

CITY OF PENSACOLA
CLIMATE MITIGATION & ADAPTATION TASK FORCE
Thursday, February 1, 2018 ~ 3:30 p.m.
HAGLER/MASON Conference Room
2nd Floor, City Hall

AGENDA

1. Call to Order/Welcome/Quorum
2. Approval of Minutes—January 4, 2018
3. Draft Report Discussion
4. Announcements
5. Public Forum
6. Adjourn

**The next meeting of the Climate Mitigation and Adaptation Task Force:
Thursday, March 1, 2018, 3:30 p.m.**

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MINUTES OF THE CLIMATE MITIGATION AND ADAPTATION TASK FORCE
January 4, 2018
3:30 p.m.

Members Present: Elaine Sargent, Chair, Laurie Murphy, Vice Chair, Cynthia Cannon, Tim Haag, Mark Gibson, Dr. Haris Alibašić, Matt Posner (alternate for Carrie Stevenson)

Members Absent: Dr. Wade Jeffrey, Christy Johnson, Peggi Smith, Carrie Stevenson

Others Present: See attached sign-in sheet

Staff: Council Executive Don Kraher, Elaine Mager, Sonja Gaines

1. Call to Order/Welcome/Quorum: The meeting was called to order by Chair Sargent. A quorum was established.

2. Approval of Minutes—December 7, 2017

Motion to approve the minutes of the December 7, 2017 meeting was made by Member Haag, seconded by Member Alibašić. The motion passed unanimously (Member Gibson non voting member).

3. Draft Report Discussion:

Additional comments from Member Gibson and Chair Sargent were submitted to the draft report. Member Gibson reviewed the importance of wetlands in stormwater management. A lot of wetlands are full of invasive species and he is recommending that the City become a member of the Six Rivers Cooperative Invasive Species Management Area (CISMA). This organization is comprised of local, private and public partners who work together to control invasive species in the Northwest Florida region. There is no fee to join this organization.

Member Gibson is also recommending that the City continue to maintain the annual certification as a Tree City USA Community in partnership with the Florida Forest Service and the Arbor Day Foundation. This demonstrates the commitment of the City to have a tree ordinance that will protect, conserve and manage trees on city-owned property.

Chair Sargent reviewed her additions to the report. In the Table of Contents, under IV. Areas of emphasis section, the Task Force, **by consensus, agreed to change the wording to “Areas of Emphasis for Climate Preparedness—Comprehensive Plan Climate Mitigation and Adaptation Element”, change iv. to “Emergency Planning”, and to add vi. Public Health.** The public health element will need further development as a stand alone element. The Green Jobs/Economic Resiliency policy is out of place under Public Health. It is good information and should be retained.

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On page 5, two bullets were added—**Use a watershed level...** and **encourage higher density...** More development and clarification is needed to maintain the integrity and interpret “high density development” within the restrictions of the land development codes, per acre requirements, etc. All of that is subject to political will. High density could mean reduction of run-off, saving adjacent natural areas and reducing impact on those areas. It could be in combination of set asides and parks. It could be to incentivize the developments.

On page 6, under Policy 1.2, **agreed to delete “no new road construction”** policy and to **also look at possibility of adopting a complete streets concept of looking at street design from a pedestrian/biking perspective. Traffic calming is also very important.**

On page 7, under Built Environment, Policy 1.1(c), **Dr. Alabašić recommended the Task Force stay away from that as a recommendation.** It is very detailed and gives the appearance of the Task Force managing departments. That’s why there are elected and appointed officials that can make that determination for the personnel.

The Task Force discussed the process for presenting the Task Force’s Report. Vice Chair Murphy suggested taking one topic of the areas of emphasis, fine tuning it and put together recommendations that could go to the Council and to the Environmental Advisory Board. Other members of the Task Force expressed their concerns with doing it that way and felt that it would be better to finalize the “blueprint” document, get input from the stakeholders that will be a critical piece of the report and then go to the City Council as final conclusions and recommendations. The recommendations may not be to solve issues, but may be to have further studies done or point out issues that need to be addressed.

Dr. Alabašić suggested that **Item V. Community Concerns and Priorities be an addendum to the Task Force’s final report and not be part of the recommendations. It is important to received feedback from the stakeholders and neighborhood associations but it should be a separate addendum to the Task Force’s report.** The Task Force needs to complete and finalize the “blueprint” document, **possibly include an executive summary** and then present to the various stakeholders for their public input.

A clean copy of the draft report will be forwarded to the Task Force members so that final changes and wordsmithing can begin on the document.

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4. Announcements:

Vice Chair Murphy has been invited to do a presentation to 350 Pensacola on water sustainability and the future of water management next Tuesday, January 9 at 6:30 p.m. at Bayview Senior Citizen Center. Also on Thursday, January 11, at the City Council Meeting, she will be making a presentation on the Carpenter's Creek clean-up efforts.

5. Public Forum:

Neil Richards suggested including a glossary of terms in the final report due to all the acronyms used in the report. GHG or greenhouse gases are mentioned throughout the document and a stronger statement should be used to refer to that as a common carbon based energy source for our environment. Carbon dioxide and carbon methane are the greenhouse gases that are causing the concern so including a statement to reduce or eliminate carbons and relying more on wind or a hydrogen based society. Also on page 7 (e) with reference to "demonstration" projects, it should be "working" projects.

Kathy Smith would like to see more speakers on transportation, to make the city more walkable for young professionals, seniors, and for the children. Also, more speakers on energy conservation and policy issues.

Member Cannon **suggested that this could tie into the public education aspect of the Task Force's recommendation that groups like IHMC, CivicCon, 350 Pensacola bring in speakers in these fields to give a broader perspective.**

Christian Wagley spoke in favor of prioritizing things in the report. He also announced speakers coming to CivicCon, Escape of New York City, and 350 Pensacola.

With regard to the **Public Health Element of the report, a suggestion was made to reach out to Dr. Lanza with the Escambia County Health Department to see if he could provide some information. Chair Sargent agreed to contact him.**

6. Adjourn: There being no further business to come before the Task Force, the meeting was adjourned at 5:01 p.m.

City of Pensacola Climate Mitigation and Adaptation Task Force Meeting
 Thursday, January 4, 2018
 Hagler/Mason Conference Room, 2nd Floor
 City Hall, 222 West Main Street
 3:30 P.M.

PLEASE SIGN IN

NAME (Please Print)	Agenda Item	Telephone Number	Address
Kathy Smith		850-830-3369	Krnh1@yahoo.co
Ryan Bowman		337-444-8293	1642 Eagle St
Matt Posner		850-595-0820	
Nick Richards		850-232-5625	abcnrr@yahoo.com
Christina Nagb			
Sheni Myers			

DRAFT Report
Climate Mitigation and Adaptation Task Force
City of Pensacola

Task Force Members:

Elaine Sargent, Chairman, 350 Pensacola
Laurie Murphy, Vice Chairman, Emerald Coastkeeper
Dr. Haris Alibašić, University of West Florida
Cynthia Cannon, AICP, Santa Rosa County
Carrie Stevenson, Escambia County
Christy Johnson, AICP, FDOT
Tim Haag, Emerald Coast Utilities Authority
Dr. Wade Jeffrey, University of West Florida
Peggi Smith, City of Milton
Mark Gibson – Installation Environmental Program Director, NAS Pensacola

Revised 1-25-2018

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 - a. Planning for Energy Efficiency and Climate Change Mitigation
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- IV. Areas of Emphasis for Climate Preparedness—Comprehensive Plan Climate Mitigation and Adaptation Element
 - i. Greenhouse Gas Emissions Reduction Goals
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- V. Task Force Findings and Recommendations

I. Task Force Goals and Objectives

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

- ☐ Develop adaptation and mitigation strategies to enhance the city's region's resilience and preparation for withstanding the likely adverse impacts of climate change, including flooding resulting from heavy precipitation, rising sea levels, strong hurricanes and other extreme weather events;
- ☐ Develop a program of education, incentives, and public outreach to encourage City (region) residents, business owners, government, and organizations to participate in the Climate Adaptation and Mitigation Plan;
- ☐ Develop strategies to obtain federal and state grants, make investments in energy efficiency and other financial resources to offset program costs (for example measures to conserve energy and reduce greenhouse gas (GHG) emissions with government operations and incentives for homeowners, businesses and organizations to conserve energy, reduce bills and reduce greenhouse gas emissions).

II. The Current Climate of Northwest Florida and the City of Pensacola

- ☐ See attachment: Florida Department of Economic Opportunity report "Coastal Vulnerability Assessment: Escambia County, Florida" dated July 23, 2016

III. A Blueprint for Addressing Climate Change at the Municipal Level

Local officials are typically the first responders when an extreme weather event affects their community. Coastal communities in particular have long dealt with the aftermath of disastrous hurricanes and flood waters which we know all too well can be devastating to local economies. Continuing the efforts to be better prepared to proactively address these events will result in a highly resilient community.

a. Planning for Energy Efficiency and Climate Change Mitigation

GHG emissions are directly related to climate impacts. Their reduction can decrease the extent of climate change, while remaining at the status quo or increasing their use will escalate changes in climate. Climate change mitigation refers to the actions that will reduce 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 many actions to assess energy use and GHG emissions and make reductions. See the recommendations below for providing a "blueprint" for moving forward:

- ☐ Adopt a pledge to reduce GHG emissions and join programs that provide planning tools like: The Northwest Florida Clean Cities Coalition, Transformative Actions Program (TAP), Be Ready Alliance Coordinating for Emergencies (BRACE), USGS Sea-level Rise Simulation and Inundation Models, USGS Wetland Change Models, USGS Surface Elevation and Shoreline Erosion Models

- ❑ Recommend to the mayor to become a part of the Mayors Climate Protection Agreement like other cities do including Panama City, FL. This is a mitigation strategy that helps reduce future impacts of climate change through pledge reductions in GHG emissions, etc. Another strategy that should be considered is the City of Pensacola and other cities should commit to meet a 100% Renewable energy target by certain year, let's say 2025.
- ❑ Invite groups like the American Society of Heating, Refrigerating and Air-conditioning Engineers to discuss changes in energy efficiency, including the *Energy Star* labeling program.
- ❑ Encourage the start of a special adaptation action area group like 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 GHG emissions and prepare a climate adaption plan, as have many municipalities and counties around the state. For example, Broward County completed a "Broward's Climate Change Action Plan" (see attached) that was developed by the Broward County Climate Change Task Force in 2010.
- ❑ Incorporate language about climate change in updated comprehensive plans, and pass local laws or codes that uphold those values. For example, the City of Punta Gorda Adaptation Plan includes a vision about steps needed to become a more climate change resilient community.
- ❑ Include the following sectors: transportation, water resources/utilities, natural resources, agriculture, and disaster risk (to the built community).
- ❑ Reduce GHG emissions from municipal operations, including increasing energy efficiency and conservation measures. In addition to reducing negative environmental impact, these efforts would provide for cost avoidance and savings.
- ❑ Install or purchase renewable energy, such as installing solar panels or purchasing renewable power on municipal buildings. Other Florida Communities pursuing include: Gainesville, Sarasota, Miami, Tampa.
- ❑ Educate the public about the changing climate, and involve and engage local citizens and volunteers in the processes of adaptation and mitigation. Challenge and/or incentivize residents to reduce their energy consumption.

b. Planning for Resiliency and Climate Change Adaptation

The City of Pensacola has the opportunity and responsibility to start planning to make sure that its community is resilient to climate change. The best 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 to reduce the impacts of the climate changes that either already occurred or will inevitably occur. Resiliency refers to the capacity of communities to withstand stress and catastrophe, and to recover and adapt successfully in the face of threats or disaster. Below are some of the actions that the City of Pensacola can take to increase the community's resilience to climate change impacts:

- ❑ Develop emergency management plans or 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 concerted effort to improve the CRS rating. Acting on the suggestions made in this report would contribute significantly to improving this rating.

- ☐ Consider current 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 infrastructure over time.
- ☐ Utilize local authority to protect open space, wetlands, and riparian buffers to increase resiliency to extreme weather events.
- ☐ Incorporate Better Site Design, Low Impact Development (LID), and Green Infrastructure principles into local codes and planning decisions to increase resiliency of streams, bayous and floodplains to heavy precipitation events. Protect the riparian (natural shoreline) zones of these water bodies and incentivize restoration of living shorelines instead of hardening (wooden and concrete seawalls). Utilize Escambia County's LID Reference Manual and create incentives for its use within the City and region. <https://myescambia.com/our-services/natural-resources-management/water-quality-land-management/low-impact-design>.
- ☐ Use a watershed-level rather than site-level approach to stormwater and flooding.
- ☐ 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.

IV. Areas of Emphasis for Climate Preparedness—Comprehensive Plan Climate Mitigation and Adaptation Element

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 visitors and residents.

Policy 1.1. The City of Pensacola shall mitigate its contribution to global climate change by reducing government operations greenhouse gas emissions to X% below 1997 levels by 2020, and city-wide greenhouse gas emissions to 17% below 2005 levels by 2025 and 82% below 2010 levels by 2050. The City will continue to regularly monitor and track progress of programs and initiatives that contribute to the ultimate reaching of these goals.

Policy 1.2. 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.

Policy 1.3. 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 2020.

Actions should include:

- a) Planning for deployment and optimal distribution of a regional system;
- b) Negotiating inter-local agreements with County, State, and private entities to share existing and proposed infrastructure; and
- c) Developing expedited permitting processes for private 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 travelled; improve the mobility of people, goods and services; provide a diverse, efficient and equitable choice of transportation options; and increase the City's resiliency to the impacts of climate change.

Policy 1.1 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 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. Encourage the reduction of ANY development in flood zones, areas of social vulnerability, near wetlands and coastal areas. Property damage (built and environmental) and environmental justice issues create economic losses. Reduce future development in established areas of inundation until an infrastructure (roads, stormwater) study and cost benefit analysis of such designs have been completed based on traffic/runoff. 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.

Policy 1.2 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 instead on maintenance and "vital streets" improvement of existing roads where appropriate. Look at possibility of adopting 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 reducing emissions.

Built Environment

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

Policy 1.1. The City of Pensacola shall encourage greener, more efficient and climate resilient construction practices locally by:

- a) Building all new construction of county-owned city or public facilities to Leadership in Energy and Environmental Design™ (LEED) standards;
- b) Utilizing national guidelines and performance benchmarks for sustainable land design, construction and maintenance practices, as developed by The Sustainable Sites Initiative™ (SITES™);
- c) Reevaluating base finish floor elevation standards with respect to projected sea level rise scenarios and flooding potential;
- d) Seeking ways to install solar panel demonstration projects on City buildings
- e) Hybrid or compressed natural gas vehicles within the City vehicle fleet
- f) Energy STAR rated appliances and HVAC equipment within City buildings
- g) Incorporating building design specifications that increase resistance to impacts from more intense storm events.
- h) Encourage all building/construction personnel have NPDES training and erosion/sediment control training.
- i) Encourage all designs to produce stormwater drainage impact study.

Policy 1.2. The City of Pensacola should 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 for stormwater drainage regulations.

- a) Identify areas of frequent "nuisance flooding" and create a public database for future reference, which will disincentivize construction in historically and newly flooded areas.
- b) Create an Inland Flooding Adaptation Action Area
- c) Create a mechanism for transfer of ownership for properties in high hazard areas to create green space and mitigate flood risk.

Policy 1.3. The City of Pensacola shall continue to review policies and promote programs which advance greenhouse gas 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.

Policy 1.4. 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 retrofitting of existing infrastructure.

Policy 1.5. 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 filtering stormwater runoff. Furthermore, conservation and expansion of green infrastructure decisions should include measurements of meeting the Greenhouse Gas mitigation targets, public health and safety goals, and climate change adaptation priorities.

a) Utilize the City Tree Ordinance fund to maximize the benefits of trees throughout the community to absorb carbon dioxide, provide passive cooling for buildings, and provide shade for more walkable streets.

b) 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 city-owned property to ensure that the benefits of healthy, native, urban forests and trees are fully utilized.

c) The City of Pensacola should 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 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 adequate planning and coordinated response for emergency preparedness and post-disaster management in the context of climate change.

Policy 1.1. The City of Pensacola shall coordinate with Escambia County to ensure adequate planning and response for emergency management in the context of climate change by maximizing the resilience and self-sufficiency of, and providing access to, public structures, schools, hospitals and other shelters and critical facilities.

Policy 1.2. The City of Pensacola shall develop plans and monitoring 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 households and the elderly.

Policy 1.3. 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 major traffic ways and evacuation routes, and cost analysis of post disaster redevelopment strategies.

Policy 1.4. 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.

Policy 1.5. 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.

Policy 1.6. 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.

Public Utilities

Objective 1.1. Ensure the resiliency of existing water resources, water and wastewater infrastructure to the impacts of climate variability and change in order to protect future water quality and quantity, and minimize the potential for flood damage and water shortages, while improving the energy efficiency of utilities and reducing water-related carbon emissions and climate impacts.

Policy 1.1. The City of Pensacola shall, by 2020, coordinate with local service providers to ensure that water and wastewater service planning and policy development considers 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 water and wastewater treatment facilities, such as through the production of energy through cogeneration systems, should be explored.

Policy 1.2. The City of Pensacola shall develop, implement and coordinate regional 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.

Policy 1.3. 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.

Policy 1.4. The City of Pensacola shall work in coordination with local utilities to maintain and advance infrastructure protection and adaptation through infiltration and inflow program development to reduce the flow of groundwater and stormwater to wastewater collection and treatment facilities.

Policy 1.5. 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.

Public Health-Pending input needed by Dr. Lanza

Biological indicators; insects, migration, algal blooms, etc.

Health indicators; mosquito/vector borne illnesses.

Heat impacts; water resources, wildfires, livestock, health.

Education

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.

Green Jobs/Economic Resiliency

Policy 1.1. 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.

Policy 1.2. The City of Pensacola shall continue to develop plans and programs in coordination with local municipalities, power companies, and private partners to reduce greenhouse gas emissions and create “green” job opportunities throughout the community, by:

- a) Expanding the market for energy efficient products and services;
- b) Supporting alternative and renewable energy production through innovative financing; and
- c) Promoting and incentivizing energy conservation retrofits.

Policy 1.3. 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 resiliency; 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 local climate change goals to be met.

Policy 1.4. The City of Pensacola should 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 encouraged 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.

Public Education/Community Engagement/Research Partnerships

Policy 1.1. 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.

Policy 1.2. 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 resiliency and adaptation within the built and natural environments to the impacts of climate change.

Policy 1.3 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. <https://ecsd-fl.schoolloop.com/career>

- a) Beulah Middle School Pre-Engineering/STEM
- b) Escambia High Engineering Academy
- c) Pine Forest High Home Builders Association of West Florida Green Construction Trades Academy
- d) West Florida High School Academies of Civil Engineering & Architecture, Cox Telecommunications, and Gulf Power
- e) Washington High School Marine Science Academy

V. Task Force Findings and Recommendations

- a. Incorporate a Climate Mitigation and Adaptation Element into the City's Comprehensive Plan (as opposed to updating each individual element of the Comp plan with climate adaptation & mitigation policies),
- b. Seek funding to develop a Climate Action Plan (see attached Broward County plan),
- c. Conduct a Vulnerability Assessment and develop resiliency strategies based on those findings, (Utilize existing FDEO Vulnerability Assessment of Escambia County which includes detail related to the City of Pensacola).
- d. Reestablish and fund the City of Pensacola Office of Sustainability (or some other program) to implement the Climate Action Plan and to provide an annual review and assessment of the Climate Adaptation Element and LDC Mitigation & Adaptation Policies,
- e. 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,
- f. Seek grant opportunities to further develop climate adaptation programming,
- g. Key questions going forward:

- i. What sections of the LDC are difficult to implement and/or enforce that would play a role in climate change, i.e., stormwater design and maintenance requirements for new commercial and residential developments? Is the silt fencing requirement enforced?
- ii. Are rezonings/upzonings to higher densities in vulnerable areas a common occurrence or trend?
- iii. Are variances to the LDC frequently approved by the City's Planning Board?
- iv. Has the city identified neighborhoods that are at high risk for vulnerability?
- v. If the City isn't going to work with the task force on this project, or provide feedback, then that probably needs to be noted as a key finding; politics will always play a role in climate change issues.

1. A focus on NPDES permit mandates, and the current City ordinances on land development code, tree and landscape codes and grant analytics.

- a) Thoroughly evaluate and re-evaluate coastal land use
- b) Including traffic studies, drainage and sedimentation due to climate impacts
- c) What about utility locations, including, but not limited to sanitary sewers, lift stations, stormwater inlets/ponds/outfalls in hazard areas?
- d) Limiting public expenditures in coastal high hazard areas. Does this include known flood zones? How do grant opportunities apply? What about BP \$? Develop task force to study impacts?
- e) Why build stormwater (parks) ponds when there are no pond maintenance plans?
- f) Is the public involved in updating stormwater master plans?
- g) Why are building permits being issued that place an increased demand on infrastructure and public facilities?
- h) How can we plan for better stormwater infrastructure maintenance?
- i) Coordinate with NFWFMD and the S.W.I.M. plan to discuss natural water impacts.
- j) Develop a Pensacola Bay Shoreline District.
- k) Develop permeable/green incentives
- l) Stronger hazardous materials/toxic chemical requirements in sensitive zones.

- m) Reduce development density in high flood zones/coastal high hazard areas.
- n) Re-establishment of diverse forests
- o) Involve private sector to discuss economic & vulnerability risks with the City.

For example: World Business Council for Sustainable Development.

- p) Assessment of long-term de minimis impacts
- q) What about other infrastructure, such as bridge design?
- r) Reduction of urban heat island effect. Less pavement, more green.
- s) Aquifer replenishment plan-reduce anthropogenic irrigation.
- t) Utilize natural buffers in coastal zones
- u) Coordinate different sectors to work on task force on all infrastructure.
- v) Have dead trees and unsafe housing razed to keep roads and people safe.
- w) Redesign roads to drain safely and design enough stormwater infrastructure

to handle increased precipitation based on the Rational Method $Q=CIA$

1. Become an active participant in the newly funded and created Pensacola and Perdido Bay Estuary Program; push for climate resiliency action in addition to water quality improvement.
2. Work with UWF and UF IFAS Extension faculty to promote climate education events
3. Partner with IHMC and any other innovative construction projects to showcase the changes they incorporate in new construction to mitigate for flooding.

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 City website dedicated to climate resilience information

Appendices

Resolution of the Pensacola City Council Creating a Climate Change Task Force

Broward County Climate Action Plan - Local Strategy to Address Global Climate Change

City of Punta Gorda Adaptation Plan

Community Resiliency in the City of Satellite Beach

Coastal Vulnerability Assessment: Escambia County, Florida