



Miami Shores Comprehensive Plan Resiliency, Sustainability and Climate Change Element Proposal

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Prepared by Miami Shores Village Sustainability and Resiliency Committee

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1 Introduction

In 2020, the MSV Village Council adopted an ordinance establishing the Miami Shores Village Sustainability and Resiliency Committee ("SRC") "for the purpose of providing technical assistance and advice to the Miami Shores Village Council as to mitigation and adaptation measures to respond to global warming/climate change." Village Code of Ordinances, Part II, Chapter 2, Article XI., Sec. 2-145.

The primary responsibility of the SRC is to advise the village council as to strategies and policies with respect to adaptation measures which may be taken in response to the challenge of global warming/climate change in light of the Village's Environmental Vulnerability Study. Village Code of Ordinances, Part II, Chapter 2, Article XI., Sec. 2-146.

The duties and functions of the SRC include "[d]evelop[ing] reasonable climate change mitigation proposals for village council consideration that help to inform and prioritize the tasks and decisions in the core areas of budgeting, planning and zoning, and strategic planning[...]."

Since the Village is currently in the Evaluation, Appraisal and Review process for the Comprehensive Plan, in furtherance of the duties and functions of the committee, the SRC is advocating for the inclusion of a new element to the Comprehensive Plan which address issues of resiliency, sustainability and climate change.

The SRC has determined that this element of the Comprehensive Plan is necessary to ensure that MSV prioritizes climate change adaptation and mitigation efforts in its planning and decision-making related to future land development, transportation, and infrastructure. To that end, the SRC presents this white paper as guidance and assistance to the Village Council in drafting of language for this proposed element.

2 Comprehensive Planning - Legal Framework

The comprehensive plan exists in the legal framework laid out in Florida Statutes Chapter 163.3177.

2.1 Contents of the Comprehensive Plan

Florida Statutes §163.3177 (1) provides that,

*"The comprehensive plan shall provide the **principles, guidelines, standards, and strategies** for the orderly and balanced future economic, social, physical, environmental, and fiscal development of the area that reflects community commitments to implement the plan and its elements. These principles and strategies shall guide future decisions in a consistent manner and **shall contain programs and activities to ensure comprehensive plans are implemented**. The sections of the comprehensive plan containing the principles and strategies, generally provided as goals, objectives, and policies, shall **describe how the local***

*government’s programs, activities, and land development regulations will be initiated, modified, or continued to implement the comprehensive plan in a consistent manner. It is not the intent of this part to require the inclusion of implementing regulations in the comprehensive plan but rather to **require identification of those programs, activities, and land development regulations** that will be part of the strategy for implementing the comprehensive plan and the principles that describe how the programs, activities, and land development regulations will be carried out. The plan shall establish **meaningful and predictable standards** for the use and development of land and provide meaningful guidelines for the content of more detailed land development and use regulations.”*

2.2 Data and analysisⁱ

Per §163.3177 (f), Fla. Stat., “[a]ll mandatory and optional elements of the comprehensive plan and plan amendments shall be based upon **relevant and appropriate data and an analysis** by the local government that may include, but not be limited to, surveys, studies, community goals and vision, and other data available at the time of adoption of the comprehensive plan or plan amendment.”

2.3 Required and Optional Elements for Comprehensive Plans in Florida

Florida Statutes requires that Comprehensive Plans contain mandatory elements. The mandatory elements that could potentially contain language addressing the RSCC issues include: land use, conservationⁱⁱ, infrastructure, coastal managementⁱⁱⁱ, interagency coordination, capital improvements. Climate Change, Sustainability and Resiliency are not required elements for comprehensive plans however many municipalities have incorporated into their comprehensive plans either as an independent element or within other elements of their plans. Miami Shores currently has language in the Conservation Element. Since the statute is silent as to this form of element, there is great variation across the municipalities that have opted to incorporate them.

The SRC proposes the creation of a new element entitled Resiliency, Sustainability, and Climate Change Element (“RSCC”) into the 2025 Comprehensive Plan.

3 Currently Available Data and Analysis

In order to prepare a new RSCC element, or language to incorporate into existing elements of the Village Comprehensive Plan, the SRC examined the following:

1. to the extent that it exists, the current language in the Plan which discusses the issues of resiliency, sustainability and climate change;
2. how other municipalities have addressed the issues in their own comprehensive plans; and,
3. available data and analysis which would serve as a basis for combination and expansion of the existing objectives and policies addressing climate change.

3.1 Existing Language

The current Comprehensive Plan incorporates relevant language into Objective 6 of the Conservation Element (Chapter 7) which addresses “climate change.”^{iv} This language provides a starting point for the creation of the new proposed RSCC Element.

The overall objective is stated as:

“Miami Shores will work to achieve a sustainable climate resilient community. The Village recognizes that individual effort is important, however, the issue goes beyond one municipality and will require a worldwide concerted effort to address climate change and its effects.”

The fourteen policies, some of which are compound, can be summarized as follows:

1. Coordination: to implement planning for climate change mitigation, resilience and adaptation [sic].
2. Participation in Southeast Florida Climate Change Compact
3. Reduction of GHG from government operations
4. Support and promote alternative and renewable energy across all property sectors (residential, commercial and municipal properties) by increasing [sic] regulatory incentives for energy installations
5. Program: alternative fuel and electric vehicle charging stations in public and private parking lots
6. Encourage green building
7. Consider raising roads as part of capital improvement planning
8. Reduction of GHG through incentives in the private realm
9. Promote use of bicycles by implementing recommendations of the Multimodal Mobility Study (2015)
10. Promote species diversity through planning to protect health and resiliency of natural systems
11. Promote planting of native and drought tolerant trees to sequester carbon (GHG reduction strategy)
12. Conduct a climate change study to assess vulnerability and develop a plan for hazard mitigation and climate adaptation to improve community S/R.
13. Utilize climate change study (Vulnerability Study) to develop policies, strategies and standards that will serve as guidance for CC related planning efforts.

14. Adopt a Climate Action Plan.

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Other components of the current Comprehensive Plan contain Objectives and Policies that further the goals of a RSCC element and could be referred to or incorporated by reference. For example, Chapter 7 Policy 1.2 states “The Village shall require new development to provide adequate means of vehicular ingress and egress to minimize idling time...” This policy supports a reduction in GHG and the overall goal of climate change mitigation.

Additionally, Chapter 6, the Coastal Management Element contains goals, objectives and policies which are relevant to resiliency, sustainability and climate change. The Goal of the Coastal Management Element is “Provide for the conservation of natural resources, the environmentally sound use of natural resources, the protection of human life and property, and the prompt re-establishment of economic and social viability following any natural disaster.”

Given that there is potential for overlap and redundancy, close attention should be paid by Staff while conducting the EAR on the remaining elements of the comprehensive plan to identify any relevant existing policies and ensure repetitiveness is avoided.

Alternatively, should the Village Council so choose, all relevant Goals, Objectives and Policies within the current comprehensive plan could be incorporated into one new element addressing all of these issues. This is the approach taken by the City of Miami Beach which will be discussed in the next section.

3.2 What have other municipalities done?

Although not required by statute, many municipalities in Miami-Dade County have added an element to their comprehensive plan addressing the issues of resiliency, sustainability and climate change.

Many municipalities have organized their elements according to the areas in which the specific objective relates, including transportation, the built environment, the natural systems, water resources. In addition, most if not all municipalities include an objective related to greenhouse gas emissions and interagency coordination.

The City of Miami Beach has taken significant steps within their comprehensive plan to address climate change and the issues facing their community. The CMB replaced their Coastal Management Element and Conservation Element entirely with a new element entitled “Climate Resiliency and Sustainability Element” The goals are as follows:

1. Resilient Development / Adaptation Action Area
2. Proactive Planning to increase resilience to sea level rise and weather related events
3. Protect and conserve natural and cultural resources

4. Promote energy efficient private and public development and infrastructure
5. Support sustainable and resilient city operations
6. Emergency preparedness
7. Post disaster planning

A change such as CMB would be a significant alteration to the Village's Comprehensive plan, however, given the already identified vulnerabilities of the Village, and desired intent of the current council to shift the focus of the Village toward protection from future risks, it may be an opportune time to consider such a change to the MSV comprehensive plan.

3.3 Other Data and Analysis

The SRC's recommended expansion of the existing Climate Change Objective and Policies in the Plan, is supported by already existing data and analysis. To date, the available data and analysis has been identified as:

1. Village Code of Ordinances, Part II, Chapter 2, Article XI. Establishing the Sustainability and Resiliency Committee
2. Strategic Management Plan
3. Sustainability Miami Shores Initiatives/Race to Zero
4. Vulnerability Study
5. Multimodal Mobility Study
6. Stormwater Rate Study
7. Back Bay Study
8. Age Friendly Action Plan
9. Village Zoning Code

These relevant and most salient parts of these documents and studies will be summarized below.

3.3.1 Village Code of Ordinances, Part II, Chapter 2, Article XI, Establishing the Sustainability and Resiliency Committee

The primary responsibility of the SRC is to advise the village council as to strategies and policies with respect to adaptation measures which may be taken in response to the challenge of global warming/climate change in light of the Village's Environmental Vulnerability Study. The SRC shall have the following duties and functions:

- (1) Develop and annually update a proposed Miami Shores Village Sustainability Action Plan ("plan") for consideration by the village council. The plan shall be informed by the village's comprehensive plan, particularly the coastal management element and the conservation element.
- (2) Review village operations to identify reasonable immediate, mid-term and long-term recommendations for climate change mitigation towards becoming a carbon neutral municipality.
- (3) Develop reasonable climate change mitigation proposals for village council consideration that help to inform and prioritize the tasks and decisions in the core areas of budgeting, planning and zoning, and strategic planning. These proposals may be informed by the Village's Environmental Vulnerability Study.
- (4) Identify and, through the council, engage local, state, national and international resources and partner organizations in support of the Plan.
- (5) Provide recommendations to the village council on the adoption, prioritization and implementation of initiatives, actions, policies, and public outreach and education programs to support and promote all aspects of sustainability.
- (6) Identify ways in which the village can cooperate with energy utilities to help advance the village's renewable energy goals.
- (7) Identify ways the village can expand green infrastructure strategies to reduce energy demand.
- (8) Identify opportunities for the development of community-based renewable energy infrastructure.
- (9) Identify strategies to limit the impact of climate change informed by the regional climate action plan.
- (10) Explore ways in which to partner with other municipalities to further sustainability goals.

The actions and recommendations of the committee are advisory only and shall not be binding upon the village council nor the village.

3.3.2 The Strategic Management Plan

The Sustainability and Resiliency section of the Strategic Management Plan has set forth the following "Action Steps" "in order to minimize the known and perceived risks, fortify the Village's infrastructure, generate new data tracking systems, and create a more sustainable, climate-resilient community." There is a lot of overlap between these Steps and the existing language addressing climate change in the comprehensive plan.

1. Identify opportunities to refine and enhance policies and programs that allow for greater tree canopy that promotes better air quality, reduces heat island effect, and provides greater open space.

2. Establish official plant management policies and practices that provide education to encourage planting of additional native trees, proper tree care, and preservation of trees in public areas and along public rights of ways.
3. Promote Green Stormwater Infrastructure policy and additional tools to encourage low-impact development in private and public projects.
4. Pursue opportunities to reduce community-wide greenhouse gas emissions, address resiliency, and improve climate equity.
5. Improve the climate resiliency and energy-efficiency of new and existing Village-owned buildings and public infrastructure, and develop adaptation strategies for areas vulnerable to flooding and climate change-related impacts.
6. Work to identify public infrastructure at risk of damage due to sea-level rise and other climate vulnerabilities and incorporate its project priorities in the five-year capital improvement plan.
7. Make investments that will develop analysis and utilize Geographic Information Systems (GIS) and other mapping capabilities in order to identify areas of the Village vulnerable to sea-level rise, tidal flooding, and king tide and provide relevant and up-to-date information needed to make informed decisions.
8. Identify vacant or underutilized properties, and create innovative stormwater parks and conservation areas that can increase areas of percolation.
9. Pursue programs and funding opportunities designed to support the Village's efforts to create a more resilient and sustainable Miami Shores Village.
10. Promote climate-resilient construction practices that encourage energy-efficient weather-resistant development by establishing goals, objectives, and policies within the Village Comprehensive Plan with key development standards outlined within the zoning code.

The Strategic Management Plan also sets forth the following performance measures:

Data tracking: By 2023, the Village will conduct a city-wide tree canopy cover assessment and create a street tree management plan that identifies the locations that need additional planting.

Partnerships: The Village will continue to actively participate in the Southeast Florida Regional Climate Change Compact, and other climate-conscious partners in order to access cutting-edge research, data, and technical expertise while adequately leveraging its cadre of resources.

Funding: On an annual basis, the Village shall seek annual funding from the County Neat Streets program and other entities in order to develop and maintain an urban reforestation program, expand green infrastructure, reduce the heat island effect and seek to reduce our greenhouse gas emissions, with the goal of increasing tree canopy coverage across the Village.

Strengthen Regulatory Framework: In the next Comp Plan EAR update, the Village will include innovative climate-conscious policies that seek to improve the environment, bolster the local economy and improve the quality of life for the residents of Miami Shores Village.

3.3.3 Sustainability Miami Shores/Race to Zero Initiative

As an overarching program in terms of sustainability and resiliency efforts, the Village has a started the “Sustainable Miami Shores” initiative that provides a blueprint of the Village’s approach to implementing sustainability and resilience goals and initiatives outlined in the Strategic Management Plan.

A sustainable and resilient Miami Shores Village is a community that is able to prepare for, adapt to, and recover from future shocks and stresses (economic, environmental and social) while preserving a superb quality of life for generations to come.

The Village has joined the Race to Zero initiative. This initiative assists local governments to create a methodology and framework towards GHG reduction. It encourages participants to set goals and work toward achieving carbon neutrality. The Florida League of Cities and the ICLEI (International Council for Local Environmental Initiatives) provide technical assistance and support to the participants in collecting and tracking local GHGs to help influence sustainable policy development and practices at the local level.

At the end of the project, which is slated to be the end of 2023, the Village will:

1. Develop a baseline inventory of GHG emissions using the US Community Protocol;
2. Develop and adopt an GHG Reduction Action Plan; including a 2050 science-based target and identify policies and programs that will help get the community to reduce its GHG levels. The goal is to achieve carbon neutrality by 2050;
3. Prepare to expand climate action to include adaptation and resilience collectively (private-public efforts); and,
4. Prepare an evaluation and monitoring methodology for the action plan to reset the goals and policies.

The baseline inventory has been completed. The Miami Shores Village Communitywide GHG emissions report finds that in 2019 the Village emitted approximately 73,882.403 metric tons of CO₂. The sector that generated the most emissions is Transportation and Mobile Sources (42%) and Residential Energy Usage (29%). The next group of sectors evaluated are Commercial Energy Usage (17%), Solid Waste and Water & Wastewater energy usage (12%). This report sectors and its emissions will assist us to generate the GHG Reduction Action Plan.

3.3.4 Environmental Vulnerability Assessment Study

The environmental vulnerability study assesses the risk of coastal flooding as a result of extreme high tides, storm surge, and heavy rainfall on the built environment of Miami Shores Village, including residential areas and infrastructure. As sea level rises, flooding will become more widespread through the Village. The areas of flooding will extend to include more properties, and the higher water levels will cause more damage and take longer to recede.

The Study shows that parts of Miami Shores are highly vulnerable to coastal flooding. The Village is currently experiencing flooding due to the combined effects of sea level rise, high tides, storm surge, elevated ground water and heavy rainfall. These floods cause negative impacts to the Village, including damage to property and infrastructure, costs to mitigate the flooding, and impacts to the quality of life.

The Study also identified the key infrastructure components within the “at-risk” areas identified in the Vulnerability Analysis phase and evaluating appropriate adaptation strategies.

And finally, the study recommended Capital Projects for sea level rise adaptation Plan implementation.

In 2023, this study is to be revised and updated to incorporate latest statutorily requirements regarding Peril of Flood and coordination with the Village Comprehensive Plan.

3.3.5 Multimodal Mobility Study

A general transportation mobility analysis was conducted to build upon the existing bicycle and pedestrian mobility context within Miami Shores Village and identify opportunities through data analysis. The purpose of this task is to collect data that will allow the study team to properly assess the existing conditions of alternative travel modes in Miami Shores Village, and to analyze the bicycle and pedestrian infrastructure needs.

Several types of improvements were identified and are recommended based on the review of existing conditions, analysis of transportation plans and policies impacting the Village, feedback from the public, and a field review. The study supported and prioritized pedestrians and bicyclists within the area through the use of context sensitive solutions (CSS). Improvements include the following:

- 1 Bicycle Lanes,
- 2 Shared Lanes,
- 3 Neighborhood Greenways,
- 4 Shared Use Paths,
- 5 Barry University Trail,
- 6 Road Diet / Lane Reductions,
- 7 Flagler Trail
- 8 Crosswalks,
- 9 Rectangular Rapid Flashing Beacons (RRFB),
- 10 High-emphasis Intersections, and

3.3.6 Stormwater Rate Study

In 2019, the Village contracted a Stormwater Rate Study to evaluate the sufficiency of Stormwater revenues and the Rate design to ensure that the Stormwater Fund 10-year requirements would be met. Through this process, impervious area of the approximately 3,900 parcels throughout the Village were analyzed to determine the amount of stormwater runoff that would be attributable to each parcel.

3.3.7 Age-Friendly Action Plan

On January 20, 2016 the Village Council adopted resolution no. 16-10 supporting the World Health Organization’s Age-Friendly Cities and Communities Program and enrolled in the AARP Age Friendly Communities Initiative and in October 6, 2022, the Village Council discussed and adopted the 2022 Miami Shores Village Age-Friendly Action Plan. The Plan’s goal is to improve the quality of lives of older adults by creating an inclusive and accessible age friendly community. This is to be achieved through social programs, improvements to livability and infrastructure, and through support and collaboration with external agencies that pursue the well-being of older adults. The Action Plan focuses on livability options such as the creation of a Senior Center, Apartments, Health Services, Transportation, Safer Sidewalks.

3.3.8 The Village Zoning Code

The Village Zoning Code is one of the implementing tools that can be used to achieve goals, objectives and policies that have been adopted in the Comprehensive Plan and other action plans. This regulatory framework is in place to promote the safety, health and welfare of the Village. The Zoning Code is to be reviewed and updated to align with the latest initiatives including Race to Zero, Vulnerability study, Multimodal mobility study, and the Age Friendly Action Plan.

3.3.8.1 Current projects, programs and projects

Current projects:

Comprehensive Plan

Flood mitigation efforts - CRS Program rating

Partnerships:

Southeast Florida Regional Climate Compact

Florida League of Cities - Race to Zero

Neat streets – Planting initiative

Data collection – GIS mapping, emergency response

Mayor's Monarch pledge

3.3.8.2 Future Initiatives

Septic to Sewer

Parks Master Plan

Storm Water Master Plan

Tree City USA certification process

Tree protection and preservation ordinance

Pump stations (93rd Street, 105th Street)

Shores Estates septic to sewer conversion

Little River Adaptation Area Grant Partnership

C-8 canal improvements

NE 8th Ave drainage project

104 Street roadway improvements

Bayfront Park seawall

Green certified local government

4 Proposed Comprehensive Plan Goal, Objectives and Policies

GOAL: ACHIEVE A SUSTAINABLE, CLIMATE RESILIENT COMMUNITY BY PROMOTING GREENHOUSE GAS REDUCTION AND ENERGY EFFICIENCY STRATEGIES; PROTECTING AND ADAPTING PUBLIC AND PRIVATE DEVELOPMENT, NATURAL SYSTEMS AND RESOURCES FROM THE ONGOING ENVIRONMENTAL CHALLENGES RESULTING FROM CLIMATE CHANGE; AND CONTINUING TO COORDINATE AND COMMUNICATE LOCALLY AND REGIONALLY TO MONITOR AND ADDRESS THE CHANGING NEEDS AND CONDITIONS OF THE COMMUNITY.

Objective: The Village shall reduce greenhouse gas emissions and reduce the Village's contribution to global climate change.

Policy: Through its participation in the Race to Zero Initiative, by 2024 the Village shall develop a greenhouse gas emission reduction Action Plan which sets a 2050 science-based target and identify policies, programs and projects that will facilitate a community reduction of GHG levels with the ultimate goal of achieving carbon neutrality by 2050.

Policy: The Village shall encourage renovation and retrofits of existing structures over demolition and construction through its land development regulations.

Objective: Promote and implement energy efficient transportation infrastructure improvements, transportation plans and fleet management policies within the Village.

Policy: The Village shall promote the use of bicycles for transportation within and through the Village by implementing appropriate recommendations of the Miami Shores Village Multimodal Mobility Study, 2015.

Policy: The Village shall evaluate and update the Miami Shores Village Multimodal Mobility Study by 2025, including the potential of alternative modes of transportation such as on-demand car sharing and connection to local and regional alternative transportation systems.

Policy: The Village shall inventory Village sidewalks no later than 2025 and, based on the results of the inventory, consider the expansion of the sidewalk system to promote pedestrian usage and reduce reliance on vehicles.

Policy: The Village shall develop a program and seek funding for the installation of alternative fuel and electric vehicle charging stations in public parking lots and spaces.

Policy: Through its land development regulations, the Village shall develop and implement streamlined and expedited permitting processes for installation of alternative fuel and electric vehicle charging infrastructure on private property.

Policy: The Village shall conduct an analysis of the vehicle fleet every 5 years to ensure that vehicles are appropriately sized for safety, function and energy, carbon and fuel efficiency.

Policy: The Village shall prioritize the creation of an energy efficient and low emission vehicle fleet as a priority of the Village budget.

Objective: Improve the climate resiliency and energy-efficiency of new and existing buildings through promotion of energy efficient and climate-resilient construction practices.

Policy: By 2024, the Village shall develop and implement a green building ordinance which incentivizes new construction and building retrofits to meet or exceed Energy and Environmental Design Standards (LEED), Florida Green Building Coalition (FGBC) standards, or Green Building Globes rating Standards, and encourages the reduction of embodied carbon in the construction process.

Policy: Through its land development regulations, the Village shall incentivize and support private property adaptation and storm hardening efforts.

Policy: The Village shall develop regulations that require new construction and redevelopment to maximize on-site management of stormwater runoff, incorporation of porous materials, reduction of total impervious area, and employ other techniques to reduce runoff, capture and reuse rainwater, and recharge the Biscayne Aquifer.

Policy: Land development regulations shall be evaluated at least every 5 years to ensure that energy efficiency building practices are effective, current and appropriately incentivized.

Policy: Land development regulations shall be evaluated at least every 5 years to ensure that water management, resilient design principles and adaptation practices are effective, current and appropriately incentivized.

Policy: The Village shall support and promote alternative and renewable energy for residential, commercial, and municipal properties by increasing regulatory incentives such as streamlined permitting.

Policy: The Village shall conduct an energy audit of all municipal buildings by 2024 and every 4 years thereafter. Based upon the energy audit report, within 12 months Village shall develop an action plan to improve the efficiency of the municipal buildings.

Objective: The Village shall increase its resiliency to the impacts of climate change and rising sea levels by developing and implementing adaptation strategies and measures for public infrastructure.

Policy: The Village shall review and amend its Comprehensive Plan, Land Development Regulations, Village Code of Ordinances, and other documents where feasible and appropriate to implement best practices that are identified through the review of adaptation strategy publications, including the Resilient 305 Strategy, Miami- Dade County GreenPrint, Southeast Florida Regional Climate Action Plan, and the President’s Climate Action Plan as well as other regional strategic plans, disaster mitigation plans, water management plans, transportation/transit plans, and climate change plans.

Policy: The Village shall review and update the Environmental Vulnerability Study by 2025 and every 5 years thereafter.

Policy: The Village shall formally establish Adaptation Action Areas, as provided by Section 163.3164(1), Florida Statutes, and develop policies for adaptation as required for the protection of areas and facilities that are vulnerable to flooding.

Adaptation Action Areas Identified. Areas identified by the Coastal High Hazard Area Map and those areas experiencing 6 inches or more of flooding for a minimum of 72 hours are hereby adopted and designated as Adaptation Action Areas.

Areas for Consideration. As the basis for the designation of Adaptation Action Areas, the Village will continue to utilize the best available data and resources such as the Vulnerability Study in order to identify the risks and vulnerabilities associated with climate change and sea level rise and opportunities to formulate timely and effective adaptation strategies.

Consideration of Adaptation Action Areas designation shall include but shall not be limited to:

1. Areas which have a hydrological connection to coastal waters and are vulnerable to flooding.
2. Locations which are within areas designated as evacuation areas for storm surge.
3. Other areas impacted by stormwater/flood control issues.

Policy: The Village shall work with Miami-Dade County (Miami-Dade County Comprehensive Plan Policy LU-13C) to develop and update policies for Adaptation Action Areas and enhance funding potential for infrastructure projects within Adaptation Action Areas.

Policy: The Village shall strive to maintain or improve its FEMA community rating system (CRS) score, in order to provide discounted flood insurance premiums to residents and businesses.

Policy: The Village, in conjunction with its partner agencies, shall work to ensure that adaptation to climate change, especially sea level rise, is incorporated into the planning, siting, construction, replacement and maintenance of public infrastructure in a manner that is cost-effective and that maximizes the use of the infrastructure throughout its expected life span.

Policy: The Village will consider as part of Capital Improvement Planning, raising roads in flood susceptible areas to adapt to the impacts of potential sea level rise.

Policy: The Village shall develop a Septic to Sewer Master Plan by 2026 which incorporates capital improvement planning and funding consistent with the areas and priorities identified by the Vulnerability Study.

Policy: The Village shall coordinate with Miami-Dade County to seek inclusion in the Connect to Protect program.

Policy: The Village shall develop and implement a Stormwater Master Plan by 2026 which incorporates capital improvement planning and funding, and in doing so, identify vacant or underutilized properties, which could support a variety of uses such as lift stations, innovative stormwater parks and conservation areas.

Objective: Protect, adapt and properly manage natural systems and the services they provide to our local community while enhancing their resilience and improving their capacity to support climate resiliency and carbon sequestration.

Policy: By 2023, the Village shall develop a means for protection of existing landscaping by passing a tree protection ordinance.

Policy: The Village shall encourage the use of native, and non-invasive, salt, wind and drought tolerant plants in the urban landscape and landscape maintenance consistent with Florida-Friendly Landscaping Best Management Practices.

Policy: The Village shall develop an Urban Forest Master Plan by no later than 2025 to guide for the future of the Village’s tree canopy which serves to alleviate water and air pollution, improve public health, increase property value, and enhance the success of business districts.

Policy: The Village shall prioritize Bayfront Park, an area that currently experiences and is projected to experience increased tidal flooding and storm surge, as a priority for the development and implementation of adaptation projects including the reconstruction and raising of the seawall.

Policy: On an annual basis, the Village shall continue to seek funding from the county Neat Streets Program and other entities in order to develop and maintain an urban reforestation program, expand green infrastructure, reduce the heat island effect and seek to reduce our greenhouse gas emissions, with the goal of increasing the tree canopy coverage across the Village.

Objective: The Village will coordinate with other municipalities, Miami-Dade County, and regional agencies to create, develop and implement a suite of planning tools for potential climate change mitigation, resilience and adoption and identify opportunities to assist in implementation.

Policy: Village Management shall develop a Miami Shores Village Sustainability Action Plan, evaluate costs and benefits of potential sustainability and resiliency initiatives identified therein and seek funding sources accordingly.

Policy: Village shall coordinate with Miami-Dade County and other participating counties in the Southeast Florida Regional Climate Change Compact in the identification of modeling resources and in the development of initiatives and goals to address climate change. Additional climate change related objectives and policies that support regional climate change goals shall be integrated into the Comprehensive Plan as appropriate.

Policy: The Village shall continue to actively participate in the Southeast Florida Regional Climate Change Compact and shall coordinate with neighboring municipalities to make our community more climate change resilient by sharing technical expertise, assessing regional vulnerabilities, advancing agreed upon mitigation and adaptation strategies, and developing policies and programs.

[i] (f) All mandatory and optional elements of the comprehensive plan and plan amendments shall be based upon relevant and appropriate data and an analysis by the local government that may include, but not be limited to, surveys, studies, community goals and vision, and other data available at the time of adoption of the comprehensive plan or plan amendment. To be based on data means to react to it in an appropriate way and to the extent necessary indicated by the data available on that particular subject at the time of adoption of the plan or plan amendment at issue.

1. Surveys, studies, and data utilized in the preparation of the comprehensive plan may not be deemed a part of the comprehensive plan unless adopted as a part of it. Copies of such studies, surveys, data, and supporting documents for proposed plans and plan amendments shall be made available for public inspection, and copies of such plans shall be made available to the public upon payment of reasonable charges for reproduction. Support data or summaries are not subject to the compliance review process, but the comprehensive plan must be clearly based on appropriate data. Support data or summaries may be used to aid in the determination of compliance and consistency.

2. Data must be taken from professionally accepted sources. The application of a methodology utilized in data collection or whether a particular methodology is professionally accepted may be evaluated. However, the evaluation may not include whether one accepted methodology is better than another. Original data collection by local governments is not required. However, local governments may use original data so long as methodologies are professionally accepted.

3. The comprehensive plan shall be based upon permanent and seasonal population estimates and projections, which shall either be those published by the Office of Economic and Demographic Research or generated by the local government based upon a professionally acceptable methodology. The plan must be based on at least the minimum amount of land required to accommodate the medium projections as published by the Office of Economic and Demographic Research for at least a 10-year planning period unless otherwise limited under s. 380.05, including related rules of the Administration Commission. Absent physical limitations on population growth, population projections for each municipality, and the unincorporated area within a county must, at a minimum, be reflective of each area's proportional share of the total county population and the total county population growth.

[ii] (d) A conservation element for the conservation, use, and protection of natural resources in the area, including air, water, water recharge areas, wetlands, waterwells, estuarine marshes, soils, beaches, shores, flood plains, rivers, bays, lakes, harbors, forests, fisheries and wildlife, marine habitat, minerals, and other natural and environmental resources, including factors that affect energy conservation.

1. The following natural resources, where present within the local government's boundaries, shall be identified and analyzed and existing recreational or conservation uses, known pollution problems, including hazardous wastes, and the potential for conservation, recreation, use, or protection shall also be identified:

- a. Rivers, bays, lakes, wetlands including estuarine marshes, groundwaters, and springs, including information on quality of the resource available.
- b. Floodplains.
- c. Known sources of commercially valuable minerals.
- d. Areas known to have experienced soil erosion problems.
- e. Areas that are the location of recreationally and commercially important fish or shellfish, wildlife, marine habitats, and vegetative communities, including forests, indicating known dominant species present and species listed by federal, state, or local government agencies as endangered, threatened, or species of special concern.

2. The element must contain principles, guidelines, and standards for conservation that provide long-term goals and which:

- a. Protects air quality.
- b. Conserves, appropriately uses, and protects the quality and quantity of current and projected water sources and waters that flow into estuarine waters or oceanic waters and protect from activities and land uses known to affect adversely the quality and quantity of identified water sources, including natural groundwater recharge areas, wellhead protection areas, and surface waters used as a source of public water supply.
- c. Provides for the emergency conservation of water sources in accordance with the plans of the regional water management district.
- d. Conserves, appropriately uses, and protects minerals, soils, and native vegetative communities, including forests, from destruction by development activities.
- e. Conserves, appropriately uses, and protects fisheries, wildlife, wildlife habitat, and marine habitat and restricts activities known to adversely affect the survival of endangered and threatened wildlife.
- f. Protects existing natural reservations identified in the recreation and open space element.
- g. Maintains cooperation with adjacent local governments to conserve, appropriately use, or protect unique vegetative communities located within more than one local jurisdiction.
- h. Designates environmentally sensitive lands for protection based on locally determined criteria which further the goals and objectives of the conservation element.
- i. Manages hazardous waste to protect natural resources.
- j. Protects and conserves wetlands and the natural functions of wetlands.
- k. Directs future land uses that are incompatible with the protection and conservation of wetlands and wetland functions away from wetlands. The type, intensity or density, extent,

distribution, and location of allowable land uses and the types, values, functions, sizes, conditions, and locations of wetlands are land use factors that shall be considered when directing incompatible land uses away from wetlands. Land uses shall be distributed in a manner that minimizes the effect and impact on wetlands. The protection and conservation of wetlands by the direction of incompatible land uses away from wetlands shall occur in combination with other principles, guidelines, standards, and strategies in the comprehensive plan. Where incompatible land uses are allowed to occur, mitigation shall be considered as one means to compensate for loss of wetlands functions.

3. Current and projected needs and sources for at least a 10-year period based on the demands for industrial, agricultural, and potable water use and the quality and quantity of water available to meet these demands shall be analyzed. The analysis shall consider the existing levels of water conservation, use, and protection and applicable policies of the regional water management district and further must consider the appropriate regional water supply plan approved pursuant to s. 373.709, or, in the absence of an approved regional water supply plan, the district water management plan approved pursuant to s. 373.036(2). This information shall be submitted to the appropriate agencies.

[iii] (g) For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives:

1. Maintain, restore, and enhance the overall quality of the coastal zone environment, including, but not limited to, its amenities and aesthetic values.
2. Preserve the continued existence of viable populations of all species of wildlife and marine life.
3. Protect the orderly and balanced utilization and preservation, consistent with sound conservation principles, of all living and nonliving coastal zone resources.
4. Avoid irreversible and irretrievable loss of coastal zone resources.
5. Use ecological planning principles and assumptions in the determination of the suitability of permitted development.
6. Limit public expenditures that subsidize development in coastal high-hazard areas.
7. Protect human life against the effects of natural disasters.
8. Direct the orderly development, maintenance, and use of ports identified in s. 403.021(9) to facilitate deepwater commercial navigation and other related activities.
9. Preserve historic and archaeological resources, which include the sensitive adaptive use of these resources.

10. At the option of the local government, develop an adaptation action area designation for those low-lying coastal zones that are experiencing coastal flooding due to extreme high tides and storm surge and are vulnerable to the impacts of rising sea level. Local governments that adopt an adaptation action area may consider policies within the coastal management element to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, stormwater runoff, and related impacts of sea-level rise. Criteria for the adaptation action area may include, but need not be limited to, areas for which the land elevations are below, at, or near mean higher high water, which have a hydrologic connection to coastal waters, or which are designated as evacuation zones for storm surge.

[iv] Current Comprehensive Plan Objective 6: Climate change.

Miami Shores will work to achieve a sustainable climate resilient community. The village recognizes that individual effort is important. However, the issue goes beyond one municipality and will require a worldwide concerted effort to address climate change and its effects.

· **Policy 6.1:**

The Village will coordinate with other municipalities, the county, and regional agencies to create, develop and implement a suite of planning tools for potential climate change mitigation, resilience and adoption.

The City will participate in the Southeast Florida Regional Climate Change Compact and other intergovernmental and interagency efforts to address potential climate change and its impacts.

· **Policy 6.2:**

The Village will investigate ways to reduce greenhouse gas emissions from government operations and will monitor and track progress towards this goal.

· **Policy 6.3:**

The Village will support and promote alternative and renewable energy for residential, commercial, and municipal properties by working with the Southeast Florida Regional Climate Change Compact and other intergovernmental and interagency efforts to reduce regulatory incentives for renewable and alternative energy installations.

· **Policy 6.4:**

The Village will consider a program for the installation of alternative fuel and electric vehicle charging stations in new public and private parking lots.

· **Policy 6.5:**

The Village encourages construction that meets or exceeds Energy and Environmental Design (LEED) standards, Florida Green Building Coalition (FGBC) standards, or Green Building Initiative (GBI) Green Globes rating standards.

· **Policy 6.6:**

The Village will consider as part of Capital Improvement Planning, raising roads in flood susceptible areas to reflect potential sea level rise.

· **Policy 6.7:**

The Village will continue to investigate and implement fuel alternative for fleet vehicles that improve mileage and reduce greenhouse gases.

· **Policy 6.8:**

The Village will reduce the dependence on cars by promoting the use of bicycles for transportation within and through the Village by implementing appropriate recommendations of the Miami Shores Village Multimodal Mobility Study, 2015.

· **Policy 6.9:**

The Village, in coordination with other agencies, shall promote species diversity, the planting of native landscapes, and sustainable urban forest landscape practices to protect the health and resiliency of natural systems to potential climate change.

· **Policy 6.10:**

The Village, will continue to encourage, and where appropriate require the planting of native and other drought tolerant trees known to sequester and store high levels of carbon on available public and private lands.

· **Policy 6.11:**

The Village will conduct a climate change study to assess vulnerability, and to develop a plan for hazard mitigation and climate adaptation that will improve community sustainability and resiliency.

The Village will utilize the results of the climate change study to develop policies, strategies and standards that will serve as guidance for climate change related planning efforts and will adopt a Climate Action Plan that contributes to making Miami Shores Village a sustainable, climate resilient community.

The village will continue to work locally and regionally with our partner communities of interest to monitor and address climate change issues.