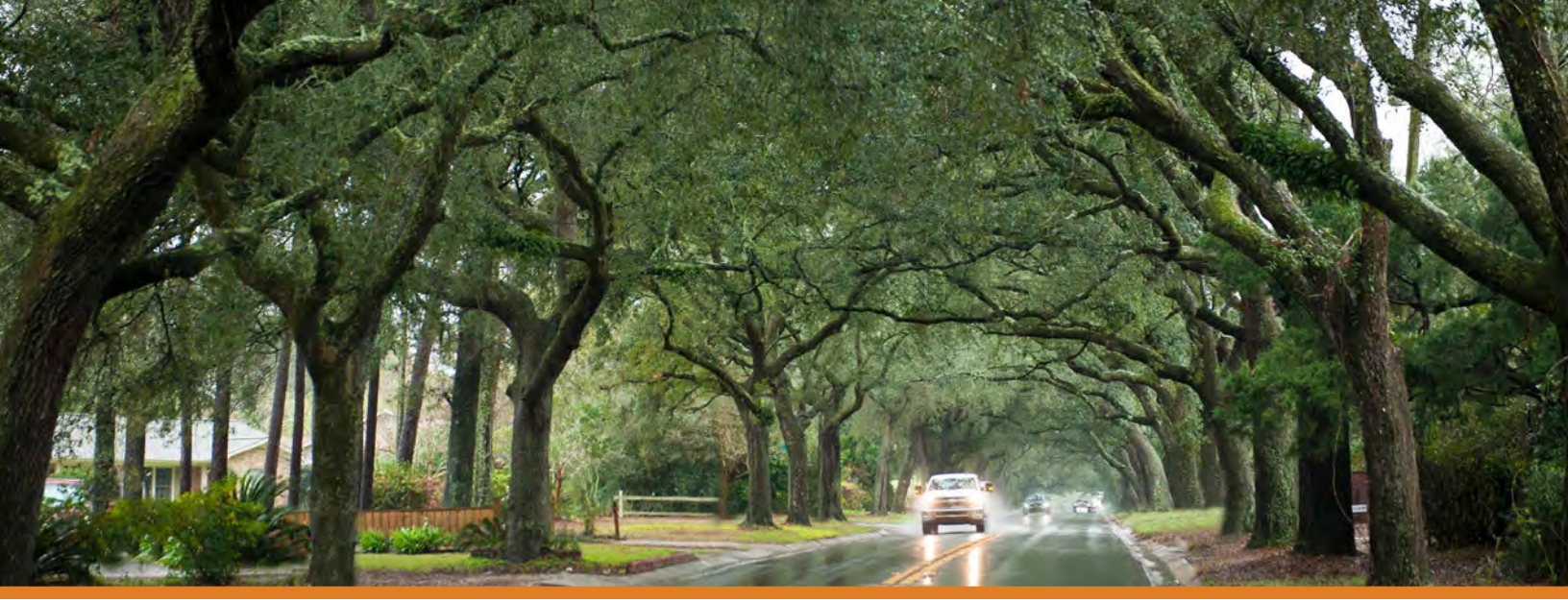
Climate Action Recommendations

A Blueprint for Addressing Climate Change at the Municipal Level

City of Pensacola Climate Mitigation and Adaptation Task Force

2018



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City of Pensacola Climate Mitigation and Adaptation Task Force

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Climate Mitigation and Adaptation Task Force

City of Pensacola

2018

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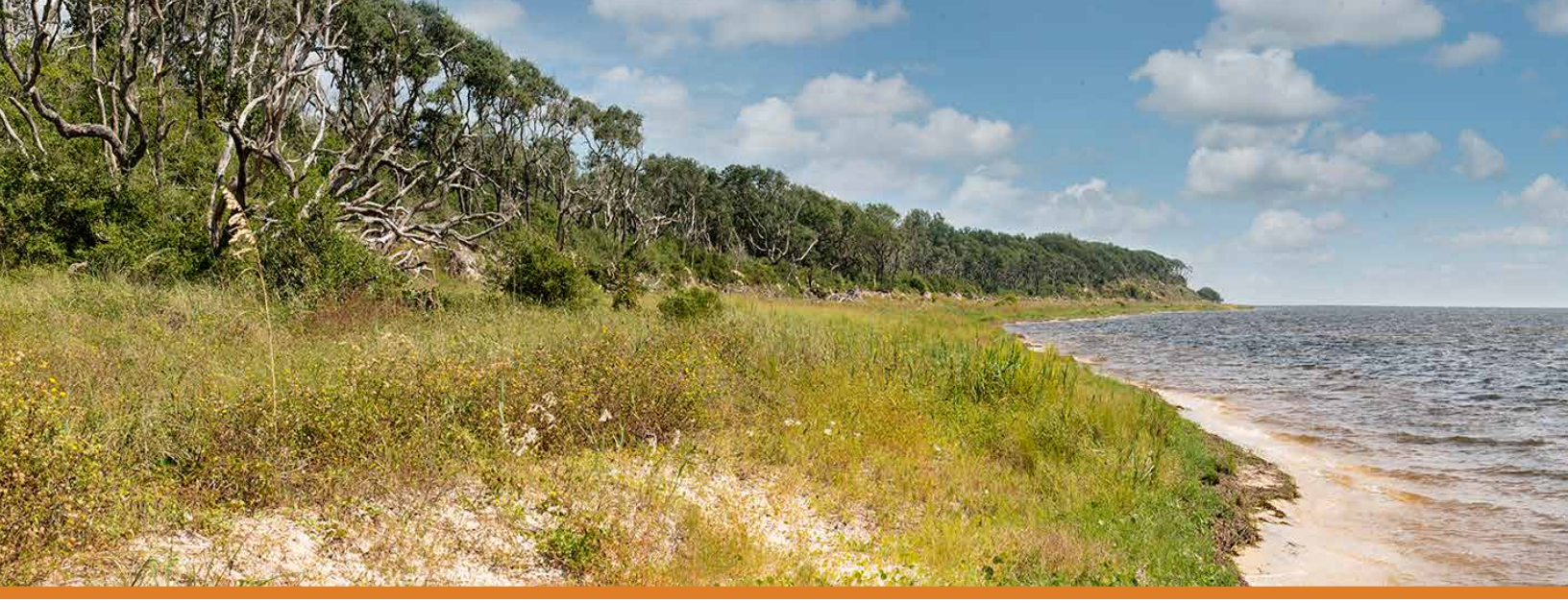

City of Pensacola Climate Mitigation and Adaptation Task Force

2018

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Introduction

The imperative for climate adaptation and mitigation planning stems from overwhelming evidence of climate change and the effects on coastal cities and regions. Researchers and scientists point to the changing climate as a direct result of human activities with devastating consequences for communities around the world. The climate-related threats include intense rain and flood events, sea level rise, droughts, and heat waves. Addressing climate change is imperative for communities to pursue and is based on unique characteristics of communities and local governments and threats they are facing.

The City of Pensacola and its regional partners, including counties and other local governments, are pursuing an aggressive and overarching climate-planning objective to address underlying climate change threats. The planning process included an appointment of the Climate Mitigation and Adaptation Task Force. The report produced by the Task Force provides a general outline of the direction for the City of Pensacola and the region to undertake specific actions to counter threats and impacts of climate change and extreme weather.

Task Force Goals and Objectives

The goals and objectives of the Climate Mitigation and Adaptation Task Force shall include, and are not limited to:

- Advance adaptation and mitigation strategies to enhance the City's and regional resilience and preparedness for withstanding the likely adverse effects of climate change, including flooding resulting from heavy precipitation, rising sea levels, intense hurricanes, heat waves, and other extreme weather events.
- Promote a program of education, incentives, and public outreach to encourage residents, business owners, governments, and organizations to participate in the Climate Adaptation and Mitigation Plan.
- Generate suggestions to obtain federal and state grants, investments in energy efficiency and other financial resources to offset program costs. Measures may include initiatives to conserve energy and reduce greenhouse gas (GHG) emissions within government operations and incentives for homeowners, businesses and organizations to save energy, reduce costs and decrease GHG emissions.

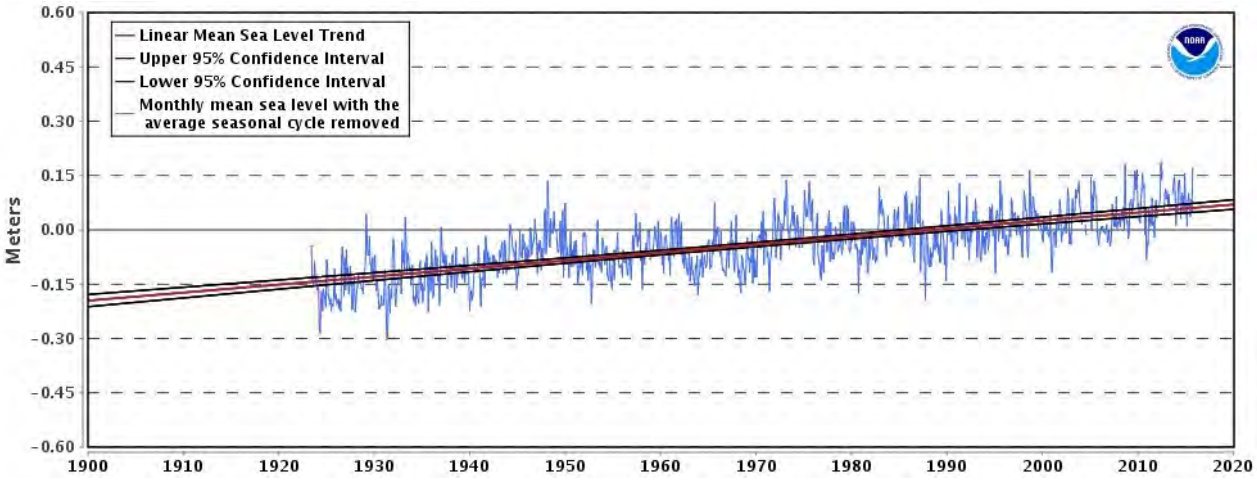
The Climate Change Threats to Northwest Florida and the City of Pensacola

Climate change is a driving force in Florida's growing weather extremes. Florida is becoming hotter and more humid (Climate Central, 2016, July 13). Northwest Florida is threatened by sea level rise, record-breaking heat indexes, increasing frequency and duration of extreme heat and drought, heavier rain, wildfires, inland and coastal flooding, storm surges exacerbated by stronger hurricanes, and decreasing freshwater availability (Climate Central and ICF International 2015) (Carter et al. , p. 397).

These risks threaten natural and built environments, the economy, and human health. Our region has already been affected by the kind of economic and social disruptions that extreme heat, heavy rain, and flooding can create. As noted in the Climate Central report and projections, Pensacola faces several risks associated with global warming, including sea level rise, multiplying extreme flood risk in the Pensacola region (Strauss et al. 2014, p. 51).

A Blueprint for Addressing Climate Change at the Municipal Level

Local governments are typically the first responders when an extreme weather event affects their communities. Coastal communities in particular have long dealt with the aftermath of disastrous hurricanes and floods, with devastating consequences to local economies. Continuing and expanding the efforts to be better prepared to proactively address these events will result in a highly resilient community.



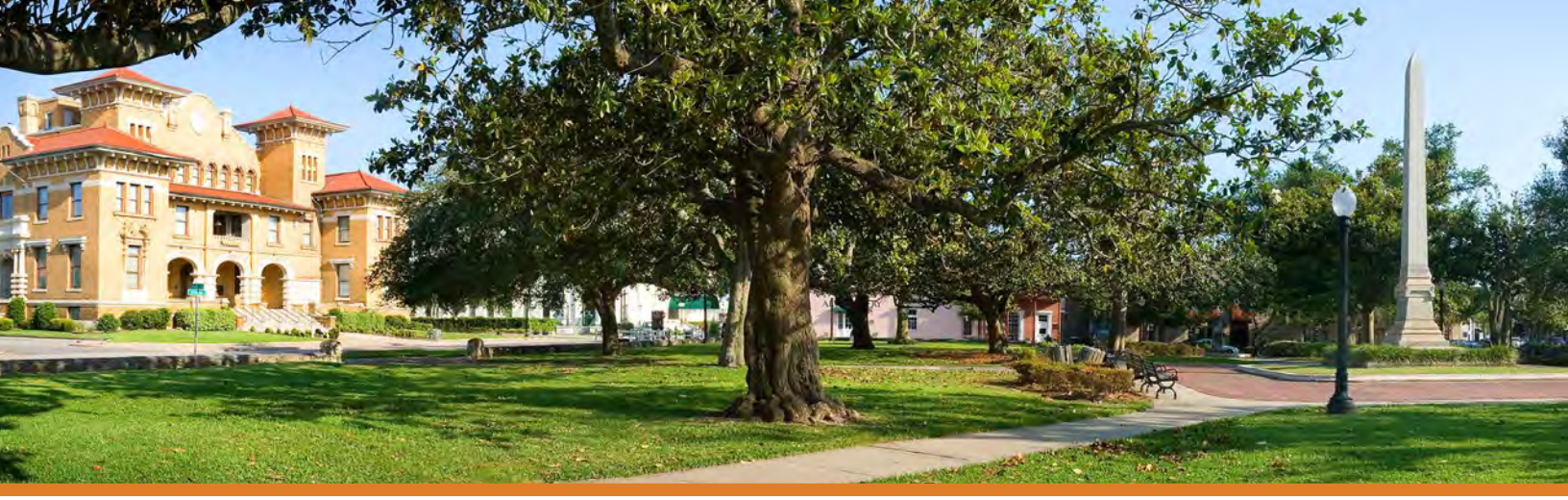
Historical water level records from Pensacola, Florida have established a representative long-term historical SLR trend of 0.73 ft/century (source: NOAA Center for Operational Oceanographic Products and Services).

Planning for Energy Efficiency and Climate Change Mitigation

Greenhouse gas (GHG) emissions have undeniably been affecting the climate. The reduction of GHG emissions can decrease the extent and severity of climate change. Remaining at the status quo or increasing GHG emissions will escalate changes in climate. Climate change mitigation includes actions to decrease GHG emissions, reducing the ultimate magnitude of climate change. Some of these actions also have the potential to contribute to cost savings, green jobs, and local economic development. The City of Pensacola and surrounding area can take actions to assess energy use and GHG emissions to achieve the carbon footprint reductions.

The recommendations provide a blueprint for moving forward.

- Adopt a pledge to reduce the GHG emissions and join and actively participate in programs that provide planning tools such as: The Northwest Florida Clean Cities Coalition, Transformative Actions Program (TAP), Be Ready Alliance Coordinating for Emergencies (BRACE), United States Geological Survey (USGS) Sea-level Rise Simulation and Inundation Models, USGS Wetland Change Models, USGS Surface Elevation and Shoreline Erosion Models, and the Gulf Tools for Resilience Exploration Engine (Gulf TREE) through Northern Gulf of Mexico Sentinel Site Cooperative.



- The mayor should join the Mayors Climate Protection Agreement in solidarity with other cities in Florida. Joining the Climate Protection Agreement will support a mitigation initiative to reduce future impacts of climate change through pledge reductions in GHG emissions.
- Join the International Council for Local Environmental Initiatives (ICLEI)—Local Governments for Sustainability. ICLEI provides guidance for local climate action, including ClearPath™—"an online software platform for completing greenhouse gas inventories, forecasts, climate action plans, and monitoring at the community-wide or government-operations scales." (icleiusa.org/clearpath/)
- Commit to meet a 30% renewable energy target by 2030 for city-owned facilities and operations, with a goal of 100% renewable by 2040.
- Support and encourage energy efficiency efforts, including the ENERGY STAR® labeling program and Leadership in Energy and Environmental Design™ (LEED).
- Encourage the start of a special adaptation action area group similar to the Southeast Florida Regional Compact. This group could be called the Northwest Florida Regional Compact and would study the outcome of adaptation strategies.
- Complete an inventory of city-wide GHG emissions and prepare a climate adaptation plan, as have many municipalities and counties around the state.
- Incorporate language about climate change in updated comprehensive plans, and pass local laws or codes that uphold those values.
- Include the following sectors: transportation, water resources/ utilities, natural resources, agriculture, and disaster risk as part of the climate change planning process.
- Reduce GHG emissions from municipal facilities and operations, including increasing energy efficiency and conservation measures. In addition to reducing negative environmental impact, these efforts may provide for cost avoidance and savings.
- Install or purchase renewable energy, such as solar panels or other renewable power on municipal buildings, and incorporate LEED design.
- Educate the public about the changing climate, and involve and engage local citizens and volunteers in the processes of adaptation and mitigation. Encourage and incentivize local businesses and residents to reduce their energy consumption.
- Support regional and statewide policies to promote and develop renewable energy systems, net-metering, and installation of solar and geothermal projects.

Planning for Resilience and Climate Change Adaptation

The City of Pensacola has the opportunity and responsibility to start planning to ensure the community is resilient to climate change. The first course of action is to better understand what changes are likely at the local (and regional) level and to continue to make sure to prepare for these changes. Climate change adaptation refers to the actions organizations adopt and implement to reduce the impacts of the climate changes that either have already occurred or will inevitably occur. Resilience is the capacity of communities and organizations to withstand stress and catastrophe, and to recover and adapt successfully in the face of threats or disaster.

Here are some of the initiatives that the City of Pensacola can undertake to increase the community's resilience to climate change impacts.

- Develop emergency management plans and Federal Emergency Management Agency (FEMA) all-hazard mitigation plans that include climate change projections and adaptation strategies, and participate in the National Flood Insurance Program as well as FEMA's Community Rating System (CRS). The City of Pensacola is currently ranked 7 out of 10 on the FEMA CRS scale, resulting in a 15% annual discount in flood insurance for all insured properties. Surrounding communities have reached levels 5 (Pensacola Beach, Santa Rosa County) and 6 (Escambia County). The City should continue making a concerted effort to improve its CRS rating. Acting on the suggestions made in this report would contribute significantly to improving this rating.
- Consider current and subsequent updates to sea level rise (SLR) projections to inventory and map municipal infrastructure that may be vulnerable to climate change, and make plans and budget to replace, move or harden, or add supportive infrastructure at appropriate times as those models indicate.
- Utilize local authority to protect open space, wetlands, and riparian buffers to increase resilience to extreme weather events.
- Become an active participant on the policy board of the Pensacola and Perdido Bay's Estuary Program; encourage climate resilience strategies in addition to water quality management and improvement.
- Incorporate Better Site Design, Low Impact Development (LID) and green infrastructure principles into local codes and planning decisions to increase resilience of streams, bayous and floodplains to heavy precipitation events. Protect the natural riparian (natural shoreline) zones of these water bodies and incentivize restoration of living shorelines instead of hardening (stone, wood and concrete seawalls). Utilize Escambia County's LID Reference Manual and create incentives for its use within the City and region.
- Use a watershed-level rather than site-level approach to manage stormwater runoff and flooding. Wide-scale watershed management can reduce impacts of flooding from stormwater downstream through the use of better urban planning and design principles including a multi-jurisdictional approach.
- Encourage higher density development where appropriate as an urban stormwater best-management practice. More compact development patterns generate less stormwater runoff overall than low-density development.

Areas of Emphasis for Climate Preparedness

Comprehensive Plan Climate Mitigation and Adaptation Element

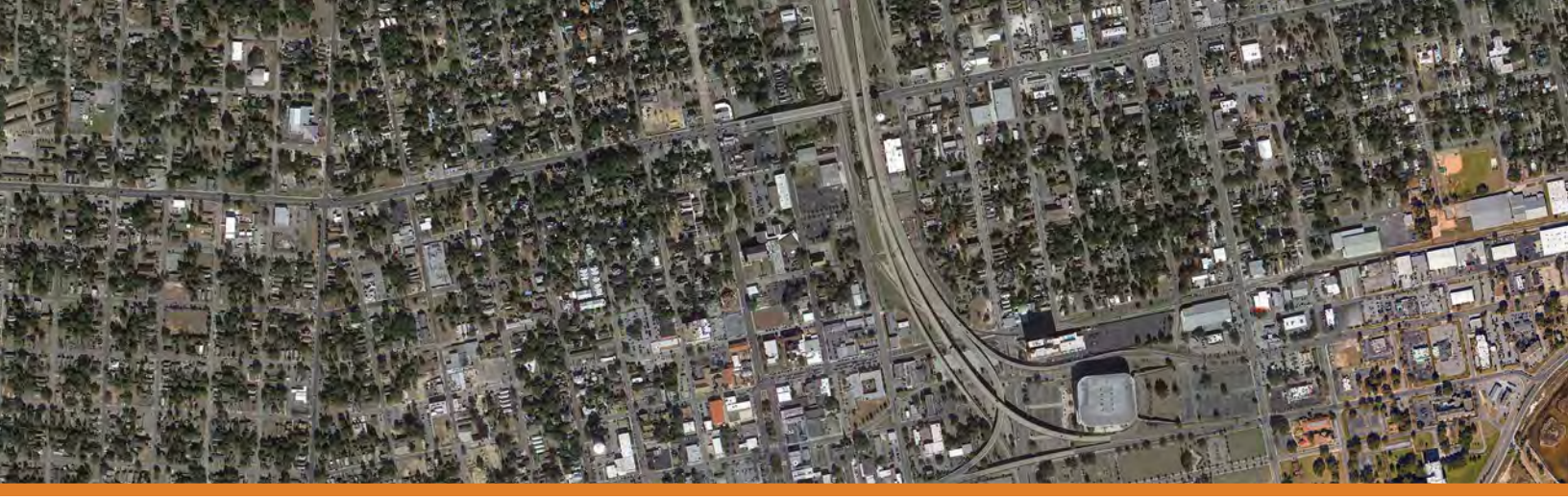
Goal: Achieve a sustainable, climate resilient community by promoting energy efficiency and greenhouse gas reduction strategies; protecting and adapting public infrastructure, services, natural systems and resources from climate change impacts; and continuing to coordinate and communicate locally and regionally to monitor and address the changing needs and conditions of the community.

Greenhouse Gas Emissions Reduction Goals

Objective: Mitigate the causes of climate change while providing clean energy solutions and a more energy efficient way of life for residents, business interests, and visitors.

Policy Recommendations:

- The City of Pensacola shall mitigate its contribution to global climate change by reducing municipal operations greenhouse gas emissions to 30% by 2030, based on the data from the City's inventory of GHG emissions (see inventory recommendation, page 4). The long-term goal shall be zero GHG emissions. The City will continue to regularly monitor and track the progress of programs and initiatives that contribute to the final reaching of these goals.
- The City of Pensacola shall encourage research for increasing the proportion of electricity generated by alternative and renewable energy sources within the City, such as solar, wind, geothermal and ocean energy technologies.
- The City of Pensacola should plan for and facilitate the development of infrastructure that provides public access to alternative fuels and electric vehicle charging stations by 2025. Actions should include:
  - Preparing for deployment and optimal distribution of a regional system
  - Negotiating inter-local agreements with County, State, and private entities to share existing and proposed infrastructure
  - Incentivizing and improving processes and programs for installation of alternative fuel and electric vehicle charging infrastructure (including city-owned parking lots and buildings)



Transportation

Objective: Advance transportation and land-use choices that reduce fossil fuel use and vehicle miles traveled; improve the mobility of people, goods, and services; provide a diverse, efficient and equitable choice of transportation options; and increase the City's resilience to the impacts of climate change.

Policy Recommendations:

- The City of Pensacola shall continue to encourage mixed land uses which promote functional, walkable mixed-use development designs and projects by providing flexibility in development review and requirements for these projects, revising the zoning and land development codes to support such projects, and promoting the adoption of land development codes that support and establish sustainable development patterns, especially in areas identified as high risk to sea level rise. Discourage and/or prevent development in flood zones and areas near wetlands and coastal zones. Reduce future development in areas prone to flooding. Preserve and grow mixed-use and dense development neighborhoods in low hazard (non-historically flooded) areas, making essential services and businesses accessible through multimodal means of transportation.
- The City of Pensacola shall continue to seek to diversify fuel options for public transit and fleet vehicles, expand infrastructure for charging electric and hybrid electric vehicles and incentivize parking for alternative fuel vehicles. Adopt a policy that discourages expansion of roadways that add more lanes to grow capacity. Focus on the maintenance and the improvements of "vital streets" or existing roads where appropriate. Evaluate the adoption of a complete streets concept, looking at street design from a pedestrian/biking perspective as well as the importance of traffic calming. Any new road project would need to meet the following criterion before approval: Roadway will serve as a connector between areas to reduce driving miles, consequently decreasing carbon footprint and emissions.
- The City of Pensacola shall review and support new city codes that help to create more bicycle and pedestrian-friendly infrastructure for our communities.

Built Environment

Objective: Improve the climate resilience and energy-efficiency of new and existing buildings and public infrastructure, and develop adaptation strategies for areas vulnerable to climate change-related impacts.

Policy and Initiative Recommendations:

The City of Pensacola shall encourage greener, more efficient and climate resilient construction practices.

- Build all new construction of city or public facilities to LEED standards.
- Utilize national guidelines and performance benchmarks for sustainable land design, construction and maintenance practices, as developed by The Sustainable Sites Initiative™ (SITES).
- Reevaluate the base finish floor elevation standards concerning projected sea level rise scenarios and flooding potential.
- Install solar panels on City buildings.
- Use ENERGY STAR rated appliances and HVAC equipment within City buildings.
- Incorporate building design specifications city-wide for commercial and residential developments to increase resistance to impacts from more intense storm events.
- Encourage all building/construction personnel to have National Pollutant Discharge Elimination System (NPDES) training and erosion/ sediment control training.
- Encourage sustainable practices for site design, construction and maintenance. These regulations help reduce urban runoff and mitigate the effect of new development, redevelopment, or infill development on the existing drainage system. Develop a new unified Stormwater Building Code. The new code would contain requirements to protect the City's drainage system during construction, as well as post-construction stormwater management requirements.
- Develop permeable surfaces and green incentives for residents and businesses throughout the City of Pensacola. Encourage stormwater fee reduction based on beneficial pervious surface area and development incentives during the process of applying for development permits for zoning upgrades. Explore grant opportunities to provide direct funding to property owners and/or community groups for implementing a range of green infrastructure projects and practices. Develop a rebate program or provide installation financing to provide funding, tax credits or reimbursements to property owners who install specific practices, and promote an awards and recognition program that would provide marketing opportunities and public outreach for exemplary projects. This may include financial incentives.

Policy Recommendations:

- Work cooperatively to review and re-evaluate current zoning codes, regulations and policies according to sustainable community development practices, such as those outlined in the criteria recommended by the United States Green Building Council's Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) certification, or by application of a national rating system for local governments, such as the STAR Community Index™ (STAR), and NPDES stormwater permit.

- Identify areas of frequent "nuisance flooding" and create a public database for future reference, which will disincentivize construction in historically and newly flooded area.
- Create an Inland Flooding Adaptation Action Area.
- Create a mechanism for transfer of ownership for properties in high hazard areas to create green space and mitigate flood risks.
- Limit public expenditures in coastal high hazard areas.
- Reduce development density in high flood zones/coastal high hazard areas.

Policy Recommendation:

The City of Pensacola shall continue to review policies and promote programs which advance GHG reduction and energy conservation strategies; promote compact, transit-oriented, pedestrian-friendly development; further green construction practices and the design of climate-sensitive and energy efficient buildings; encourage cluster development in order to retain or create native vegetative communities; and address the resilience and survivability of buildings and infrastructure to rising sea levels, tropical storms, storm surge, and other climate change impacts, thoroughly evaluate and re-evaluate coastal land use.

Policy Recommendation:

The City of Pensacola shall evaluate the costs and benefits of adaptation alternatives in the location and design of new infrastructure as well as the fortification or retrofit of existing infrastructure.

Policy Recommendation:

Assess and quantify the multiple environmental, social, and economic benefits of green infrastructure, as trees, forests, wetlands, and waterways provide natural protection and increase resilience by improving air quality, providing shade, reducing heat, storing surface water and retaining stormwater runoff through green stormwater initiatives. Furthermore, conservation and expansion of green infrastructure decisions should include measurements of meeting the GHG mitigation targets, public health, and safety goals, and climate change adaptation priorities.

- The City of Pensacola shall utilize the City Tree Ordinance fund to maximize the benefits of trees throughout the community to absorb carbon dioxide, rebuild urban riparian zones, provide passive cooling for buildings, and provide shade for more walkable streets.
- The City of Pensacola shall continue to maintain annual certification as a Tree City USA Community in partnership with the Florida Forest Service and the Arbor Day Foundation. Tree City USA designation demonstrates the commitment of the city in protecting, conserving, and managing trees on the city-owned property to ensure that the benefits of healthy, native, urban forests and trees are fully utilized.
- The City of Pensacola shall partner with other area organizations by joining the Six Rivers Cooperative Invasive Species Management Area (CISMA) as a partner-member. The Six Rivers CISMA Partnership is comprised of local, private, and public partners who work together to control invasive species in the NW Florida region. The City of Pensacola has many wetlands and stormwater treatment areas that are predominantly comprised of invasive species. Controlling these species followed by the establishment of native species will improve the effectiveness of stormwater management in wetlands.

Emergency Planning

Objective: Ensure exceptional planning and coordinated emergency preparedness and post-disaster management in the context of climate change.

Policy and Initiative Recommendations:

- The City of Pensacola shall coordinate with Escambia County and regional planning agencies to ensure adequate planning and response for emergency management in the context of climate change by maximizing the resilience and self-sufficiency of, and provide access to, public structures, schools, hospitals and other shelters and critical facilities.
- The City of Pensacola shall develop plans and monitor programs to address the impacts of climate change on households and individuals especially vulnerable to health risks attributable to or exacerbated by rising temperatures, to include low-income families and the elderly.
- The City of Pensacola shall continue to communicate and collaboratively plan with other local, regional, state and federal agencies on emergency preparedness and disaster management strategies. This includes incorporating climate change impacts into updates of local mitigation plans, water management plans, shelter placement and capacity, review of significant traffic ways and evacuation routes, and cost analysis of post-disaster redevelopment strategies.
- The City of Pensacola shall work to encourage dialogue between residents, businesses, insurance companies and other stakeholders, through public education campaigns and workshops to increase understanding regarding the potential impacts of climate change on our coastal communities and evaluate the shared costs of action or inaction in human, ecological and financial terms.
- The City of Pensacola shall work with the Florida Division of Emergency Management and other agencies to incorporate sea level rise and increasing storm surge impacts into the remapping of potential hazard areas in coastal zones by 2020. Revised hazard area designations should better reflect the risks to communities associated with climate change and allow reevaluation of suitability for development or redevelopment in these areas.
- The City of Pensacola shall cooperatively develop model codes and policies to encourage post-hazard redevelopment in areas with less vulnerability to storm surge, inundation, flooding, sea level rise and other impacts of climate change, and incentivize locally appropriate mitigation and adaptation strategies.

Local Utilities

Objective: Ensure the resilience of existing water resources, and water and wastewater infrastructure to the impacts of climate variability and change to protect water quality and quantity, and minimize the potential for flood damage and water shortages, while improving the energy efficiency of utilities and reducing carbon emissions and climate impacts. Work with energy provider utilities on mitigation of climate change by transitioning to zero GHG emission energy sources (e.g., renewable energy).

Policy Recommendations:

- The City of Pensacola shall, by 2020, coordinate with local service providers to ensure that water and wastewater service planning and policy development consider methods for reducing utilities' "carbon footprint," including the best management practices recommended in American Waterworks Association Florida Vision 2030, which have been recognized by utilities as appropriate utility responses to climate change. Also, additional means of reducing demand for traditional energy sources at the water and wastewater treatment facilities, such as through the production of energy through cogeneration systems, should be explored.
- The City of Pensacola shall develop, implement and coordinate water conservation initiatives, in partnership with water and wastewater utilities, as part of long-term water supply planning, and seek the continued support of the Northwest Florida Water Management District and other agencies. Recognizing the fragility of our community's sole water source, the Sand-and-Gravel Aquifer, the City should strive to protect the groundwater resource along with both existing and future public drinking water supply wells. The City should consider a uniform approach, in conjunction with Escambia County, to protection of the groundwater resource and the drinking water supply by adoption of the County's Wellhead Protection Areas (WHPAs) and the applicable development standards for those WHPAs.
- The City of Pensacola shall support recurring and continued development of local integrated models and continuous data collection, to help predict and track the impacts of sea level rise on groundwater levels, saltwater intrusion, and drainage infrastructure through enhanced development and application of local aquifer and hydraulic models and the use of down-scaled climate models.
- The City of Pensacola shall work in coordination with local utilities to maintain and advance infrastructure protection, utility location, and adaptation through infiltration and inflow program development to reduce the flow of groundwater and stormwater to wastewater collection and treatment facilities.
- The City of Pensacola shall work with utility services to investigate the feasibility of relocating above-ground utilities underground in areas vulnerable to high winds and frequent power disruption due to storms.
- The City of Pensacola shall send to electric utilities that provide power to the area within the City of Pensacola a formal statement declaring the City's desire to receive electric energy from zero GHG emission sources (e.g., renewable energy). The City shall also send a request to these utilities to transition to renewable energy sources, with a goal of zero GHG emissions. Furthermore, the City shall request a long-term plan from these utilities for making this transition.

Public Health

Climate change influences public health in Florida through higher average temperatures and an increase of the frequency, intensity, and duration of extreme weather—heat waves, heavy rains, drought, tornadoes, hurricanes, and storm surge. The impacts to public health include an increase in aeroallergen-related asthma and other respiratory diseases, vector-borne and water-related diseases, heat-related deaths and illnesses, and mental health issues related to dealing with disasters such as hurricanes and flooding. Power grid/power outages and infrastructure failures due to severe weather compound the effects on public health. All communities are impacted, but the most vulnerable are the poor, the elderly, young children, the sick, households of color, and people with disabilities. (Luber, G. et al., 2014, pp. 221-233)

Objective: Prepare for and protect the public from adverse health impacts of climate change.

Policy Recommendations:

- The City of Pensacola and City subcontractors shall follow Federal guidelines and best practices to prevent injuries, cognitive difficulties, and other hazards related to working outside in weather extremes such as high temperature and humidity. The guidelines may require providing shade, rest, or cooling to outdoor workers. The City shall also encourage local businesses to follow the recommendations.
- The City of Pensacola shall increase the resilience of critical infrastructure when appropriate to support human health and well-being.
- The City of Pensacola shall work with other governmental agencies and the Escambia County Health Department to support drinking water quality monitoring and source water protection.
- The City of Pensacola shall work with other governmental agencies and the Escambia County Health Department to support enhanced surveillance of mosquitos to mitigate vector-borne disease. Long-term and consistent vector mosquito surveillance can create a baseline to identify periods with heightened risk.
- The City of Pensacola shall partner with the Escambia County Health Department, emergency management organizations such as BRACE, and public utilities to prepare and protect the safety, health and well-being of the public in the event of a hurricane or other severe weather event.
- The City of Pensacola shall partner with Escambia County and the Escambia County Health Department to notify the public of heat advisories, pollen alerts, and other climate-related health warnings.

Outreach

Objective: Increase opportunities in the community to learn about climate change, participate in decision-making, engage in a green economy, utilize green infrastructure, study health impacts, and reduce population vulnerability.

Policy Recommendations:

- The City of Pensacola shall continue to engage stakeholders, regional, state and federal partners, academia, practitioners and climate scientists, in exchanging information, best practices, and policy solutions regarding local climate change impacts and mitigation and adaptation strategies.
- The City of Pensacola shall promote partnerships between local government agencies, universities, professionals and practitioners, to foster an environment for connecting scientific research and education with practical applications that will contribute to the resilience and adaptation within the built and natural environments to the impacts of climate change. Work with University of West Florida and University of Florida Institute of Food and Agricultural Sciences (UF IFAS) Extension faculty to promote climate education events.
- The City of Pensacola shall partner with innovative construction projects to showcase the changes they incorporate in new construction to mitigate for flooding and other climate impacts.
- The City of Pensacola shall promote partnerships between local middle and high school career and academic academies to encourage student internships and learning opportunities to develop and educate local talent in the green jobs sector.
  - Beulah Middle School Pre-Engineering/STEM
  - Escambia High Engineering Academy
  - Pine Forest High Home Builders Association of West Florida Green Construction Trades Academy
  - West Florida High School Academies of Civil Engineering & Architecture, Cox Telecommunications, and Gulf Power
  - Washington High School Marine Science Academy

Economic Development and Resilience

Objective: Strengthen the local economy through green job opportunities, expand renewable energy and the market for energy efficient products and services, and incentivize energy conservation and retrofits.

Policy Recommendations:

- The City of Pensacola shall encourage the development of green industry and business which diversify the local economy and contribute benefits towards a sustainable future.
- The City of Pensacola shall continue to develop plans and programs in coordination with local municipalities, power companies, and private partners to reduce GHG emissions and create green job opportunities throughout the community, by
  - Expanding the market for energy efficient products and services;
  - Supporting alternative and renewable energy production through innovative financing; and
  - Promoting and incentivizing energy conservation retrofits.
- The City of Pensacola shall seek to strengthen the local economy by promoting green economic growth and green-collar work training programs in order to: create resilience; reduce reliance on fossil-fuel-based economies; provide a positive focus for economic development; advance the use of sustainable materials, technologies and services; and encourage local jobs in sustainable businesses which offer a living wage and make it possible for regional climate change goals to be met.
- The City of Pensacola shall review codes and regulations to enable and encourage eco-industrial development and business practices in line with the concept of the circular economy. Specifically, businesses models and land development patterns should be supported which promote by-product exchanges (so that one company's waste stream is another's source of raw materials) as to more efficiently use resources (materials, water, energy) throughout society.

Task Force Findings and Recommendations

- Incorporate a Climate Mitigation and Adaptation Element into the City's Comprehensive Plan (as opposed to updating each element of the Comp plan with climate adaptation and mitigation policies).
- Seek funding to develop a Climate Action Plan or Climate Resilience Plan.
- Complete an inventory of city-wide GHG emissions to begin the mitigation plan. The establishment of a baseline measurement of GHG emissions is a fundamental step in addressing climate change and the community's resilience.
- Conduct a Vulnerability Assessment and establish resilience strategies based on those findings. Utilize the existing Florida Department of Economic Opportunity (FDEO) Vulnerability Assessment of Escambia County, which includes detail related to the City of Pensacola.
- Reestablish and fund the City of Pensacola Office of Sustainability (or similar program) to implement the Climate Action Plan and to provide an annual review and assessment of climate adaptation and mitigation of policies and strategies.
- Engage the Environmental Advisory Board (or appropriate entity) to work with City Council and city planning staff to ensure the city's Land Development Code addresses mitigation and adaptation policies.
- Pursue grant opportunities for City and regional partners to develop climate adaptation programming.

Addendum

Community Concerns and Priorities

- Develop Task Force priorities, for example, clean energy solutions, to start discussion with the community.
- Gather community feedback on the Task Force's proposed climate change policies and establish priorities based on that feedback.
- Create and implement a community-wide survey (see Satellite Beach report) and prioritize action areas based on resident feedback.
- Create a page on the City website dedicated to climate resilience information.

Find stakeholders' comments to the Task Force draft report at: www.cityofpensacola.com/2900/Climate-Mitigation-and-Adaptation-Task-F

Appendix

Resolution of the Pensacola City Council Creating a Climate Change Task Force: Resolution No. 29-14. (2014, August 28). www.cityofpensacola.com/AgendaCenter/ViewFile/Agenda/_08282014-689

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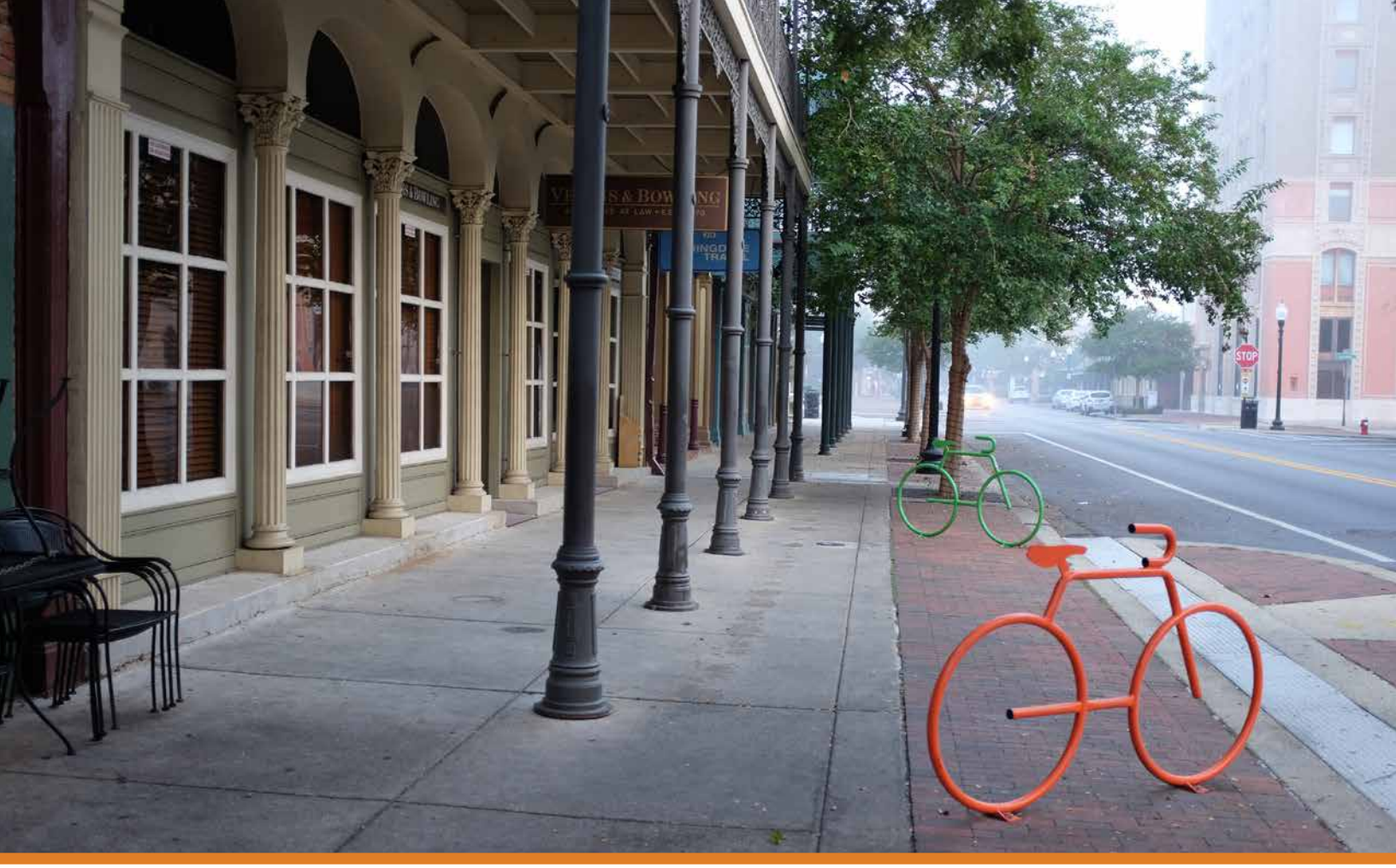

Other Resources

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Broward County Climate Action Plan—Local Strategy to Address Global Climate Change
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City of Punta Gorda Adaptation Plan
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