

ENVIRONMENT AND SUSTAINABILITY

DEPARTMENT MISSION STATEMENT

We are committed to providing the highest quality services to our community by building community resiliency through the development, implementation, and improvement of climate change mitigation and sea level rise adaptation initiatives that enhance our natural environment, protect and preserve our urban forest, and increase communitywide sustainability.

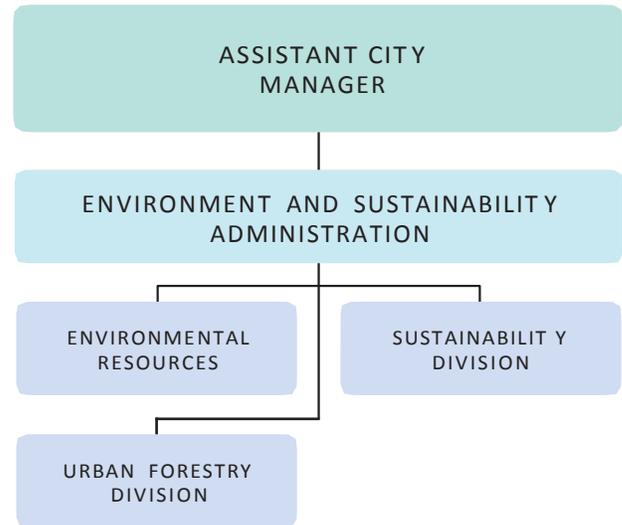
DEPARTMENT DESCRIPTION

The Environment and Sustainability Department is represented by professional, semi-professional, and licensed disciplines working in Administration, Environmental Resources, Sustainability, and Urban Forestry.

The Environmental Resources Management Division provides internal support across City departments to ensure all public projects, not just those labeled as environmental, avoid, minimize, and mitigate environmental impacts, as well as enhance the natural environment through their design. This Division serves as the City's in-house environmental consultant and is the liaison between the City and other government agencies for environmental concerns. Services provided by this division include natural resource management, environmental permitting assistance, regulatory compliance oversight, plan review, technical advisory, and staff and community trainings.

The Sustainability Division works across all City departments to improve the sustainability of government operations to save money, improve processes, and enhance the environment. This Division also handles internal and external climate change mitigation efforts with a focus on reducing greenhouse emissions from government operations and community-wide activities, reducing internal operational costs and improving operational efficiencies, and assisting with the development of the Resiliency Strategic Plan. This Division focuses on energy reduction, water conservation, recycling and waste reduction, and education and outreach.

The Urban Forestry Division oversees the citywide urban forest by providing regulatory supervision and management. The division maintains the citywide Geographical Information System Tree Inventory and is in the process of developing the City's first Urban Forestry Master Plan. Since the inception of the City's Tree Preservation Ordinance on June 15, 2015, this Division issues tree permits, oversees tree mitigation, conducts heritage tree evaluations, conducts tree protection barrier inspections, provides tree risk assessments, and reviews plans for citywide tree selection/installations. The division also oversees the Commemorative Tree Program.



FISCAL ENVIRONMENT

The Environment and Sustainability Department is primarily funded from the General Fund. The General Fund charges an administrative fee to Enterprise Fund departments, the Redevelopment Agency (RDA), and the Resort Tax Fund to cover the cost of various administrative support functions provided by the General Fund.

The Environment and Sustainability Department is also supported through revenues generated from Sustainable Initiatives Contributions from the franchisee waste haulers, the Tree Preservation Trust Fund, and the Commemorative Tree Trust Fund.

In January 2016, the City Commission created the Sustainability and Resiliency Fund. This Fund generates revenues from developments that elect to pay a fee in lieu of providing electric vehicle charging stations and developments that elect to pay a fee in lieu of building to the City's green building standards (Sustainability and Resiliency ordinance). By ordinance, this money is required to be used for projects that enhance the community's environmental sustainability.

The Urban Forestry Division is partially funded from the General Fund and the Tree Preservation Trust Fund. The Tree Preservation Trust Fund generates revenues via the City's Tree Preservation Program, which includes fees associated with tree permit plan review, inspections, code violations, fines, contributions, and mitigation. Additional revenue is generated through donations made to the Commemorative Tree Program, which are then deposited into the Commemorative Tree Trust Fund. The Tree Preservation Trust Fund covers ancillary expenses related to the Tree Preservation Program such as reforestation efforts, tree giveaways, reforestation related brochures, and related supplies. The Commemorative Tree Trust Fund covers the expenses related to the Commemorative Tree Program such as commemorative tree plantings, one time commemorative tree replacement costs, certificate issuance, and related supplies.



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BUSINESS ENVIRONMENT

The Environment and Sustainability Department works with other City departments to integrate a holistic resiliency approach to climate change mitigation and adaptation efforts. The department focuses on protecting and enhancing our natural environment through sea level rise adaptation efforts, natural resource management, and environmental compliance.

SIGNIFICANT ACCOMPLISHMENTS

Environmental Resources

- Coordinated the Resiliency Accelerator, a partnership between 100 Resilient Cities and the Center for Resilient Cities & Landscapes at Columbia University, that brought together multi-disciplinary expertise to enhance resiliency and advance the West Avenue Project
- Completed an independent review of our water quality to provide feedback on our water quality sampling program and draw initial conclusions about the health of our waterways
- Co-lead technical groups for the Greater Miami and the Beaches 100 Resilient Cities partnership to present on the regional resiliency strategy. For example, the Living with Water Discovery Area of the City's Resiliency Strategy resulted in the development of recommendations for the regional management of resources such as Biscayne Bay, the funding of key nature-based projects across the region, and policies that further regional environmental management goals
- Completed over 150 environmental inspections. These inspections are primarily focused on construction sites, which were the second greatest source of non-compliance in the past two years
- Completed and oversaw the completion of nearly 500 Building Permit plan reviews for private projects along the beachfront and waterfront, including several projects which were nearly issued a Building Permit without a proper Environmental Review
- Led the designation of six contaminated properties as brownfields which allows the City to recuperate a percentage of eligible assessment and remediation costs through Voluntary Cleanup Tax Credits

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Created #PlasticFreeMB campaign to reduce single-use plastics and planted over 300 trees as part of the Street Tree Master Plan G.O Bond Project
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SIGNIFICANT ACCOMPLISHMENTS CONT'D

Sustainability

- Completed the 2016 government operations and community-wide greenhouse gas emissions inventories, government fleet assessment, and recycling assessment report
- Managed the resiliency portal with exclusive information on resiliency, sustainability, climate change, and sea level rise (www.mbrisingabove.com)

Urban Forestry

Hosted the first ever Junior Forester Program in collaboration with the Parks Department
 Completed the City's 12th year goal of the Reforestation Plan with over 140 trees planted citywide this fiscal year, bringing the program total to 4,823 trees installed to date

CRITICAL SUCCESS FACTORS

- Citywide cooperation and coordination supported by City Manager and City Commission in regards to technology solutions
- Realistic goals, strategies, and actions
- Willingness and commitment to share information and standardize data (integration)
- Improve quality of life through better air, water, and environmental quality
- Improve regulatory compliance
- Improve the City's ecosystem function and biodiversity
- Increase the City's amount of natural habitat
- Reduce impervious surfaces
- Maintain recreation, environmental, and storm protection functions of the beach/dune system
- Increase sustainable tree canopy
- Increase the City's staff capacity building and awareness regarding the City's resiliency and sustainability initiatives
- Look at investments for the City's sustainability and resiliency improvements that can lead to short and long term cost savings for the City's budget
- Improve the City's operational and environmental sustainability



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FUTURE OUTLOOK

The Environment & Sustainability Department will continue to focus on protecting and enhancing our natural environment through sea level rise adaptation efforts, natural resource management, and environmental compliance. The Environmental Resources Division will continue providing internal support across City departments to ensure all public projects, not just those labeled as environmental, avoid, minimize, and mitigate environmental impacts, while enhancing the natural environment through their design. The Environmental Resources Division will also continue to serve as the in-house environmental consultant and liaison between the City and other government agencies for environmental concerns. Furthermore, the Environmental Resources Division will continue providing existing services to further improve the environmental compliance of the community, as well as protect, restore, and manage the City's natural resources.

Creating a more sustainable community includes improving resource efficiencies, preventing harm to the natural environment, and protecting human health, while benefiting the social, economic, and environmental well-being of the community for present and future generations. The Sustainability Division will continue working with all City departments in order to improve internal sustainability efforts to save money, improve processes, and enhance the environment. This Division handles internal and external climate change mitigation efforts with a focus on reducing greenhouse emissions from government operations and community-wide activities, reducing internal operational costs and improving operational efficiencies, and assisting with the development of the Resiliency Strategic Plan. This Division will develop and implement specific initiatives including the development and implementation of the climate action plan, recycling and waste reduction, education and outreach, and green infrastructure. The Division has accomplished the City's first recycling assessment, and is in the process of finalizing the City's first municipal buildings' energy assessment and fleet assessment. These assessments will tremendously improve the City's sustainability operations.

Urban trees are a vital part of City infrastructure, providing numerous environmental, economic, social, and health benefits. Among the identified benefits are cleaner air, reduced energy usage, less storm water runoff, amelioration of high urban temperatures and UV Rays, higher property values, improved aesthetics, a greater sense of health and well-being, and lower crime rates. In FY 2018/19, the Urban Forestry Division will finalize and begin the implementation of the City's first Urban Forestry Masterplan, continue to promote and enhance the Commemorative Tree Program, and continue to refine the Tree Preservation Program with increased resilient reforestation efforts.

FUTURE OUTLOOK CONT'D

The Department will continue to collaborate with all City departments to enhance sustainability efforts throughout our government operations and our community, strengthen resilience, and explore innovative adaptation and mitigation solutions for the City through:

- Developing solutions to issues in public health and safety, real estate and historic properties, architectural standards, energy consumption, income inequality, affordable housing, disaster preparation and recovery, community building, governance, community diversity, etc.
- Focusing on flexible, low-regret strategies
- Capitalizing on adaptation opportunities that accommodate to a changing environment and protect the character of our diverse community
- Adapting to changes in the City landscape based on natural disasters
- Prioritizing natural infrastructure solutions to sea level rise, such as citywide beach & dune system restoration, the use of bioswales and tree plantings to mitigate stormwater runoff, and the enhancement and expansion of living shorelines
- Maintaining a high quality of life for all of Miami Beach's residents, businesses and visitors



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STRATEGIC ALIGNMENT

Main Vision Area:

Environment & Infrastructure

Management Objectives:



- **Environment & Infrastructure**
 - Work regionally and nationally to protect Biscayne Bay water quality and to maintain a healthy dune and beach system
 - Reduce greenhouse gas emissions and heat
 - Make existing and new government buildings assets, and fleet efficient, sustainable and resilient
- **Mobility**
 - Improve the walking and biking experience
- **Organization Innovation**
 - Support all objectives to improve strategic decision making and financial stewardship, making the city more business friendly and user friendly, with an employee culture of problem solving and engagement
 - Implement the General Obligation Bond

Strategic Plan Actions:

- **COMPLETE** the Beach walk
- **MAKE** substantial progress (towards completion of entire) Bay walk

Budget Enhancement Actions:

- Resiliency Signage
- Pine Tree Drive Australian Pines Pruning

STRATEGIC ALIGNMENT

Resilient305 Actions

- **PRESERVE** and Restore Biscayne Bay
- **BUILD** Reef Biodiversity and Defenses
- **NATURE-BASED** Infrastructure – More than Just Habitat!
- **IMPLEMENT** Sea Level Rise strategy
- **DEVELOP** Sea Level Rise Checklist for Capital Projects
- **REDUCE** “Back-Bay Flooding”
- **RESILIENT** Parks
- **RESILIENT** 35 in the 305 Network
- **STRENGTHEN** Resilience Planning
- **EXPAND** Renewable Energy
- **RISE** to the Rescue

