

Introduction

(0.1) Please give a general description and introduction to your city including your city's reporting boundary in the table below.

	Administrative boundary	Description of city
City boundary	City / Municipality	The City of West Palm Beach is located in southeast Florida and is the county seat of Palm Beach County, offering the business advantages available in the region, combined with a more refined and relaxed environment for living and working. The City boundaries encompass 58 square miles of land. Within the western portion of the City lies Grassy Waters Preserve, a wetland ecosystem which forms the headwaters of the City's drinking water supply. The City is bordered on the eastern side by the Lake Worth Lagoon, which is part of the Atlantic Intracoastal Waterway. West Palm Beach has a tropical climate, characterized by typically hot and humid weather in the summer, giving way mild and relatively drier winters. This climate pattern contributes to a variety of ecosystems including freshwater marshes, cypress swamps, and pine flatwoods in the undeveloped areas of West Palm Beach. There are approximately 108,000 residents in the City limits, and is expected to continue to grow into the future. West Palm Beach's current Mayor, Keith A. James, is active in making West Palm Beach a truly sustainable and resilient city for its growing population by participating in regional and national climate action programs.

(0.2) If you have not previously submitted your Letter of Commitment to the Global Covenant of Mayors, either through the relevant regional covenant or through the Global Covenant secretariat, please attach the letter signed by an appropriately mandated official (e.g. Mayor, City Council) to this question.

WPB signed Mayors Compact letter.pdf

City Details

(0.3) Please provide information about your city's Mayor or equivalent legal representative authority in the table below:

	Leader title	Leader name	Current term end month	Current term end year
Please complete	Mayor	Keith A. James	March	2023

(0.4) Please select the currency used for all financial information disclosed throughout your response.

USD US Dollar

(0.5) Please provide details of your city's current population. Report the population in the year of your reported inventory, if possible.

	Current population	Current population year	Projected population	Projected population year
Please complete	112906	2018	133502	2035

(0.6) Please provide further details about the geography of your city.

	Land area of the city boundary as defined in question 0.1 (in square km)
Please complete	149.4

Governance and Data Management

Governance

(1.0) Does your city incorporate sustainability goals and targets (e.g. GHG reductions) into the master planning for the city?

Yes

(1.0a) Please detail which goals and targets are incorporated in your city's master plan and describe how these goals are addressed in the table below.

Goal type	How are these goals/targets addressed in the city master plan?
Emissions reduction targets	The City of West Palm Beach has incorporated the STAR Communities rating framework into its Strategic Plan (master plan) to identify seven key priorities that will move the City toward its vision of a vibrant, resilient community. One of the seven priorities is Climate and Energy, which encompasses many of the City's environmental goals, including net zero greenhouse gas emissions by 2050. This goal was established when Mayor Muoio signed onto the Global Covenant of Mayors. In order to meet these goals, the Strategic Plan for the City includes objectives to reduce emissions by requiring green building standards, such as LEED Silver certifications, for new development and renovations greater than 1,000 square feet. The Plan also prioritizes the Natural Systems portion of the STAR framework to emphasize and promote the development of green infrastructure and increase the tree canopy within the City, which will help sequester carbon dioxide. Furthermore, the City has also streamlined "Rethink Paradise: Sustainability Action Plan" with the STAR framework, as well as the Regional Climate Action Plan, to incorporate a robust rating system that encompasses all of the compacts that the City has pledged to abide by.
Adaptation targets	Under the Climate and Energy Priority section of the Strategic Plan, the City lists an objective to "work to mitigate the City's vulnerability to climate conditions, resource availability, and energy issues, including projected sea level rise." The City worked with NEMAC/Fernleaf, a combined public/private resilience planning group, to assess the City's vulnerability to specific climate change events, including but not limited to heat events, storm surge, wildfires, and address the most sensitive areas of the City to these impacts. The resiliency and vulnerability assessment allowed all departments within the City to identify areas of particular vulnerability and prioritize plans to bolster these areas in the event of climate change related events. The City is also investing \$46 million dollars towards improving the conditions of seawalls along its waterfront, as well as incorporating "living shorelines" of native littoral vegetation where possible.
Renewable energy targets	The City plans to increase and support the use of alternative, renewable energy sources through the Climate and Energy Priority as well. The City achieved a SolSmart Gold designation in January 2018 by including solar arrays as both primary and accessory uses in the City's code of ordinances, and by streamlining its solar permitting process to have same day approval, provided appropriate supporting plan documentation. West Palm Beach is the first city in the state of Florida to have a one-day permitting process. West Palm Beach was also an active sponsor in the Palm Beach County solar co-op which helps homeowners use bulk purchasing power to get discounted rates on solar panels for their homes. West Palm Beach also signed on to SolarTogether, a solar subscription service provided by the electric utility provider, Florida Power and Light. The City subscribed 12,305 kilowatts of annual energy production to be offset via shares in the solar subscription program. The solar energy produced would be multiplied by the subscription share, and that figure would be multiplied by a flat subscription credit rate, eventually resulting in a net accumulation of funds. The City will obtain the renewable energy credits and be allowed to use those to offset its greenhouse gas emissions. The SolarTogether program has yet to be approved by the Florida Public Service Commission, but if approved, the program could start rolling out in late 2019.
Energy efficiency targets	As previously mentioned, the City lists in its Strategic Plan that new development and renovations greater than 1,000 square feet will require a LEED Silver certification. This requirement is also listed in the City's building permit paperwork. The City is also working with its electrical utility provider, Florida Power and Light, to retrofit streetlights with high-efficiency LED bulbs for increased energy savings. While the City has already converted its City-owned streetlights to LED bulbs, the City an agreement with FPL in March 2019 to update the FPL-owned streetlights within City limits to LED bulbs as well (approximately 1,700 streetlights).

(1.1) Has the Mayor or city council committed to climate adaptation and/or mitigation across the geographical area of the city?

Yes

(1.1a) Please select any commitments to climate adaptation and/or mitigation your city has signed and attach evidence.

Name of commitment and attach document

Global Covenant of Mayors for Climate & Energy
WPB signed Mayors Compact letter.pdf

Type of commitment

Both

Comments

The City of West Palm Beach signed on to the Global Covenant of Mayors for Climate and Energy in 2015, when it the group was under the Compact of Mayors initiative. By committing to the Covenant, West Palm Beach is committed to reducing its greenhouse gas emissions to net zero by 2025, publicly disclose its carbon emissions via the Carbon Disclosure Platform, and establish climate change adaptation and mitigation strategies for key climate hazards posed to the City.

Name of commitment and attach document

STAR Communities
STAR Communities Subscription Agreement# 14726 Fully Executed.pdf
STAR Communities Amendment 1 14-14726_fully executed.pdf
STAR Contract No. 14726.002 fully executed.pdf

Type of commitment

Both

Comments

The City of West Palm Beach applied for the STAR Communities program in 2015, and was awarded a 4-STAR rating later that year. The STAR Community Rating system formed the basis of the City's Strategic Plan, which identified key performance indicators throughout the seven branches of the rating system. These KPI's formed the basis of City initiatives designed to demonstrate the City's progress and growth as a world-class community in which to live, work, and play. Next year, the City will be working on transitioning from the STAR Communities rating system to the LEED for Cities program. Currently, we are working with a consultant to manage our transition and make sure that our City's Strategic Plan will align with LEED for Cities.

Climate Hazards & Vulnerability

Risk and Vulnerability Assessment

(2.0) Has a climate change risk and vulnerability assessment been undertaken for the city area?

Yes

The draft executive vulnerability summary attached later in this section has not been made publicly available. Please do not distribute this publicly. This was presented to our Mayor and Commissioners in March 2019. Our next steps are to create workshops within our community to present the risk and vulnerability assessment to our residents and business owners so they fully understand the strategies the City will be developing to address climate change issues that may affect them.

(2.0a) Please select the primary process or methodology used to undertake the risk and vulnerability assessment of your city.

	Primary methodology	Description
Risk assessment methodology	Agency specific vulnerability and risk assessment methodology	We began working with the NEMAC+Fernleaf group in early 2018 to develop West Palm Beach's vulnerability assessment. The City will be using the vulnerability assessment to identify areas that are of specific concern in regards to local climate hazards. Adaptation strategies will be developed to protect the more vulnerable areas of the City from future climate events. Strategies were prioritized based on a ranking matrix of four criteria: 1) targets key vulnerability and risk areas, 2) provides co-benefit [environmental or other], 3) ability to implement [financial], 4) socially responsible [equity].

(2.0b) Please attach and provide details on your climate change risk and vulnerability assessment. Please provide details on the boundary of your assessment, and where this differs from your city's boundary, please provide an explanation.

Publication title and attach the document

West Palm Beach DRAFT Resilience Assessment
WPB Final Report Draft June 2019.pdf

Year of adoption from local government

2020

Web link

Not available as of yet. The assessment was presented to the Mayor and City Commission in March 2019, and has not yet been made publicly available.

Boundary of assessment relative to city boundary (reported in 0.1)

Same – covers entire city and nothing else

Explanation of boundary choice where the assessment boundary differs from the city boundary

Not applicable

Areas/sectors covered by the risk and vulnerability assessment

Energy
Water Supply & Sanitation
Transport
Food and agriculture
Waste Management
Information & Communications Technology
Environment, Biodiversity and Forestry
Industrial
Commercial
Residential
Education
Public health
Community & Culture
Law & Order
Emergency Management
Land use planning
Tourism

Primary author of assessment

Consultant

Does the assessment identify vulnerable populations?

Yes

Climate Hazards

(2.1) Please list the most significant climate hazards faced by your city and indicate the probability and consequence of these hazards, as well as the expected future change in frequency and intensity. Please also select the most relevant assets or services that are affected by the climate hazard and provide a description of the impact.

Climate Hazards

Storm and wind > Cyclone (Hurricane / Typhoon)

Did this hazard significantly impact your city before 2019?

Yes

Current probability of hazard

High

Current consequence of hazard

High

Social impact of hazard overall

Increased demand for public services

Increased risk to already vulnerable populations
Population displacement

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Immediately

Most relevant assets / services affected overall

Energy
Water supply & sanitation
Transport
Environment, biodiversity, forestry
Industrial
Commercial
Residential
Society / community & culture
Emergency services

Please identify which vulnerable populations are affected

Children & youth
Elderly
Persons with disabilities
Low-income households
Persons living in sub-standard housing

Magnitude of expected future impact

High

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Due to rising ocean temperatures, hurricanes are expected in to increase in severity and intensity. Considering West Palm Beach's proximity to the Atlantic Ocean, these increased storms put the City at great risk for the disruption of transportation and local economic interests. This could also put a strain on emergency management services should there be a dramatic storm that stretches the need for emergency response units.

Climate Hazards

Storm and wind > Tropical storm

Did this hazard significantly impact your city before 2019?

Yes

Current probability of hazard

High

Current consequence of hazard

Medium

Social impact of hazard overall

Increased demand for healthcare services
Increased risk to already vulnerable populations
Population displacement

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Immediately

Most relevant assets / services affected overall

Energy
Water supply & sanitation

Transport
Environment, biodiversity, forestry
Industrial
Commercial
Residential
Emergency services

Please identify which vulnerable populations are affected

Children & youth
Elderly
Low-income households
Persons living in sub-standard housing

Magnitude of expected future impact

High

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Similar to hurricanes, due to rising ocean temperatures, tropical storms are expected in to increase in severity and intensity. Considering West Palm Beach's proximity to the Atlantic Ocean, these increased storms put the City at great risk for the disruption of transportation and local economic interests. This could also put a strain on emergency management services should there be a dramatic storm that stretches the need for emergency response units. Tropical storms are less severe in intensity than hurricanes.

Climate Hazards

Extreme hot temperature > Extreme hot days

Did this hazard significantly impact your city before 2019?

No

Current probability of hazard

Medium High

Current consequence of hazard

Medium High

Social impact of hazard overall

Increased demand for public services
Increased demand for healthcare services

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Short-term (by 2025)

Most relevant assets / services affected overall

Residential
Public health
Society / community & culture

Please identify which vulnerable populations are affected

Children & youth
Elderly
Persons with disabilities
Low-income households
Persons living in sub-standard housing

Magnitude of expected future impact

Medium

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Extreme hot days and heat waves can be particularly detrimental to public health, including sick and elderly members of the community, as well as poor and homeless citizens that do not have access to air conditioning.

Climate Hazards

Wild fire > Forest fire

Did this hazard significantly impact your city before 2019?

No

Current probability of hazard

Low

Current consequence of hazard

Low

Social impact of hazard overall

Increased demand for healthcare services

Increased risk to already vulnerable populations

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Medium-term (2026-2050)

Most relevant assets / services affected overall

Water supply & sanitation

Environment, biodiversity, forestry

Emergency services

Please identify which vulnerable populations are affected

Children & youth

Elderly

Persons with chronic diseases

Unemployed persons

Persons living in sub-standard housing

Magnitude of expected future impact

Please select

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Forest fires within the City limits would be a rare occurrence, but given the fact that a large portion of the western city limits contain the undeveloped Grassy Waters Preserve, which serves as the city's drinking water catchment area, fires could pose a threat low threat to this area and the city's water supply. Smoke from wildfires could irritate people suffering with asthma and other chronic respiratory ailments.

Climate Hazards

Flood and sea level rise > Coastal flood

Did this hazard significantly impact your city before 2019?

Yes

Current probability of hazard

Medium

Current consequence of hazard

Medium High

Social impact of hazard overall

Increased risk to already vulnerable populations

Population displacement

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Medium-term (2026-2050)

Most relevant assets / services affected overall

Transport
Commercial
Residential

Please identify which vulnerable populations are affected

Children & youth
Elderly
Persons with disabilities
Low-income households
Persons living in sub-standard housing

Magnitude of expected future impact

Low

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

West Palm Beach is already seeing some "sunny day flooding" in the event of King Tides, which happen mostly during the fall equinox, where water from the Intracoastal Waterway intrudes storm water drains and effects roadways and commercial and residential properties. This is expected to increase as sea levels rise in the future. However, it is important to note that West Palm Beach does have a higher elevation than some of the cities to the south, which does give the City more time to prepare for sea level rise. (see page 48 of the resiliency assessment for more information).

Climate Hazards

Storm and wind > Storm surge

Did this hazard significantly impact your city before 2019?

No

Current probability of hazard

Medium High

Current consequence of hazard

Medium High

Social impact of hazard overall

Increased demand for public services
Increased risk to already vulnerable populations
Population displacement

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Medium-term (2026-2050)

Most relevant assets / services affected overall

Water supply & sanitation
Transport
Industrial
Commercial
Residential
Emergency services

Please identify which vulnerable populations are affected

Children & youth
Elderly
Persons with disabilities
Low-income households
Persons living in sub-standard housing

Magnitude of expected future impact

Medium

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Storm surge is expected to increase due to warming ocean temperatures that will bring more intense tropical systems and coastal flooding. Erosion associated with storm surge also poses a threat to roadways/railways, and commercial and residential properties.

Climate Hazards

Chemical change > Atmospheric CO2 concentrations

Did this hazard significantly impact your city before 2019?

No

Current probability of hazard

High

Current consequence of hazard

High

Social impact of hazard overall

Fluctuating socio-economic conditions
Increased incidence and prevalence of disease and illness
Increased demand for public services
Increased demand for healthcare services
Increased risk to already vulnerable populations
Increased conflict and/or crime
Migration from rural areas to cities
Population displacement

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Medium-term (2026-2050)

Most relevant assets / services affected overall

Environment, biodiversity, forestry
Public health
Society / community & culture

Please identify which vulnerable populations are affected

Women & girls
Children & youth
Elderly
Indigenous population
Marginalized groups
Persons with disabilities
Persons with chronic diseases
Low-income households
Unemployed persons
Persons living in sub-standard housing

Magnitude of expected future impact

High

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Increased carbon dioxide concentrations would have the farthest reaching impact on our City since the environmental impacts associated with high amounts of atmospheric carbon dioxide are so diverse. High atmospheric GHG emissions form the crux of most of the other issues listed in this portion of the survey: heat events, vector-borne disease, coastal flooding, etc. These climate threats have a direct impact on the health and social welfare of the entire community and can have repercussions that affect all residents and visitors to the City.

Climate Hazards

Biological hazards > Vector-borne disease

Did this hazard significantly impact your city before 2019?

No

Current probability of hazard

Medium

Current consequence of hazard

Medium High

Social impact of hazard overall

Increased incidence and prevalence of disease and illness
Increased demand for healthcare services
Increased risk to already vulnerable populations

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Medium-term (2026-2050)

Most relevant assets / services affected overall

Water supply & sanitation
Environment, biodiversity, forestry
Public health
Society / community & culture

Please identify which vulnerable populations are affected

Children & youth
Elderly
Persons with chronic diseases
Low-income households
Unemployed persons
Persons living in sub-standard housing

Magnitude of expected future impact

Medium

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Considering that West Palm Beach has a large percentage of area that is dedicated to wetlands, in addition to ponds, canals, and other water catchment areas, increased rainfall from climate change events would only increase the area of possible insect breeding grounds. This, in addition to rising temperatures, would also increase the spread of tropical insects and other disease vectors migrating from south to north as the Floridian climate becomes more hospitable.

Climate Hazards

Chemical change > Ocean acidification

Did this hazard significantly impact your city before 2019?

No

Current probability of hazard

Medium

Current consequence of hazard

Medium High

Social impact of hazard overall

Increased resource demand

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Medium-term (2026-2050)

Most relevant assets / services affected overall

Food & agriculture
Environment, biodiversity, forestry
Commercial

Please identify which vulnerable populations are affected

Marginalized groups

Magnitude of expected future impact

Low

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Ocean acidification is expected to increase worldwide. Local effects are uncertain, but could include a disruption in local marine life ecosystems and aquaculture. West Palm beach does not have any direct coastline, but does have nine miles of land bordering the Lake Worth Lagoon, part of the intracoastal waterway system.

Climate Hazards

Water Scarcity > Drought

Did this hazard significantly impact your city before 2019?

No

Current probability of hazard

High

Current consequence of hazard

Medium High

Social impact of hazard overall

Increased demand for public services
Increased demand for healthcare services
Increased risk to already vulnerable populations
Increased resource demand

Future change in frequency

Increasing

Future change in intensity

Increasing

When do you first expect to experience those changes?

Medium-term (2026-2050)

Most relevant assets / services affected overall

Water supply & sanitation
Food & agriculture
Public health

Please identify which vulnerable populations are affected

Children & youth
Elderly
Persons with disabilities
Persons with chronic diseases
Low-income households
Persons living in sub-standard housing

Magnitude of expected future impact

Low

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future

Prolonged periods of low to no rainfall could lead to strains on agricultural supplies and drinking water services. West Palm Beach's drinking water begins at the headwaters of the Grassy Waters Preserve. This is a surface water system that is fed by rainwater. If the City experiences a prolonged severe drought, this could result in water shortages not typically seen in the area.

(2.2) Please identify and describe the factors that most greatly affect your city’s ability to adapt to climate change and indicate how those factors either support or challenge this ability.

Factors that affect ability to adapt	Support / Challenge	Please describe the factor and the degree to which it supports or challenges the adaptive capacity of your city
Community engagement	Support	Community engagement is crucial to reducing the environmental impacts associated with climate change. One of the most important factors in carbon emission reduction involves behavioral changes that come about from environmental education through outreach events, marketing strategies, and social media platforms.
Access to education	Support	Education is imperative in making residents, business owners, employees, and visitors aware of the impacts day-to-day processes and services have on the environment. That is why the City is active in promoting energy and water savings programs, as well as recycling, waste reduction, and general sustainability programs.
Inequality	Support	West Palm Beach does have areas of low-income housing, in addition to homeless residents that may not be able to access some of the environmental education programs the City offers. The City is trying to combat this issue with a high efficiency toilet voucher program, free rain barrel workshops, free tree giveaways, PACE (Property Assessed Clean Energy) financing, and free giveaway items that help conserve water and energy in homes and businesses.
Budgetary capacity	Challenge	The City's budget ultimately determines the funding for sustainable initiatives. If there were to be budget cuts throughout the City, sustainability programming and marketing may be effected.
Land use planning	Support	The Planning and Zoning, Engineering, and Sustainability Departments within the City are very active in increasing mobility throughout the City, increasing the accessibility of walking, biking, and public transit. This would decrease the use of general automobile traffic and would greatly reduce transportation emissions. Moreover, the City is planning to increase its green infrastructure with "living shorelines" for littoral zones and increased tree canopy coverage to reduce heat island effects and increase walkability.
Political engagement / transparency	Support	The City of West Palm Beach aims for data transparency among all of its departments. The City developed a public-facing website that displays the City's key performance indicators, organized in the STAR community rating framework categories, as graphical representations. The data is updated every quarter to reflect transparent progress or lack thereof towards main City objectives. Additionally, the City plans to roll out a public engagement program to get people involved in how to prepare for climate change events, based on the recent Fernleaf/NEMAC vulnerability assessment. This way, the community will have a greater understanding of the City is doing to protect them if they are particularly vulnerable according to the report.
Infrastructure conditions / maintenance	Challenge	The City's drinking water distribution and wastewater collection system are imperative to the health of the community. Constant maintenance is needed to make sure the systems function optimally. The wastewater infrastructure and water distribution system have the largest potential impact from rainfall-induced flooding events.
Migration	Challenge	The City may experience pressure from migration events that may occur when communities from the south migrate to West Palm Beach. The counties of Broward and Miami Dade are more prone to sea level rise, and as such, citizens of those counties may migrate to West Palm Beach because of it's higher elevation. The added strain from a greater population could exacerbate water demand as well as other natural resources.

Adaptation

Adaptation Actions

(3.0) Please describe the main actions you are taking to reduce the risk to, and vulnerability of, your city’s infrastructure, services, citizens, and businesses from climate change as identified in the Climate Hazards section.

Climate hazards

Storm and wind > Cyclone (Hurricane / Typhoon)

Action

Projects and policies targeted at those most vulnerable

Action title

Rainfall-Induced Flooding

Status of action

Pre-implementation

Co-benefit area

Enhanced resilience

Disaster preparedness

Improved access to and quality of mobility services and infrastructure

Action description and implementation progress

Since the City of West Palm Beach does not have any direct ocean-front property, storm surge associated with tropical storms and

cyclones is not a big of a threat as rainfall-induced flooding from these type of climate events. Tropical systems can drop a lot of rain in a very short amount of time, causing localized flooding which was determined to be the greatest risk to the City. In the pre-implementation stage, the City has formulated a game plan to prioritize capital improvement projects (CIPs) based on vulnerable areas identified in the assessment. The City will also coordinate with Northern Palm Beach County (another water utility) for stormwater solutions in the low-lying western communities, develop Adaptation Action Areas to do detailed resilience projects, develop policies to increase capacity beyond a 3-year event, and bolster emergency response for points of access solutions.

Finance status

Pre-feasibility study status

Total cost of the project

Total cost provided by the local government

Primary fund source

Please select

Web link

Not applicable

Climate hazards

Water Scarcity > Drought

Action

Water use restrictions and standards

Action title

Climate Impacts on Water Supply

Status of action

Pre-implementation

Co-benefit area

Disaster preparedness
Improved resource efficiency (e.g. food, water, energy)
Improved resource quality (e.g. air, water)
Improved resource security (e.g. food, water, energy)
Shift to more sustainable behaviours

Action description and implementation progress

The City is developing a Drought Master Plan that will use the City's projected population, to simulate increase water demand) and severity of drought, to simulate future weather events. The City will also work with the South Florida Water Management District to update the Regional Water Plan, and will also consider linking water use plans based on community water supply reaching critical thresholds (based on National Best Practice model).

Finance status

Please select

Total cost of the project

Total cost provided by the local government

Primary fund source

Please select

Web link

Not applicable.

Climate hazards

Storm and wind > Cyclone (Hurricane / Typhoon)

Action

Storm water capture systems

Action title

Coastal Issues: Storm Surge, Tidal Flooding, and Sea Level Rise

Status of action

Implementation

Co-benefit area

Enhanced resilience
Disaster preparedness
Ecosystem preservation and biodiversity improvement

Action description and implementation progress

The City's Stormwater Master Plan incorporates the effects of tropical cyclones into City-wide water management strategies to foster a more resilient and climate-adapted City. The Stormwater Master plan was first implemented in 2016 and since then, the City has made improvements to its storm drain infrastructure to better handle flooding from heavy rainfall, in addition to more robust storm drain and tidal valves to tackle rising sea levels/storm surges/tidal flooding events from the Intracoastal Waterway. The City is planning to inventory and access seawall and outfalls to better understand areas of vulnerability, as well as identifying areas that could be used for "living shoreline" littoral zones that could serve as a storm surge buffer and habitat for native plant and animal species.

Finance status

Pre-feasibility study status

Total cost of the project**Total cost provided by the local government****Primary fund source**

Please select

Web link

Not applicable.

Climate hazards

Storm and wind > Tropical storm

Action

Resilience and resistance measures for buildings

Action title

High Winds

Status of action

Pre-implementation

Co-benefit area

Disaster Risk Reduction
Enhanced resilience
Disaster preparedness

Action description and implementation progress

In preparation from strong wind events, such as those from tropical systems, the City is planning to move one of its Fire Stations (FS#1) further west to buffer the impacts from high winds coming from the coast. This will be challenging due to lack of funding for this issue, but it would help address a largely vulnerable area of the City. The City is also ensuring that funding can be invested for after-storm tree canopy improvement and coordination can exist to clear roads and sidewalks of debris.

Finance status

Pre-feasibility study status

Total cost of the project**Total cost provided by the local government****Primary fund source**

Please select

Web link

Not applicable.

Climate hazards

Extreme hot temperature > Extreme hot days

Action

Heat mapping and thermal imaging

Action title

Extreme Heat

Status of action

Pre-implementation

Co-benefit area

Enhanced resilience
Enhanced climate change adaptation
Social inclusion, social justice
Improved public health
Ecosystem preservation and biodiversity improvement

Action description and implementation progress

The City is currently undertaking a community-wide tree canopy assessment survey, which in 2017 used ESRI and aerial thermal imaging to develop a heat map of the entire City's land area. This data is being used to target heat islands and center the focus of the City's tree canopy improvement plan on these areas to mitigate the effects of extreme hot days, by increasing shade and reducing albedo effects. More recently, the City will be working with the CAPA Strategies group and participate in a heat mapping study ("Heat Watch") to identify the heat distribution throughout the City and serve as a blueprint of how to reduce heat island effects where possible. The Heat Watch program will serve as the blueprint to target tree canopy improvements, cooling centers, and building retrofits to ensure the equality of access to cooler temperatures throughout the City. We intend to participate in CAPA's Heat Watch in mid-August, 2019.

Finance status

Pre-feasibility study status

Total cost of the project**Total cost provided by the local government****Primary fund source**

Please select

Web link

<https://capastrategies.com/capa-heat-watch/>

Climate hazards

Water Scarcity > Drought

Action

Awareness campaign/education to reduce water use

Action title

Climate Impacts on Water Supply

Status of action

Implementation

Co-benefit area

Improved resource efficiency (e.g. food, water, energy)
Improved resource security (e.g. food, water, energy)
Resource conservation (e.g. soil, water)

Action description and implementation progress

Although the City has a drinking water supply fed by surface water, we are expecting increased droughts in the future, West Palm Beach has several plans to educate its citizens about water conservation. The City offers rain barrels workshops and high efficiency toilet vouchers. Furthermore, the City has secured funding for a three year contract with the Dropcountr group, who offers a mobile-friendly water conservation app that residents and business owners can use to gain insight into water usage and receive water conservation tips. The app will be rolled out to customers in late 2019.

Finance status

Finance secured

Total cost of the project

49750

Total cost provided by the local government

49750

Primary fund source

Local

Web link

<https://wpb.org/Departments/Sustainability/City-Initiatives/Water-Savings-Program> <https://www.dropcountr.com/>

Climate hazards

Wild fire > Forest fire

Action

Crisis management including warning and evacuation systems

Action title

Wildfire

Status of action

Pre-implementation

Co-benefit area

Disaster Risk Reduction

Enhanced resilience

Disaster preparedness

Enhanced climate change adaptation

Action description and implementation progress

The City has just begun to map its forest fire threat through the FernLeaf/NEMAC vulnerability assessment workshops. This plan identifies which properties in the City will be most vulnerable to forest fires and assess the sensitivity of the properties based on infrastructure, location, access to water supply, etc. The vulnerability/resilience plan aims to have the Fire Department coordinate wildfire equipment (brush trucks) in key areas, improve communications between State/Federal entities and WPB Fire, track Fire staff certifications, red cards, and CEUs, and require new developments to install fire hydrants.

Finance status

Pre-feasibility study status

Total cost of the project**Total cost provided by the local government****Primary fund source**

Please select

Web link

Not applicable.

Climate hazards

Storm and wind > Storm surge

Action

Flood mapping

Action title

Coastal Issues: Storm Surge, Tidal Flooding, and Sea Level Rise

Status of action

Implementation

Co-benefit area

Please select

Action description and implementation progress

Using the FEMA flood maps, we are assessing the status of areas prone to coastal flooding during King Tides, and the Stormwater Master Plan is addressing areas of particular concern in the City that are vulnerable to storm surge. The City's Development Services Department has been active in educating the public on the importance of using FEMA flood maps to identify flooding zones (i.e. "know your zone") to make sure residents in low-lying areas evacuate in the event of a tropical system.

Finance status

Pre-feasibility study status

Total cost of the project

Total cost provided by the local government

Primary fund source

Please select

Web link

<https://wpb.org/Departments/Development-Services/Flood-Information>

Climate hazards

Mass movement > Vector-borne disease

Action

Disease prevention measures

Action title

Status of action

Implementation

Co-benefit area

Enhanced climate change adaptation

Improved public health

Action description and implementation progress

With the rise of the Zika virus, City operations have been active in attempting to reduce the spread of mosquitoes by limiting their breeding grounds. This includes removing areas of standing water and using pest control solutions that are complicit with the City's STAR Integrated Pest Management Policy.

Finance status

Pre-feasibility study status

Total cost of the project

Total cost provided by the local government

Primary fund source

Please select

Web link

<https://wpb.org/Departments/Sustainability/City-Initiatives/Internal-City-Policies> (Click the "Integrated Pest Management" link on this page.)

Climate hazards

Chemical change > Ocean acidification

Action

Incorporating climate change into long-term planning documents

Action title

Greenhouse Gas Reduction Strategies

Status of action

Implementation

Co-benefit area

Enhanced climate change adaptation

Reduced GHG emissions

Improved resource efficiency (e.g. food, water, energy)

Greening the economy

Improved resource quality (e.g. air, water)

Shift to more sustainable behaviours

Action description and implementation progress

In order to reduce ocean acidification, the City first has to address its atmospheric carbon emissions. The Mayor has pledged to reduce carbon emissions to net zero by 2050, by means of using renewable energy, procuring electric fleet vehicles, and the promotion of more energy efficient technologies for City operations. These measures are incorporated in the Sustainability Action Plan, which is aligned with the City's overarching Strategic Plan.

Finance status

Pre-feasibility study status

Total cost of the project

Total cost provided by the local government

Primary fund source

Please select

Web link

<https://wpb.org/Departments/Sustainability/City-Initiatives/Greenhouse-Gas-Reduction-Strategies>

<https://wpb.org/Departments/Sustainability/Climate-Change/Action-Plan> -> for this link, the Sustainability Action Plan PDF is located towards the bottom of the page, under "Rethink Paradise: West Palm Beach Sustainability Action Plan"

Adaptation Planning

(3.1) Does your city council have a published plan that addresses climate change adaptation?

In progress

(3.1a) Please provide more information on your plan that addresses climate change adaptation and attach the document. Please provide details on the boundary of your plan, and where this differs from your city's boundary, please provide an explanation.

Publication title and attach the document

Rethink Paradise: West Palm Beach Sustainability Action Plan
SAP_4.25.12_small.pdf

Areas covered by adaptation plan

Energy
Transport (Mobility)
Building and Infrastructure
Industry
Agriculture and Forestry
Water
Waste
Public Health and Safety
Social Services

Year of adoption from local government

2011

Boundary of plan relative to city boundary (reported in 0.1)

Same - covers entire city and nothing else

If the city boundary is different from the plan boundary, please explain why and any areas/other cities excluded or included

Not applicable.

Stage of implementation

Plan in implementation

Type of plan

Addressed in general city plan

Has your local government assessed the synergies, trade-offs, and co-benefits, if any, of the main mitigation and adaptation actions you identified?

Yes

Comment or describe the synergies, trade-offs, and co-benefits of this interaction

The City's Sustainability Action Plan and Strategic Plan are both modeled using the STAR Community Rating framework. The framework divides City initiatives into seven different categories that measure the health of our community on a holistic level. We are finding areas of commonality in each of the City initiatives we have as it relates to the overall perception of the City. For example, our tree canopy improvements along our major downtown thoroughfare, Clematis Street, is improving walkability downtown, increasing property values, and adding to the natural systems of the urban environment.

Primary author of plan

Relevant city department

Description of the stakeholder engagement processes

The Sustainability Advisory Committee was pivotal in creating the Sustainability Action Plan, as well as several workshops with key stakeholders throughout the community.

Web link

https://wpb.org/wpb_website/media/wpb_content/sap-4-26-12-for-web.pdf

Adaptation Goals

(3.2) Please describe the main goals of your city's adaptation efforts and the metrics / KPIs for each goal.

The City has just recently concluded its draft vulnerability and risk assessment with the NEMAC+FernLeaf group, and will be using this assessment to identify new metrics based strictly on adaptation efforts. The adaptation initiatives listed here were established in the Sustainability Action Plan and City Strategic Plan.

Adaptation goal

Net Zero Greenhouse Gas Emissions by 2050

Target year

2050

Metrics / indicators

West Palm Beach uses a consultant group, Kim Lundgren and Associates, to do a community-wide greenhouse gas inventory every five years. The percentage target listed below is from our 2013 inventory year. This takes electricity, water and wastewater treatment and delivery, waste disposal, natural gas, and other energy sources into account. We are currently updating our emissions inventory, and are hoping to have draft results by the end of September 2019. We also plan to increase our community-wide inventory frequency to once every three years.

Percentage of target achieved so far

11

Does this target align with a requirement from a higher level of government?

No

Adaptation goal

Government Fleet Electrification

Target year

2025

Metrics / indicators

West Palm Beach is a member of the Energy Secure Cities Coalition, which aims to fully transition government fleets to all-electric vehicles. To date, the City has 9.7% of vehicles in its fleet that are hybrid or electric vehicles. The City has already issued purchase orders for four new all-electric vehicles by the end of 2019. The City is planning to transition all vehicle types to alternative fuels where possible. For example, heavy duty trucks do not have an all-electric equivalent yet, so we are exploring biodiesel fuels as a stepping stone in the interim.

Percentage of target achieved so far

9.7

Does this target align with a requirement from a higher level of government?

No

Adaptation goal

Tree Canopy Improvements (10,000 Trees in 10 Years Program)

Target year

2025

Metrics / indicators

The City of West Palm Beach is committed to improving its tree canopy for a multitude of reasons. Trees adsorb carbon dioxide from the atmosphere, helping to offset greenhouse gas emissions. Trees also improve shade canopies, allowing for increased walkability/bikeability along City streets, further reducing GHG emissions from traditional fossil fuel transport. They also provide habitats for local wildlife, increase property values, lessen energy usage if planted appropriately, etc. West Palm Beach established its 10,000 Trees in 10 Years free tree giveaway program in 2015. Three gallon trees are given away to confirmed West Palm Beach residents and businesses, to improve the tree canopy coverage into the future as the trees grow. The trees are distributed at City events and recipients are educated on where to plant their trees and how to maintain them. The program will conclude in 2025.

Percentage of target achieved so far

46.2

Does this target align with a requirement from a higher level of government?

No

City-wide GHG Emissions Data

(4.0) Does your city have a city-wide emissions inventory to report?

Yes

The City of West Palm Beach is currently undertaking both a local government and community-wide greenhouse gas inventory for the 2018 calendar year. This is a requirement of the campaigns that West Palm Beach is actively participating in: We Are Still In, Global Covenant of Mayors of Climate and Energy, and U.S. Climate Mayors. The draft summary of the 2018 inventory will not be available until September 2019. The data below is representative of the 2013 calendar year, our most recently completed holistic inventory. After the 2018 inventory, we will start to perform government and community-wide inventories at three year intervals.

(4.1) Please state the dates of the accounting year or 12-month period for which you are reporting your latest city-wide GHG emissions inventory.

	From	To
Accounting year dates	January 1 2013	December 31 2013

(4.2) Please indicate the category that best describes the boundary of your city-wide GHG emissions inventory.

	Boundary of inventory relative to city boundary (reported in 0.1)	Excluded sources / areas	Explanation of boundary choice where the inventory boundary differs from the city boundary (include inventory boundary, GDP and population)
Please explain	Same – covers entire city and nothing else	Not applicable	Not applicable

(4.3) Please give the name of the primary protocol, standard, or methodology you have used to calculate your city's city-wide GHG emissions.

	Primary protocol	Comment
Emissions methodology	Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC)	

(4.3a) The Global Covenant of Mayors requires committed cities to report their inventories in the format of the new Common Reporting Framework, to encourage standard reporting of emissions data. If your city is reporting an updated inventory, we encourage reporting this in the CRF format, for which guidance can be found in the link below. Would you like to report your inventory in the CRF format or continue to report in the GPC format? Please ensure you respond to this question in order for the correct emissions breakdown questions to be displayed.

No – continue to use the GPC format

Going forward with our 2018 calendar year inventory that we are currently working on, we will use the CRF format for our 2018 inventory and consequent 2019 CDP response.

(4.4) Which gases are included in your city-wide emissions inventory? Select all that apply.

- CO2
- CH4
- N2O

(4.5) Please attach your city-wide inventory in Excel or other spreadsheet format and provide additional details on the inventory calculation methods in the table below.

Emissions inventory format

GPC format: City Inventory Reporting and Information System (CIRIS) GPC Reporting tool

Document title and attachment

GPC_Reporting_Tool_WPB_FINAL_unlinked_without_macros
 GPC_Reporting_Tool_WPB_FINAL_unlinked_without_macros.xlsx

Emissions factors used

IPCC

Global Warming Potential (select relevant IPCC Assessment Report)

IPCC 5th AR (2013)

Please select which additional sectors are included in the inventory

Please select

Population in inventory year

102436

Overall Level of confidence

High

Comment on level of confidence

The 2013 data was updated in 2015 and revised further in 2017 by Kim Lundgren and Associates to better reflect government building data.

(4.6b) Please provide a summary of emissions by sector and scope as defined in the Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC) in the table below.

	Emissions (metric tonnes CO2e)	Where data is not available, please explain why
Stationary Energy: energy use – Scope 1 (I.X.1)	35882.8	
Stationary Energy: energy use – Scope 2 (I.X.2)	789569	
Stationary Energy: energy use – Scope 3 (I.X.3)	0	Not included in the scope of the inventory.
Stationary Energy: energy generation supplied to the grid – Scope 1 (I.4.4)	0	Not included in the scope of the inventory.
Transportation – Scope 1 (II.X.1)	604669	
Transportation – Scope 2 (II.X.2)	0	Not included in the scope of the inventory.
Transportation – Scope 3 (II.X.3)	0	Not included in the scope of the inventory.
Waste: waste generated within the city boundary – Scope 1 (III.X.1)	54646.32	
Waste: waste generated within the city boundary – Scope 3 (III.X.2)	0	Not included in the scope of the inventory.
Waste: waste generated outside the city boundary – Scope 1 (III.X.3)	0	Not included in the scope of the inventory.
Industrial Processes and Product Use – Scope 1 (IV)	0	Not included in the scope of the inventory.
Agriculture, Forestry and Land Use – Scope 1 (V)	0	Not included in the scope of the inventory.
TOTAL Scope 1 (Territorial) emissions	383625	
TOTAL Scope 2 emissions	789569	
TOTAL Scope 3 emissions	21146.7	
TOTAL BASIC emissions	1484767	
TOTAL BASIC+ emissions	0	Not included in the scope of the inventory.

(4.8) Please indicate if your city-wide emissions have increased, decreased, or stayed the same since your last emissions inventory, and describe why.

	Change in emissions	Primary reason for change	Please explain and quantify changes in emissions
Please explain	Decreased	Technological change	Technology has enabled the City of West Palm Beach to decrease its energy usage, thereby decreasing the greenhouse gas emissions that the City produces. In 2012, the City retrofitted its City-owned and maintained streetlights to energy-efficient LED bulbs. Additionally, the City's electrical utility provider, Florida Power and Light, moved to more natural gas instead of coal, which is cleaner burning, and they also added renewable solar energy to the grid.

(4.9) Does your city have a consumption-based inventory to measure emissions from consumption of goods and services by your residents?

	Response	Provide an overview and attach your consumption-based inventory if relevant
Please complete	Not intending to undertake	Currently, the City is not undertaking a consumption-based inventory in its upcoming 2018 calendar year inventory. This could potentially be addressed in the future, but we will have to ensure the funding for our consultant group is available to do so.

City-wide external verification

(4.11) Has the city-wide GHG emissions data you are currently reporting been externally verified or audited in part or in whole?

Not intending to undertake

(4.11b) Please explain why your city-wide emissions inventory is not verified and describe any plans to verify your city-wide emissions in the future.

	Reason	Comments
Please explain	Other ((ICLEI/carbonn))	The 2013 community inventory was completed by consultants and reviewed by ICLEI/carbonn.

Historical emissions inventories

(4.12) Please provide details on any historical and base year city-wide emissions inventories your city has, in order to allow assessment of targets in the table below.

Inventory date from

January 1 2008

Inventory date to

December 31 2008

Scopes / boundary covered

Scope 1 (direct)

Scope 2 (indirect)

Scope 3 (other indirect)

Previous emissions (metric tonnes CO2e)

5513890

Is this inventory used as the base year inventory?

Yes

Methodology

Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC)

File name and attach your inventory

Govt and Comm GHG Summary_final

Govt and Comm GHG Summary_final.xls

Comments

2008 served as the City's baseline year for greenhouse gas emissions inventory reporting.

Re-stating previous emissions inventories

(4.13) Since your last submission, have you needed to recalculate any past city-wide GHG emission inventories previously reported to CDP?

No

Emissions Reduction

Mitigation Target setting

(5.0) Do you have a GHG emissions reduction target in place at the city-wide level? Select all that apply.

Base year emissions (absolute) target

The data below reflects our 2013 GHG inventory results, compared to the 2008 inventory results. We will have more statistics on the 2018 inventory at the end of 2019.

(5.0a) Please provide details of your total city-wide base year emissions reduction (absolute) target. In addition, you may add rows to provide details of your sector-specific targets, by providing the base year emissions specific to that target.

Sector

All emissions sources included in city inventory

Where sources differ from the inventory, identify and explain these additions / exclusions

Boundary of target relative to city boundary (reported in 0.1)

Same – covers entire city and nothing else

Base year

2008

Year of target implementation

2016

Base year emissions (metric tonnes CO₂e)

5513890

Percentage reduction target

100

Target year

2050

Target year absolute emissions (metric tonnes CO₂e)

0

Percentage of target achieved so far

5

Does this target align with the global 1.5 - 2 °C pathway set out in the Paris Agreement?

Yes - 2 °C

Please indicate to which sector(s) the target applies

Heating and cooling supply

Commercial buildings

Residential buildings

Public facility

Industrial facilities

Transport

Water

Does this target align to a requirement from a higher level of sub-national government

No

Please describe your target. If your country has an NDC and your city's target is less ambitious than the NDC, please explain why.

We will be doing our next community-wide inventory in 2019 with Kim Lundgren and Associates, reporting on the 2018 calendar year. After the 2018 inventory is complete, we will start working on community-wide inventories every three years to comply with our regulatory commitments.

(5.1) Please describe how the target(s) reported above align with the global 1.5 - 2 °C pathway set out in the Paris agreement.

Our Net Zero Greenhouse Gas Emissions by 2050 goal was a commitment that was aligned with the Paris Accord and the Global Covenant of Mayors for Climate and Energy to ensure carbon neutrality and the capping of global temperature increases to 1.5 degrees Celsius.

(5.2) Is your city-wide emissions reduction target(s) conditional on the success of an externality or component of policy outside of your control?

Yes

(5.2a) Please identify and describe the conditional components of your city-wide emissions reduction target(s).

The majority of city-wide emissions come from non-governmental sectors. This means that across the board, emission reduction strategies are dependent on the actions of residents, business owners, and visitors. This could range from individuals installing solar panels on their private properties, using water conserving appliances, reducing personal car use, among a variety of other things. The City is responsible for the overarching goals for City building codes, climate plans, and education of our citizens, but in order to reach our Net Zero by 2050 goal, behavioral changes from our general population will have to occur as well.

(5.3) Does your city-wide emissions reduction target(s) account for the use of transferable emissions units?

No

Our 2013 inventory report did not account for transferable emissions units, but we are hoping that future inventories will be able to accommodate these. We are partnering with our electric utility (FPL) in their shared solar program "SolarTogether," which has yet to be approved by the Florida Public Service Commission. If approved, we would offset roughly 20,000 kWh of energy, and would get renewable energy credits totaling roughly 14.1 metric tons of carbon dioxide offset.

Mitigation Actions

(5.4) Describe the anticipated outcomes of the most impactful mitigation actions your city is currently undertaking; the total cost of the action and how much is being funded by the local government.

Mitigation action

Buildings > Building codes and standards

Action title

Building Code Compliance

Means of implementation

Policy and regulation

Implementation status

Operation

Estimated emissions reduction (metric tonnes CO₂e)

Energy savings (MWh)

Renewable energy production (MWh)

Timescale of reduction / savings / energy production

Per year

Co-benefit area

Enhanced resilience

Reduced GHG emissions

Improved resource efficiency (e.g. food, water, energy)

Improved resource security (e.g. food, water, energy)

Action description

The City follows the State building code which was updated in December 2017. The State building code was improved to not only improve energy and water efficiency, but also to increase building resilience in the event of stronger tropical storm systems.

Finance status

Pre-feasibility study status

Total cost of the project

Total cost provided by the local government

Primary fund source

Please select

Web link to action website

[https://codes.iccsafe.org/category/Florida?year\[\]=Current+Adoption&page=1](https://codes.iccsafe.org/category/Florida?year[]=Current+Adoption&page=1)

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation action

Buildings > Building performance rating and reporting

Action title

Better Buildings Challenge

Means of implementation

Awareness raising program or campaign
Stakeholder engagement

Implementation status

Monitoring and reporting

Estimated emissions reduction (metric tonnes CO₂e)

3130

Energy savings (MWh)

4.4

Renewable energy production (MWh)

0.26

Timescale of reduction / savings / energy production

Per year

Co-benefit area

Reduced GHG emissions
Improved resource efficiency (e.g. food, water, energy)
Improved resource security (e.g. food, water, energy)
Shift to more sustainable behaviours

Action description

In the near future, the City plans to implement voluntary rating and disclosure for commercial buildings. Currently, the City is partnering with the Florida Department of Health, the South Florida Science Museum, the Schumacher Automotive Group, and Palm Beach Tours and Transportation, which report their electricity and water usage to the City in participation with West Palm Beach's Better Buildings Challenge portfolio. The City is looking into adding more partnerships to monitor the energy intensity of city buildings. The City also hosts a Green Business Challenge, in which local businesses compete with each other to be the most sustainable, based on a point-based grading framework, which espouse energy and water conservation, as well as recycling initiatives and waste management.

Finance status

Pre-feasibility study status

Total cost of the project

Total cost provided by the local government

Primary fund source

Please select

Web link to action website

<http://wpb.org/Departments/Sustainability/City-Initiatives/Better-Business-Challenge>

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation action

Buildings > Energy efficiency/ retrofit measures

Action title

Conservation Awareness

Means of implementation

Education

Awareness raising program or campaign

Implementation status

Operation

Estimated emissions reduction (metric tonnes CO2e)**Energy savings (MWh)****Renewable energy production (MWh)****Timescale of reduction / savings / energy production**

Per year

Co-benefit area

Reduced GHG emissions

Improved resource efficiency (e.g. food, water, energy)

Social inclusion, social justice

Improved resource security (e.g. food, water, energy)

Resource conservation (e.g. soil, water)

Shift to more sustainable behaviours

Action description

The Office of Sustainability distributes energy efficiency products to residents and businesses at City events, including our e4 Life Sustainability Summit Series, which we hold twice a year. We distribute energy saving kits that include LED light bulbs, outlet covers and gaskets, door sweeps and weather stripping, all aimed at reducing cooling costs and energy consumption. The City spends roughly \$25,000 from the Office of Sustainability's budget on the procurement of energy conservation materials. The City is also rolling out Sustainability programs that target undeserved neighborhoods, bringing free conservation resources and implementation workshops to West Palm Beach residents. These neighborhood programs will begin in late 2019.

Finance status

Finance secured

Total cost of the project

25000

Total cost provided by the local government

25000

Primary fund source

Local

Web link to action website

<http://wpb.org/e4>

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation action

Private Transport > Improve fuel economy and reduce CO2 from motorized vehicles

Action title

West Palm Beach Mobility Plan

Means of implementation

Infrastructure development

Assessment and evaluation activities

Development and implementation of action plan

Implementation status

Implementation

Estimated emissions reduction (metric tonnes CO2e)**Energy savings (MWh)****Renewable energy production (MWh)****Timescale of reduction / savings / energy production**

Per year

Co-benefit area

Reduced GHG emissions

Social community and labour improvements

Improved public health

Ecosystem preservation and biodiversity improvement

Improved access to and quality of mobility services and infrastructure

Action description

The City is in the process of implementing a Mobility Plan to create a well-balanced transportation system, which includes options to walk, bike, drive, or ride public transportation in a safe and welcoming environment. This is in effort to reduce our City's dependence on personal cars (the largest source of greenhouse gas emission within the City) and encourage people to bike, walk, or use public transportation. The Mobility Plan includes roadway widening for increased bicycle safety, greater numbers of pedestrian crosswalks and traffic signals, and increased shade via tree canopies and overhead art installations. The Mobility plan also has overlaps with the City's tree canopy improvement plan, which aims to plant trees in key transportation corridors to increase shade and therefore increase walkability comfort.

Finance status

Pre-feasibility study status

Total cost of the project**Total cost provided by the local government****Primary fund source**

Please select

Web link to action website

https://wpb.org/wpb_website/media/engineering/mobility_plan-master_final-5-21-18_1.pdf

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation action

Outdoor Lighting > LED / CFL / other luminaire technologies

Action title

Streetlight Spotlight

Means of implementation

Financial mechanism

Implementation status

Operation

Estimated emissions reduction (metric tonnes CO2e)**Energy savings (MWh)****Renewable energy production (MWh)****Timescale of reduction / savings / energy production**

Per year

Co-benefit area

Reduced GHG emissions

Improved resource efficiency (e.g. food, water, energy)

Social community and labour improvements

Improved resource security (e.g. food, water, energy)

Action description

The City engaged in an Energy Performance Contract in 2012 that allowed for LED lighting upgrades throughout West Palm Beach, which aims to reduce energy consumption by 14% while saving over \$10,000,000 during the contract term, ending in 2027. This effort also helped West Palm Beach's performance in the U.S. Department of Energy's Better Buildings Challenge. The biggest cost and energy savings has been in the retrofitting of LED streetlights throughout the City, which represent 25% of the city's energy expenditure in 2010 (the baseline reporting year). In 2014, we reported a 54% energy savings compared to 2010 energy use because of the retrofitted streetlights. Most of the streetlights that were upgraded were in the older sections of the City, and businesses and residents very happy with the improved light quality and increased neighborhood safety. The upgraded LED lights are also Dark Sky compliant, which reduce light pollution.

Finance status

Finance secured

Total cost of the project

4900000

Total cost provided by the local government

0

Primary fund source

Other (Energy Savings Performance Contract)

Web link to action website

<https://betterbuildingsinitiative.energy.gov/showcase-projects/street-light-upgrade-project>

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation action

Buildings > On-site renewable energy generation

Action title

Solar Energy Goals

Means of implementation

Infrastructure development

Implementation status

Operation

Estimated emissions reduction (metric tonnes CO2e)**Energy savings (MWh)****Renewable energy production (MWh)****Timescale of reduction / savings / energy production**

Per year

Co-benefit area

Enhanced resilience

Enhanced climate change adaptation

Reduced GHG emissions

Improved resource efficiency (e.g. food, water, energy)

Improved resource quality (e.g. air, water)

Action description

The City currently has 42 kW of potential solar energy installed on the roof of the Lake Pavilion and the adjacent solar trellises, which are located on the Waterfront, near the Visitor's Center. The City is also working on a solar site assessment to examine the feasibility of installing solar panels on its most energy intensive properties. The City was also awarded a SolSmart Gold designation in January 2018, by becoming the first city in the state of Florida to have a one-day solar permit application approval process. The City is also signed up to participate in Florida Power and Light's "SolarTogether" program, which allows for the City to potentially offset 20,000 kWh of electricity annually through a solar subscription service. The program will hopefully roll out in late 2019, and would allow the City to offset over 14 metric tons of carbon emissions.

Finance status

Pre-feasibility study status

Total cost of the project**Total cost provided by the local government****Primary fund source**

Please select

Web link to action website

<http://wpb.org/Departments/Sustainability/City-Initiatives/Solar-Initiatives-in-the-City>

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation action

Mass Transit > Smart public transport

Action title

West Palm Beach Trolley

Means of implementation

Awareness raising program or campaign

Implementation status

Operation

Estimated emissions reduction (metric tonnes CO2e)**Energy savings (MWh)****Renewable energy production (MWh)****Timescale of reduction / savings / energy production**

Per year

Co-benefit area

Reduced GHG emissions

Social community and labour improvements

Improved resource quality (e.g. air, water)

Improved public health

Improved access to and quality of mobility services and infrastructure

Shift to more sustainable behaviours

Action description

The City has expanded its propane-fueled Trolley service lines to access more areas of town, especially in connecting the Downtown areas to the historic Northwest District. The City also rolled out a "Trolley Tracker" app available for mobile phones to encourage riders to take advantage of the latest technology to get them to their destinations in a timely manner. In 2020, the City will begin exploring procurement options for all-electric, zero emissions trolleys for public use.

Finance status

Pre-feasibility study status

Total cost of the project**Total cost provided by the local government****Primary fund source**

Please select

Web link to action website

<http://www.downtownwpb.com/trolley/>

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation action

Buildings > Switching to low-carbon fuels

Action title

Increasing Electric Vehicle Charging Infrastructure

Means of implementation

Infrastructure development

Implementation status

Implementation complete

Estimated emissions reduction (metric tonnes CO2e)

Energy savings (MWh)

Renewable energy production (MWh)

Timescale of reduction / savings / energy production

Per year

Co-benefit area

Please select

Action description

The City is in the process of updating it's electric vehicle (EV) charging station infrastructure, for both city government fleet vehicles as well as general public use. In the summer of 2019, the City installed 38 electric vehicle charging stations, 16 universal plugs and 16 Tesla plugs. The stations an infrastructure was donated by Tesla and installed by their partner, EnviroSpark. The only cost the City had to pay were the electrical permitting fees. The stations were distributed in three of the City's busiest downtown parking garages to meet customer demand for EV charging stations.

Finance status

Finance secured

Total cost of the project

86212.01

Total cost provided by the local government

1620

Primary fund source

Other (Donation-based program funded through Tesla's Destination Charging Program)

Web link to action website

<http://wpb.org/Departments/Sustainability/City-Initiatives/Charging-Stations>

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation action

Private Transport > Transportation demand management

Action title

West Palm Beach Mobility Plan

Means of implementation

Capacity building and training activities

Infrastructure development

Implementation status

Implementation

Estimated emissions reduction (metric tonnes CO2e)

Energy savings (MWh)

Renewable energy production (MWh)

Timescale of reduction / savings / energy production

Per year

Co-benefit area

Enhanced climate change adaptation

Reduced GHG emissions

Social community and labour improvements

Improved public health

Improved access to and quality of mobility services and infrastructure

Shift to more sustainable behaviours

Action description

The City is in the process of implementing a Mobility Plan to create a well-balanced transportation system, which includes options to walk, bike, drive, or ride public transportation in a safe and welcoming environment. This is in effort to reduce our City's dependence on personal cars (the largest source of greenhouse gas emission within the City) and encourage people to bike, walk, or use public transportation. The Mobility Plan includes roadway widening for increased bicycle safety, greater numbers of pedestrian crosswalks and traffic signals, and increased shade via tree canopies and overhead art installations.

Finance status

Pre-feasibility study status

Total cost of the project

Total cost provided by the local government

Primary fund source

Please select

Web link to action website

<http://wpb.org/Departments/Engineering-Public-Works/MOBILITY-AND-TRANSPORTATION>

Name of the stakeholder group

<Not Applicable>

Role in the GCC program

<Not Applicable>

Name of the engagement activities

<Not Applicable>

Aim of the engagement activities

<Not Applicable>

Attach reference document

<Not Applicable>

Mitigation Planning

(5.5) Does your city have a climate change mitigation or energy access plan for reducing city-wide GHG emissions?

Yes

(5.5a) Please attach your city's climate change mitigation plan below. If your city has both action and energy access plans, please make sure to attach all relevant documents below.

Publication title and attach document

Sustainability Action Plan
SAP_4.25.12_small.pdf

Year of adoption from local government

2012

Web link

http://wpb.org/CMSPages/GetAmazonFile.aspx?path=~\wpb_website\media\wpb_content\sap-4-26-12-for-web.pdf&hash=6f3c0a3e5bec8057f00c51e6dfd83288b3a65f704169701599eae13d2e1ff469

Areas covered by action plan

Energy
Transport (Mobility)
Building and Infrastructure
Industry
Water
Waste
Public Health and Safety

Boundary of plan relative to city boundary (reported in 0.1)

Same – covers entire city and nothing else

If the city boundary is different from the plan boundary, please explain why and any areas/other cities excluded or included

Not applicable.

Stage of implementation

Measurement in progress

Has your local government assessed the synergies, trade-offs, and co-benefits, if any, of the main mitigation and adaptation actions you identified?

In progress

Comment or describe the synergies, trade-offs, and co-benefits of this interaction

The City has aligned its Strategic Plan with the goals set forth in the Sustainability Action Plan. This has been helpful in determining Key Performance Indicators that the City is using to monitor the progress of its goals. This is evidenced in our "West Palm Beach Working" dashboard, which is a public-facing webpage that aims to increase data transparency and show goal progression over time. <http://westpalmbeach.clearpointstrategy.com/>

Has there been a stakeholder engagement plan to develop the plan?

Yes, stakeholders from all economic sectors were invited to a series of workshops that effectively planned the

Primary author of plan

Relevant city department

Opportunities

Opportunities

(6.0) Please indicate the opportunities your city has identified as a result of addressing climate change and describe how the city is positioning itself to take advantage of these opportunities.

Opportunity	Describe how the city is maximizing this opportunity
Improved efficiency of operations	The City is increasing the efficiency of its operations by incorporating LED lighting technology in its streetlights and indoor areas, as well as more efficient HVAC systems with higher SEER ratings.
Development of climate change resiliency projects	The City is exploring new opportunities for resiliency projects to decrease its energy intensity, embrace clean energy, and fund new projects to combat the challenges of a changing climate.
Increased energy security	One of the benefits of signing onto the Energy Secure Cities Coalition and the pledge to move away from traditional fossil fuels is increased energy security.
Development of sustainable transport sector	The City is conducting a mobility study to address how the City can move towards more pedestrian and bicyclist oriented activity, rather than personal cars. Additionally, the City is trying to increase its public transportation through cleaner, propane-fueled trolleys that users can track with a mobile-friendly app.

(6.1) Does your city collaborate in voluntary partnership with businesses in your city on sustainability projects?

Yes

(6.1a) Please provide some key examples of how your city collaborates with business in the table below.

Collaboration area	Description of collaboration
Energy	The City collaborates with a handful of businesses within the City in both the Better Buildings Challenge and the Green Business Challenge. The Better Buildings Challenge is in partnership with the US Department of Energy and aims to have local businesses participate in reducing their energy intensity by monitoring their electricity usage and setting reductions from baseline levels. The Green Business Challenge is a friendly competition between local businesses that inspire energy conservation.
Waste	The Green Business Challenge espouses material conservation, recycling, and responsible purchasing for local businesses.
Water	Both the Better Buildings Challenge and Green Business Challenge aim to help businesses save water through high efficiency appliances and behavioral changes.

(6.2) List any emission reduction, adaptation, water related or resilience projects you have planned within your city for which you hope to attract financing and provide details on the estimated costs and status of the project. If your city does not have any relevant projects, please select No relevant projects under Project Area.

Project area

Transport

Project title

WPB/FPL Electric Bus Pilot Program

Stage of project development

Transaction preparation

Status of financing

Project partially funded and seeking additional funding

Project description

Just approved by the City Commission on July 29th, the City of West Palm Beach will be partnering with Florida Power and Light to procure five electric activity buses to be used by the City's Parks and Recreation Department. The City will be paying a portion of the bus purchase cost, and FPL will be paying the remainder (essentially the cost of the bus batteries). FPL will be using the buses in a pilot program to test the efficacy of vehicle to grid energy storage, and the City will be gaining access to new, zero-emission buses with little downtime. Our next steps are to determine how to process the requisition forms for the five buses.

Total cost of project

1560000

Total investment cost needed

1100000

Local Government Emissions

Local Government Operations GHG Emissions Data

(7.0) Do you have an emissions inventory for your local government operations to report? Reporting a Local Government Operations emissions inventory is optional.

Yes

(7.1) Please state the dates of the accounting year or 12-month period for which you are reporting an emissions inventory for your local government operations.

	From	To
Accounting year dates	January 1 2013	December 31 2013

(7.2) Please indicate the category that best describes the boundary of your local government operations emissions inventory.

Departments, entities or companies over which operational control is exercised

(7.3) Please give the name of the primary protocol, standard, or methodology used to calculate your local government operations emissions inventory and attach your inventory using the attachment function.

	Primary protocol and attach inventory	Comment
Emissions methodology	Local Government Operations Protocol (ICLEI/The Climate Registry/California Climate Action Registry/ California Air Resources Board) Government GHG Summary 2013.xlsx Govt and Comm GHG Summary_final.xls	The City of West Palm Beach has reported its greenhouse gas emissions inventory according to the methodology set out by ICLEI, to uphold the Paris Climate Agreement at a community level. This is a requirement of the campaigns that West Palm Beach is actively participating in: We Are Still In, Global Covenant of Mayors of Climate and Energy, and U.S. Climate Mayors.

(7.4) Which gases are included in your emissions inventory? Select all that apply.

CO2

CH4

N2O

(7.5) Please give the total amount of fuel (refers to Scope 1 emissions) that your local government has consumed this year.

Source	Fuel	Amount	Units	Emissions (tonnes CO2e)
Municipal vehicle fleet	Diesel/Gas oil	2640892	L	5554.7
Buildings	Natural gas	28229	Therms	47.6

(7.6) Please provide total (Scope 1 + Scope 2) GHG emissions for your local government operations, in metric tonnes CO2e. Scopes are a common categorization method.

Local government emissions breakdown

Total Scope 1 + Scope 2 emissions (metric tonnes CO2e)

54847.2

Total Scope 1 emissions (metric tonnes CO2e)

7373.1

Total Scope 2 emissions (metric tonnes CO2e)

47474.1

Comment

(7.7) Do you measure local government Scope 3 emissions?

Yes

(7.7a) Please complete the table.

Source of Scope 3 emissions	Emissions (metric tonnes CO2e)	Comment
Employee commuting	3868	
Waste related Scope 3 emission sources	13773.6	

(7.8) Please indicate if your local government operations emissions have increased, decreased, or stayed the same since your last emissions inventory, and please describe why.

	Change in emissions	Primary reason for change	Please explain
Please explain	Decreased	Technological change	The biggest decreases in local government operations are due to FPL's "greening" of our local electricity grid, which has a lower emissions factor than our 2008 inventory. This is in part due to the predominance of natural gas used for electricity production instead of coal, which has a higher emissions factor, as well as solar energy. The City also upgraded its City-owned and operated streetlights to LEDs in 2012, which saved a considerable amount of electricity, further lessening emissions.

Local Government Emissions Verification

(7.9) Has the GHG emissions data you are currently reporting been externally verified or audited in part or in whole?

Not intending to undertake

(7.9b) Please explain why your local government operations inventory is not verified and describe any future plans for verification.

	Reason	Explanation
Please explain	Lack of funding / resources	The Department of Public Utilities budget was not able to accommodate the funding for the verification of the inventory. We hope to verify our government operations inventory in the future when we go through the process of reallocating funds in FY2020.

Energy

(8.0) Does your city have a renewable energy or electricity target?

Not intending to undertake

(8.0b) Please explain why you do not have a renewable energy or electricity target and any plans to introduce one in the future.

	Reasoning	Comment
Please explain	The grid is not controlled by the city	In 2016, our previous Mayor, Jeri Muoio, set a "net zero emissions by 2050" goal for the community. We will be evaluating renewable energy targets in the near future. Note that the % of renewable energy production figures may be higher than reported as we do not have a database of all projects and these are figures from FPL (not local). FPL is anticipating on their SolarTogether program to help businesses and residents access to solar energy without having to install any physical solar panels. The SolarTogether program is a solar subscription service that would allow customers to pay for a share of FPL's solar farm kW production to offset their traditional electricity usage. Customers would start to earn solar credits about 5-7 years after signing up for the program. The program still has to pass the Florida Public Service Commission.

(8.1) Does your city have energy consumption data to report?

Yes

(8.2) Please indicate the energy mix of electricity consumed in your city.

Percent

Coal

5.34

Gas

70.04

Oil

0.38

Nuclear

17.13

Hydro

0

Biomass

0

Wind

0

Geothermal

0

Solar

0.06

Other sources

7.05

Total - please ensure this equals 100%

100

(8.3) What scale is the energy mix data reported above?

City-wide energy mix reported

(8.5) How much (in MW capacity) renewable energy is installed within the city boundary in the following categories?

	MW capacity	Please describe the scale of the energy source
Renewable district heat/cooling	0	Not applicable.
Solar PV	1.22	This is the amount of solar PV potential installed in the City limits of West Palm Beach, provided by out electricity utility, Florida Power and Light (FPL).
Solar thermal	0	Not applicable.
Ground or water source	0	Not applicable.
Wind	0	Not applicable.
Other: (please specify)	0	Not applicable.

(8.6) Does your city have a target to increase energy efficiency?

Intending to undertake in the next 2 years

(8.6b) Please explain why you do not have an energy efficiency target and any plans to introduce one in the future.

	Reasoning	Comment
Please explain	Target is under development / consideration	The City of West Palm Beach and their Office of Sustainability is considering establishing a energy benchmarking ordinance to make government and private industry buildings accountable in lowering their energy intensity. The City would establish a baseline and then enforce incremental declines in energy use intensity to reduce energy use by a certain percentage by a certain date. This is in consideration but has not been implemented yet.

Transport

(10.0) Do you have mode share information available to report for the following transport types? Select all that apply.

Passenger transport

(10.1) What is the mode share of each transport mode in your city for passenger transport?

	Private motorized transport	Rail/Metro/Tram	Buses (including BRT)	Ferries/ River boats	Walking	Cycling	Taxis or For Hire Vehicles	Other
Please complete	92	1	2	0	3.5	0.6	0.9	0

(10.5) Please provide the total fleet size and number of vehicle types for the following modes of transport:

	Number of private cars	Number of buses	Number of municipal fleet (excluding buses)	Number of freight vehicles	Number of taxis	Transport Network Companies (e.g. Uber, Lyft) fleet size	Customer-drive carshares (e.g. Car2Go, Drivenow) fleet size
Total fleet size			634				
Electric			15				
Hybrid			36				
Plug in hybrid			0				
Hydrogen			0				

Although the government portion of the data is accurate, we could not access reliable city-wide data for this section. We will update our report as soon as we find accurate data.

(10.7) Do you have a low or zero-emission zone in your city? (i.e. an area that disincentivises fossil fuel vehicles)

No

Food

(12.0) How many meals per year are served through programs managed by your city? (this includes schools, canteens, hospitals etc.)

The City of West Palm Beach currently does not have any policies referring to the procurement of food and contracting of catering services. There is no data to share for the 2018 calendar year, but this is something that would be interesting to explore in years to come.

(12.4) Does your city have any policies relating to food consumption within your city? If so, please describe the expected outcome of the policy.

	Response	Please describe the expected outcome of the policy
Please complete	No	The City currently does not have any policies that relate to food consumption. The City is implementing a "Food Forest" program to plant fruit trees in an undeserved area of the City that residents can visit and pick fruit for consumption. There are no policies pertaining to this program and food distribution.

Water Security

Water Supply

(14.0) What are the sources of your city's water supply? Select all that apply.

Surface water

(14.1) Where does the water used to supply your city come from?

From a river basin within the city boundary

(14.2) What percentage of your city's population has access to potable water supply service?

100

(14.3) Are you aware of any substantive current or future risks to your city's water supply?

Yes

(14.3a) Please identify the risks to your city's water supply as well as the timescale and level of risk.

Risks	Estimated timescale	Estimated magnitude	Risk description
Increased water stress	Short-term	Serious	Less frequent rainfall and prolonged drought periods place stress on the total water supply for the community. Additionally, the City's population is continuing to grow, which only exacerbates the demand for potable and non-potable water supplies.
Inadequate or ageing infrastructure	Short-term	Serious	We have seen increases in reports of flooding, especially in low-lying areas near the Intracoastal Waterway, which could be the result of ageing storm drain systems. Our Stormwater Master Plan is addressing this issue, in particular.

Water Supply Management

(14.4) Please select the actions you are taking to reduce the risks to your city's water supply.

Risks

Increased water stress

Adaptation action

Conservation awareness and education

Status of action

Implementation

Action description and implementation progress

The City has several water conservation initiatives that aim to educate residents and business owners on saving water and lowering their water utility bills. These include the Office of Sustainability's programs, such as the High Efficiency Toilet Voucher Program, which offers residents and business owners the chance to receive a \$125 HET toilet voucher to replace older, more water intensive toilets, and the Rain Barrel program, which offers utility customers one free 55 gallon rain barrel for outdoor water use. Additionally, in late 2019, West Palm Beach will roll out a digital water conservation app and webpage through the vendor Dropcountr, which will show utility customers a monthly water use report and offer suggestions on where to save water throughout their home. This is replacing a similar platform that the City has with WaterSmart during the 2015-2018 contract years.

Risks

Inadequate or ageing infrastructure

Adaptation action

Stormwater management (natural or man-made infrastructure)

Status of action

Implementation

Action description and implementation progress

The City is finalizing its Stormwater Master Plan which includes projections for sea level rise and rainfall-induced flooding.

(14.5) Does your city have a publicly available Water Resource Management strategy?

In progress

The City's Stormwater Master Plan is using the data collected from the FernLeaf/NEMAC vulnerability assessment to determine which capital improvement projects will be of utmost importance to guard against the impacts of sea level rise and rainfall-induced flooding impacts. The Master Plan in its entirety is not yet available for public distribution.

Submit your response

What language are you submitting your response in?

English

Please read and accept our Terms and Conditions

I have read and accept the Terms and Conditions

Please confirm how your response should be handled by CDP.

	Public or non-public submission
I am submitting my response	Publicly (recommended)