Citywide Integrated Sustainability Plan

September 2024

TABLE OF CONTENTS

exp.

Introduction

The City of Doral is continuously advancing its sustainable performance across multiple sectors of the community. In an effort to organize an effective strategy, various City sustainability and resiliency related studies have been collected, reviewed, and consolidated to summarize the City's efforts, goals, and actions into one comprehensive sustainability pathway, the Citywide Integrated Sustainability Plan (CISP).

The CISP serves as a blueprint of improvements and recommendations for the journey to a **greener** and more resilient future. The Plan organizes measurable actions and identifies capital improvement projects (CIP) supporting the City's overall goals to promote environmental stewardship, improve community well-being, and ensure responsible resource management. The City is committed to continue transforming into a resilient, thriving and environmentally conscious community.

With an integration of the 2008 Green Master Plan (GMP), the 2011 Green Element of the Comprehensive Plan, the Doral Green Standards, the 2016 Doral Climate Action and Implementation Plan (2016 CAP), and the 2018 GHG Inventory, the CISP provides a collection of current and future initiatives to support short, mid, and long-term planning and decision-making efforts for the City's stakeholders. Research culminated into seven refined focus areas:

1. Natural Environment
2. Built Environment
3. Waste Management
4. Transportation and Mobility
5. Energy Generation and Consumption
6. Wastewater, Stormwater, and Water Supply, and
7. Community Engagement and Enhancement

Within each Focus Area, you will find Core Objectives, Future Goals and Implementations, with embedded Measurable Actions. The Future Goals and Implementations are structured accordingly:
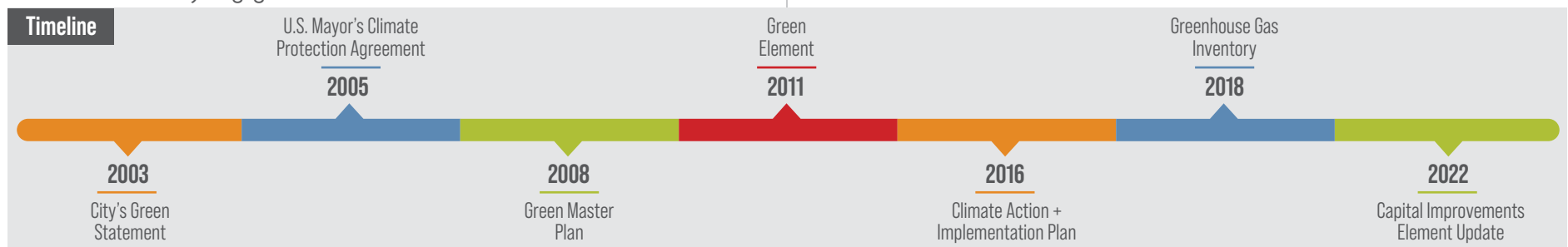
▸ **Overarching Goals**
   1. Specified Goals identified within existing documentation
      a. *Measurable Actions relevant to Specified Goals*

The selected focus areas emphasize synergies by identifying common themes and highlighting priorities as the Plan further progressed with City staff. Continuous and effective communication allowed connections to be made throughout this report—with innovations in transportation aiding in the reduction of energy consumption and community enhancement serving as one example. This approach ensures that efforts are not duplicated and that resources are used efficiently and purposefully.

The timeline below highlights the City's green initiatives thus far that have progressively cultivated Doral's sustainability infrastructure.

The City's overall efforts and ongoing actions are commendable, as evidenced by existing plans and documents, and will be enhanced further with the help of this organized strategy which complements City priorities and initiatives. The City is already on the right path: it has been recognized for several accomplishments such as for their **land conservation** efforts being a "Tree City USA" for 16 consecutive years, **doubling their recycling infrastructure**, and achieving **LEED-certified City buildings** or equivalent green certifications, to hosting multiple green educational events every year and gaining membership with the FGBC and Energy Star. Moreover, this guidance document will serve as a centralized planning tool to update the City on progress pertaining to their existing sustainability goals, as well as to provide insight on the City's future green implementations going forward.

Timeline

2003	2005	2008	2011	2016	2018	2022
City's Green Statement	U.S. Mayor's Climate Protection Agreement	Green Master Plan	Green Element	Climate Action + Implementation Plan	Greenhouse Gas Inventory	Capital Improvements Element Update

exp.

1

NATURAL ENVIRONMENT

- Enforce tree preservation
- Develop and implement plans for species removal and preservation on public lands
- Promote sustainable and water-efficient landscaping practices

exp.

Core Objectives

- **Preserve and enhance the existing native open space and landscapes within the City limits.** The City of Doral continues to preserve and provide environmental spaces such as parks and nature centers to maintain a healthy connection between the community and its natural environment.

- **Enforce responsible management of natural resources.** The City of Doral shows commitment towards promoting an approach to resource management that minimizes waste, maximizes efficiency, and enhances the quality of life for all residents through intelligent and efficient utilization of resources.

Future Goals and Implementations

▸ **Enforce tree preservation**

1. Update the City's tree inventory every 5 years in support of their Tree City USA certification. (2016 CAP). Additionally, pursue Tree City of the World certification.

   a. *Confirm inventory updates and submit annual re-certifications.*

2. Adopt a Landscape Ordinance that is equal to or more stringent than the County's current Tree Preservation Ordinance. (GMP)

   a. *Evaluate ordinances based on standards enforcing the highest level of tree preservation.*

3. Ensure the retention of the existing tree canopy and work closely with the County's Division of Environmental Resources Management (DERM). (Green Element)

   a. *Continue to sponsor an annual 'Tree Giveaway," event with the goal to distribute at least 2,000 Florida friendly native trees per year. (Green Element)*

   b. *Track the number of trees planted and the number of trees removed in public and private sectors. Report the net increase or decrease in the total number of trees within the community.*

   c. *Monitor the health and diversity of the existing tree canopy*

▸ **Develop and implement plans for species removal and preservation on public lands**

1. Coordinate with the Florida Department of Environmental Protection (FDEP) and Miami-Dade County DERM to develop a program to remove non-native, invasive plant species from City lands. (Green Element)

   a. *Track the non-native and invasive species within the City's Tree Inventory. Create a plan for removal of non-native species and replace them with native species to ensure the City continues to meet the Tree City USA criteria.*

▸ **Promote sustainable and water-efficient landscaping practices**

1. Pursue Certified Florida Friendly (FF) Landscapes. (Doral Green Standards)

   a. *Evaluate the City's updated Landscape Code in comparison to the FF Landscape Irrigation and Design Standards. (Green Element)*

   b. *Calculate the percentage of landscaping that uses native plants.*

   c. *Track and report reductions in water use for maintaining landscapes.*

   d. *Adopt Florida Friendly Landscape Standards for all City parks and public building sites. (Green Element)*

2. Reduce Urban Heat Islands by continuing to expand community park lands to provide shade. Work with Doral Park Bond to address the landscape cover of Doral.

   a. *Continue to evaluate the amount of green space available per resident on the Doral Park Bond website.*

   b. *Implement the Street Tree Planting Master Plan*

exp.

exp.

BUILT ENVIRONMENT

- Interconnect the City's places while preserving open green space
- Engage a committee to create a community agriculture program
- Increase energy efficiency in buildings
- Promote a circular economy
- Reinforce urban landscapes with sustainable infrastructure
- Fund and incentivize green low-impact developments (LID)

exp.

Core Objectives

- **Advance energy efficiency within the built environment.** Through the reduction of energy consumption, innovative technologies, and community collaboration, the City of Doral can lower greenhouse gas emissions, enhance the quality of life for residents, and contribute to a more resilient and sustainable urban landscape.

- **Foster interconnectedness in the built environment for a sustainable urban future.** The City of Doral aims to establish a cityscape where buildings, infrastructure, open spaces, and communities seamlessly interact, fostering a resilient, inclusive, and environmentally responsible urban future.

- **Encourage the inclusion of community gardening throughout the built environment.** Through innovative policies, collaborative partnerships, and active engagement, the City of Doral seeks to empower residents to actively participate in community food production, enhance local biodiversity, improve access to fresh and healthy produce, and strengthen the bonds within our diverse communities.

- **Enable opportunities for Carbon Neutral Business Growth.** The City of Doral creates a vibrant and thriving community landscape that balances business success with environmental stewardship, ultimately leading to a healthier, more resilient, and carbon-neutral future.

Future Goals and Implementations

▶ **Interconnect the City's places while preserving open green space**

1. Incorporate criteria into the Land Development Code (LDC) requiring multi-modal connectivity to the adjacent and areawide mobility system for all new or amended development projects. (Green Element)

   a. *Evaluate the efficiency of transportation networks in connecting green spaces and urban areas.*

2. Encourage mixed-use zoning and development through the Downtown and Community Mixed-Use Ordinance, the LID Master Plan, and creative excellence standards. (Doral Green Standards)

   a. *Measure the percentage of the population living within a certain distance (e.g., 10 minutes' walking) from a green space.*

   b. *Quantify the amount of green space relative to built-up areas.*

3. Utilize the Transfer of Development Rights (TDR), which can provide developers with an incentive and grant the City with greater control of both densities and open space. (GMP). Refer to the Doral Land Development Code.

▶ **Engage a Committee to create a community agriculture program**

1. Encourage community gardening and urban agriculture within Doral by amending the Land Development Code. (Green Element)

   a. *Consider the inclusion of a community garden pilot program. (2018 Inventory)*

   b. *Conduct a survey to gage the likeliness of residential participation in the community gardens, where they would be the most utilized, and how they would be maintained. Report on the number of residents interested in community agriculture initiatives.*

   c. *Identify 1-2 locations for new community gardens. (2016 CAP)*

▶ **Increase energy efficiency in buildings**

1. Promote Building Efficiency 305 (BE305) for businesses and evaluate potential incentives to assist existing buildings in the City to upgrade high energy usage systems like air-conditioning and water heating to energy efficient units with high Energy Star or other recognized ratings. (Green Element & 2016 CAP)

2. Conduct energy retrofits in government-owned buildings. (2018 Inventory)

a. Continue to promote efficiency programs to help homeowners and businesses make existing building shells more energy-efficient through better insulation, sealing cracks and replacement of windows. (2016 CAP & Green Element)

3. Amend local zoning laws to permit the installation of solar panels, rainwater collection systems, and small wind turbines on residential and commercial properties in designated areas, ensuring compliance with safety and aesthetic standards. (Green Element)

4. Incorporate site design standards into the LDC requiring private development projects to orient and landscape homes and other buildings to minimize direct daily sunlight on walls and windows in the rainy season and maximize rooftop solar exposure year-round. (Green Element)

▶ **Promote a greener economy**

1. As part of the City's annual Eco-Fair, businesses recognize sustainable residential, commercial, and mixed-use buildings constructed or renovated in Doral over the past year. (Green Element)

2. Work in partnership with our vital business community to accelerate **ALL** potential job growth opportunities with a special emphasis on green industries. (Green Element)

   a. Work with the City's Economics Development Department to assess the City's current employment trends and resources, and recommends specific joint projects and programs to keep the Doral business sector competitive and sustainable. (Green Element)

   b. Report on the number of jobs created in sustainable industries, such as renewable energy, green construction, and sustainable agriculture.

   c. Measure the utilization of incentives for businesses to adopt eco-friendly practices through a local business survey.

3. Ensure best practices using the Low Impact Development Master Plan recommendations that were adopted into the City's Land Development Code. (Green Element)

▶ **Reinforce urban landscapes with sustainable infrastructure**

1. Replace outdoor lighting with more efficient options. (2018 Inventory)

   a. Work with MDC Public Works on a replacement program for all older incandescent signals and streetlights in Doral with LED or other types of low energy light sources. (Green Element)

2. Continue to require at least 10% of all required surface parking be pervious and/or heat-reflective using techniques and materials such as open cell pavers, managed turf, porous pavement, and others and strive to increase that percentage. (Green Element)

   a. Revisit current standards for open space, parking, and local roadway dimensions with an eye toward reducing impervious areas. Incentives for multi-story, cluster housing and structured parking should also be explored. (Green Element)

   b. Consider green infrastructure such as permeable pavements, green walls, etc.

▶ **Fund green developments and incentivize green building certifications**

1. Promote existing funding opportunities such as the Florida Green Building Loan Pool as an incentive to green building and retro-commissioning. (GMP)

2. Work to receive funding from a variety of sources such as CDBG (Community Development Block Grant) funds and prioritize them toward green developments. (GMP)

   a. Track grant applications and the funds awarded specific to sustainable development.

3. Create incentives for practicing LID principles such as allowing green roofs and rain gardens to be counted as open space, reduce the stormwater fee for developments that use vegetated surfaces for storm-water management, and reduced parking space size and paved width of streets. (GMP)

4. Heavily encourage green building certifications for buildings over 50,000 square feet. (GMP)

exp.

a. Reduce building fees for green buildings, expedite building permits for green buildings, publicly recognize green buildings, and create an annual green award for innovation.

b. Reduce building permit fees and expedite permits for developments that utilize alternative energy. (GMP)

c. Measure the uptake rate of incentives for green building practices.

d. Track the number of buildings certified by green building standards (e.g., LEED, BREEAM).

exp.

3

WASTE MANAGEMENT

- Reuse and recycle
- Encourage a less wasteful community
- Zero-Waste Academy

exp.

Core Objectives

- **Promote growth of a circular economy by creating a waste-conscious community.** Our City is dedicated to transforming its waste management practices by prioritizing waste reduction, reuse, and recycling. Shifting away from a linear "take-make-dispose" model to a circular economy where resources are conserved, materials are reused, and waste is minimized.
- **Enable opportunities for waste reuse and recycling in public spaces.** The City of Doral seeks to collaborate with Miami-Dade County to provide accessible recycling infrastructure and promote awareness for the community on waste related best practices.

Future Goals and Implementations

▸ **Reuse and recycle**

1. Educate the community on established comprehensive recycling programs for homes, businesses, and government buildings.
   a. *Track the amount of outreach sent and level of engagement received.*
2. Coordinate with the MDC Solid Waste Management to create an awareness of recycling and reuse opportunities and best practices at the county level to adopt at our community scale.
   a. *Track recycling and reuse rates in the City in correlation with county data.*
   b. *Calculate the percentage of waste that is recycled out of the total waste generated.*
   c. *Work with the MDC Solid Waste Management to assess the effectiveness of curbside recycling in the City. Identify strategies and programs to increase the volume of recyclable waste citywide. (Green Element)*
3. Work with DSWM to expand recycling options in residential areas. (GMP & Green Element).
   a. *Investigate the data being provided by private haulers.*
   b. *Inventory the amount of material recycled (in pounds, by type).*

4. Ensure that the latest deconstruction best management practices are employed at all demolition and redevelopment sites in the City. (Green Element & GMP)
5. Investigate and develop incentives for the recycling of all construction debris from demolition and building sites. (Green Element & GMP)
6. Investigate the potential opportunities to utilize county recycling facilities outside of city limits.
7. Continue to promote electronic waste recycling and proper hazardous waste disposal. (Doral Green Standards)
   a. *Track promotion through website analytics and identify ways to increase frequency of campaign exposure to community.*

▸ **Encourage a less wasteful community**

1. Facilitate the growth of a 'waste miser' community culture as point of pride among Doral adults and children alike, marked by aggressive recycling and reuse of discarded equipment, products and other solid waste resources. (Green Element)
   a. *Survey residences and schools on level of awareness and how much of a priority of recycling and reuse is to the Doral community.*
2. Seek partnerships to provide regular, small-scale pilot composting programs and educational workshops. (2016 CAP & 2018 Inventory)
   a. *Track annual number of workshops and their respective program participants. Additionally, implement a "Pre and Post Workshop Survey" to understand knowledge gained from workshop.*
3. Investigate the feasibility of establishing plastic banning ordinances by communicating with entities that have adopted similar regulations. (i.e., Miami Beach)
   a. *Identify the number of businesses or organizations complying with plastic free regulations.*

▸ **Zero-Waste Academy**

1. Participate in an annual Zero-Waste Academy

4

TRANSPORTATION AND MOBILITY

- Reduce vehicle miles travelled
- Enhance free public transportation
- Promote active transportation
- Explore innovative fuel for City transportation

exp.

Core Objectives

- **Improve mobility to encourage the reduction of vehicle miles traveled.** The City of Doral plans to establish a well-connected and efficient transportation network that encourages walking, cycling, public transit use, and carpooling while minimizing solo car trips. By doing so, we aim to alleviate traffic congestion, decrease air pollution, enhance public health, and create a more livable urban landscape.

- **Enhance the public transportation system to promote social, environmental and economic efficiencies.** Invest in expanding and improving public transit options, including buses, light rail, and commuter trains. There is an apparent need to provide reliable and frequent services to encourage residents to choose public transportation.

- **Provide incentive opportunities and encouragement for sustainable commuting programs.** Through the introduction of strategic incentive programs that motivate individuals to opt for eco-friendly modes of transportation, the City of Doral can reduce traffic congestion, improve air quality, and enhance overall mobility. By providing tangible benefits to commuters, we aim to create a different perception of mobility where sustainable transportation becomes the norm.

Future Goals and Implementations

▶ **Reduce vehicle miles travelled**

1. Provide community incentives such as transit subsidies, vanpools, and cash in lieu of parking. (GMP)

    a. *Measure the average distance traveled per resident, reflecting individual reliance on personal vehicles.*

2. Evaluate feasibility and further implementation of employee transit subsidy program. Provide awareness of available programs.

3. Improve bicycle and pedestrian network connectivity and community awareness of the network. (2016 CAP)

    a. *Complete the Bicycle Network Plan.*

    b. *Complete Transportation Master Plan updates every 5 years.*

    c. *Work with the Public Works Department to create an awareness program for bicycle/vehicle transportation safety.*

4. Develop a carpooling and ride-share program.

    a. *Incentivize through parking prices, designated parking spaces, "Free Bee Senior," etc. (2016 CAP)*

    b. *Conduct commuter survey and evaluate responses to guide future initiatives and priorities to further enhance occupant experiences.*

▶ **Enhance public transportation**

1. Continue to expand the capabilities of the Doral Trolley Circulator System based on ridership needs and plans coordinated with the County transit system. (GMP)

    a. *Analyze ridership and customer satisfaction data annually to adjust.*

    b. *Measure the extent to which public transit covers the city and its accessibility to residents.*

    c. *Provide data such as average wait times, travel times, and on-time performances.*

2. Increase frequency of service for the Doral Trolley Circulator System.

3. Increase public transit links, frequency, and comfort. Extend the hours of operation, including late-night and weekend services, to accommodate a wider range of travel needs. (GMP)

4. Upgrade transit stops with useful amenities (e.g., provide cover from the elements, green roofs, seating, lighting, transportation information, etc.) (2016 CAP)

5. Implement a policy that requires public transit services to be provided within ¼ mile of all new major developments and densely populated areas.

    a. *Identify existing major developments that do not meet the criteria, create a plan to address. (GMP)*

exp.

▶ **Promote active transportation**

1. Complete Bicycle Network Master Plan.

    a. *Measure linear mileage and percentage of completion. Provide annual updates.*

2. Update Bike Safety Brochure.

    a. *Report the number of accidents involving cyclists or pedestrians, which can indicate the safety and effectiveness of biking and pedestrian infrastructures.*

3. Planning and Zoning to continue to require eligible developments to provide adequate and secure bicycle storage. (2016 CAP)

    a. *Enforce new developments to adhere to bicycle storage. Identify eligible developments that do not meet the criteria, create a plan to address. Calculate the percentage of developments that host bicycle storage; track added developments and accompanying storage.*

4. Provide information about alternative (active) commuting routes on the City website. (Doral Green Standards)

    a. *Measure the website's user analytics to track how many people visit the webpage and what transit information is frequently used.*

▶ **Electrify City transportation**

1. Expand EV charging infrastructure network. Identify feasible locations for additional EV chargers.

    a. *Continue tracking inventory of all EV charging infrastructure within the City and report annually on implemented chargers.*

2. Adopt a City EV Fleet Conversion Plan.

    a. *Transition city government and Doral public transportation vehicles to EV fleets.*

    b. *Track number of EV vehicles, including Doral Trolley Circulator vehicles, implemented.*

    c. *Track funding acquired for EV fleet transition.*

City of Doral
Bikeway Network Plan

LEGEND

Proposed Off-Street Bikeway
- Atlas Trail (Ruta Morada)
- Beacon Trail (Ruta Rosada)
- Dressel's Dairy Trail (Ruta Azul)
- Greenway Trail (Ruta Verde)
- Limestone Trail (Ruta Plata)
- Sunshine Trail (Ruta Amarilla)
- Turnpike Trail (Ruta Roja)

Proposed On-Street Bikeway
Doral City Limits
Public Parks
Open Space
Water Body
Proposed Park

exp.

5

ENERGY GENERATION AND CONSUMPTION

- Identify areas for energy optimization
- Develop strong energy efficiency standards
- Incentivize alternative urban energy sources
- Reduce GHG emissions from energy generation
- Promote energy efficiency throughout the community

exp.

Core Objectives

- **Implement energy efficiency standards to reduce overall consumption.** Establish and enforce energy efficiency standards for buildings, transportation, and infrastructure.
- **Incentivize and increase opportunities for alternative energy sources.** The City of Doral seeks to establish strategic partnerships, forward-looking policies, and a commitment to cleaner energy options.
- **Reduce GHG emissions from energy generation.** The City of Doral seeks to accomplish a reduction of emissions from energy generation through innovative policy.

Future Goals and Implementations

▶ **Identify areas for energy optimization of City operations**

1. Implement energy efficiency recommendations from [Building Efficiency 305 (BE305) report.](#)

2. Conduct a feasibility study to identify areas within the City suitable for solar or renewable energy infrastructure.

   a. Track areas identified and implemented renewable energy infrastructure.

3. Complete and adopt the Fleet Electrification and Renewable Energy Plan.

4. Continue to partner with FPL to expand the utilization of its Energy Audit Program for local businesses.

▶ **Develop strong energy efficiency standards**

1. Explore Department of Energy (DOE) Office of Energy Efficiency & Renewable Energy resources for designing and adopting efficiency policies, grants, and programs.

   a. Track the number of policies, grants, and programs adopted by the City in a database.

2. Collaborate with the County and local municipalities to explore like-minded opportunities.

   a. Track the number of collaborations between the County and municipalities. Track the standards adopted in result of local collaborations.

▶ **Incentivize alternative urban energy sources**

1. Investigate possible incentives that would encourage all new buildings in the City to obtain a certain percentage of its average daily energy usage from renewable sources.

   a. Measure impact of identified and implemented incentives from renewable energy usage data.

   b. Create a database for incentives in potential renewable energy sources.

2. Reduce building permit fees for renewable energy sources such as solar panels and encourage residents to take advantage of the renewable energy incentives.

   a. Track the number of permits for all renewable energy source installations that were issued with a fee reduction.

3. Use the Energy Efficiency & Conservation Block Grant (EECBG) Program to fund green initiatives.

   a. Measure the number of initiatives funded through EECBG.

▶ **Reduce GHG emissions from energy generation**

1. Substantial increase in utilization of renewable energy sources.

   a. Track renewable energy usage overtime.

   b. Increase solar energy and energy storage in government buildings (2018 Inventory)

   c. Conduct a feasibility assessment for the use of solar and/or energy storage for critical facilities (2016 CAP)

▶ **Promote energy efficiency throughout the community**

1. Educate the public, particularly renters, on no- or low-cost solutions that can provide energy savings such as sunlight-blocking curtains, tree plantings, pre-written letters for renters to distribute to landlords asking permission for native tree planting, the SELF program, and other innovative solutions for renters.

2. Consider how to reduce utility bills for renters and notify communities of available funding options.

3. Provide information about energy efficiency for the public (particularly renters) on the City website.

   a. *Measure the website user analytics to track how many people visit the webpage and what information is frequently used.*

4. Continue to provide awareness of the Building Efficiency 305 challenge (BE305) program through campaigns.

   a. *Track the correlation of outreach and program participation / Track the number of businesses within Doral that participate in the program.*

5. Develop a local government energy reduction plan. (Doral Green Standards)

   a. *Challenge the City departments to create a department-energy reduction plan. Competition fosters department pride and employee interaction. (GMP)*

6. Ensure that the annual Capital Improvements Element Update required by the State contains projects which are consistent with this Element and consideration given to a high level of sustainability in terms of greenhouse gas emissions, energy savings and resource conservation. (Green Element)

exp.

6

- Enact regulations and incentives for water conservation
- Enhance stormwater maintenance
- Seek partnerships and funding

exp.

Core Objectives

- **Enforce and encourage responsible water management.** With a large-scale commitment to efficient water use, we can ensure that our city remains resilient, sustainable, and well-prepared to face the challenges of a changing climate and growing population.

- **Enhance stormwater management to improve community resilience.** Plan and implement proactive stormwater maintenance strategies that enhance infrastructure, engage the community, and incorporate sustainable practices.

Future Goals and Implementations

▶ **Enact regulations and incentives for water conservation**

1. Implement the recommendations of the City's 10-Year Water Supply Facilities Work Plan. (Green Element)

   a. *Utilize the long-range conservation strategies set by the City's 10-Year Water Supply Facilities Work Plan as the basis to reduce water usage citywide by 16% to 126.82 gallons per capita per day by 2025. (Green Element)*

2. Work with Miami-Dade County Water & Sewer to retrofit municipal water facilities to reduce water consumption. (2016 CAP)

   a. *Require that all automatic landscape irrigation systems in the City government properties be equipped with a fully operational rain shut-off device (Green Element)*

   b. *Track annual average potable water irrigation usage by residents, visitors and businesses. (Green Element)*

   c. *Work with Public Works Department and Parks and Recreation to enact regulations and conduct water conservation outreach with Miami-Dade County Water & Sewer.*

3. Ensure that all city government buildings utilize low water use bathroom and shower facilities, including toilets, in compliance with the highest industry standard in water-conserving plumbing fixtures. (Green Element)

   a. *Create low-flow fixture rebates. (Doral Green Standards)*

4. Review water-saving strategies and standards recommended by the U.S. EPA Water Sense Program and implement any appropriate revisions to the City's applicable building policies and procedures to meet the Program goals and objectives. (Green Element)

   a. *Monitor the average water use per resident to gauge the effectiveness of conservation measures.*

   b. *Track the number of residents and businesses participating in water conservation incentive programs.*

5. Ensure that the LDC allows buildings to incorporate and/or retrofit structural rainwater harvesting features such as cisterns and rain barrels. (Green Element)

▶ **Enhance stormwater maintenance**

1. The City currently sweeps over 2500 miles of local roadways every 2 weeks. Maintain this low impact program and expand as necessary in order to keep pollutants out of Doral's waterways and produce steady improvement in surface water quality. (Green Element)

   a. *Continue routine catch basin maintenance plan for maintenance of storm sewers. (Doral Green Standards)*

   b. *Measure the capacity and effectiveness of the stormwater system in managing runoff, including reduction in flooding incidents. Refer to the Catch Basin Maintenance Plan for updates every 5 years on collected data.*

   c. *Maintenance and Upgrade Activities: Track the frequency, scope, and effectiveness of maintenance and upgrades to stormwater infrastructure.*

2. Coordinate with the South Florida Management District (SFWMD) and other agencies responsible for canals within the City to protect and improve surface water quality. (Green Element)

   a. *Assess the quality of city water being discharged from stormwater systems into local water bodies.*

exp.

▶ **Seek partnerships and funding**

1. Work with the SFWMD (South Florida Water Management District) on rebates for water conserving fixtures, alternative water funding, and WaterSIP funding for conservation initiatives such as leak detection, retrofit fixture installation, or a rain-sensor shutoff retrofit program. (GMP)

   a. *Track the number and impact of partnerships formed with organizations, NGOs, or companies for water conservation initiatives.*

   b. *Track the amount of funds raised for water conservation outreach and awareness programs.*

   c. *Measure the reach and impact of water conservation awareness campaigns, including changes in public behavior and attitudes.*

2. Work with the MDC Water and Sewer Department (WASD) to examine opportunities within Doral to utilize reclaimed water on area golf courses, parks and medians, and if feasible, identify an initial public demonstration project. (Green Element)

   a. *Create a reclaimed water infrastructure. (Doral Green Standards)*

7

COMMUNITY ENGAGEMENT AND ENHANCEMENT

- Initiate education and outreach
- Increase involvement and input from the community
- Advance community well-being

exp.

Core Objectives

- **Initiate city-wide education and outreach programs that raise awareness.** Cultivate a well-informed and engaged community by implementing city-wide education and outreach programs that raise awareness about critical issues, promote civic participation, and foster a sense of responsibility and empowerment.

- **Increase engagement and transparent communications between the community and the City.** Implement comprehensive community engagement initiatives that empower residents to actively participate in shaping policies, projects, and programs, thereby strengthening social cohesion and driving sustainable development.

- **Promote community health and wellbeing through public enhancements and events.** Leverage community engagement events and develop projects with environmental enhancements to foster a culture of active living, social connection, and healthy lifestyles.

Future Goals and Implementations

▸ **Initiate education and outreach**

1. Develop environmental education content for city/county websites, TV programs, etc. (Doral Green Standards)
   a. *Track the amount of outreach through website analytics and identify ways to increase frequency of content exposure to community.*
   b. *Initiate a community stormwater education campaign. (Doral Green Standards)*
   c. *Continue the Zero Waste Academy program for residents, local businesses, and city government staff.*
   d. *Provide community education opportunities for residents and businesses on green building maintenance practices, Florida Friendly Landscape Programs, energy-saving techniques and resource conservation ideas. (Green Element)*

2. Work with the Miami-Dade County School Board and local charter and private schools to incorporate educational modules into the basic curriculum that address natural, community and personal sustainability principles and practices. (GMP)

3. Give residents and businesses multiple easily accessible venues to learn about feasible water-conserving techniques and concepts. Encourage them to take advantage of regional and county water conservations programs including Residential Plumbing Fixture Kit, Shower Head Exchange and other similar programs. (Green Element)

4. Pursue low-impact, passive development of the City's 48-acre Environmental Park to demonstrate and inform City adults and school about our natural resources and their vital importance to community sustainability. (Green Element)

▸ **Increase involvement and input from the community**

1. Hold a "visioning session" with the City's residents to gain community input for the prioritization of projects. (GMP)
   a. *Number of residents participating in town halls, public meetings, and forums.*
   b. *Track the volume and nature of community feedback received on various platforms.*
   c. *Measure how many community-provided ideas or suggestions are implemented or considered in city planning.*

2. Spearhead an aggressive community information program utilizing all forms of media readily available to make it easy for property owners, residents and businesses to learn about the City's green policies and activities, and sustainable practices that they can implement to help the environment and save real dollars. (Green Element)
   a. *Track the correlation of outreach and program participation.*

3. Through the website and other means, regularly inform Doral citizens on what the City is doing to conserve resources, and ways residents and businesses can recycle more and save money. (GMP)
   a. *Encourage residents to use the City's website to submit recommendations and share ideas, resources and support. If desired, link a Green Blog to the City's website to provide a forum for residents. (GMP)*

▶ **Advance community well-being**

1. Enhance community health by continuing to sponsor and expand the 'Get Fit Doral' Program, which encourages adults and kids to exercise and play on a regular basis. (2016 CAP)

2. Increase local farmers markets by permitting them to be in commercial zoning districts and removing any unnecessary barriers. (2016 CAP & GMP & Green Element)

3. Maintain an office, person, or group to coordinate current and future green activities. (Doral Green Standards)

4. Continue to provide inspired community leadership not only by educating and suggesting what citizens can do to sustain our future, but by setting the bar high, and showing how an organization can become green and save its clients—residents and businesses—real dollars in each annual budget. (Green Element)

The Citywide Integrated Sustainability Plan is a testament to its commitment to creating a greener, more sustainable future for its residents. By focusing on key areas including transportation, energy generation and consumption, and innovative waste management, the City of Doral is setting a high standard for urban sustainability.

The initiatives outlined in the CISP aim to reduce the City's **environmental impact, enhance the quality of life for residents**, and **foster a community culture** centered on sustainability and resilience. As these strategies are implemented, Doral will not only improve its environmental footprint but also serve as a model for other cities striving towards sustainability. This plan is a significant step towards achieving **long-term environmental health and community well-being**, ensuring that Doral remains a vibrant, sustainable City for future generations.

The CISP incorporates a myriad of objectives, plans, policies, and metrics, which aim to accomplish Doral's vision of harmony between nature and construction where their built environment coexists with the natural environment. The City will minimize its ecological footprint by converting waste into valuable resources and focusing on cleaner energy sources. In this quest for sustainable development, every drop of water should count, which is supported through responsible water management and conservation. In addition, all residents should have the liberty to travel sustainably, and by investing in innovative transportation solutions, the accessibility and connectivity within the community will only be enhanced. Overall, the city strives to make sustainability accessible to all by engaging all members of the community. This will enable the City to pave the way for a community that lives in **harmony with nature, transforms challenges into opportunities, and embraces sustainability as an advantageous way of life.**

The creation of the CISP initiates the planning, data collection, and reporting of metrics across many sectors within the community. The development of a database or a functional dashboard could significantly enhance Doral's environmental initiatives. Serving as one, central location to compile data on energy consumption, waste management, and water usage, the city can identify trends, set benchmarks, and track progress overtime. A dashboard would provide valuable insights for policymakers and also engage the community by offering transparent and accessible information on the city's environmental impact.

exp.

TABLES AND REFERENCES

- Focus Area Actions
- Capital Improvement Project ROM Estimates
- Initial CISP Focus Area Funding Alignment
- References

Table 1 - Focus Area Actions

Table 1 organizes the focus areas and highlights the key actions, performance metrics, goal alignments, and relative cost for implementation.

FOCUS AREA	KEY ACTIONS	PERFORMANCE METRICS OVERVIEW (More in Appendix A)	GREEN ELEMENT RELEVANCE	COST*
Natural Environment	• Enforce tree preservation • Reduce heat islands • Promote sustainable landscaping • Reinforce urban landscapes with sustainable infrastructure	• Tree Canopy and Green Roof Coverage • Diversity of Tree Species • Water Usage for Landscaping	1.1 Sustainable Land Use & Design 1.4 Enhance Natural Open Space & Landscape	$$$
Built Environment	• Interconnect the City's places while preserving open green space • Fund green developments and incentivize green building certifications • Promote a greener economy	• Ratio of Green Space to Built Space • Number of Green-Certified Buildings • Local Food Production Volume • # Green Jobs Created	1.3 Smart Buildings and Places 1.9 Promote Green Business and Job Growth	$$
Waste Management	• Reuse and recycle • Encourage a less wasteful community • Enact plastic free policy • •Seek partnerships and funding for outreach and awareness	• Recycling Rate • Waste Diversion Rate • Per Capita Waste Generation • Reduction in Single-Use Items	1.6 Community Waste Recycling and Reuse	$$
Transportation & Mobility	• Reduce vehicle miles travelled (VMT) • Enhance public transportation • Electrify City transportation • Increase biking and pedestrian options	• Total VMT and per capita VMT • Public Transit Ridership and bike share usage • Fleet Electrification Rate and # of Charging Infrastructure Installations	1.2 Expand Mobility and Connectivity	$$$

exp.

FOCUS AREA	KEY ACTIONS	PERFORMANCE METRICS OVERVIEW (More in Appendix A)	GREEN ELEMENT RELEVANCE	COST*
Energy Generation & Consumption	• Identify areas for energy optimization and increase energy efficiency in buildings • Explore other ways to reduce GHG emissions • Stimulate energy conservation and use renewables through incentive programs – potentially grant funded	• Reductions in Energy Consumption over time • GHG Emissions Reduction Rate • Energy Saved through Conservation Programs	1.7 Green Capital Improvements 1.10 Lead by Example (applies to all others)	$$
Wastewater, Stormwater, and Water Supply	• Continue to enhance stormwater maintenance • Enact operations, regulations and incentives for water conservation • Seek partnerships and funding for outreach and awareness of water conservation	• Maintenance and Upgrade Activities • Water Consumption per Capita • Participation in Incentive Programs	1.5 Conserve and Nurture Healthy Water Resources	$$$
Community Engagement and Enhancement	• Improve education and outreach for businesses and residents • Increase involvement and input from the community • Advance community programs like "Keep Doral Beautiful" • Seek partnerships and funding	• Engagement Metrics • Number and Quality of Partnerships • Funding Secured	1.8 Community Learning and Outreach	$

*Cost estimates are in no way definitive but are present to convey priority as well as the extent of required funding.

exp.

Table 2 – Capital Improvement Project ROM Estimates

Table 2 comprises of potential capital improvement projects to be considered for implementation. After consolidation of the priorities and actions presented in the master plans referenced in the CISP, the following potential capital improvement projects have been identified. To assist in the City's consideration of these projects, a rough order of magnitude (ROM) estimate has been evaluated for each project to strategically plan for subsequent implementation.

FOCUS AREA	KEY ACTIONS	CAPITAL IMPROVEMENT PROJECT	ROM ESTIMATE* ($)
Natural Environment	Enforce tree preservation	Update the city's tree inventory in support of their Tree City USA certification.	$50k
	Enforce tree preservation	Tree Preservation Ordinance	$15k
	Enforce tree preservation	Sponsor tree giveaway	Varies
	Develop and implement plans for species removal and preservation on public lands	Create a plan for removal of non-native species and replace them with native species to ensure the City continues to meet the Tree City USA criteria.	Allocate $50K for targeted areas yearly
	Develop and implement plans for species removal and preservation on public lands	Continue to expand community parklands and make Doral's landscape cover even greener and shadier while significantly reducing surface heat islands in the City.	Allocate a yearly budget to continue to green public lands
	Promote sustainable and water efficient landscaping practices	Adopt Florida Friendly Standards	$10K- $15K
Built Environment	Interconnection	Incorporate Multi-Modal into LDC	Depends
	Interconnection	Incorporate Mixed use Zoning and TDR into the LDC	$50k- $75K
	Bring back agriculture	Create Community Gardens	?
	Increase energy efficiency in buildings	Upgrade high energy usage systems in existing City Buildings	$50K for study
	Increase energy efficiency in buildings	Leverage existing federal funding to create energy efficient retrofit incentives for community	$60K (phased first grant assistance $30K and then incentives $30K)
	Reinforce urban landscapes with sustainable infrastructure	Replace outdoor lighting with more efficient options.	$500K (depends on number of lights)
	Reinforce urban landscapes with sustainable infrastructure	Work with MDC Public Works on a replacement program for all older incandescent signals and streetlights in Doral with LED or other types of low energy light sources.	$1.5M (depends on number of lights)
	Reinforce urban landscapes with sustainable infrastructure	Revisit current standards for open space, parking, and local roadway dimensions with an eye toward reducing impervious areas. Incentives for multi-story, cluster housing and structured parking should also be explored.	$50K - $75K

FOCUS AREA	KEY ACTIONS	CAPITAL IMPROVEMENT PROJECT	ROM ESTIMATE* ($)
Waste Management	Reuse and recycle	Coordinate with the MDC Solid Waste Management to create an awareness of recycling and reuse opportunities and best practices at the county level to adopt at our community scale.	$15K
	Reuse and recycle	Work with DSWM to expand recycling options in residential areas.	$15K
	Encourage a less wasteful community	Seek partnerships to provide regular, small-scale pilot composting programs and educational workshops.	$15K
Transportation & Mobility	Reduce vehicle miles traveled	Improve bicycle and pedestrian network connectivity.	$100k for the plan.
	Reduce vehicle miles traveled	Create an awareness program for bicycle/vehicle transportation safety.	$25K
	Enhance public transportation	Continue to expand the capabilities of the Doral Trolley Circulator System based on ridership needs and plans coordinated with the County transit system.	$75K for study
	Enhance public transportation	Upgrade transit stops with useful amenities (e.g., provide cover from the elements, green roofs, seating, lighting, transportation information, etc.)	$25k to evaluate transit stop needs
	Promote active transportation	Explore re-inclusion of a city-wide bike share program.	?
	Electrify city transportation	Expand EV charging infrastructure network. Identify feasible locations for additional EV chargers.	$50k for study
Energy Generation & Consumption	Identify areas for energy optimization	Implement energy efficiency recommendations from BE305 report.	?
	Identify areas for energy optimization	Conduct a feasibility study to identify areas within the city suitable for solar or renewable energy infrastructure.	$50K- $75K
	Promote energy efficiency throughout the community	Develop a local government energy reduction plan.	Related to energy efficiency initiatives for govt and private.
Wastewater, Stormwater, and Water Supply	Enact regulations and incentives for water conservation	Retrofit municipal water facilities to reduce water consumption.	?
	Enhance stormwater maintenance	The city currently sweeps over 2500 miles of local roadways every 2 weeks. Maintain this program and expand as necessary in order to keep pollutants out of Doral's waterways and produce steady improvement in surface water quality.	Increase last year amount to include CPI and increase based depending on additional needs- Discuss with PW

ROM Estimates were determined utilizing expert knowledge in various areas and may vary depending on project size and other factors

exp.

Table 3 – Initial CISP Focus Area Funding Alignment

Table 3 highlights current and projected grant funding programs to be considered for supporting capital improvement projects that align with the CISP focus areas. Please note some dates provided are estimates, and specific grant program eligibility will be determined on a project-specific basis.

FOCUS AREA	GRANT OPPORTUNITIES	AGENCY	OPEN	DEADLINE	NOTES
Natural Environment • Enforce tree preservation • Reduce heat island • Promote sustainable landscaping • Reinforce urban landscapes with sustainable infrastructure	Florida Urban and Community Forestry Grant Program	FDACS	11/4/2024		Tree canopy improvements, assessments, planning and education are eligible
	Energy Efficiency & Conservation Block Grant	USDOE			EV infrastructure is eligible
	Climate Pollution Reduction Grants	USEPA		4/1/2025	Planning grants to develop plans to reduce GHG, $4.6B competitive grants to develop GHG reduction programs, policies, projects and measures.
	Urban & Community Forestry Assistance Program	USDA			Tree planting and related activities such as development of urban greenspaces are eligible
Built Environment • Interconnect the City's places while preserving open green space • Fund green developments and incentivize green building certifications • Promote a greener economy	Flood Mitigation Assistance Grant Program	FEMA	9/30/2024		Preserving open/green space through acquisition is eligible
	Carbon Utilization Procurement Grants	USDOE	3/4/2024	6/6/2024	
	Climate Pollution Reduction Grants	USEPA		4/1/2025	Planning grants to develop plans to reduce GHG, $4.6B competitive grants to develop GHG reduction programs, policies, projects and measures.
	Urban & Community Forestry Assistance Progam	USDA			Tree planting and related activities such as development of urban greenspaces are eligible

FOCUS AREA	GRANT OPPORTUNITIES	AGENCY	OPEN	DEADLINE	NOTES
Waste Management • Reuse and recycle • Encourage a less wasteful community • Enact plastic free policy • Seek partnerships and funding for • Outreach and awareness	Solid Waste Infrastructure for Recycling Grants for Communities	USEPA	11/1/2024	2/1/2025	Purchase of recycling equipment, and innovative solutions that increase access to reuse and recycling in areas that do not have access, organics collection are eligible
	Recycling Education and Outreach Grant Program	USEPA	11/1/2024	2/1/2025	Outreach projects that encourage the collection of recyclable materials
	Environmental & Climate Justice Community Change Grants Program	USEPA		open now	Requires City partners with a CBO, can be used for outreach and awareness
Transportation & Mobility • Reduce vehicle miles travelled (VMT) • Enhance public transportation • Innovative fuel for City transportation • Increase biking and pedestrian options	Surface Transportation Block Grant Program (STBG)				EV & bicycle infrastructure are eligible; intermodal planning or construction projects
	Clean Heavy-Duty Vehicles Program	USEPA	4/24/2024	7/25/2024	
	Charging & Fuel Infrastructure Grants	USDOT			EV community charging infrastructure eligible
	Energy Efficiency & Conservation Block Grant	USDOE			EV for fleets, fleet electrification, EV community charging infrastructure eligible
	Strengthening Mobility & Revolutionizing Transportation (SMART) Grants Program	UDDOT		7/12/2024	Integration of intelligent transportation systems, smart technology traffic signals for improved bike and pedestrian flow are eligible
	Rebuilding American Infrastructure with Sustainability & Equity (RAISE)	USDOT		7/13/2025	Min award in urban areas = $5M (no minimum for planning grants) Max award is $25M

exp.

FOCUS AREA	GRANT OPPORTUNITIES	AGENCY	OPEN	DEADLINE	NOTES
Energy Generation & Consumption • Identify areas for energy optimization and increase energy efficiency in buildings • Explore other ways to reduce GHG emissions • Stimulate energy conservation and use renewables through incentive program	Energy Efficiency & Conservation Block Grant	USDOE			Building energy efficiency, electrification, and renewable energy are eligible
	Climate Pollution Reduction Grants	USEPA		4/1/2025	Planning grants to develop plans to reduce GHG, $4.6B competitive grants to develop GHG reduction programs, policies, projects and measures.
Wastewater, Stormwater & Water Supply • Continue to enhance stormwater maintenance • Enact operations, regulations and incentives for water conservation • Seek partnerships and funding for outreach and awareness of water conservation	Sewer Overflow and Stormwater Reuse Municipal Grants Program	USEPA			Grants awarded to states, cities are subrecipients; stormwater and subsurface drainage water projects are eligible, including green infrastructure
	Flood Mitigation Assistance Grant Program	FEMA	9/30/2024		Can be used for community drainage projects must be tailored for reducing flood risk - not just maintenance or repair
	Building Resilient Infrastructure and Communities	FEMA	9/30/2024		For hazard mitigation projects for water infrastructure, cannot just be for maintenance or repair. Requires presidential disaster declaration in last 7 years.
	Hazard Mitigation Grant Program	FEMA	TBD		Can be used for hazard mitigation projects for water infrastructure, cannot just be for maintenance or repair. Requires active presidential disaster declaration and coordination with County LMS

exp.

FOCUS AREA	GRANT OPPORTUNITIES	AGENCY	OPEN	DEADLINE	NOTES
Community Engagement and Enhancement • Improve education and outreach for businesses and residents • Increase involvement and input from the community • Advance community programs like • "Keep Doral Beautiful" • Seek partnerships and funding	Environmental & Climate Justice Community Change Grants Program	USEPA	open now		Requires City partners with a CBO, can be used for outreach and awareness
	Florida Urban and Community Forestry Grant Program	FDACS	11/4/2024		Urban forestry information and education are eligible
	Energy Efficiency & Conservation Block Grant	USDOE			Building energy efficiency and electrification is eligible

exp.

References

- Artiles, Jennifer, 2022. City of Doral, 2018 Green House Gas Inventory. Retrieved from https://www.cityofdoral.com/_entity/sharepointdocumentlocation/05f4232b-511d-ed11-b83c-001dd803cd85?file=Green-Initiatives-Aug-2022.pdf

- CB&I, 2016. City of Doral Climate Action & Implementation Plan. Retrieved form https://doral8401.sharepoint.com/_layouts/15/guestaccess.aspx?docid=093a8c45d44894edf9f4fb4550663fdcd&authkey=AfpsgPKUy8h7AYfGA_gqFv8

- City of Doral. Doral Green Standards. Retrieved from https://www.cityofdoral.com/all-departments/public-works/green-initiatives/

- ILER Planning Group, 2008. City of Doral, Green Master Plan, Green Design for a Sustainable Future. Retrieved from https://www.cityofdoral.com/_entity/sharepointdocumentlocation/81ceac3e-dbe6-ea11-a813-001dd8018943?file=Green_Master_Plan_Opt.pdf

- ILER Planning Group, 2022. City of Doral Comprehensive Plan Goals, Objectives, and Policies, Green Element. Retrieved from https://www.cityofdoral.com/_entity/sharepointdocumentlocation/a7d825a2-238c-ed11-81ac-001dd807078a?file=City-of-Doral-Comprehensive-Plan_%20Revisions_12_2022_Final.pdf

- Miami Dade. (n.d.), 2021. Miami-Dade Climate Action Strategy. Regulatory and Economic Resources. Retrieved from https://www.miamidade.gov/green/library/climate-action-strategy-final-draft.pdf

exp.

Citywide Integrated Sustainability Plan

Prepared for

DORAL
FLORIDA

Prepared by

exp.

exp.com