that all feasible options are being utilized to protect water quality and enhance groundwater recharge. (GMP)

Objective C-3: Maintain and improve the water quality of the community's water bodies based on current Florida Department of Environmental Protection (FDEP), South Florida Water Management District (SFWMD), and Miami-Dade County rules and regulations. (GMP)

Policy C-3D: The Town will develop language and standards in the Land Development Regulations by 2008-2009 to ensure that adequate stormwater management standards for pervious areas, retention and detention are included from the SFWMD and Miami-Dade County DERM and that the drainage LOS standard adopted in this Growth Management Plan is met. (GMP)

<u>Policy FLU-9K</u>: The Town shall require on-site stormwater management for development and redevelopment, and establish standards for the design of stormwater management systems. (GMP)



<u>Policy FLU-9L</u>: The Town shall require no net post-development increase in stormwater runoff from development and redevelopment sites. (GMP)

<u>Policy FLU-9M</u>:The Town shall require developers to identify and mitigate constraints based on soils, topography, and floodplains. (GMP)

Objective I3-3: The Town will use the Stormwater Master Plan process to ensure that private development and public infrastructure projects maintain required surface water quality standards and serve to recharge the groundwater aquifer. (GMP)

<u>Policy I3-3A</u>: A primary objective of the Stormwater Master Plan will be to protect the surface water quality through the Land Development Regulation requirements that will mandate acceptable paving and drainage plans, adequate open (pervious) space areas, and stormwater detention and retention in private development projects. (GMP)

<u>Policy CM-2C</u>: The Town will establish new standards for stormwater management techniques where it will re-hydrate the coastal area which emphasize retention and infiltration techniques, including injection wells; back-sloping and berming as applicable, into the Town of Cutler Bay Land Development Regulations. (GMP)

<u>Policy CM-2D</u>: The Town will establish new standards for stormwater management techniques for the purpose of regulating point and non-point sources of pollution into the stormwater system. (GMP)

<u>Policy C-8B</u>: The Town will develop standards in the Land Development Regulations to provide drainage regulations for the purpose of preserving soils. (GMP)

<u>Policy CC-6A</u>: The Town of Cutler Bay shall identify and designate Adaptation Action Areas as provided by Florida Statutes, and develop policies for adaptation as required for the protection of areas and facilities in the Town that are vulnerable to the impacts of rising sea levels and climate change. (GMP)

<u>Policy CC-6E</u>: The Town of Cutler Bay shall construct the additional stormwater drainage infrastructure necessary to accommodate projected increases in stormwater, including drainage wells, injection wells, swales, bioswales, French drains, and other related structures. (GMP)

Floodplain Action: Cleanout all storm drains on a bi-annual basis. (FMMP)

<u>Drainage Swales and Trenches</u>. Grassed swales and exfiltration trench systems (French drain) play an important role in the storage, disposal and water quality treatment of runoff from roadways, sidewalks, parking lots and other paved surfaces. All swales and exfiltration trench systems in the Town are inspected twice/year for signs of deterioration. Any problems identified must be addressed. (SWMP)

<u>Street Sweeping and Little Control</u>. Street sweeping and little control programs are recommended to reduce the amount of sediment, debris and pollutants entering the stormwater management system. (SWMP)

Water Quality: The Town's website provides surface quality testing results for the area. (FGBC)

<u>Flood Prevention</u>: The Town regularly cleans and maintains storm drains on all public roads under Town jurisdiction. (FGBC)

Element 15. Waste Reduction, Recycling and Reuse

<u>Policy I2-3B</u>: The Town will investigate the possibility of using fertilizers and other reuse products on public landscape areas within Cutler Bay. (GMP)

<u>Policy I4-2B</u>: The Town will encourage residents and businesses to recycle solid waste to the maximum extent possible. (GMP)

<u>Policy C-9C</u>: The Town will encourage residents and businesses to recycle solid waste to the maximum extent possible. (GMP)



Element 16. Water Quality and Conservation

Objective I1-3: The Town will actively encourage all residents and businesses in Cutler Bay to conserve potable and non-potable water to the maximum extent possible. (GMP)

<u>Policy I1-3A</u>: Town Hall shall serve as a central distribution point for South Florida Water Management District, Florida ERP and Miami-Dade County WASD news releases, brochures and public presentations on ways for homeowners, businesses and industry to conserve all forms of water resources. (GMP)

<u>Policy I1-3B</u>: The Town's Land Development Regulations shall contain standards requiring the use of all feasible water-saving devices in new and renovation building construction. (GMP)

<u>Policy I1-3C</u>: The Town's Land Development Regulations will contain the minimum standards for the use of water-saving "xeriscape" plants, watering techniques and landscape designs in existing and future developed areas of the Town. (GMP)

<u>Policy I1-3D</u>: The Town will encourage homeowners and businesses in Cutler Bay to use non-potable water for landscaping and lawn care and maintenance. (GMP)

Objective C-2: Increase potable water conservation in order to better meet present and projected

needs of all consumers and reduce demands

on water service. (GMP)

Policy C-2A: The Town will develop language and standards in the Land Development Regulations to comply with the water conservation policies of the South Florida Water Management District (SFWMD) to conserve the potable water supply and protect the Town from saltwater intrusion, including groundwater recharge, water-saving devices and xeriscape concepts. (GMP)

Policy C-2G: The Town will hand out water conservation booklets and brochures at the Town Hall and on the official Town website as well as other public facilities. (GMP)



Policy C-2L: The Town will require the use of High Efficiency Toilets; High Efficiency Showerheads; High Efficiency Faucets; High Efficiency Clothes Washers; and Dishwashers that are Energy Star rated and WaterSense certified in all new and redeveloped residential projects. (GMP)

Policy C-2N: The Town will encourage the use of Florida Friendly Landscapes guidelines and principles; gutter downspouts, roof runoff, and rain harvesting with rain barrels and directing runoff to landscaped areas; drip irrigation or micro-sprinklers; and the use of porous surface materials (bricks, gravel, turf block, mulch, pervious concrete, etc.) on walkways, driveways and patios. (GMP)

Policy C-12I: The Land Development Regulations will include site plan review standards that all stormwater collected on rooftops will be directed to drain into landscape planter beds or other- wise be utilized on-site before running into a storm drain catch-basin. (GMP)

Policy I5-1B: The Town will develop language and standards in the Land Development Regulations to comply with the water conservation policies of the South Florida Water Management District (SFWMD) to conserve the potable water supply and protect the Town from saltwater intrusion, including coordinating with SFWMD related to the Comprehensive Everglades Restoration Plan (CERP) Acceler8 plan, ground- water recharge, installing water-saving devices and xeriscape concepts. (GMP)

Waste Diversion. Minimum of 60% of waste from construction, demolition, and renovation projects shall be diverted from landfill disposal. (LDRs)

CDMMP. A construction, demolition and materials management plan (CDMMP) to accomplish the 60%+ requirement must be prepared and approved by the Town. (LDRs) Plan Compliance. Developer must show compliance with the approved CDMMP. (LDRs)

Recycling. Every building must dedicate accessible area for recycling collection and storage. (LDRs)

Irrigation Rain Sensor Shut-Off: In 2016, the Town enacted Ordinance #2016-41 mandating that all automatic irrigation systems have a functioning shut-off mechanism triggered during rain events. (FGBC)

Car Wash Standards: Ordinance #2016-41, adopted in 2016, requires all self-service and automatic

car washes installed after 7-1-2016 to utilize the water conservation best management practices recommended by Section 62-660.803, Florida Administrative Code. (FGBC)

<u>Fountains and Water Features</u>: Ordinance #2016-41, adopted in 2016, also requires developments with fountains and water features to utilize water conservation best management practices. (FGBC)

<u>Water Use</u>: Cutler Bay monitors and tracks water used in Town facilities on a regular basis. (FGBC)



<u>Water Conservation Information</u>: The Town's website provides users with a wide array of water conservation concepts, requirements and ideas. (FGBC)

Rain Barrels: The Town Code allows rain barrels to be placed in all rear and side building setback areas. (FGBC)

IV. Public Involvement and Ideas

On February 13, 2017, a public workshop on the Town's green programs and future direction was held at Town Hall. After a presentation by staff and general question period, the participants selected the following Green Mission Statement:

"To protect and improve the Town's built and natural environment through the use of land in a manner that enhances existing neighborhoods, conserves resources, ensures the availability of public facilities and services, and realized the community's vision for its future."

The workshop discussion also focused on four (4) primary sustainability objectives as presented below.



GOAL #1: AN ENVIRONMENTALLY SUSTAINABLE COMMUNITY

As a Town, we will work to reduce and eventually eliminate the contribution we make to unsustainable practices.

Goal #1 Objectives

- 1. Reduce the Town's carbon footprint by encouraging local shopping for local products.
- 2. Reduce vehicle miles travelled through alternative mechanisms.
- 3. Promote land use patterns that reduce automobile dependence.
- 4. Encourage Farmer's Market.
- 5. Create 'sense of place' at Town Center Plaza.
- 6. Increase walkability and pedestrian signage.
- 7. Increase service level of transit circulator.
- 8. Increase tree canopy along sidewalks and bikeways.
- 9. Create 'dual purpose' bus shelters.
- 10. Create a trail map.
- 11. Economic incentives for small businesses.
- 12. Seek the FGBC 'Gold' level certification for the Town in 2021.

GOAL #2: INCREASE KNOWLEDGE AND SKILLS OF THE COMMUNITY

Increase opportunities for the community to learn about and participate in decision making processes regarding climate change.

Goal #2 Objectives

Town of Cutler Bay January 2018

- 1. Create an incentive for residents and businesses through an Environmental Award program sponsored by the Town.
- 2. Continue to provide meaningful and attractive green incentives for the private development sector.
- 3. Partner with local businesses to host environmentally friendly events to promote community education and involvement.
- 4. Continue to support public education and outreach programs addressing energy efficiency, water conservation, solid waste reduction and recycling, landscaping, air quality and greenhouse gas reduction.
- 5. Establish a database of priority green projects.
- 6. Train residents in native plants.
- 7. Permit rain barrels.
- 8. Maintain and increase community gardens.
- 9. Engage in partnerships with schools such as the COAST Program.
- 10. Encourage school gardens and competitions.

GOAL #3: PROMOTE ALTERNATIVE MODES OF TRANSPORTATION

As a Town, we will change the way people and goods move.

Goal #3 Objectives

- Enhance and expand public transportation services including MetroBus and the Town Circulator.
- 2. Create a better environment for bicycling such as more bike lanes and a bike sharing program.
- 3. Make Cutler Bay more walkable.
- 4. Encourage ridesharing.
- 5. Provide for golf cart parking and charging stations.
- 6. Add bus shelters and improve them to be more weather-resistant and night-lighted (solar).
- Provide incentives for bicycle usage, businesses and schools.



GOAL #4: INCREASE PARTNERSHIPS

Goal #4 Objectives

- 1. Provide local business incentives for green initiatives.
- 2. Investigate research partnerships with local universities.
- 3. Investigate partnership opportunities with Miami-Dade Transit, Miami-Dade Parks & Recreation (eco-tourism), and Miami-Dade Public Schools (environmental weekend classes).
- 4. Work with the local Florida State Agricultural Extension office.
- 5. Take action to reduce Styrofoam and plastics in the community.
- 6. Highlight green businesses in local newspapers.
- 7. Work with HOA's to promote use of electric vehicles for security, water conservation and Florida-friendly landscaping.
- 8. Consider producing biodegradable/reusable Town bags.

These ideas from the public involvement process will be a very useful input to the preparation of the Five-Year Green Improvement Program presented in the final section of this plan.

V. Potential New Green Activities

Thus far we have concentrated on the green goals, objectives, policies and activities currently implemented by the Town. In this section, we'll turn our attention to the future. What new green activities does Cutler Bay want to undertake in addition to the existing green activities discussed previously in this plan? This is a very important question which can be answered by analyzing a number of Town "green" policy and activity sources and continuing to utilize the 16 Green Community Elements as an organizing tool.

The plans reviewed to identify and organize all of the existing green activities in Section III are also important sources for new green activities proposed in this section. Just to reiterate, these documents were:

Growth Management Plan (GMP)
Strategic Master Plan (SMP)
Land Development Regulations (LDRs)
Floodplain Mitigation Master Plan (FMMP)
Complete Streets Corridors Analysis (CSCA)
Bicycle and Pedestrian Master Plan (BPMP)
Street Tree Master Plan (STMP)
Parks Master Plan (PMP)
Transportation Master Plan (TMP)
Stormwater Master Plan (SWMP)

Since the Town's goal is the achieve the "Gold" level in the next Florida Green Building Coalition (FGBC) re-certification in 2021, the FGBC Guide was the primary source for new green activities and programs in this section and for the Five-Year Green Improvement Program (GIP) in the next section. The Guide lists well over 1,000 green activities local governments can undertake to qualify for certification. The Town's 2016 FGBC re-certification application contained 66 activities which were implemented by Cutler Bay and achieved 95 points to retain the 'Silver' ranking. There are also a number of opportunities in the Reference Guide to earn additional points by taking existing green activities and doing more. For example, if the Town now has 30% of its land landscaped according to Florida-Friendly Landscape principles, it could increase the level in the future up to 60%, or even 100%, and earn additional points.

To attain the 'Gold' level, the Town will need to earn a minimum of 154 total points in the 2021 recertification process. Assuming Cutler Bay continues to implement the 66 activities and 95 points

Town of Cutler Bay January 2018 certified previously by FGBC through 2021, a minimum of 59 new green points will be needed to reach the Gold level. To ensure the Gold level is achieved, it is recommended that at least 70 new green points be included in the approved Five-Year Green Improvement Program.

In addition, the February community workshop provides the most recent information regarding what green activities Town residents would like to see in the future to enhance community sustainability. Below is a summary of the green initiatives suggested at the workshop.

- * Encourage local shopping for local products
- * Reduce vehicle miles traveled
- * Encourage Farmer's Market
- * Increase community walkability
- * More transit frequency, routes and shelters
- * Increase tree canopy along streets, bikeways and sidewalks
- Seek "Gold" level FGBC certification in 2021.
- Create Town Environmental Award Program.
- * Green incentives for private sector
- * Partner with local businesses to host environmentally-friendly events.
- * Public education and outreach
- * Establish database of priority green projects
- * Permit rain barrels
- * Train residents in native and Florida-friendly plants
- * Increase community gardens
- * Better environment for bicycling
- * Provide golf cart parking and charging stations
- * Better, weather-resistant bus shelters
- * Take action to reduce Styrofoam and plastics in the community
- * Consider producing biodegradable/reusable Town bags.

After close examination and analysis of all the sources for potential new green activities summarized in this and other previous sections of this plan, the list of green activities below, organized according to the Town's 16 core Green Community Elements, has been developed for implementation by Cutler Bay over the next 5 years and beyond. Further implementation details for each activity are presented in the Five-Year Green Improvement Program in the next section.

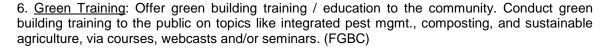
Element 1. Air Quality

1. <u>Control Airborne Dust & Nuisance Odors</u>: Develop standards in the LDRs to combat erosion, excessive dust from construction sites and cleared areas, and nuisance odors from industrial/business uses. (GMP)

Element 2. Community Education

- 1. <u>Educational Resources</u>: Make green building and educational resources available to the community. (FGBC)
- 2. <u>Green Signs</u>: Place informative signs for green features at parks and other public amenities. (FGBC)
- 3. <u>Water Conservation:</u> Conduct an educational campaign on water use reduction. (FGBC)
- 4. <u>Incentives</u>: Provide incentives for green education and include environmental education on the Town's website (SMP)





7. <u>Boater Education</u>: Host boater education classes, or post signs and provide materials in print or online. (FGBC)

Element 3. Energy Conservation and Renewables

- 1. Energy Reduction: Develop and implement an energy reduction plan. (FGBC)
- 2. <u>Energy Code Database</u>: Create and maintain a database of building energy code compliance. (FGBC)
- 3. <u>Energy Ratings</u>: Create & maintain database of green/energy ratings conducted on all buildings and developments in Cutler Bay. (FGBC)
- 4. Energy Star: Become a U.S. EPA Energy Star partner. (FGBC)
- 5. <u>LED Lights</u>: Develop a plan to use LED traffic lights. (FGBC)

Element 4. Environmental Resources

1. <u>Wetlands</u>: Advocate for wetlands protection through stringent Code wetland standards and purchase of Conservation-designated lands and provide for the enhancement existing protected wetlands. (FGBC)

Element 5. Green Buildings and Development



- 1. <u>LEED-certified Buildings</u>: Adopt a Code provision that all private buildings taller than 18 stories must be LEED-certified or achieve a similar certification (GMP)
- 2. <u>Green Affordable Housing</u>: Offer incentives for construction of green affordable housing. Adopt an ordinance with incentives include tax, permitting or other incentives equal to at least \$300/housing unit. Provide higher incentives for green affordable housing that is also "location efficient." (FGBC)



Element 6. Green Town Government

- 1. <u>Mission Statement</u>: Write and adopt an environmental mission statement as an amendment to the Growth Management Plan. (FGBC)
- 2. <u>Renewable Energy</u>: Utilize renewable energy systems like solar panels in Town buildings. (FGBC)
- 3. Free Green Products: Offer free or discounted green products to the public. (FGBC)
- 4. <u>Green Awards</u>: Conduct an annual Green Building Awards Program for residential and commercial projects. (FGBC)
- 5. <u>Get the Word Out</u>: Publicize the Town's green programs and projects via various media like website, brochures and community seminars. (FGBC)
- 6. Green Vehicle Fleet: Maintain the Town's fleet using green best management practices. (FGBC)
- 7. <u>Staff Training</u>: Permit Town staff and officials to complete green building training courses on an annual basis. (FGBC)
- 8. <u>Audubon Community</u>: Become a Audubon Sustainable Community. (FGBC)
- 9. <u>Sustainable Indicators</u>: Develop and utilize a system of community indicators which allow the Town to track its progress in enhancing sustainability and make Growth Management Plan adjustments in the future. (FGBC)
- 10. <u>Employee Incentives</u>: Develop an incentive program for employee environmental innovation.(FGBC)



- 11. <u>Greenhouse Gases</u>: Conduct a Greenhouse Gas Emissions study of Town operations and facilities by 2020 and amend the GMP to reflect the study's greenhouse gas reduction goals. (GMP)
- 12. <u>Environmental Report</u>: Require an environmental report, including impact on threatened or endangered species, for all potential development sites. (GMP)

- 13. <u>Local Business Certification</u>: Create or promote local green business certification program. Implement program to provide recognition to local businesses that utilize green building principles. (FGBC)
- 14. <u>Integrated Pest Management (IPM):</u> Implement an IPM system at all Town buildings, landscapes and other facilities. (FGBC)

Element 7. Groundwater Quality and Quantity

1. <u>National Groundwater Program</u>: Become a partner in the National Groundwater Guardian Program. (FGBC)

Element 8. Hazardous Materials

1. <u>Pool Chemicals</u>: Minimize, and/or eliminate, chlorine in community (Town) swimming pools. (FGBC)

Element 9. Landscape and Wildlife

- 1. <u>Florida-friendly Landscape</u>: Amend the Town's Landscape regulations to incorporate 'Florida-friendly' landscape standards for new construction. (FGBC)
- 2. <u>Florida-friendly Landscape Town</u>: Enact Florida-friendly landscape (FFL) requirements and install FFL on Town parks and other properties. (FGBC)
- 3. Invasive Plants: Implement an invasive plant species removal plan for Town properties. (FGBC)
- 4. <u>Tree Canopy</u>: Adopt Code provisions requiring new development to contribute significantly to increasing the tree canopy. (GMP)
- 5. <u>Street Trees</u>: The City should continue to plant an average of 125 street trees on an annual basis over the next 10 years to reach its goal, set in 2005, of 6,700 new trees. (STMP)
- 6. <u>Streetscape Program Livable Communities Program</u>: Continue to evaluate main corridor rights-of-way and implement street scape programs, including street trees, benches, trash cans, lighting, and other street furniture. (TMP)

Element 10. Land Use and Zoning

- 1. <u>Conservation Lands</u>: Use the Town's political influence and staff coordination to advocate for Miami-Dade County and/or the South Florida Water Management District to purchase all lands designated as Conservation on the Future Land Use Map. (GMP)
- 2. <u>LEED Neighborhoods</u>: Establish Leadership in Energy and Environmental Design (LEED) 'Neighborhood Green Standards' or similar criteria to use in reviewing subdivision and site plans. (GMP)



3. Florida Mainstreet: Achieve the State "Florida Mainstreet" designation. (FGBC)

Element 11. Local Agriculture

1. <u>Gardens</u>: Maintain the Town's current community garden, and establish a 2nd garden by 2019. (Public Input)

Element 12. Multi-modal Transportation

- 1. Alternative Commuting: Provide alternative commuting incentives to Town employees. (FGBC)
- 2. <u>Alternative Fuels</u>: Utilize alternative fuels for the Town vehicle fleet. (FGBC)
- 3. <u>Bicycle-sharing</u>: Conduct a feasibility study for a bicycle-sharing program. (FGBC & Public Input)
- 4. <u>Bicycles on Transit</u>: Accommodate bicycles on the Town Circulator. (FGBC)
- 5. <u>Van & Car Pools</u>: Provide vanpool and carpool assistance to Town employees and community at large. (FGBC)
- 6. <u>Connections to Transit</u>: Improve bicycle and pedestrian connections to the Town Circulator and Miami-Dade County transit system. (FGBC)
- 7. <u>Alternative Fueling Stations</u>: Provide alternative fueling stations for Town vehicles such as for electric charging. (FGBC)
- 8. <u>Circulator Service Plan</u>: Prepare a Master Plan for the Transit Circulator to maximize current services, plan future service expansions, improve ADA compliance at bus stops and interconnect with neighboring jurisdictions and Miami-Dade Transit. (SMP and TMP)
- 9. <u>Bike Lanes</u>: Create dedicated bike lanes on SW 87th Avenue and other arterial roadways, and around schools, shopping districts and other popular destinations; also expand the bike lanes along Caribbean Blvd. (SMP)

- 10. <u>Complete Streets</u>: Plan and implement Complete Streets designs for SW 87th Avenue, Franjo Road / SW 97th Avenue, Gulfstream Road and Marlin Road. (CSCA)
- 11. Complete Streets/Connections: Create and adopt specific and consistent guidelines for streets to accommodate all modes of travel. (TMP)
- 12. <u>Bicycle & Pedestrian Facilities</u>: Plan and install pedestrian and bicycle improvements to SW 216th Street, Marlin Road, SW 186th Street, SW 184th Street, SW 97th Avenue, Franjo Road, Old Cutler Road and Caribbean Boulevard. (BPMP)
- 13. <u>Bicycling/Pedestrian Data:</u> Develop technology and applications to collect real-time bicycling data for bicycle and pedestrian transportation planning. (TMP)



- 14. <u>Bicycle Projects:</u> Install bicycle lanes and shared use paths in Cutler Bay Gulfstream Road, SW 216th St between SW 87th Avenue and Old Cutler Road to South Dade Trail, SW 97th Ave. between SW 216th Street and SW 212th Street, from Performing Arts Center to Black Creek Trail. (TMP)
- 15. <u>Golf Carts</u>: Provide golf cart parking and charging stations at parks and other public facilities. (Public Input)
- 16. <u>Golf Carts on County Roads:</u> Examine feasibility of being able to utilize golf carts on County roads; may need reexamination of Town Ordinance 10-03. (Public Input)
- 17. <u>Bicycle/Pedestrian Committee:</u> Implement a Bicycle/Pedestrian Committee, to meet on a quarterly basis. (TMP)
- 18. <u>Shared Parking:</u> Designate locations close to commercial areas and near the Busway and Circulator stops and build/install shared parking with pedestrian connections to local businesses. (TMP)
- 19. <u>US-1 Corridor Transit:</u> Install necessary crossing points and pedestrian pathways from major generators to transit points. (TMP)
- 20. Park and Ride: Prepare a Park and Ride feasibility study for the US-1 Busway. (TMP)
- 21. <u>Sidewalks to Town Hall:</u> Build multiple sidewalk connections to Town Hall from the rest of the network; provide landscaping along path. (TMP)

Element 13. Parks and Open Green Space

1. <u>Parks Master Plan</u>: Continue to build and improve the Town's parks below pursuant to the Master Plan:

- * Bel Aire Park
- * Cutler Ridge Park
- * Franjo Park
- * Lakes By The Bay Park
- * Lincoln City Park
- * Saga Bay Park
- * Saga Lake Park
- * Whispering Pines Park. (PMP)

Element 14. Surface Water Quality and Quantity



- 1. <u>Heat Islands & Runoff:</u> Minimize the heat island effect and untreated stormwater runoff from paved surfaces at recreational sites. (FGBC)
- 2. <u>Stormwater Master Plan:</u> Update the Stormwater Master Plan (circa 2008) to ensure that private development and public infrastructure projects maintain surface water quantity and quality standards, and sustainable retention requirements to recharge the aquifer (GMP)
- 3. <u>Adaptation Action Areas</u>: Collaborate with the South Florida Water Management District to develop strategies for the Adaptation Action Areas identified in the Climate Change Element east of Old Cutler Road including increasing the minimum required base flood finished floor elevation of all new structures by one (1) additional foot. (GMP)
- 4. <u>Drainage Swales and Trenches:</u> All swales and exfiltration trench systems on Town rights-of-way and easements will be inspected twice/year for signs of deterioration. Any problems identified will be addressed. (SWMP)
- 5. <u>Street Sweeping and Litter Control</u>. Continue to implement street sweeping and litter control programs recommended to reduce the amount of sediment, debris and pollutants entering the stormwater management system. (SWMP)
- 6. <u>Impervious Surfaces</u>: Maintain or reduce net impervious surface area through zoning decisions. Adopt ordinance prohibiting rezoning or variances that will increase impervious surface via new or renovated parking lots. (FGBC)

Element 15. Waste Reduction, Recycling and Reuse

- 1. Waste Reduction: Develop a solid/hazardous waste reduction plan. (FGBC)
- 2. Waste Wise: Become a U.S. EPA waste wise partner. (FGBC)
- 3. Commercial Waste Reduction: Promote waste reduction strategies to local businesses. (FGBC)
- 4. Encourage Recycling: Encourage residents and businesses to recycle solid waste. (GMP)
- 5. <u>Plastic Bag Ban</u>: Consider a ban on the use of all plastic bags in all commercial establishments; reduce the use of Styrofoam and plastics. (Public Input)

Element 16. Water Conservation and Quality

- 1. <u>Water Use Reduction</u>: Prepare and implement a water use reduction plan. (FGBC)
- 2. <u>Car Washes</u>: Adopt water-efficient car wash standards. (FGBC)
- 3. <u>Water Re-use and Rainwater Harvesting</u>: Encourage gray water use in appropriate locations, and rainwater collection using cisterns and/or rain barrels; encourage reuse of a/c condensate. (FGBC)



- 4. <u>Educational Materials</u>: Make water conservation booklets and brochures at Town Hall, parks and other Town facilities, and make content available on the website. (FGBC)
- 5. <u>Water Efficient Buildings</u>: Revise the Code to require use of high water efficiency toilets, showerheads, faucets, clothes washers and dishwashers that are Energy Star rated and WaterSense certified in all new and redeveloped residential projects (GMP)

VI. Five-Year Green Improvement Program (GIP): 2018-2022

This section addresses the implementation component of the green master planning process. The preparation and analysis that has preceded this section will not be useful unless the Green Improvement Program below is well-established with green projects, policies and activities desired by the Town and is aggressively carried out on a quarterly and annual basis. As mentioned earlier, a major green goal of the Town is to achieve the "Gold" level in the 2021 Florida Green Building Coalition (FGBC) re-certification application process. Assuming the Cutler Bay continues to implement the 66 activities and 95 points certified by FGBC in 2016, a minimum of 59 new green points will be needed to reach the Gold level. To ensure the Gold level is achieved, it is recommended that at least 70 new green points be submitted to FGBC in 2021. The GIP below contains a total of 48 new green activities selected from the FGBC Reference Guide which total 123 new potential points if they are all fully implemented.

Green Activity	Source / FGBC Points	Implementation Guidelines	Responsible Department	Completion Date
Air Quality				
Control Airborne Dust and Nuisance Odors	GMP	Develop standards in the LDRs to combat erosion, excessive dust from construction sites and cleared areas, and nuisance odors from industrial/business uses.	CD/PW	2019-20
Community Education				
2. Educational Resources	FGBC / 1	Make green building and educational resources available to the community.	PW	2018-22
3. Green Features Signs	FGBC / 1	Place signs at parks explaining benefits of green features, and/or put information at central location in each park	PK	2018-19
4. Water Use Reduction Campaign	FGBC / 1-2	Team with agricultural extension service on a water conservation educational program; offer materials online	PW	2019-2022
5. Green Education Incentives	SMP	Provide incentives for green education and include environmental education on the Town's website. (Strategic Plan)	PW/TM	2021-22
6. Student Education	FMMP	Promote an Enviro-Scape model to elementary school students. (Floodplain Mitigation Plan)	PW	2020-21

7. Green Building Training & Education	FGBC / 1	Conduct green building training to the public on topics like integrated pest mgmt., composting, sustainable agriculture, via courses, webcasts and/or seminars	PW/PK	2019-20
8. Boater education	FGBC / 1	Host boater education classes, or post signs and provide materials in print or online	TM	2020-21
Green Activity	Source / FGBC Points	Implementation Guidelines	Responsible Department	Completion Date
Energy Conservation & Renewables				
9. Energy Reduction Plan	FGBC / 1	Analyze energy use; develop & implement plan to reduce energy at least 10% in 5 years	TM	2018-19
10. Energy Code Database	FGBC / 1-10	Require submission for all planned buildings in Town of energy code calculations, rating certification and qualified program; input into electronic database	CD	2018-19
11. Energy Star Partner	FGBC / 1	Promote energy efficiency by submitting application and becoming a US EPA Energy Start ally.	TM	2018-19
12. LED Traffic Lights	FGBC / 1	Develop plan to replace conventional traffic & streetlights with energy efficient sources such as LED or induction lighting	PW	2019-22
Environmental Resources				
13. Wetlands Protection	FGBC / 1	Advocate for wetlands protection through stringent Code wetland standards and purchase of Conservation-designated lands and provide for enhancement of existing wetlands.	CD	2018-22
14. Conservation Lands	GMP	Strongly advocate before county and regional public agencies for the purchase and protection of all lands designated as Conservation on the Future Land Use Map	TM	2018-22
Green Buildings & Development				
15. LEED-certified Buildings	GMP	Adopt a Code provision that all private buildings taller than 18 stories must be LEED-certified or achieve a similar certification	CD	2019-20
16. LEED Neighborhoods	GMP	Establish LEED 'Neighborhood Green Standards' or similar criteria to use in reviewing subdivision and site plans.	CD	2020-21
17. Incentives for green affordable housing	FGBC / 1	Adopt ordinance. Incentives include tax, permitting or other incentives equal to at least \$300/housing unit	CD	2019-20
18. Incentives for "location efficient" affordable housing	FGBC / 1	Adopt ordinance. Incentives include tax, permitting or other incentives equal to at least \$300/housing unit	CD	2019-20
Green Town Government				
19. Environmental Mission Statement	FGBC / 2-5	Prepare and adopt statement by ordinance as a Growth Management Plan amendment	CD	2019-20
20. Renewable Energy Systems	FGBC / 1-5	Use renewable energy like solar water heaters and photovoltaic systems on Town buildings	TM	2020-21

21. Free or Discounted Green Products	FGBC / 1-6	Offer free/discounted products such as compost bins, native plant seedlings, eco-friendly pesticides & rain barrels	PW	2018-19
22. Green Building Awards Program	FGBC / 1	Plan and implement green building awards program at least annually	TM/CD	2019-20
Green Activity	Source / FGBC Points	Implementation Guidelines	Responsible Department	Completion Date
23. Town's Green Program and Projects	FGBC / 1	Through website, printed material, TV/radio commercials or other outlet, create & distribute publicity for Town's green building program/projects	TM/CD	2018-19
24. Maintain Green Vehicular Fleet	FGBC / 1-3	Incorporate at least 75% of applicable BMPs in the FL Green Local Gov Standard Fleet Mgmt & Vehicle Maintenance Module into CB police and adm fleets	PW / Miami- Dade PD	2019-20
25. Staff Training in Green Programs	FGBC / 1-5	Example programs include environmentally preferable purchasing, solid/hazardous waste mgmt. & recycling, and green mgmt. (1 point/program)	TM	2019-20
26. Green Building Training	FGBC / 1	Must document at least 4 hours of CEU approved green building courses twice/year	TM	2018-19
27. Green Industry BMP Training	FGBC / 1-2	Complete Green Industry BMPs training. Apply GI-BMP standards and integrated pest mgmt. to Town amenities	PW/PK	2021-22
28. Audubon Sustainable Community	FGBC / 1	Participate in Audubon's International Sustainable Community Program	PW	2020-22
29. Sustainable Community Indicators	FGBC / 1	Develop & maintain system of at least 10 indicators related to green building. Ex: vehicle mile traveled/day; bike/pedestrian network coverage	CD	2020-21
30. Incentives for Environmental Innovation	FGBC / 1	Create a mechanism so employees can make suggestions to enhance environmental performance of Town functions, along with awards and incentives	TM	2019-20
31. Greenhouse Gas Emissions Study	GMP	Conduct a Greenhouse Gas Emissions study of Town operations and amend the GMP to reflect the study's greenhouse gas reduction goals	CD	2019-21
32. LEED or FGBC certified Town buildings	FGBC / 1-10	Build and/or renovate Town buildings to be green certified	TM	2020-21
33. Environmental Report	GMP	Require an environmental report, including impact on threatened or endangered species, for all potential development sites	CD	2018-19
34. Green Business Certification Program	FGBC / 1	Implement program to provide recognition to local businesses that utilize green building principals	CD	2019-20
35. Integrated Pest Management (IPM)	FGBC / 1	Implement an IPM system at all Town buildings, landscapes and other facilities	TM	2019-20

35. Commuting Incentives	FGBC / 1-2	Examples include free/discounted transit passes, preferred	TM	2018-19
		carpool parking and/or bonus for employees biking to work.		
36. Alternative fueling station	FGBC / 1	Operate and maintain alternative fueling station	TM	2021-22

Green Activity	Source / FGBC Points	Implementation Guidelines	Responsible Department	Completion Date
37. Alternative Fuels	FGBC / 1-2	Operate & maintain a fleet running on alternative fuel such as CNG and/or biodiesel	TM	2021-22
Groundwater Quality and Quantity				
38. National Groundwater Partner	FGBC / 1	Become a partner in national groundwater guardian program.	PW	2019-20
Hazardous Materials				
39. Swimming Pool Chemicals	FGBC / 1	Employ alternative technologies in pool maintenance and minimize/eliminate use of chlorine	PK	2018-19
Landscape & Wildlife				
40. Florida-friendly Landscape Code	FGBC / 1-4	Prepare and adopt revised Landscape Code incorporating FDEP's Landscape Irrigation and FL-friendly Design Standards	CD	2019-20
41. Florida–friendly landscaping (FFL)	FGBC / 1-7	Adopt resolution to use only FFL practices and remove invasive species in all Town parks and other properties; install FFL on all Town properties	PW	2018-22
42. Invasive Species Removal plan	FGBC / 1	Develop and implement invasive species removal plan on Town lands	PW	2019-20
43.Tree Canopy	GMP	Adopt provisions requiring new development to contribute significantly to increasing the tree canopy in the Town	CD	2020-21
44. Street Trees	STMP	Plant an average of 125 street trees on an annual basis over the next 5 years	PW	2018-22
45. Livable Communities Streetscape Program	TMP	Continue to evaluate main corridor rights-of-way and implement streetscape programs, including street trees, benches, trash cans, lighting, and other street furniture	PW	2018-22
Land Use & Zoning				
46. Florida Main Street Designation	FGBC / 1	Undertake application process and actions necessary to designate US1, Old Cutler or other roadway in CB as a FL Main Street	TM/PW	2019-20
Local Agriculture				
47. Community Gardens	PI	Continue to maintain the current Town community organic garden and establish a 2 nd garden	PW	2019-2020
Multi-Modal Transportation				
48. Bicycle Sharing Program	FGBC / 1	Operate a free bicycle-sharing program for selected areas	PW	2019-20
49. Bicycles on Transit	FGBC / 1	Ensure public transit fleet can store bicycles onboard	PW / MDT	2018-19
50. Carpool/Vanpool Assistance	FGBC / 1	Provide a service that facilities ride sharing within the Town.	PW / MDT	2020-21
51. Transit, Bicycle and Pedestrian Connections	FGBC / 1-2	Analyze transit system to determine connectivity needs and make plan; submit examples of plan accomplishments	PW / MDT	2019-21

Green Activity	Source / FGBC Points	Implementation Guidelines	Responsible Department	Completion Date
52. Town Circulator Service Plan	SMP & TMP	Prepare Circulator Service Plan to maximize current services, plan expansions, improve ADA compliance and connect with neighboring jurisdictions and MDC Transit	PW	2019-20
53. Dedicated Bike Lanes	SMP	Create bike lanes on SW 87 th Avenue and other arterial roadways, and around schools, shopping areas and other destinations; expand Caribbean Blvd. bike lanes	PW	2019-22
54. Complete Street Projects	CSCA	Plan and implement Complete Streets designs for SW 87 th Avenue, Franjo Road / SW 97 th Avenue, Gulfstream Road and Marlin Road.	PW	2018-22
55.Complete Street Guidelines	TMP	Create / a specific and consistent guidelines in Town Code for streets to accommodate all modes of travel	PW/CD	2018-22
56. Pedestrian & Bicycle Facilities	BPMP and TMP	Plan / install pedestrian and bicycle improvements on SW 216 th St, Marlin Rd, SW 186 th St, SW 184 th St, SW 97 th Av, Franjo Rd, Old Cutler Rd, Gulfstream Rd, and Caribbean Blvd.	PW	2018-22
57. Bicycling & Pedestrian Data	TMP	Develop technology and applications to collect real-time data for bicycle and pedestrian transportation planning	PW	2019-21
58. Dedicated Bike Lanes	SMP	Create bike lanes on SW 87 th Avenue and other arterial roadways, and around schools, shopping areas and other destinations; expand Caribbean Blvd. bike lanes	PW	2019-22
59. Golf Cart Parking	PI	Provide cart parking / charging stations at Town facilities	TM	2019-22
60. Golf Carts on County Roads	TMP	Examine feasibility of utilizing golf carts on County roads; may need reexamination of Town Ordinance 10-03.	TM/PW	2020-21
61. Bicycle/Pedestrian Committee	TMP	Establish a Bicycle/Pedestrian Committee, to meet on a quarterly basis	PW	2018-19
62. Shared Parking	TMP	Designate locations close to commercial areas and near the Busway and Circulator stops and build/install shared parking with pedestrian connections to local businesses	PW	2020-22
63. US 1 Corridor Transit	TMP	Install necessary crossing points and pedestrian pathways from major generators to transit points	PW	2020-22
64. Park and Ride Study	TMP	Prepare a Park And Ride feasibility study for the US-1 Busway	PW / MDT	2019-20

Green Activity	Source / FGBC Points	Implementation Guidelines	Responsible Department	Completion Date
65. Sidewalks to Town Hall	TMP	Build multiple sidewalk connections to Town Hall from the rest of the network; provide landscaping along path	PW	2019-22
Parks & Open Green Space				
66. Park Improvements	PMP	Continue to implement the planned parks improvement projects recommended by the Parks Plan	PK	2018-2022
Surface Water Quality & Quantity				
67. Heat Island Effect and Water Runoff	FGBC / 1	Choose pervious and/or reflective materials for parking lots, walkways, etc. and utilize tree canopy at parks and other Town facilities	TM	2019-20
68. Stormwater Master Plan Update	GMP	Update the Stormwater Master Plan to ensure that private development and public infrastructure projects maintain surface water quantity and quality standards, and sustainable retention requirements to recharge the aquifer	PW	2019-20
69. Adaptation Action Areas (AAAs)	GMP	Collaborate with the South Florida Water Management District to develop strategies for the AAAs identified in the Climate Change Element, east of Old Cutler	PW	2020-22
70. Drainage System Maintenance	SMP	All swales and exfiltration trench systems on Town rights-of- way inspected twice/year for deterioration & any problems addressed	PW	2018-22
71. Street Sweeping & Litter Control	SWMP	Continue to implement street sweeping and little control programs to reduce amount of sediment, debris and pollutants entering stormwater system.	PW	2018-22
72. Impervious Surface Area Reduction	FGBC / 1	Adopt ordinance prohibiting rezoning or variances that will increase impervious surface via new or renovated parking lots	CD	2019-20
Waste Reduction, Recycling & Reuse				
73. Solid / Hazardous Waste Reduction Plan	FGBC / 1	Develop & implement plan to reduce solid & hazardous generation at least 10% in 5 years	PW / Miami- Dade PW	2018-19
74. EPA Waste Wise Partner	FGBC / 1	Become official partner in EPA waste wise program	PW/MDWASD	2018-19
75. Waste Reduction Strategies	FGBC / 1	Provide education and outreach on solid waste reduction approaches to local community & businesses	PW/MDWASD	2020-22
76. Waste Recycling	GMP	Encourage residents and businesses to recycle solid waste	PW/MDWASD	2019-22
77. Plastic Bag Ban	PI	Consider a ban on the use of all plastic bags in all commercial establishments; reduce the use of Styrofoam and plastics.	ТМ	2018-19

Green Activity	Source / FGBC Points	Implementation Guidelines	Responsible Department	Completion Date
Water Conservation & Quality				
78. Water Reduction Plan	FGBC / 1	Analyze water use; develop & implement plan to reduce water usage at least 10% in 5 years	TM	2018-19
79. Car Wash Standards	FGBC / 1	Adopt ordinance to require all new car washes (self-serve and automatic) to utilize BMPs required by State Law 62-660, 803	CD	2018-19
80. Gray Water and Rainwater Harvesting	FGBC / 1	Encourage gray water use in appropriate locations, and rainwater collection using cisterns and/or rain barrels; encourage reuse of a/c condensate.	PW/MDWASD	2020-21
81. Water Efficient Buildings	GMP	Revise the Code to require use of high water efficiency toilets, showerheads, faucets, clothes washers and dishwashers that are Energy Star rated and WaterSense certified in all new and redeveloped residential projects	CD	2019-20

Table Key:

TM: Town Manager

PW: Public Works Department

CD: Community Development Department

PK: Parks Department PD: Police Department MDT: Miami Dade Transit

MDWASD: Miami-Dade Water and Sewer Department

GMP: Growth Management Plan FGBC: Florida Green Building Coalition

LDRs: Cutler Bay Land Development Regulations LEED: Leadership in Energy & Environmental Design

BPMP: Bicycle and Pedestrian Master Plan FMMP: Floodplain Mitigation Master Plan PMP: Parks Master Plan

SWMP: Stormwater Management Plan

STMP: Street Tree Master Plan TMP: Transportation Master Plan

PI: Public Input

Cutler Bay Green Master Plan 2018 - 2022

Taking Community Sustainability to the Next Level

