



# CONSERVATION, SUSTAINABILITY AND RESILIENCY

LIVE



## GOALS, OBJECTIVES, AND POLICIES

GOAL CSR 1 AIR RESOURCES PROTECTION

GOAL CSR 2 WATER RESOURCES CONSERVATION AND PROTECTION

WORK



GOAL CSR 3 MINERALS AND SOILS CONSERVATION AND PROTECTION

GOAL CSR 4 LAND PROTECTION FOR THE BENEFIT OF HABITAT AND SPECIES

PLAY



GOAL CSR 5 ENERGY EFFICIENCY AND DIVERSE ENERGY MIX

GOAL CSR 6 SUSTAINABLE WASTE MANAGEMENT, URBAN AGRICULTURE AND FOOD PROGRAMS

GROW



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## CONSERVATION, SUSTAINABILITY AND RESILIENCY

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### WHAT IS THE CONSERVATION, SUSTAINABILITY AND RESILIENCY ELEMENT?

Preparing for the future is a key component of City services and policy making and the Conservation, Sustainability and Resiliency Element is the City of Delray Beach's approach for expanding its environmental stewardship more broadly beyond just marine and terrestrial natural resources. This approach also incorporates the concepts of energy use; air quality that factors in greenhouse gas emissions; the energy-water nexus; considering the sustainability of City operations and preparing for climate change and sea level rise.

Conservation, Sustainability and Resiliency is an enhanced Element that incorporates the new principles of Sustainability and Resiliency that are interrelated to other elements of the Comprehensive Plan. Beyond the statutorily required components of the Conservation Element to protect and maintain air, natural, water and marine resources, concepts of Sustainability and Resiliency are cross-disciplinary to focus on preparation for climate change and sea level rise. This approach allows the City to identify vulnerabilities to these impacts as well as mitigate exposure by becoming a more resilient community. The City will reduce its contribution to climate-altering greenhouse gas emissions and simultaneously prepare for its impacts with "no regrets" strategies based on best available data. Through this cross-disciplinary approach, the City will also realize operational cost savings, reduce heat island effects and improve the overall health of the community.

The inter-disciplinary planning effort includes goals, objectives and policies to acquire and manage best, continue and enhance partnerships, incorporate new considerations into operational and capital planning decisions and include both internal and external outreach and education mechanisms to increase staff and public support, sensitive to the social aspects of vulnerability and resiliency to promote equity. Finally, in this Element, linkages to the Coastal Management, Mobility, Capital Improvements and Strategic Partnerships Elements, among others, are critical to maintain seamless implementation.



## CONSERVATION, SUSTAINABILITY AND RESILIENCY

### CONSERVATION, SUSTAINABILITY AND RESILIENCY GOALS.

<b>GOAL CSR 1</b>	<b>AIR QUALITY PROTECTION</b> PROTECT AND IMPROVE THE QUALITY OF THE CITY'S AIR RESOURCES.
<b>GOAL CSR 2</b>	<b>WATER RESOURCES CONSERVATION AND PROTECTION</b> PROVIDE A SUSTAINABLE WATER SUPPLY BY PROTECTING, CONSERVING, AND REUSING THE CITY'S WATER SUPPLY, BY MAINTAINING AND IMPROVING THE CITY'S WATER QUALITY, AND BY EDUCATING THE PUBLIC ABOUT THEIR ROLE IN THESE EFFORTS.
<b>GOAL CSR 3</b>	<b>MINERALS AND SOILS CONSERVATION AND PROTECTION</b> CONSERVE, PROTECT, AND PROVIDE FOR THE APPROPRIATE USE OF AREAS SUITABLE FOR THE EXTRACTION OF DESIRABLE SOILS AND MINERALS.
<b>GOAL CSR 4</b>	<b>LAND PROTECTION FOR THE BENEFIT OF HABITAT AND SPECIES</b> CONSERVE, ENHANCE, RESTORE, MAINTAIN AND PROTECT WETLANDS, CONSERVATION AREAS AND SENSITIVE LANDS THAT PROVIDE HABITAT FOR THE PROTECTION OF FISHERIES WILDLIFE AND ENDANGERED OR THREATENED SPECIES OR CONTAIN NATIVE VEGETATION VITAL TO THE ENVIRONMENTAL QUALITY OF THE CITY.
<b>GOAL CSR 5</b>	<b>ENERGY EFFICIENCY AND DIVERSIFY ENERGY MIX</b> CONSERVE ENERGY RESOURCES BY PROMOTING ENERGY EFFICIENCY AND DIVERSIFY THE MIX OF ENERGY RESOURCES THROUGH INCREASING RENEWABLE ENERGY USE.
<b>GOAL CSR 6</b>	<b>SUSTAINABLE WASTE MANAGEMENT, URBAN AGRICULTURE AND FOOD PROGRAMS</b> ENCOURAGE THE CONSERVATION OF NATURAL RESOURCES THROUGH SUPPORT OF WASTE MANAGEMENT RECYCLING, URBAN AGRICULTURE AND FOOD DELIVERY PROGRAMS.
<b>GOAL CSR 7</b>	<b>SUSTAINABLE PRACTICES THAT INCREASE THE TRIPLE BOTTOM LINE</b> BECOME MORE SUSTAINABLE THROUGH THE ADOPTION AND IMPLEMENTATION OF POLICIES AND PROGRAMS THAT PROVIDE ENVIRONMENTAL, ECONOMIC, AND SOCIAL BENEFITS TO RESIDENTS, BUSINESSES, AND VISITORS.
<b>GOAL CSR 8</b>	<b>INCREASED RESILIENCE</b> SUPPORT INCREASED RESILIENCE TO SEA LEVEL RISE, FLOODING, STORMS AND OTHER DISRUPTIVE WEATHER EVENTS.
<b>GOAL CSR 9</b>	<b>EMERGENCY PREPAREDNESS</b> MINIMIZE DAMAGE TO PUBLIC FACILITIES AND DISRUPTION OF SERVICES TO THE PUBLIC DUE TO NATURAL OR OTHER DISASTERS BY PRE-DISASTER PLANNING.



## GOAL CSR 1 AIR RESOURCES PROTECTION

### PROTECT AND IMPROVE THE QUALITY OF THE CITY'S AIR RESOURCES.

**Performance Measures:** Success in addressing Objectives and Policies of **GOAL CSR 1** shall be measured utilizing the following performance indicators:

- Completion of a greenhouse inventory with reduction targets;
- Reductions in vehicle miles traveled;
- Increase in the number of City vehicles using clean fuels and charging station infrastructure projects;
- Increase the mileage of safety features for cycling and paths; and,
- Increase in percentage of tree canopy coverage.

#### Objective CSR 1.1 Air Quality

Protect and improve the air quality throughout the City to meet the National Ambient Air Quality Standards (NAAQS) and other air quality requirements either individually or through partnerships.

##### Policy CSR 1.1.1

Participate in any regional or statewide effort to attain satisfactory air quality at a condition equal to or better than state and federal air quality standards.

##### Policy CSR 1.1.2

Provide data to, and coordinate with, the Department of Health, U.S. EPA and other relevant agencies monitoring air quality impacts.

##### Policy CSR 1.1.3

Ensure that all Prevention of Significant Deterioration (PSD) permits, Non-Attainment Area New Source Review (NAA-NSR) permits, Title V General permits, Title V Permits for Paper and Allied Products sources, Chemicals and Allied Products sources and Cane Sugar sources are issued by the FDEP or Department of Health before permits are issued by the City for construction and operation.

##### Policy CSR 1.1.4

Cooperate with Florida Department of Environmental Protection (FDEP), Department of Health and other appropriate agencies in assessing air quality impacts associated with the waste transfer station located in Delray Beach.

#### Policy CSR 1.1.5

Cooperate with the National Weather Service and Palm Beach County Environmental Resources Management to develop and implement a rapid response mechanism to notify the public of air pollution episodes that endanger public health.

#### Objective CSR 1.2 Manage and Reduce Greenhouse Gas Emissions

Reduce greenhouse gas emissions both in City operations and communitywide to achieve improved air quality and lower the City's contribution of emissions resulting in climate change.

##### Policy CSR 1.2.1

Conduct an inventory of City operations and communitywide greenhouse gas emissions within two (2) years, establish appropriate reduction targets in the inventory and continue with updates every (five) 5 years thereafter. [Complete by 2022]

##### Policy CSR 1.2.2

Within two years of completion of the inventory, develop greenhouse gas reduction strategies that strive to reduce the largest sources of emissions for City operations and communitywide

##### Policy CSR 1.2.3

Include policy considerations in capital planning procedures for projects and procurement requirements that reduce greenhouse gas emissions to meet reduction targets, increase energy efficiency and renewable energy, decrease vehicle miles traveled and increase use



## GOAL CSR 1 AIR RESOURCES PROTECTION

of alternative modes of transportation to reduce vehicle use.

### Objective CSR 1.3 Reduce transportation-related emissions

Develop a diversified transportation system that reduces reliance on fossil fuel consumption through infrastructure and program improvements that decrease vehicle miles traveled and enhance walking, cycling and transit opportunities.

[Policy MBL 1.4.2](#)

[Objective PFE 6.1](#)

#### Policy CSR 1.3.1

Implement transportation, mobility, and capital improvements plans that promote compact mixed-use development patterns accessible through multi-modal transportation options.

#### Policy CSR 1.3.2

Focus higher density and intensity land uses around existing and planned commuter rail service.

[Policy NDC 1.3.2](#)

#### Policy CSR 1.3.3

Consider the recommendations of Delray Beach Tri-Rail Coastal Link Station Master Plan.

[Policy MBL 2.3.3](#)

[Policy PFE 6.1.6](#)

#### Policy CSR 1.3.4

Work with the Palm Beach Transportation Planning Agency and other local strategic partners to develop a baseline estimate of vehicle miles traveled and non-automobile mode share countywide, and downscale to the City level, in order to adopt short, mid-range and long-term goals for vehicle miles reduction.

#### Policy 1.3.5

Identify, analyze, and work to eliminate barriers to multimodal connectivity through studies, plans, and capital investments.

#### Policy CSR 1.3.6

Increase non-automobile transportation mode share 5% by 2025 with more walking, biking and transit use in priority areas throughout the City.

[Policy MBL 1.2.4](#)

#### Policy CSR 1.3.7

Improve neighborhood connectivity by connecting sidewalks and multi-use paths that lead to City parks and require new development and redevelopment to accommodate bicycle and pedestrian facilities and connections to existing development through the use of striped or buffered/marked bicycle lanes, cycle-tracks, parallel off-street paths and/or other dedicated facilities.

[Policy MBL 2.4.3, 3.1.5](#)

[Policy OPR 2.2.5](#)

#### Policy CSR 1.3.8

Within eight (8) years, achieve recognition as a Bicycle-Friendly Community or Walk-Friendly Community OR achieve an average community Walk Score or Bike Score of 70 or more.

[Policy MBL 1.2.5](#)

#### Policy CSR 1.3.9

Assist in the coordination of programs that implement employer-option transportation control measures that reduce peak-hour vehicle use, such as flexible work hours, employer based car-pooling, and compressed work weeks.

#### Policy CSR 1.3.10

Support maximizing options to relieve congestion through trolleys, shuttles, transportation modalities that augment Palm Tran and Tri-Rail Services and operate with the cleanest fuels possible.

[Policy MBL 2.4.6](#)

### Objective CSR 1.4 Reduce vehicle-related emissions

Promote the use of fuel efficient, hybrid, and alternatively fueled vehicles and implement operational enhancements that support reductions in transportation-related vehicle emissions.

#### Policy CSR 1.4.1

Complete a Right-Size vehicle fleet analysis within three (3) years with increased fuel economy (and acquisition plan) to determine the most optimal mix of pooled, sized and assigned vehicle with most efficient fuel sources. Seven (7) or more years of age should be a considered vehicle replacement standard. Ensure technician training



## GOAL CSR 1 AIR RESOURCES PROTECTION

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and the installation of electric vehicle support equipment (EVSE) are considered. [Complete by 2022] (Objective C-1 Carried Forward)

### Policy CSR 1.4.2

Consider the costs and benefits of City fleet vehicles powered by alternative fuels, such as hybrid or electric vehicles, and higher mileage vehicles as part of the City's capital purchasing process for new motor vehicles used in transportation and life and safety maintenance operations. (Objective C-1 Carried Forward)

### Policy CSR 1.4.3

Research and adopt a City-vehicle idling policy with corresponding educational materials to reduce fuel costs and reduce municipal greenhouse gas emissions,

### Policy CSR 1.4.4

Continue to require in the Land Development Regulations a percentage of alternatively fuel off-street parking spaces in the Central Business District and assess the need for alternatively fueled vehicle spaces throughout Delray Beach.

### Policy CSR 1.4.5

Work with major private sector companies that have large fleets to co-locate or strategically site clean fuel support infrastructure, such as fueling stations.

### Policy CSR 1.4.6

Research and develop outreach materials to increase awareness of the relationship between prolonged vehicle idling, particularly for heavy duty trucks, and related greenhouse gas emissions.

### Policy CSR 1.4.7

Collaborate with other local governments to evaluate the feasibility of increasing alternative fuel sources such as biofuel, methane, electric, and or solar in government and/or private sector fleet vehicles.

### Policy CSR 1.4.8

Balance traffic flow, speed, and street design character, such as continuing to implement the Complete Streets ordinance.

[Policy MBL 3.2.3](#)

[Policy PFE 6.1.2](#)

### Objective 1.5 Air Quality

Implement City operations in a manner to improve air quality where possible.

### Policy CSR 1.5.1

Continue to implement policies related to air quality and tobacco such as Smoke Free/Tobacco Free Work Place and maintain designated "No Smoking Areas" on the beach.

### Policy CSR 1.5.2

Continue to enforce prohibitions on burning trash and debris. Partner with the Palm Beach County Health Department where necessary to enforce requirements for open burning operations related to residential land clearing and land clearing for commercial purposes.

### Policy CSR 1.5.3

Continue to ensure demolition permits mitigate air quality impacts.

### Policy CSR 1.5.4

Continue to require written approval from the Health Department before permitting any demolition involving asbestos renovation projects or demolition of structures subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).



## GOAL CSR 2

## WATER RESOURCES CONSERVATION AND PROTECTION

**PROVIDE A SUSTAINABLE WATER SUPPLY BY PROTECTING, CONSERVING, AND REUSING THE CITY'S WATER SUPPLY, BY MAINTAINING AND IMPROVING THE CITY'S WATER QUALITY, AND BY EDUCATING THE PUBLIC ABOUT THEIR ROLE IN THESE EFFORTS. (Goal A Carried Forward)**

**Performance Measures:** Success in addressing Objectives and Policies of **GOAL CSR 2** shall be measured utilizing the following performance indicators:

- 🌱 Increase in the availability and use of reclaimed wastewater;
- 🌱 Increase in the number of new developments using reclaimed wastewater;
- 🌱 Number of pollutants and pollutant levels detected in bodies of water;
- 🌱 Change in number of new cases of saltwater intrusion in public wellfields;
- 🌱 Change in the number of water bodies meeting state water quality standards; and,
- 🌱 Number of substandard stormwater management systems retrofitted.

### Objective CSR 2.1 Water Resource Contamination

Focus on detecting and eliminating water resource contamination and instituting preventative measures to protect water supply sources. (Objective A-1 Carried Forward)

Objective PFE 3.1

#### Policy CSR 2.1.1

Continue monitoring groundwater conditions through installation of monitoring wells consistent with the County's Wellfield Protection Ordinance and the City's Industrial Pretreatment Program, as well as applicable State and Federal requirements. (Policy A-1.1 Carried Forward)

Policy PFE 2.1.1

#### Policy CSR 2.1.2

Encourage the preservation of existing groundwater recharge areas through sensitive site planning, including maximizing open space, pretreatment of stormwater runoff, etc. In the case of environmentally sensitive lands, such preservation may include sensitive development under "planned development" concepts, exaction (public site dedication provisions of the Land Development Regulations), and acquisition (including the County Environmentally Sensitive Lands Acquisition Program). (Policy A-1.3 Carried Forward)

Policy OPR 1.2.3

#### Policy CSR 2.1.3

Continue water resource monitoring and

protection programs and proactively address potential impacts on the coastal aquifer from increased chlorides due to a changing climate and sea level rise.

Policy HCE 3.4.2

Policy PFE 2.1.1

#### Policy CSR 2.1.4

Continue to monitor developments in the field of water treatment technology, including desalinization, and utilize the most cost-effective technology available to meet long-term demands. (Policy A-1.2 Carried Forward)

#### Policy CSR 2.1.5

Protect existing wellfields and water supplies, and plan for infrastructure replacement and wellfield relocation as needed in consideration of potential increased coastal flooding, sea level rise, saltwater intrusion, and other potential future climate change impacts using the most recent sea level rise projections from the Southeast Florida Regional Climate Compact. This could include potential saltwater intrusion mitigation using reuse, stormwater, C-51 or other sources of water.

Policy CME 3.1.2

Policy PFE 2.1.1, 2.3.1

### Objective CSR 2.2 Wellfield Protection

Implement and expand upon the concepts, principles, and regulations contained in the Palm Beach County Wellfield Protection Program. (Objective A-2 Carried Forward)



## GOAL CSR 2

## WATER RESOURCES CONSERVATION AND PROTECTION

### Policy CSR 2.2.1

Continue to assure compliance with the County Wellfield Protection Ordinance by including compliance as a performance standard for which a specific finding must be made upon approval of any site plan or conditional use action. (Policy A-2.1 Carried Forward)

### Policy CSR 2.2.2

Inspect and monitor business premises to ascertain that facilities and procedures exist and are utilized to properly manage hazardous materials and wastes commonly occurring as a result of existing or proposed activities in compliance with the Wellfield Protection Program, Industrial Pretreatment Program, and Fire Department inspections. (Policy A-2.2 Carried Forward)

### Policy CSR 2.2.3

Prohibit the establishment of hazardous waste storage, transfer, or generating facilities. (Policy A-2.3 Carried Forward)

### Policy CSR 2.2.4

Continue to evaluate all new development and business tax receipt applications for compliance with the County Wellfield Protection Ordinance, as implemented by the Land Development Regulations.

Policy PFE 2.1.8

### Objective CSR 2.3 Water Quality

Implement specific programs to monitor, enforce, reduce, eliminate, and provide environmentally responsible disposal methods of materials that may be hazardous or contaminate the water supply, groundwater, surface water, or other water resources. (Objective A-3 Carried Forward)

### Policy CSR 2.3.1

Participate in data collection efforts, including but not limited to sampling for microbiological analysis, and enforcement of new water quality criteria for use in the Healthy Beaches Program required as of January 2016, adopted by the Florida Department of Health (DOH). These criteria reflect the most current, 2012 Recreational Water Quality Criteria (RWQ criteria), recommendations and water quality grant requirements put forth by the United States Environmental Protection Agency (USEPA)

and sample sites exceeding established standards result in the issuance of an advisory.

Objective PFE 2.3

### Policy CSR 2.3.2

Maintain the current program of monitoring and inspecting industrial and commercial sites. (Policy A-3.1 Carried Forward)

### Policy CSR 2.3.3

Implement public education programs to provide awareness of the impacts of the improper disposal of household hazardous waste. (Policy A-3.2 Carried Forward)

### Policy CSR 2.3.4

Support the continuation of a central collection site, under the jurisdiction of the Solid Waste Authority, to which the public may bring and deposit household hazardous wastes on a daily basis. (Policy A-3.3 Carried Forward)

Policy PFE 5.1.1

### Objective CSR 2.4 Water Supply and Shortage

Continue to mitigate against future water shortages using a series of innovative activities, which educate the public, reduce consumption, minimize waste, and generally protect water resources, shall continue to be undertaken. These activities shall be directed toward the continued reduction of water use, and shall be evaluated annually. (Objective A-4 Carried Forward)

### Policy CSR 2.4.1

Cooperate and support development and implementation of local and regional water resource strategies, water resource development, and conservation and reuse projects that promote a sustainable water supply. Regional and local water resource development strategies shall include, but not be limited to, increased water conservation, aquifer recharge, additional reuse projects such as rapid infiltration basins (RIBS), reclaimed water, Upper Floridan aquifer development and the C-51 Reservoir Project.

Policy PFE 2.1.3, 2.2.1, 3.2.2, 3.2.3

### Policy CSR 2.4.2

Implement a water conservation program, as required by the water use permit, based on the



## GOAL CSR 2

## WATER RESOURCES CONSERVATION AND PROTECTION

following principles: enforcement of environmentally-friendly landscaping and xeriscaping ordinances, low volume plumbing ordinance, rain sensor ordinance, implementation of a conservation rate structure, leak detection system and water conservation education programming and development of alternative water supply projects. (Policy A-4.2 and 4.3 Carried Forward)

Policy PFE 2.1.2, 2.2.1, 2.5.5

### Policy CSR 2.4.3

Continue developing other alternative water supplies as a mechanism to diversify the City's sources of potable water supply.

### Policy CSR 2.4.4

Raise public awareness of water conservation practices on a regular basis through multiple, creative outlets, including posting literature in City Hall, installing signs along major roads, providing information in utility bills, neighborhood newsletters, press releases, and social media platforms, as well as education programs in local schools. (Policy A-4.1 Carried Forward)

### Policy CSR 2.4.5

Continue to implement requirements for water conserving fixtures in new construction and incentivize higher efficiency standards in new construction and renovations. (Policy A-4.2 Carried Forward)

### Policy CSR 2.4.6

Require the use of native plants and environmentally-friendly landscaping and design in all publicly owned areas, including demonstration projects that educate the public on the resulting benefits of water and native wildlife conservation. (Policy A-4.4 Carried Forward)

Policy CME 2.4.2

Policy CSR 2.4.7

Policy OPR 3.5.3

### Policy CSR 2.4.6

Revise land development regulations to eliminate required irrigation systems when a landscape plan is approved that includes the use of native plants and other vegetation that will survive without permanent irrigation, while meeting landscape code requirements.

Policy NDC 3.5.11

### Policy CSR 2.4.8

Continue to include requirements on the use of low-water tolerant plant species, as well as the installation of rain or moisture monitor devices for irrigation systems in landscape standards.

### Policy CSR 2.4.9

Continue to require the preservation of existing native plant communities and the use of native plants and trees in landscape plans for new development and redevelopment projects.

Policy CME 2.4.1, 2.4.2

### Policy CSR 2.4.10

Continue requiring a water source, other than City water, for irrigation purposes in geographically defined areas of the City. (Policy A-4.6 Carried Forward)

Policy PFE 3.2.2, 3.2.3

### Policy CSR 2.4.11

Continue to utilize and expand use of reclaimed water from the wastewater treatment plant, with prioritization for effluent reuse on golf courses, large homeowner associations with master meter systems, City parks, and within the Coastal Planning Area. (Policy A-4.5 Carried Forward).

PFE Policy 3.2.2

### Policy CSR 2.4.12

Provide incentives for new construction and redevelopment to incorporate the use of grey water systems for both irrigation and toilets/sanitary sewer systems.

### Policy CSR 2.4.13

Require discontinued wells be plugged and sealed, as required by the Florida Department of Environmental Protection. (Policy A-4.8 Carried Forward)

### Policy CSR 2.4.14

Support public education programs and emergency powers of the South Florida Water Management District with respect to the conservation of water sources and, when such programs and activities are imposed by the District, impose those similar restrictions which are available under the City's emergency water conservation powers. (Policy A-4.9 Carried Forward)

Policy PFE 2.2.1



## GOAL CSR 2

## WATER RESOURCES CONSERVATION AND PROTECTION

### Policy CSR 2.4.15

Direct storm water into landscaped areas for use in irrigation throughout the Delray Beach municipal city limits. (Policy A-4.10 Carried Forward)

### Policy CSR 2.4.16

Work with the South Florida Water Management District and Lake Worth Drainage District to include innovative, low impact development principles in local regulations, such as pervious paving/surfaces to reduce water runoff and promote percolation/stormwater recharge. (Policy A-4.11 Carried Forward)

Policy CME 1.6.1, 2.3.2, 3.6.4

Policy PFE 4.1.8

### Policy CSR 2.4.17

Work with the South Florida Water Management District and Lake Worth Drainage District to maintain and enforce the City's vegetative requirements and to investigate opportunities for shared or joint use of lands, easements or rights-of-way for passive, non-structural recreational opportunities.

Policy OPR 1.3.1, 4.1.2

### Policy CSR 2.4.18

Educate the public on the benefits of conserving water, native plants and animals, and ecosystems at events, such as tree giveaways.

### Objective CSR 2.5 Potable Water

Address the City's existing and projected potable water needs and sources in the context of the regional water supply.

(Objective A-5 Carried Forward)

### Policy CSR 2.5.1

Adopt, by reference, the City of Delray Beach's 2015 Water Supply Facilities Work Plan. (Policy A-5.1 Carried Forward)

Policy PFE 1.2.2, 2.1.5, 2.1.6, 2.5.4

### Policy CSR 2.5.2

Participate in the development of the projects and recommendations contained within the most recent version of the Lower East Coast Regional Water Supply Plan.

Policy PFE 2.1.4

### Objective CSR 2.6 Protecting Water Bodies

Support individually, and participate in, regional efforts to protect and enhance the quality of water, including Lake Ida, the drainage canal system, and the Intracoastal Waterway. (Objective C-2 Carried Forward)

### Policy CSR 2.6.1

Work with other agencies to improve Lake Ida water quality, with the goal of achieving a water quality level that will allow swimming. (Policy C-2.1 Carried Forward)

### Policy CSR 2.6.2

Continue to monitor the quality of waters flowing into coastal water bodies and implement strategies to maintain protection or improvement in them considering potential contamination resulting from inundation, structural compromise, from sea level rise, storm events, or other climate related impacts.

### Policy CSR 2.6.3

Review City regulations on fertilizer application and update, if needed, to incorporate concepts including, but not limited to, blackout periods, effectiveness of enforcement and setback distances from water bodies. Expand education and outreach efforts for homes and business owners on proper fertilizer application techniques and the adverse fertilizer impacts on City water quality.



## GOAL CSR 3 WATER RESOURCES CONSERVATION AND PROTECTION

**CONSERVE, PROTECT, AND PROVIDE FOR THE APPROPRIATE USE OF AREAS SUITABLE FOR THE EXTRACTION OF DESIRABLE SOILS AND MINERALS.**

**Performance Measures:** Success in addressing Objectives and Policies of **GOAL CSR 3** shall be measured utilizing the following performance indicators:

- Decrease in permit violations related to lake excavation activities;
- Increase in more natural shoreline protection strategies such as installing mangroves and other native vegetation, and rip rap planters; and,
- Increase in environmentally-friendly landscaping along roadways to prevent soil erosion.

### **Objective CSR 3.1 Soil Resources**

Conserve and protect soils resources by maintaining land development regulations governing soil erosion.

#### **Policy PFE 3.1.1**

#### **Policy CSR 3.1.1**

Maintain Land Development Regulations that minimize soil erosion on new construction sites by requiring measures consistent with the Best Management Practices of the United States Natural Resources Conservation Service (Construction, Site, Soil, Erosion, and Sediment Control) including, but not limited to, replanting, restoring and protecting vegetation.

#### **Policy CSR 3.1.2**

Include appropriate environmentally-friendly landscaping and design, including, but not limited to, replanting, restoring and protecting vegetation, to minimize soil erosion in the construction or expansion of roadways with steep embankments.

#### **Policy CSR 3.1.3**

Maintain shoreline protection and erosion control by continuing a program of beach and dune protection, coastal and shoreline buffering, and use of seawalls only when natural protection strategies are not feasible; and, evaluate opportunities to protect coastal investments and infrastructure, as appropriate, from the impacts of climate change.

#### **Policy CME 1.6.3**



## GOAL CSR 4 LANDS PROTECTION FOR THE BENEFIT OF HABITAT AND SPECIES

**CONSERVE, ENHANCE, REGENERATE, MAINTAIN AND PROTECT WETLANDS, NATURAL RESERVATIONS AND SENSITIVE LANDS THAT PROVIDE HABITAT FOR THE PROTECTION OF FISHERIES WILDLIFE AND ENDANGERED OR THREATENED SPECIES OR CONTAIN NATIVE VEGETATION VITAL TO THE ENVIRONMENTAL QUALITY OF THE CITY. (Goal Area "B" carried forward)**

**Performance Measures:** Success in addressing the Objectives and Policies of **GOAL CSR 4** shall be measured utilizing the following performance indicators:

- Maintain or increase the number and size of existing wetlands;
- Restore and maintain conservation specially designated and protected properties;
- Sea turtle nest hatchling success rates; and,
- Beach nourishment:
  - Evaluation and physical monitoring of the beach project annually;
  - Completing planned periodic beach renourishment events; and,
  - Coordinating swiftly with project partners (USACE, Palm Beach County and FDEP) to assess and repair storm damages to the beach.

### **Objective CSR 4.1 Fisheries, Wildlife and Habitat**

Implement policies that protect fisheries, wildlife, wildlife habitat and marine habitat and restrict activities known to adversely affect the survival of endangered and threatened wildlife.

**(Objective B-2 Carried Forward)**

#### **Policy CSR 4.1.1**

Continue to implement the Sea Turtle Conservation Program, which includes monitoring of nesting and hatching activity, and enforcement of lighting restrictions. **(Policy B-4.2 Carried Forward)**

#### **Policy CSR 4.1.2**

Continue to enforce sea turtle lighting requirements.

#### **Policy CSR 4.1.3**

Maintain existing programs to protect offshore reefs and marine habitat through monitoring and management of beach renourishment construction activities. **(Policy B-4.4 Carried Forward)**

#### **Policy CSR 4.1.4**

Protect, conserve, rehabilitate and restore wildlife habitat, open space and recreation areas, conservation areas and prevent any further net loss of these lands in Delray Beach.

**Policy OPR 1.3.11, 3.1.3**

#### **Policy CSR 4.1.5**

Cooperate with the US Department of Agriculture, the Florida Department of Environmental Protection (FDEP), Fish and Wildlife Conservation Commission and Florida Exotic Pest Plant council to eliminate invasive exotic plant and animal species and pursue the removal, eradication, treatment and maintenance of exotic, nuisance and invasive species within the City.

**Policy OPR 3.1.6**

#### **Policy CSR 4.1.6**

Continue to provide regulations regarding the removal of existing invasive exotic species such as Australian Pine, Brazilian Pepper, Shefflera Queensland umbrella, Ear-Leaf Acacia, Scaevola and Melaleuca on private property as development and/or redevelopment occurs and prohibit the planting or cultivation of these species anywhere within the City. **(Policy B-1.6 Carried Forward)**

#### **Policy CSR 4.1.7**

Promote on-site preservation as the most desirable alternative for the protection of upland habitats, and plant and wildlife species, with off-site preservation for endangered or threatened species of special concern utilized when recommended by the Florida Fish and Wildlife Conservation Commission and the US Fish and Wildlife Service.



## GOAL CSR 4 LANDS PROTECTION FOR THE BENEFIT OF HABITAT AND SPECIES

### Policy CSR 4.1.8

Comply with all relevant State and Federal regulations that pertain to listed species and consult, as required, with regulatory agencies prior to the issuance of a land use approval that would result in an adverse impact to any listed species.

### Policy CSR 4.1.9

Support marine law enforcement programming and restrict access and activities in designated Manatee Essential Habitat Areas and support existing speed regulations such as Idle Speed Zones, Low Speed Zones and Slow Speed Buffer Zones to promote boater safety and protect manatees. (Policy B-2.4 Carried Forward)

Policy CME 1.6.5

### Policy CSR 4.1.10

Marine construction activities shall comply with all state and Federal regulatory requirements and be located so as to minimize impacts to manatees and resources they depend upon, as well as other rare, threatened or endangered species. Such activities shall also require minimal or no dredging, as well as have good tidal flushing. In instances where dredging is required, minimize both initial and maintenance dredging.

Policy CME 2.6.9

### Objective CSR 4.2 Habitat Protection

Identify, designate, protect, maintain and regenerate habitat, natural reservations and environmentally sensitive areas. (Objective B-1 Carried Forward)

### Policy CSR 4.2.1

Conserve and protect conservation areas and environmentally sensitive lands as depicted on Map AD-19 (Conservation Areas).

### Policy CSR 4.2.2

Consider the climate adaption needs of native plants, the diversity of plant and wildlife species, and consider strategies for assisting in their natural migration.

Policy CME 2.4.2

### Policy CSR 4.2.3

Require the submission of a biological survey and a habitat analysis with land use requests for plan amendments, rezonings, and site plan approval,

with an exception where it is apparent that no such resources exist, as determined by staff. (Policy B-2.1 Carried Forward)

### Policy CSR 4.2.4

Continue to protect valuable open space and conservation areas through dedication of park lands, impact fees or dedication in lieu of and the provision of greenspace and buffering at the time of site plan review.

Policy OPR 3.2.3

### Policy CSR 4.2.5

Continue to maintain, implement and enhance regulations that protect and preserve native trees, including those in areas of native vegetative communities and promote the use of native vegetation. The City shall maintain and enforce land clearing requirements and enhance tree replacement policies that focus on like kind species in the site planning process.

Policy CME 2.4.2

Policy OPR 3.5.3

### Policy CSR 4.2.6

Identify the following publicly-owned environmentally sensitive areas as "Conservation" or "Open Space" on the Land Use Map: (Policy B-1.1 Carried Forward)

- ✿ The FIND parcels 645, and 650 along the Intracoastal;
- ✿ The Leon Weekes Environmental Preserve;
- ✿ Delray Oaks; and
- ✿ The Donnelley Tract on Palm Trail.
- ✿ The Public Beach Dunes

These designations shall be maintained in order to further this objective as well as the goals, objectives and policies of the Open Space and Recreation Element.

Policy CME 1.6.6

Policy OPR 3.1.1

Policy NDC 1.5.1

### Policy CSR 4.2.7

With development of the Heritage Club project, a portion of the Hurricane Pines site has been preserved as part of the open space for the project. This area shall continue to be maintained



## GOAL CSR 4 LANDS PROTECTION FOR THE BENEFIT OF HABITAT AND SPECIES

by the homeowners association as a preservation area. (Policy B-1.2 Carried Forward)

### Policy CSR 4.2.8

Continue to use the City-owned park site in the Hammock Reserve area as primarily passive uses to maximize retention of the existing native plant communities and continue to preserve the environmentally sensitive site. (Policy B-1.3 Carried Forward)

Policy OPR 3.5.3

### Policy CSR 4.2.9

Protect natural reservations that exist as historic sites through the continued implementation and enforcement of the City's Historic Preservation Ordinance. (Policy B-1.5 Carried Forward)

### Policy CSR 4.2.10

Integrate required project open spaces with trail systems where feasible and functionally possible, particularly where contiguous parcels are identified for a trail system.

### Policy CSR 4.2.11

Continue to require the conservation of trees and existing native vegetation in redevelopment and new development projects.

Policy CME 2.4.1, 2.4.2

### Policy CSR 4.2.12

Promote the ongoing protection and maintenance of unique habitats and conservation areas to preserve environmental, recreation, and other public benefits, including but not limited to, the conservation of publicly-owned conservation areas, wetland mitigation areas and water recharge areas.

Policy OPR 1.3.12, 1.4.1, 2.3.3

### Policy CSR 4.2.13

Prioritize and pursue funding opportunities for the restoration and/or enhancement of degraded natural areas, such as, restoration of shorelines or dunes, restoration of natural hydrology, or removal of non-native vegetation.

### Policy CSR 4.2.14

Include impacts to habitat and wildlife in future climate planning efforts including vulnerability assessments.

Policy CME 3.1.4

### Policy CSR 4.2.15

Implement and enforce regulations that promote proper tree and vegetative maintenance and pruning, and prevent hat-racking or topping practices which weaken trees.

### Policy CSR 4.2.16

Develop and implement programs for protecting and expanding existing open space, conservation areas and wetland areas such as Transfer of Development Rights, deed of conservation easements, restrictive covenants, and tax incentives, while incorporating species and habitat vulnerability to climate change into the land use planning or land acquisition. [Complete by 2025-2040]

Policy CME 2.2.6

Policy OPR 1.2.1, 1.2.4, 3.1.5

Policy NDC 2.1.4, 3.5.10

### Policy CSR 4.2.17

Consider designating the Bexley Park Preserve area as Conservation on the Land Use Map.

Policy OPR 3.1.7

### Objective CSR 4.3 Local Government Coordination

Maintain cooperation with adjacent local governments to conserve, appropriately use, or protect unique vegetative communities located within more than one local jurisdiction.

### Policy CSR 4.3.1

Coordinate with applicable agencies to identify, manage, and protect unique native vegetative communities, and marine and estuarine resources that are located within the City but cross jurisdictional boundaries or are of regional significance.

### Policy CSR 4.3.2

Participate in data collection and updating management plans for unique vegetative communities that are entirely or partially located within the City.

### Policy CSR 4.3.3

Participate in efforts to secure funding to designate and protect native ecosystems, or the designation process for, unique vegetative communities within Delray Beach.



## GOAL CSR 4 LANDS PROTECTION FOR THE BENEFIT OF HABITAT AND SPECIES

### Objective CSR 4.4 Protecting Wetlands.

Protect and conserve the functions and values of wetlands and direct future land uses that are incompatible with the protection and conservation of wetlands and wetland functions away from wetlands.

#### Policy CSR 4.4.1

Implement provisions that avoid and minimize impacts to wetland function, and where impacts are unavoidable, require replacement of lost function through mitigation.

#### Policy CSR 4.4.2

Implement integrated water management strategies in order to lessen negative impacts to open spaces, wetland mitigation areas, and natural systems, improve the ability of these systems to adapt to climate change, and optimize the ability of these systems to create additional benefits to the City's residents and visitors.

#### Policy CSR 4.4.3

Maximize connectivity between wetland areas, onsite preserve areas in private developments, areas subject to habitat management plans and/or mitigation projects to enhance their relationships with other wetlands.

**Policy OPR 1.4.4, 1.4.5, 2.2.5, 4.2.1, 4.3.5**

#### Policy CSR 4.4.4

Integrate wetlands into stormwater drainage/water management practices in permitted development, protected lands and mitigation areas to provide necessary recharge hydrology and conditions to sustain the wetland areas.

#### Policy CSR 4.4.5

Distribute land uses in a manner that avoids or minimizes impacts on wetlands.

### Objective CSR 4.5 Habitat Outreach

Educational programs shall be implemented to increase public awareness on species and habitat protections.

#### Policy CSR 4.5.1

Increase public awareness of manatees and manatee protection efforts including signage at

new and existing public and private marinas, boat ramps, and non-residential boat docks, as well as appropriate public parks, and educational displays or informational kiosks that raise manatee awareness.

#### Policy CSR 4.5.2

Increase public awareness of threatened and endangered species through signage at appropriate habitat locations and coordinate with other partners to increase public awareness of native flora and fauna and their unique role in the ecosystem.

#### Policy CSR 4.5.3

Cooperate with organizations such as the Native Plant Society, Institute for Regional Conservation and other local strategic partners to host informational events for residents and professionals on habitat and species conservation and to increase support for promotion of biodiversity, protecting native plants and ecological restoration.



## GOAL CSR 5 ENERGY EFFICIENCY AND DIVERSE ENERGY MIX

**CONSERVE ENERGY RESOURCES BY PROMOTING ENERGY EFFICIENCY AND DIVERSIFY THE MIX OF ENERGY RESOURCES THROUGH INCREASING RENEWABLE ENERGY USE.**

**Performance Measures:** Success in addressing the Objectives and Policies of **Goal CSR 5** shall be measured utilizing the following performance indicators:

- Reduction in residential, commercial and municipal electricity use;
- Increase in the number of green buildings in the City;
- Increases in energy efficiency municipal retrofit projects; and,
- Increases in City and communitywide renewable energy projects.

### **Objective CSR 5.1 Energy Efficiency**

Promote and provide incentives for energy efficient buildings, homes and infrastructure to reduce electricity use.

#### **Policy CSR 5.1.1**

Increase energy efficiency requirements for residential and commercial construction through an outreach effort to determine best incentives, approaches and case studies. Encourage increasing energy efficiency attributes of repurposed buildings. Develop a sustainable construction incentive program for new residential and commercial construction. Evaluate strategies to use various fee structures encouraging sustainable construction standards consistent with law.

#### **Policy CSR 5.1.2**

Create a Sustainable Development Standards evaluation system and Handbook to assist with interpretation of criteria for clarification in the development community. Include aspects of energy efficient design for homes and businesses and environmentally-friendly landscaping. [Complete by 2025]

#### **Policy CSR 5.1.3**

Promote the use of cooler roof systems with reflective coating materials.

#### **Policy CSR 5.1.4**

Create outreach campaign on how residents and business owners can implement simple solutions to become more energy efficient and save on power bills.

#### **Policy CSR 5.1.5**

Undertake energy and water audits and retro-commissioning of operations for City facilities and sources of energy use, such as streetlights, within three (3) years to develop an energy and water efficiency capital retrofit program with a return on investment analysis showing costs and benefits of a citywide retrofit program. Implement a recurring program of retro-commissioning every eight (8) years on City facilities. [Complete by 2022]

#### **Policy CSR 5.1.6**

Develop sustainable construction standards for City-owned buildings and major renovations consistent with Section 255.2575, Florida Statutes, which requires energy efficient and sustainable buildings. Require public infrastructure projects incorporate elements of efficiency for energy and water consumption in new or upgraded infrastructure investments and develop energy efficiency criteria to include in City procurements and capital projects. In the capital improvements planning process, consider the most energy efficient technologies available.

#### **Policy PFE 7.2.1**

#### **Policy CSR 5.1.7**

Implement a system to maintain a centralized database (Utility Management System) that collects and tracks key sustainability indicators to facilitate sustainability and energy reporting, management of programs, and assessment of performance.

#### **Policy CSR 5.1.8**

Cooperate with organizations such as the Palm Beach Branch of the US Green Building Council, Florida Green Building Coalition, Green Roofs for



## GOAL CSR 5 ENERGY EFFICIENCY AND DIVERSE ENERGY MIX

Healthy Cities and others to host informational events for residents and professionals on green roofs, green building techniques, and energy conservation.

**Policy EDU 3.5.6**

### **Policy CSR 5.1.9**

Continue to enforce any environmental lighting restrictions and promote the goals of the Dark Sky Initiative.

### **Objective CSR 5.2 Renewable Energy**

Increase renewable energy projects in homes, commercial buildings and City facilities.

### **Policy CSR 5.2.1**

Promote the use of renewal energy, such as, solar arrays, bio-diesel, energy storage technologies, micro-grids, community battery storage of electric power, and solar car charging stations.

**Policy PFE 7.2.1**

### **Policy CSR 5.2.2**

Allow for easy, cost-effective future installation of solar systems in the design and construction of new City buildings, such as optimal roof orientation, roof framing to support solar panels, electrical conduit to accept solar electric system wiring, and plumbing to support a solar hot water system.

### **Policy CSR 5.2.3**

Use financial and regulatory incentives to increase the use of alternative and renewable energy within the City. Develop and promote programs that encourage solar energy, that assist residents and businesses with the soft/indirect costs of installing solar arrays, and by lowering permitting fees to facilitate implementation of alternative energy projects.

### **Policy CSR 5.2.4**

Encourage and reduce barriers to solar cooperatives and other community renewable energy aggregation programs.

### **Policy CSR 5.2.5**

Work towards achieving the SolSmart Silver designation by removing regulatory barriers to the installation of solar energy in nearly all zoning districts. [Complete by 2022].

### **Policy CSR 5.2.6**

Complete a renewable energy feasibility study on all City facilities to identify opportunities for renewable energy projects to power municipal operations, minimize disruptions from major storms and weather events coupling renewable energy with backup power storage and establish a renewable energy target for municipal operations. [Complete by 2025].

**Policy PFE 7.2.1, 7.3.4**

### **Policy CSR 5.2.7**

In the Land Development Regulations, provide and encourage the use of energy design techniques, such as passive solar design for residential and commercial solar installations. Provide incentives for installing solar arrays on rooftops and other impervious spaces and remove any barriers to their installation in such areas.

**Policy NDC 3.5.12**

### **Policy CSR 5.2.8**

Collaborate with local, state, and federal Strategic Partners to advance renewable energy goals through new programs, adoption of best practice programs, pursuit of grants for project and policy research, and policy implementation.

### **Policy CSR 5.2.9**

Create website and outreach materials about solar incentives, programs and net-metering opportunities into a compiled initiative. [Complete by 2022]



## GOAL CSR 6 SUSTAINABLE WASTE MANAGEMENT, URBAN AGRICULTURE AND FOOD PROGRAMS

**ENCOURAGE THE CONSERVATION OF NATURAL RESOURCES THROUGH SUPPORT OF WASTE MANAGEMENT RECYCLING, URBAN AGRICULTURE AND FOOD DELIVERY PROGRAMS. (Goal Area "D" carried forward).**

**Performance Measures:** Success in addressing the Objectives and Policies of **GOAL CSR 6** shall be measured utilizing the following performance indicators:

- 🌱 Increase in tonnage of waste recycled;
- 🌱 Number of materials eligible for recycling;
- 🌱 Increase in construction and demolition recycling;
- 🌱 Increase in hazardous waste drop off utilization;
- 🌱 Increase in composting;
- 🌱 Maintain and increase community gardening opportunities;
- 🌱 Increase in backyard farming and urban agriculture; and,
- 🌱 Increase number of businesses and community organizations using locally produced food.

### **Objective CSR 6.1 Materials Management**

Develop a cooperative materials management system with partnering organizations to maximize the recovery and reuse of waste and other materials to capture their economic value, conserve embedded energy, and minimize net life-cycle emissions of greenhouse gases and other pollutants.

**Objective PFE 5.1**

#### **Policy CSR 6.1.1**

Continue to participate in the Palm Beach County Solid Waste Authority recycling program. Work with Palm Beach County to meet or exceed county-imposed recycling goals in Section 403.706(2)(a), Florida Statutes requiring a recyclable materials program that have a goal of recycling solid waste by 75 percent by December 31, 2020. (Objective D-1 Carried Forward).

**Policy PFE 6.1.1**

#### **Policy CSR 6.1.2**

Work with the Solid Waste Authority to increase rates of residential and commercial recycling and proper storage, recycling, collection and disposal of hazardous wastes, and to increase the types of materials accepted for recycling. (Policy D-1.1 Carried Forward).

**Policy CSR 6.1.3**

**Policy PFE 5.1.2, 5.1.4, 5.1.6**

#### **Policy CSR 6.1.3**

Continue to support the County's education program to increase participation in recycling. (Policy D-1.2 Carried Forward).

**Policy PFE 5.1.4, 5.1.7**

#### **Policy CSR 6.1.4**

Implement communitywide incentives and policies for residents and businesses to help achieve community waste reductions goals. Conduct an annual education program to encourage increased participation in the recycling program by low performing neighborhoods. (Policy D-1.3 Carried Forward).

**Policy PFE 5.1.4, 5.1.8**

#### **Policy CSR 6.1.5**

Work with the waste hauler to receive city-level monitoring data and utilize annual and quarterly service reports to create a database of waste management services, analyze usage, and identify opportunities for improving waste management within the Delray Beach Planning Area.

**Policy PFE 5.1.9**

#### **Policy CSR 6.1.6**

To reduce waste, promote use of more sustainable products in certain industries, such as biodegradable straws, bags, packaging and containers.

**Policy PFE 5.1.10**



## GOAL CSR 6 SUSTAINABLE WASTE MANAGEMENT, URBAN AGRICULTURE AND FOOD PROGRAMS

### Policy CSR 6.1.7

Update commercial recycling requirements consistent with Section 403.7046(3), F.S. and Collaborate with Chamber to reach business entities on importance of recycling and benefits to the community overall in increasing recycling rates with an emphasis on restaurants.

**Policy PFE 5.1.11**

### Policy CSR 6.1.8

To increase recycling of construction and demolition debris, provide the public with educational materials about available pick up service, and partner with the Solid Waste Authority, its waste hauler and other appropriate agencies to promote available methods of disposal.

**Policy PFE 5.1.4, 5.1.12**

### Policy CSR 6.1.9

Promote the recycling of hazardous wastes through education and outreach conveying information about available locations and programs for hazardous waste recycling; and, consider collection events to promote convenient drop-off opportunities.

**Policy PFE 5.1.2**

### Policy CSR 6.1.10

Cooperate with the Palm Beach County Health Department and other concerned agencies in developing emergency response plans for accidents involving hazardous wastes.

### Policy CSR 6.1.11

Continue to support and enforce the implementation of the Oil and Grease Management Program and the Surcharge Program. Coordinate with the City's waste hauler to determine if opportunities exist for the City to assist in waste oil reduction through consolidated pick up, hauling services and recycling.

### Policy CSR 6.1.12

Explore opportunities to add recycle receptacles on City properties specifically in locations where the City currently supports trash receptacles, such as on Atlantic Ave., the Beach (the sidewalk that is adjacent to Highway A1A), Pineapple Grove, Swinton, US-1 and other appropriate areas.

**Policy PFE 5.1.13**

### Policy CSR 6.1.13

Work closely with the Solid Waste Authority in the preparation of public notices, educational materials, and promotional materials to be distributed to residential and commercial customers.

**Policy PFE 5.1.14**

### Policy CSR 6.1.14

Actively work with the waste hauler in the administration of the "Optional Benefits" described in Exhibit 13 of the current Agreement with the City:

- 🌱 Collaborate in the administration of the "Recycle Delray" program, which promotes recycling through community events and outreach programs for local schools and businesses.
- 🌱 Use the contribution made to the Delray Beach Public Library for recycling and composting educational outreach activities.
- 🌱 Continue to support of one Keep America Beautiful Coastal Cleanup event per year.
- 🌱 Coordinate with its waste hauler to support the "Annual Shredder Day" providing free shredding services to the City and its residents.
- 🌱 Coordinate to support the "You Recycle, We Replant" provision of the Agreement which provides for new or replacement trees in public places.

**Policy PFE 5.1.4, 5.1.15**

### Policy CSR 6.1.15

Prior to demolition, salvageable materials should be removed and sourced to upcycling and reuse organizations or recycled.

**Policy PFE 5.1.16**

### Policy CSR 6.1.16

Work with Green Market vendors to reduce waste, minimize polystyrene and plastic bag use and promote composting and recycling.

### Objective CSR 6.2 Food and Organic Waste

Develop partnerships with Solid Waste Authority, stakeholders, and waste haulers to decrease the amount of food and organic waste citywide.



## GOAL CSR 6 SUSTAINABLE WASTE MANAGEMENT, URBAN AGRICULTURE AND FOOD PROGRAMS

### Policy CSR 6.2.1

Explore opportunities with the Solid Waste Authority and its waste hauler to implement a food and organic waste recycling program to potentially include collection of containers for, and recycling of, fruits and vegetables, meat, poultry, seafood (bones and shells), bakery items and ingredients, eggs and paper egg cartons, plants, cut flowers, potting soil, coffee grounds, filters, tea bags and paper products (napkins, paper towels), which could include a shared composting program for food waste management.

### Policy CSR 6.2.2

Prepare educational materials on restaurant-based recycling strategies and work with waste hauler to target distribution to largest enterprises and ensure availability of recycling containers for other waste materials.

### Policy CSR 6.2.3

Identify or designate other materials that the City aspires to have handled separately (such as organic material or pre-consumer waste) through partnerships with the Solid Waste Authority and/or new services by amending the current Waste Management Agreement, or in negotiating future contracts with waste management entities identify opportunities for community composting programs where food and organic waste may be handled separately and used to create natural compost to be used in community gardens or sold to interested parties.

### Objective CSR 6.3 Disposal of Waste on Beaches

Protect the character of the public beach through promotion of coastal cleanup activities and supporting the proper disposal of solid waste and recyclable materials.

### Policy CSR 6.3.1

Restrict litter and marine pollution at City events and activities.

### Policy CSR 6.3.2

Promote recycling of waste generated by residents and visitors of Delray Beach's public beach by providing recycling receptacles and public notices.

### Policy CSR 6.3.3

Support the coastal cleanup program conducted by the Keep America Beautiful and any other approved coastal cleanup activities.

### Policy CSR 6.3.4

Partner with community organizations, schools, agencies, and nonprofit groups to sponsor at least bi-annual coastal cleanup events.

### Objective CSR 6.4 Local Food Resources

Maximize local resources for energy-efficient food processing within the City's local foodshed and encourage location-appropriate urban agriculture and community gardening.

### Policy OPR 3.4.1

### Policy CSR 6.4.1

Partner with local and regional Strategic Partners to delineate and promote a local foodshed as part of a sustainable local food system.

### Policy CSR 6.4.2

Work with local and regional Strategic Partners in the defined foodshed to identify processing facilities and related infrastructure needed to process locally grown foods.

### Policy CSR 6.4.3

Create programs and policies that encourage and support composting, community garden networks and local food production, in order to meet the multiple goals of reduced emissions and energy consumption, while increasing the resiliency and long-term food security of the community.

### Policy OPR 3.4.1

### Policy CSR 6.4.4

Encourage backyard agriculture and community gardening throughout the City. Increase the use of locally grown and/or processed foods in City facilities where food is provided and encourage other local government facilities to do the same.

### Policy OPR 3.4.1

### Policy CSR 6.4.5

Work to facilitate partnerships between local farmers and local government organizations to



## GOAL CSR 6 SUSTAINABLE WASTE MANAGEMENT, URBAN AGRICULTURE AND FOOD PROGRAMS

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provide healthy, fresh foods in local schools and other institutions.

### **Policy CSR 6.4.6**

Support the City's Green Market and encourage participation of local city-based growers. Permit and encourage small-scale agricultural production and sale direct to the public.

### **Policy CSR 6.4.7**

Explore opportunities for more community gardens to be located on publicly held lands by partnering with local Strategic Partners to provide fresh food for non-commercial use and green spaces.

### **Policy OPR 3.4.1**



## GOAL CSR 7 SUSTAINABLE PRACTICES THAT INCREASE THE TRIPLE BOTTOM LINE

**BECOME MORE SUSTAINABLE THROUGH THE ADOPTION AND IMPLEMENTATION OF POLICIES AND PROGRAMS THAT PROVIDE ENVIRONMENTAL, ECONOMIC, AND SOCIAL BENEFITS TO RESIDENTS, BUSINESSES, AND VISITORS. (Goal Area "E" Carried Forward)**

**Performance Measures:** Success in addressing the Objectives and Policies of **Goal CSR 7** shall be measured utilizing the following performance indicators:

- Develop and adopt a Sustainability and Climate Action Plan;
- Track and increase the number of sustainability policies or regulations adopted including policies incorporated into procurement guidelines;
- Continue annual reporting from the Green Implementation Advancement Board;
- Increase in the number of City events and resources promoting sustainable practices;
- Increase in education and outreach materials promoting sustainable practices;
- Increase in sustainability and climate resiliency web page traffic;
- Promote the green economy by increasing sustainability-related business within the City;
- Number of solar systems installed on City buildings and facilities; and,
- Track participation and attendance at major community arts and cultural events, performances, festivals, and programs where green or sustainability educational materials are presented, or materials are distributed.

### **Objective CSR 7.1 City Sustainability Practices**

Develop a baseline of City sustainable practices and determine methods to increase the sustainability of the City with prioritized actions that result in the greatest greenhouse gas reductions.

#### **Policy CSR 7.1.1**

Review and evaluate Land Development Regulations in accordance with sustainable community development practices, such as the criteria recommended by the United States Green Building Council's Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) certification and national rating systems for local governments, such as the STAR Community Index™ (STAR), or other methodology.

#### **Policy CSR 7.1.2**

Build on the work of the Green Implementation Advancement Board, previous Sustainability Reports and recommendations of the City's Green Task Force by developing a Sustainability and Climate Action Plan that prioritizes actions,

recommendations and outcomes to reduce greenhouse gas emissions. Update the Sustainability and Climate Action Plan recommendations every five (5) years. [Complete by 2025]

#### **Policy CSR 7.1.3**

Review the City's procurement guidelines to address the importance of energy efficiency, renewable energy, reductions in greenhouse gas emissions, recycling and other sustainable practices. Create environmentally preferable purchasing policy for local government procurement of safe, healthy, and environmentally responsible products.

**Policy PFE 7.2.1, 7.2.3**

#### **Policy CSR 7.1.4**

Meet the City's greenhouse gas reduction goals and highlight renewable energy projects to the community by requiring new major public facilities or retrofits include solar energy or other renewable energy source, where feasible, or provide design and construction to accommodate future installation as set forth in Policy CSR 5.2.

**Policy PFE 7.2.3**



## GOAL CSR 7 SUSTAINABLE PRACTICES THAT INCREASE THE TRIPLE BOTTOM LINE

### Objective CSR 7.2 Sustainability Implementation

Determine an actionable set of recommendations to implement environmental commitments in a timely, cost-effective, and citizen-centric manner, and explore new opportunities for sustainability. (Objective E-1 Carried Forward)

#### Policy CSR 7.2.1

Conduct an annual review of City operations and policies toward achieving Delray Beach's green and sustainability goals and provide a report of recommendations to the City Commission regarding:

1. Improved environmental sustainability of City programs, services, and equipment facilities.
2. Improved environmental sustainability of the community.
3. Incentives for residents, businesses, and organizations to practice environmental conservation including recycling.
4. Proposed means to enhance water and energy conservation.
5. Promotion of native tree planting, and native and environmentally-friendly landscaping.
6. Best Practices for implementation in Delray Beach, including long-term strategies.
7. Proposed revisions to City Ordinances to address Green Technologies and operations.
8. Strategies to address factors that affect energy conservation.

(Policy E-1.1 Carried Forward)

Policy OPR 3.5.3

### Objective CSR 7.3 Sustainability Initiatives.

Increase community and staff awareness, and support for, sustainability initiatives.

#### Policy CSR 7.3.1

Develop informational signage in City facilities to educate visitors about sustainability and resilience initiatives such as relative elevation or location from mean sea level identifiers.

Policy PFE 7.2.1, 7.2.4

#### Policy CSR 7.3.2

Provide sustainability training for City staff and establish a City Green Team with representatives from each City department.

#### Policy CSR 7.3.3

Conduct an annual review and update regarding sustainability information available on the City's website, and coordinate input with other City departments to cross reference common programs and initiatives.

#### Policy CSR 7.3.4

Track participation, attendance or other performance measures for major community arts and cultural events, performances, festivals, and programs where green or sustainability educational materials are presented or materials are distributed.

#### Policy CSR 7.3.5

Collaborate with neighborhood associations, civic groups, and local service providers to identify and address neighborhood-specific needs with regard to sustainability and climate issues.

#### Policy CSR 7.3.6

Develop partnership opportunities with Palm Beach County Public Schools through the District's School Sustainability program to collaborate with City students on sustainability activities.

### Objective CSR 7.4 Green Economy.

Encourage the development of the green industry and businesses to diversify the local economy and make a positive environmental contribution to the City.

#### Policy CSR 7.4.1


Coordinate plans and programs with Palm Beach County, neighboring cities, power companies, businesses, and other Strategic Partners to reduce greenhouse gas emissions by:

- Expanding the market for energy efficient products and services;
- Supporting alternative and renewable energy production through innovative financing; and,



## GOAL CSR 7 SUSTAINABLE PRACTICES THAT INCREASE THE TRIPLE BOTTOM LINE

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 Promoting and incentivizing energy conservation retrofits.

### Policy SPE 1.5.20

#### Policy CSR 7.4.2

Strengthen the local economy by promoting green business training programs in industries that reduce reliance on fossil fuels; advance the use of sustainable materials, technologies, and services; and encourage local jobs in climate-change conscious, sustainable businesses that offer a living wage job.

#### Policy CSR 7.4.3

Track increased number of green business establishments, including nonprofits, in the jurisdiction over time from a 2018 baseline through occupational licenses or other mechanism. Partner with the Community Redevelopment Agency and Downtown Development Authority to create incentives and promotional events for green businesses and services

#### Policy CSR 7.4.4

Create programs that directly help businesses transition to new green practices and implement a green business promotion program.

#### Policy CSR 7.4.5

Create or support promotional campaigns to bank locally, buy locally, or buy from small and independent businesses and retailers.



## GOAL CSR 8 INCREASED RESILIENCE

### SUPPORT INCREASED RESILIENCE TO SEA LEVEL RISE, FLOODING, STORMS AND OTHER DISRUPTIVE WEATHER EVENTS.

**Performance Measures:** Success in addressing the Objectives and Policies of **Goal CSR 8** shall be measured utilizing the following performance indicators:

- Completion of a Sustainability and Climate Action Plan with a vulnerability analysis;
- Number of shoreline protection projects completed;
- Dune health, width, and elevation;
- Percent of restored seawalls;
- Percent of raised seawall;
- Number of shoreline-strengthening capital projects completed;
- Number of capital projects with resiliency features that reduce flooding or other impacts from other weather events including green infrastructure;
- Establish tree canopy goals to mitigate heat island impacts and increase stormwater benefits; and,
- Increase community awareness of the need to address vulnerabilities and increase resiliency through the number of outreach events.

#### Objective CSR 8.1 Protection from Erosion

Implement programs and techniques to protect property from erosion and deterioration created by the impacts of wind and water.  
(Objective B-3 Carried Forward)

##### Policy CSR 8.1.1

Continue to control erosion from wind and flowing water through the building permit review and inspection process and the soil erosion control ordinance. (Policy B-3.1 Carried Forward)

##### Policy CSR 8.1.2

Promote the replacement of vertical seawalls with naturally sloped shorelines, living shorelines, mangrove replanting and other non-structural strategies, where possible; use vertical seawalls when found to be in the overriding public interest to reduce impacts from tidal flooding, sea level rise, and other weather-related events.

Policy CME 1.6.8, 3.1.4

Policy PFE 4.2.5

##### Policy CSR 8.1.3

Continue to support Palm Beach County's program to restore and protect the shoreline of Lake Ida and continued monitoring of boating activity in the lake to assure that this activity does

not produce adverse impacts on the shoreline.  
(Policy B-3.2 Carried Forward)

##### Policy CSR 8.1.4

Consistent with the City of Delray Beach Intracoastal Waterway Water Level & Infrastructure Vulnerability Study, review and revise seawall height requirements for all City and privately-owned seawalls within two (2) years to address sea level rise and tidal flooding. [Complete by 2022].

Policy CME 3.3.2

##### Policy CSR 8.1.5

Consistent with the City of Delray Beach Intracoastal Waterway Water Level & Infrastructure Vulnerability Study, continue to undertake necessary repair, replacement, and maintenance of City-owned seawalls and stormwater outfalls along the Intracoastal Waterway and canals.

(Policy B-3.3 Carried Forward)

Policy CIE 3.1.9

Policy CME 3.3.5

#### Objective CSR 8.2 Coastal Construction

Continue to enforce, as a part of the Land Development Regulations, the rules and regulations of the Florida Department of Environmental Protection that establish a



## GOAL CSR 8 INCREASED RESILIENCE

"Coastal Construction Control Line" and an "Erosion Control Line"

### Policy CSR 8.2.1

Continue to administer regulations that prohibit non-beach related construction seaward of the Erosion Control Line (ECL) and provide performance standards for construction seaward of the Coastal Construction Control Line (CCCL). Any construction activities seaward of the coastal construction control line shall be consistent with Chapter 161, F.S.

### Objective CSR 8.3 Minimize Coastal Impacts

Enforce the coastal construction standards that minimize further impacts of man-made structures on City beaches, and restore altered beaches.

### Policy CSR 8.3.1

Limit the use of beaches and shorelines to appropriate ocean-oriented conservation and recreation.

**Policy CME 2.1.1**

### Policy CSR 8.3.2

Maintain or improve the existing natural conditions on the City public beaches.

**Policy CME 2.6.4**

### Policy CSR 8.3.3

Coordinate with the State to implement state-of-the-art beach and dune stabilization techniques as needed.

### Policy CSR 8.3.4

Limit the cumulative effects of development on natural systems by strict maintenance of setback requirements, adherence to stormwater retention requirements, retention of publicly owned natural habitats, and the use of transfer of development rights.

**Policy CME 2.4.1, 2.6.4, 2.6.8**

### Policy CSR 8.3.5

Prohibit the destruction or degradation of natural inter- and sub-tidal vegetative communities in the development of new man-made estuarine beaches, except for overriding public interest.

**Policy CME 2.6.8**

### Objective CSR 8.4 Green Infrastructure

Protect and enhance local and regional ecosystems, optimizing the co-benefits of habitat restoration, coastal buffers, wetland mitigation, urban reforestation, and expanded green infrastructure, in order to mitigate against heat island impacts, reduce greenhouse gas emissions and provide stormwater retention benefits.

**Policy PFE 4.2.5**

**Policy OPR 3.4.3**

### Policy CSR 8.4.1

Conduct a tree inventory (including City rights-of-way and private lands) and set an appropriate canopy goal (with a native canopy component) to maintain as a strategy to address heat islands and stormwater. The City shall also develop a list of priority planting areas in conjunction with the inventory. **[Complete by 2022]**.

**Policy OPR 1.2.2, 3.5.1 & 3.5.2**

### Policy CSR 8.4.2

Maintain the City's status designated as a Tree City USA. The City shall seek funds to develop and maintain an urban reforestation program, in order to expand green infrastructure, reduce the heat island effect and encourage local carbon sequestration and storage.

**Policy OPR 3.3.3**

### Policy CSR 8.4.3

Develop data regarding current and projected heat island effects in the City. Encourage planting of native trees known to sequester carbon on available public and private lands and pursue programs and funding strategies designed to mitigate heat island effect and create carbon emission offsets through tree plantings and/or carbon mitigation banks.

**Policy OPR 3.5.3**

### Policy CSR 8.4.4

Incorporate native species and ecosystem vulnerability to climate change into land use planning, land acquisition, mitigation projects and conservation planning and easement considerations.

**Policy CME 2.4.2**



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### Policy CSR 8.4.5

Analyze water and stormwater management operations in the context of sea level rise, to lessen negative impacts to open spaces, wetland mitigation areas, and natural systems, improve the ability of these native ecosystems to adapt to climate change, and optimize the ability of these systems to create additional benefits to the City's residents and visitors.

**Policy PFE 4.1.4, 4.2.5**

**Policy CME 3.1.4**

#### Objective CSR 8.5 Reduce Vulnerability

Prepare the City's land, infrastructure and historic assets to become less vulnerable and withstand flood and other weather-related disruptions.

### Policy CSR 8.5.1

Complete a City Sustainability and Climate Action Plan and a vulnerability analysis that addresses:

- 🌿 Flood risk from weather-related events and sea level rise;
- 🌿 Heat, drought, and other environmental changes;
- 🌿 The vulnerability of public facilities and services (buildings, water and wastewater facilities, stormwater systems, mobility infrastructure, power generation facilities, health services and facilities, historic assets, and conservation areas, as well as economic impacts);
- 🌿 Recommendations to mitigate risk, including a comprehensive suite of capital improvements projects;
- 🌿 A long-term funding strategy for climate adaptation; and,
- 🌿 Recommendations for revisions to the Land Development Regulations to include design criteria that address future climate impacts.

Update the analysis every five (5) years. [Complete by 2025]

**Policy PFE 4.2.4, 7.2.2**

**Policy CME 3.1.1, 3.1.4, 3.1.5, 3.7.1, 3.7.2**

### Policy CSR 8.5.2

Maintain and enhance current and best available data for mapping and analysis in preparation of the Sustainability and Climate Action Plan with a vulnerability analysis including, but not limited to, accurate elevation data and other necessary modeling data. Include recent data from the

City's 2018 Stormwater Master Plan Update and Intracoastal Waterway Water Level & Infrastructure Vulnerability Study into the development of the Sustainability and Climate Plan.

**Policy PFE 4.1.1 4.2.1, 4.2.4, 4.2.6**

### Policy CSR 8.5.3

Incorporate sea level rise, flooding and climate information into the planning, siting, construction, replacement and maintenance of public infrastructure, including roads, in a manner that is cost-effective and that maximizes the use of the infrastructure throughout its expected life span.

**Policy CME 3.2.5**

**Policy PFE 6.1.10**

### Policy CSR 8.5.4

Ensure development is resilient through the implementation of vulnerability and adaptation principles into policies in the Strategic Plans, comprehensive plan, capital improvements plans, building codes, life-safety codes, emergency management, land development and zoning regulations, water resource management, flood control and stormwater management, coastal management, and community development frameworks.

**Policy PFE 4.1.4, 4.2.3, 4.2.4**

**Policy CME 2.2.5**

### Policy 8.5.5

Create a Transfer of Development Rights program, including sending and receiving areas, to encourage development and redevelopment in less vulnerable areas and discourage it in flood prone areas.

**Policy CME 2.2.6, 3.1.3**

**Policy NDC 2.1.4**

### Policy CSR 8.5.6

Continue to utilize the best available and regionally accepted modeling parameters that identify future conditions under which the stormwater system is expected to operate, including future precipitation and sea level rise conditions.

**Policy PFE 4.1.4, 4.2.6**

### Policy CSR 8.5.7

Develop first floor elevation information within building footprints for City facilities (and critical non-City owned facilities and assets). Identify



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facilities, municipal and critical, within the special flood hazard area (SFHA) which should receive site level investigation including elevation data and engineering assessments of for vulnerability. Analyze elevation data for surrounding roads for City and critical at-risk facilities to determine impacts from future conditions. This data should be integrated into a GIS management tool.

**Policy PFE 7.2.1, 7.2.2**

**Policy CME 3.1.5**

### **Policy CSR 8.5.8**

Ensure locally-owned public facilities that will be used as shelters, command centers, storage, staging or demonstration areas to meet the highest risk standards for new construction or substantial renovations.

**Policy PFE 7.3.2, 7.3.3**

### **Policy CSR 8.5.9**

Inventory socially vulnerable facilities serving at-risk populations, such as elderly or assisted living, who reside in facilities that may not have auxiliary power sources and ensure they are complying with state statutes.

### **Policy CSR 8.5.10**

Consider building elevations and future flood risk in the historic preservation review process and create programs and materials that help property owners adapt to flood threats and sea level rise.

**Policy CME 2.5.1, 2.5.3**

### **Policy CSR 8.5.11**

Continue monitoring of potential saltwater intrusion into the City's groundwater supply.

**Policy PFE 2.3.1**

### **Policy CSR 8.5.12**

Inventory critical water and wastewater treatment plants to ensure adequate auxiliary power and chemical and mechanic spare resources are available to ensure City has the capability to operate and produce water and treat and dispose wastewater in accordance with State Statutes.

### **Policy CSR 8.5.13**

Enhance pre-disaster and post-disaster debris management activities to increase clearing and decrease obstruction after storm events including permit streamlining and debris mulching

opportunities for residents and City facilities, and ensure that post disaster debris management does not impact rare or listed species, or native ecosystems.

### **Policy CSR 8.5.14**

Provide resources and better link pre-disaster planning, post-disaster recovery and resiliency planning through improvement in the City's Community Rating System Class rating of 8 including the following strategies:

- ✿ Enhance public outreach activities and resources that can improve future Community Rating System cycle reviews that focus on flood risk and FEMA mapping.
- ✿ Evaluate the administrative costs associated with pursuit of additional "future conditions" credits in the Community Rating System against the insurance premium reductions that will accrue to the approximately 7,500 (as of 6/30/18) property owners who currently hold flood insurance policies through the National Flood Insurance Program. If the benefits outweigh the costs, the City should consider pursuing these credits in the Community Rating System program.

**Policy CME 3.8.1, 3.8.2**

### **Policy CSR 8.5.15**

Prior to incorporating a new project to the Capital Improvements Element, review for resiliency, including future flooding and heat conditions, and account for the impacts from climate change, including but not limited to, sea level rise and storm surge. Focus on level of service standards, as one of the points of analysis, to assure that infrastructure useful life and service expectations can be met in the face of climate change impacts.

**Policy CIE 3.1.8**

**Policy CME 3.1.4, 3.2.5**

**Policy PFE 4.2.4, 7.2.2**

### **Objective CSR 8.6 Coordinate Resources**

Continue to work with strategic partners to share resources and data related to climate, vulnerability and sea level rise, as well as common resiliency strategies to address impacts.



## GOAL CSR 8 INCREASED RESILIENCE

### Policy CSR 8.6.1

Coordinate with agencies such as the Florida Department of Emergency Management, South Florida Water Management District, NOAA, the US Army Corps of Engineers, the US Geological Survey, State of Florida agencies and others to use the best available data and tools for climate modeling and analytical efforts.

### Policy CSR 8.6.2

Continue participation with Southeast Florida counties and municipalities, academia, state and federal government agencies and other organizations in the analysis of sea level rise, drainage, storm surge and hurricane impacts and the planning of mitigation and adaptation measures. Coordinate to create and support new initiatives and incorporate new data, such as updated sea level rise projections, into future decision-making. Coordinate efforts with the latest version of the Regional Climate Action Plan and other appropriate regional planning initiatives.

**Policy CME 3.1.2**

### Policy CSR 8.6.3

Coordinate with the South Florida Water Management District and Lake Worth Drainage District to address efforts related to sea level rise impacts on coastal structures upon which Delray's drainage capacity is linked.

**Policy PFE 4.2.7**

### Policy CSR 8.6.4

Participate in the development of the County's Local Mitigation Strategy to better link resiliency, climate preparedness and emergency management through the submission of projects within the context of the City's preparedness and emergency plans.

### Policy CSR 8.6.5

Partner with the Department of Health on programs and initiatives to exchange data, plan and educate the community on the public health consequences of climate change, such as extreme temperatures and vector-borne diseases, and take steps to build capacity to respond to or prevent those consequences.

### Policy CSR 8.6.6

Continue to collaborate with Strategic Partners and organizations that provide advocacy,

education and outreach efforts including, but not limited to The Sandoway House Nature Center, the American (and Florida) Shore and Beach Preservation Association, Marine Industries Association of Florida, etc.

### Policy CSR 8.6.7

Coordinate resiliency planning efforts with Florida Power & Light to develop partnerships and project collaborations with the goal of reducing storm or climate-related impacts to the power grid.

#### Objective CSR 8.7 Outreach on Resiliency

Increase communitywide dialogue on the importance of mitigation and response to flooding, sea level rise, heat events and weather-related events to increase the City's resiliency.

### Policy CSR 8.7.1

Increase resilience to, and community awareness of, natural and man-made hazards or disasters through education and outreach materials.

### Policy CSR 8.7.2

Discuss the City's vulnerability and resiliency strategies with Strategic Partners in the business community to avoid business disruption due to floods, weather events and disasters. Work with the business community to develop resources encouraging business continuity planning.

### Policy 8.7.3

Develop a communications strategy in conjunction with the City Sustainability and Climate Action Plan that includes targeted outreach events, signage on sea level rise impacts at key public locations, and other creative components and events.

#### Objective CSR 8.8 Social Aspects of Resiliency

Identify socially vulnerable populations at risk from future climate impacts, including flooding and heat exposure, to develop initiatives that address service deficiencies and increase the resilience and equity of those areas.

### Policy CSR 8.8.1

Ensure vulnerability assessments specifically identify and quantify socially vulnerable



## GOAL CSR 8 INCREASED RESILIENCE

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populations at risk from aging infrastructure or lack of economic capacity to respond to climate-related events and develop strategies that are sensitive to these characteristics of those areas.

### **Policy CSR 8.8.2**

Partner with organizations, such as the Department of Health and other nonprofit organizations, to develop educational materials and community outreach events for socially vulnerable populations to increase awareness of tools to improve resiliency in these areas of the City.

### **Policy CSR 8.8.3**

Increase and diversify opportunities for public input in the capital planning process, determine strategies to reach vulnerable populations.



## GOAL CSR 9 EMERGENCY PREPAREDNESS

### MINIMIZE DAMAGE TO PUBLIC FACILITIES AND DISRUPTION OF SERVICES TO THE PUBLIC DUE TO NATURAL OR OTHER DISASTER BY PRE-DISASTER PLANNING.

**Performance Measures:** Success in addressing the Objectives and Policies of **GOAL PFE 9** (Emergency Preparedness) shall be measured utilizing the following performance indicators:

- Number of projects that “harden” City facilities;
- Adoption of an Emergency Operations Plan;
- Preparation, completion, and implementation of a Continuity of Operations Plan (COOP); effectiveness of execution of COOP (if needed); and,
- Remaining available capacity at emergency shelters during storm.

#### Objective CSR 9.1

Implement programs to “harden” public facilities and prevent disruption of service as a result of natural or other disasters.

**Objective PFE 7.2 & 7.3**

#### Policy CSR 9.1.1

Include design features in new construction or reconstruction of public facilities that “harden” public facilities and add, where appropriate, self-sustaining energy sources (i.e. solar with backup battery power) to enable facilities to continue to provide services and be used as a safe haven during storm events.

**Policy PFE 7.3.1, 9.1.1**

#### Policy CSR 9.1.2

Plan for and work with others to upgrade the information/technology (IT) infrastructure in the City to assist with rapid post-disaster recovery.

**Policy CME 9.1.2**

#### Policy CSR 9.1.3

Plan for, construct, and maintain an emergency operations center (EOC) with a brick and mortar facility, staff, equipment, technology, and training that will meet current and estimated future needs of the City of Delray Beach. [Complete by 2025-2040]

**Policy PFE 7.3.3**

#### Policy CSR 9.1.4

Continue to participate in the Palm Beach County Local Mitigation Strategy Group and propose projects for funding via Federal Emergency Management Agency’s Hazard Mitigation Grant Program.

#### Objective CSR 9.2

Adopt an Emergency Operations Plan that includes the existing disaster planning and recovery programs of the City, coordinate with other County plans and procedures, which shall be reviewed annually.

#### Policy CSR 9.2.1

Model the City’s Emergency Operations Plan after the Federal Emergency Management Agency standards for Emergency Operations Plans and include all departmental Continuity of Operations Plans.

#### Policy CSR 9.2.3

Review the City’s Emergency Operations Plan on an annual basis to ensure the plan is consistent with the Palm Beach County Comprehensive Emergency Management Plan.

**(Coastal Policy D-1.1 and D-1.2 Carried Forward)**

#### Policy CSR 9.2.4

Address both immediate and short-term considerations in the Emergency Operations Plan, including mobilization for cleanup; repair, and restoration of services; removal of hazards and damaged structures; and, coordination of interagency hazard mitigation and response reports/programs. The Plan shall include a post disaster recovery component for “all hazards,” natural (excessive heat, drought, flood, hurricanes, storms) and man-made disasters (chemical spill, large event attack, terrorist attacks, attacks on public infrastructure).

#### Policy CSR 9.2.5

Provide direction for the redevelopment of



## GOAL CSR 9 EMERGENCY PREPAREDNESS

properties with nonconforming structures that are significantly damaged or destroyed by natural disasters in the Land Development Regulations.

**Policy NDC 3.5.4**

### **Policy CSR 9.2.6**

Adopt and utilize the shelter plan in the Palm Beach County Comprehensive Emergency Management Plan. Periodically assess the need for additional emergency staff shelter capacity and, when a need is anticipated, plan and budget for expanded capacity. To fund shelter expansions, consider an impact fee based on new residential development.

### **Objective CSR 9.3**

Execute the steps outlined in the adopted Continuity of Operation Plan, as needed, for each event to ensure efficient and timely planning before, during, and after an event.

### **Policy CSR 9.3.1**

Adopt and maintain a Continuity of Operation Plan for all City departments to complete the Emergency Operations Plan and train departmental staff to implement the plan. [Complete by 2022].

### **Policy CSR 9.3.2**

Ensure that all facilities, roadways, and public services are prepared for an event.

### **Policy CSR 9.3.3**

Assess damage and impacts as soon as possible following the event.

### **Policy CSR 9.3.4**

Provide a timely clean-up, restoration of community support, and continuity of operations of City services.

### **Policy CSR 9.3.5**

Coordinate with FEMA to ensure appropriate assistance is provided to the City and its residents based on the impact of the event.

### **Policy CSR 9.3.6**

Evaluate and assess the actions taken before, during, and after an event to identify areas for improvement and of strength to ensure readiness for the next event.

### **Policy CSR 9.3.7**

Continue established and ongoing programs for emergency preparedness, emergency evacuation, and disaster relief and enhance and expand such programs through periodic reviews. After a significant event, evaluate the effectiveness of these programs and policies, as well as those of the County, schools, hospitals, etc. and provide an after-action report to the public.

### **Policy CSR 9.3.8**

Maintain a coastal high hazard evacuation time of 7-10 hours, and reduce hurricane clearance times within the City as a component of maintaining and reducing evacuation times for Palm Beach County and the region.

**Policy CME 4.1.2**

### **Objective CSR 9.4**

Continue to inform the public of the impact of potential natural disasters and hazard events, before, during and after events, as well as measures taken to protect human life and property.

### **Policy CSR 9.4.1**

Maintain and enhance means of public information before, during, and after named and unnamed events using text messaging, social media, AM radio station, other means of communication when no power available.

### **Policy CSR 9.4.1**

Provide public education campaigns to increase understanding of the potential impacts of natural disasters, including evacuation areas, evacuation routes, and preparedness.

### **Policy CSR 9.4.2**

Provide public information regarding planned and completed infrastructure projects to mitigate the impacts of natural disasters, such as, but not limited to storm surge and tidal flooding.

### **Policy CSR 9.4.3**

Provide public information regarding programs and grants available to harden properties.



## GOAL CSR 9    EMERGENCY PREPAREDNESS

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