RESILIENT PASCO Action plan 2025





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Resilience & Sustainability Action Plan (RSAP)

The Resilient Pasco Project was made possible through the collaboration of Pasco County staff and a consultant team led by Halff, in conjunction with Fernleaf and Taylor Engineering. Special recognition is given to FloridaCommerce and the U.S. Department of Housing and Urban Development (HUD) for awarding the grant funds which made this project possible under the subrecipient grant award MT027.

For inquiries regarding this report, please contact the project team at: resilience@mypasco.net

April 2025



ACKNOWLEDGEMENTS

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Special thanks are due to the Pasco County Resilience Work Group (RWG). This group of Pasco County staff across various departments provided institutional knowledge and technical support to the Resilient Pasco Project.

Cover Image: Hudson Beach; GoPasco Bus; Splash Pad at Pasco County park (Source: Pasco County)



Dear Friends,

The Resilient Pasco Project is an ambitious, visionary strategy built on science and data that positions Pasco County to thrive long-term in the face of an ever-changing future. This strategy closely examines the risks facing Pasco County today and well into the future, to ensure that our systems and services are strong and adaptable to handle whatever challenges come our way.

The best possible science has guided this planning process, supporting actions that meaningfully address our risks and vulnerabilities in objective, equitable, and efficient ways. As a coastal county, primary focus is on the impact of tidal flooding and storm surge. The impact of extreme heat has also been assessed to identify our most vulnerable communities. Overall, the resilience and sustainability actions proposed in this document are tailored to the many geographies, communities, and ecosystems that make up Pasco County.

I want to thank the hundreds of residents, advocates, and experts who participated in the Resilient Pasco Project. This has been an incredibly collaborative effort involving county departments, expert working groups, public meetings and surveys, and numerous forms of stakeholder outreach and engagement.

Implementing this strategy will require a continued commitment to dynamic and long-lasting collaboration. Resilience and sustainability are generational issues. The future wellbeing of Pasco County residents will be determined by our willingness to make consistent and deliberate decisions about risk and growth over the coming years and decades. Thank you for being part of the solution.

Enthusiastically,

Marc Bellas, Ph.D. Chief Resilience & Sustainability Officer



Office of Strategy and Sustainability 727.847.7187 8744 Government Drive, Building A New Port Richey, FL 34654



Ron Oakley, District 1 Seth Weightman, District 2 Kathryn Starkey, District 3 Lisa Yeager, District 4 Jack Mariano, District 5

December 12, 2024

To Whom It May Concern:

The Pasco County Board of County Commissioners envisioned the development of the Resilient Pasco Project as a catalyst to adapt and respond to current and future challenges that face our community. Shocks and stresses to our quality of life such as growth, climate, and economic downturn can challenge our ability to prosper in the face of these adversities.

Considering recent hurricane seasons and their impacts on Floridians, jurisdictions across the region have completed planning efforts that consider similar shocks and stresses. We are proud to be taking the necessary steps to ensure the resilience of our beloved community.

The action items included in this document are geared toward protecting people and property. Additionally, it seeks to provide a foundation for our community to thrive into the future. We must keep in mind that some residents have a harder time preparing for, enduring, and recovering from challenges caused by extreme weather events due to socioeconomic factors; we address this through initiatives geared toward our most vulnerable populations.

My fellow commissioners and I are excited to see a transformation of how Pasco County approaches government business by integrating resilience and sustainability into planning and operations. This will also extend to the community, to help achieve our vision of being Florida's Premier County.

Sincerely,

Kathryn Starkey, District 3 Chairman, Pasco County Board of Commissioners

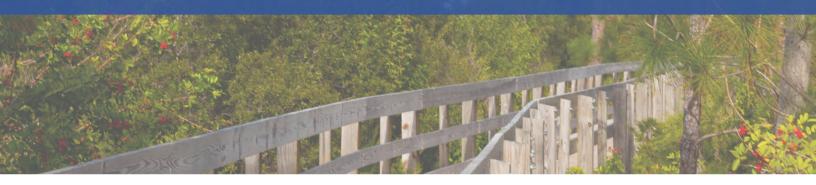


BOARD OF COUNTY COMMISSIONERS

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Serving Our Community to Create a Better Future



Resilient Pasco Project Mission Statement

The mission of the Resilient Pasco Project is to provide residents, elected officials, staff and other stakeholders with scientific insights on current and future climate risks faced by the County, and a range of adaptation and mitigation strategies to achieve the County's resilience and sustainability aspirations.

Resilient Pasco Project Vision Statement

The Resilient Pasco Project strives to be a foundational aspect of creating organizational and community shifts in sustainability and resilience planning in Pasco County. The implementation of the Resilience and Sustainability Action Plan will work together with other planning documents such as the Pasco 2050 Comprehensive Plan and the 2025 – 2030 Strategic Plan to align priorities, funding, and execution of efforts. Through collaboration of County departments, the public, and community partners, the implementation of action items in this project will make Pasco County stronger and safer for decades to come. Building a More Resilient & Sustainable Pasco County...

EXECUTIVE SUMMARY



Pasco County's *Resilience and Sustainability Action Plan* (RSAP), made possible through the Resilient Pasco Project (RPP), serves as a roadmap to enhance the County's ability to thrive in the face of environmental, economic, and social challenges. Recognizing the urgency of *resilience* and *sustainability* in today's world, this plan presents a set of actionable strategies organized around five key themes:

Protecting Neighborhoods emphasizes the importance of community resilience through strategic initiatives that safeguard homes and infrastructure from flooding. Adaptable and Transparent Government highlights the need for responsive and accountable governance in the face of evolving environmental challenges. Responsible Resource Management

underscores the importance of sustainable practices in the stewardship of Pasco County's natural resources. *Healthy and Connected Communities* encourages the development of walkable communities that are supported by multi-modal transportation, heat-resilient neighborhoods, and access to healthy, locally grown foods.

Targeted Economic and Cultural

Development highlights the importance of fostering a vibrant and diverse economy, while supporting Pasco County's cultural identity.

The development of the RSAP was informed by an extensive stakeholder engagement process, which included input from residents, community organizations, and experts. This collaborative approach ensured that diverse perspectives and needs were integrated into the planning process.

The plan also reflects thorough research and analysis, drawing on successful strategies from other local governments across Florida and the U.S. This benchmarking allows Pasco County to build on proven practices while tailoring solutions to local conditions and aspirations.

Together, the strategies in this document create a blueprint for a thriving, adaptable, and sustainable county - one that is capable of navigating uncertainty, while fostering opportunities for all residents.

LIST OF ACRONYMS



AFC - American Flood Coalition FDEP - Florida Department of Environmental Protection FDACS - Florida Department of Agriculture and **Consumer Services** FDOT - Florida Department of Transportation **FDEM** - Florida Division of Emergency Management **FDOH** - Florida Department of Health **FEMA** - Federal Emergency Management Agency FLSG - Florida Sea Grant FPAC- Food Policy Advisory Council FWC - Florida Fish & Wildlife Conservation Commission **GOMA** - Gulf of Mexico Alliance JEOC - Pasco County Jobs and Economic **Opportunities Committee** LMS - Local Mitigation Strategy **NBS** - Nature-based solutions NWRA - National Waste and Recycling Association **NOAA** - National Oceanic and Atmospheric Administration PHSC - Pasco-Hernando State College **Pasco EDC** - Pasco Economic Development Council **SSDN** - Southeast Sustainability Directors Network

SWANA - Solid Waste Association of North America SWFWMD - Southwest Florida Water Management District **TBEP** - Tampa Bay Estuary Program **TBRPC** - Tampa Bay Regional Planning Council **TBW** - Tampa Bay Water **UF** - University of Florida UF/IFAS - University of Florida, Institute of Food and Agricultural Sciences **U.S. DOE** - United States Department of Energy U.S. DOT - United States Department of Transportation U.S. EDA - United States Economic Development Administration U.S. EPA - United States Environmental Protection Agency U.S. HUD - United States Housing and Urban Development **USACE** - United States Army Corps of Engineers **USDA** - United States Department of Agriculture **USF** - University of South Florida WMA - West Market Area WREC - Withlacoochee River Electric Cooperative

Federal agencies referenced in this document are subject to change based on activities beyond the control of Pasco County. The ability of federal agencies to provide support to action items should be confirmed as applicable.

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BACKGROUND

Background

Pasco County's Resilience & Sustainability Action Plan...

BACKGROUND

The RPP is a community sustainability and resilience initiative to assess extreme *weather* and climate-related vulnerabilities, prepare an adaptation plan, develop a *living shoreline plan*, and to carry out other associated tasks.

The RPP consists of a:

- Countywide Vulnerability Assessment
- Resilience and Sustainability Action Plan
- · Living Shorelines Plan

The overarching purpose of the RSAP is to foster a sustainable, resilient community that can thrive amid changing environmental conditions, while enhancing the quality of life for all residents. The plan was developed from a variety of resources, including the Florida Adaptation Planning Guidebook, industry best practices, case studies from local governments, community engagement and Pasco County planning priorities. As a resilience and sustainability action plan, this document has strategies geared towards each discipline, with notable areas of overlap. The RSAP outlines a multifaceted approach to resilience, emphasizing key strategies of protection, accommodation, avoidance, and managed relocation. These strategies are designed to safeguard the community, enhance *adaptive capacity*, and ensure the long-term well-being of residents and ecosystems.

Protection strategies focus on safeguarding people, infrastructure, and natural resources from climate-related hazards. These include investing in flood protection systems, enhancing coastal defenses, and restoring natural habitats such as wetlands that serve as buffers against *storm surges* and flooding.

Accommodation strategies involve adapting to changes that cannot be avoided. Pasco County's approach includes retrofitting county buildings and infrastructure to withstand adverse conditions such as increased rainfall or rising sea levels.



Avoidance strategies utilize land development policies and capital improvement plans to guide development away from areas prone to coastal hazards.

Managed relocation strategies involve the relocation of people and infrastructure from higher risk areas to safer locations. This occurs in areas where protection or accommodation is ineffective, cost-prohibitive, or inefficient. Community engagement and support are critical to ensure that affected residents have access to resources to help with the transition.

Pasco County aims to enhance the quality of life for its residents while ensuring that future generations are able to do the same. For the purposes of this project, the County identified five areas that impact sustainability: water, solid waste, transportation, livability and energy efficiency. The strategies identified in these areas will help the County address resource depletion, population growth and economic wellbeing. **Water** availability is critical to a functional society. Factors such as population growth, pollution, and variability in *climate* can negatively impact water resources.

Effective **solid waste** management reduces environmental pollution, the need for new materials, and the space needed for landfills.

Supporting various modes of **transportation** such as walking, biking, and buses help to reduce the reliance on cars, decreases traffic congestion, and improves air quality.

Within this project, **livability** is defined by open spaces, food security, economic prosperity, and cultural activities. These areas impact the economic and social aspects of sustainability.

Energy efficiency contributes to lowering greenhouse gas emissions and decreases energy costs for residents and businesses.



COUNTY PROFILE



Understanding Where Pasco County is Today...

COUNTY PROFILE

Pasco County, located in the Sunshine State of Florida, is a captivating region with a rich history and an inviting atmosphere. The County is a part of the Tampa Bay area, offering its residents and visitors the best of both worlds: the tranquility of a suburban lifestyle and the vibrancy of the nearby urban centers. Pasco County was established in 1887 after separating from Hernando County, and was named after the prominent Florida politician, Samuel Pasco.

Today, the County boasts a growing population nearing 600,000 pursuant to the 2020 U.S. Census, making it the 12th most populous county in Florida. Pasco County offers numerous parks, preserves, and recreational activities, which makes it an ideal place for both residents and tourists looking to experience the best of the Gulf Coast lifestyle. With its proximity to Tampa and St. Petersburg, Pasco County also enjoys access to thriving city centers while maintaining its distinct identity as a suburban and rural community. Understanding a community's current landscape is crucial to crafting effective resilience strategies. By analyzing population demographics, local officials gain insight into the unique needs and vulnerabilities of the community. Analysis of economic and employment markets within a community can help to identify the possible strengths and challenges faced. Assessing the current land use within the community presents opportunities to protect against environmental hazards, and also unveils opportunities for sustainable and resilient development.

As part of the Pasco 2050 Comprehensive Plan update, a thorough community profile was completed that reviewed the existing demographic and socioeconomic information, land use, development, mobility patterns, and existing planning policy for the County.

The County Profile summarizes sections of the plan diagnostic report produced by the Pasco 2050 project team. The data referenced was verified using U.S. Census data to ensure accuracy.



Geographic Profile

Pasco County spans approximately 868 square miles and lies south of Hernando County and north of Hillsborough and Pinellas Counties (US Census, 2020). The County's elevation ranges from three feet below sea level to 302 feet above sea level, with an average elevation of 59 feet above sea level (TessaDEM).

Of the six incorporated municipalities of Pasco County, Zephyrhills is the largest in land area and population (US Census, 2020). The population density across the entire County is relatively low, with the highest densities located within the coastal communities of Port Richey and New Port Richey, averaging 10 to 20 residents per acre (US Census, 2020).

INCORPORATED MUNICIPALITIES OF PASCO COUNTY

NEW PORT RICHEY 2020 POP. ACRES 16,728 118,469	ZEPHYRHILLS 2020 POP. ACRES 17,194 249,985
DADE CITY 2020 POP. ACRES 7,275 177,980	PORT RICHEY* 2019 POP. ACRES 2,831 56,372
SAN ANTONIO* 2019 POP. ACRES 1,286 35,161	ST. LEO* 2019 POP. ACRES 1,218 33,610

Source: US Census, Pasco County

*2020 Census data unavailable

Figure 8. Incorporated Municipalities of Pasco County (Source: Pasco 2050 Plan Diagnostic Report; US Census, 2020).



Figure 7. Florida Counties Map (Source: GISGeography).

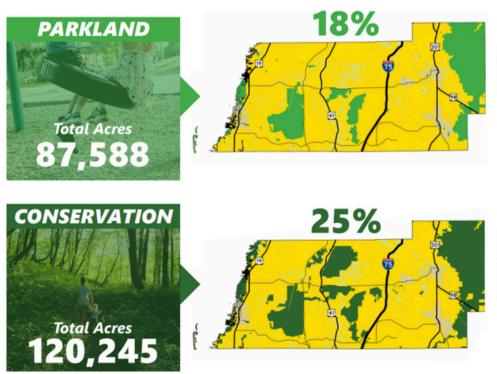
Conservation Lands & Land Use

Pasco County prides itself on the variety of recreational opportunities available to residents, including parks with playgrounds, sports facilities, nature trails, and conservation areas. Parklands occupy 18% of the County's total land area, whereas conservation lands occupy 25% (Pasco County, 2023). It should be noted that there is overlap in lands classified as both parkland and conservation.

Nearly 50% of Pasco County's total land area is dedicated to recreational, open space, agricultural, or water-related purposes. This distribution highlights a significant emphasis on preserving natural and recreational spaces within the County. The Environmental Lands Acquisition and Management Program (ELAMP) developed by the County dates back to 2004, and is tasked with the acquisition of environmentally sensitive lands. To date, the County has successfully acquired approximately 6,000 acres (Pasco County, 2021).



Figure 9. Jay B. Starkey Wilderness Park (Source: Pasco County).



Parkland includes County owned passive and active parks, City parks, State parks, and State preserves that are open to the public.

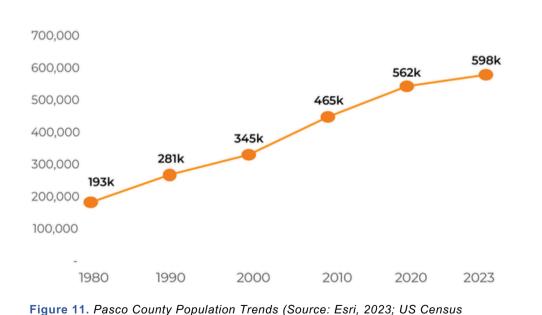
Conservation includes County owned passive parks, State preserves, ecological corridors, ELAMP lands, lands designated as Conservation on the Future Land Use Map, and other protected lands.

Figure 10. Pasco County Park and Conservation Lands (Source: Envision Pasco 2050; Florida Natural Areas Inventory, 2022; Pasco County, 2023).

Demographic Analysis

Pasco County has witnessed significant demographic transformations in recent decades, with a 209% population growth since 1980. According to projections from the Tampa Bay Regional Model (TBRPM 9), the County is anticipated to gain more than 223,000 residents by 2045 (Tampa Bay Regional Transit Authority, 2023). This growth demonstrates the appeal of Pasco County as a coveted residential destination. With a median age of 45.9, Pasco County skews slightly older than the Florida state median of 42.9, marking a 3-year variance. However, when contrasted with historical trends, the median population age in Pasco County has been steadily declining since 1980.

A decreasing median age could signify an influx of younger residents or a generational transition within the County, potentially impacting local services, workforce dynamics, and educational needs. Understanding and responding to this demographic shift will be crucial for Pasco County to tailor its policies, infrastructure, and services to the evolving needs of its residents and ensure a thriving and inclusive community for all age groups.



Pasco County Population Trends

2020 POPULATION (2020 CENSUS) Figure 12. Pasco County Projected Population Trends (Source: Pasco2050, 2020

Census, TBRPM 9).

PASCO COUNTY

O COUN

2045 POPULATION (PROJECTED, TBRPM 9

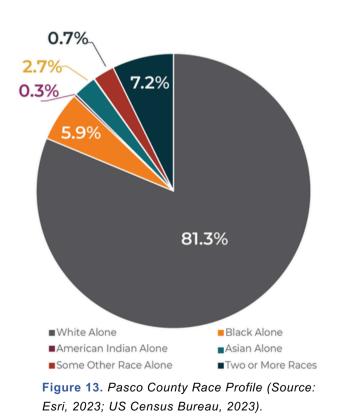
REGIONAL MODEL)

Bureau, 2023).

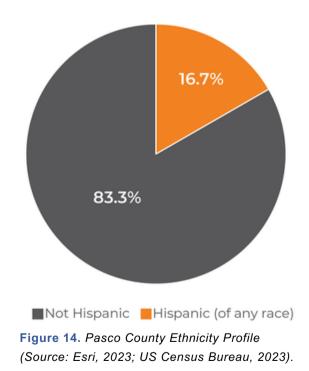
Race & Ethnicity

In Pasco County, approximately 81.3% of residents identify as White - which includes White Hispanic and Latino Americans. This represents the predominant racial group, while 7.2% identify as Two or More Races and 5.9% identify as Black. This is significantly higher than the Florida average of 52.6% identified as White. In terms of ethnicity, 16.7% of residents identify as Hispanic or Latino.

Pasco County has Native American history on the coastline, which can be observed by visiting the large tribal mound at Anclote River Park. Each of Pasco's municipalities has a unique history, from the City of San Antonio's importance as a regional train depot to the Town of St. Leo's complex religious history centering around a thriving monastery and abbey. These historical and cultural elements illuminate the area's diverse and storied past, each contributing unique chapters to the County's history.



Pasco County Race Demographics

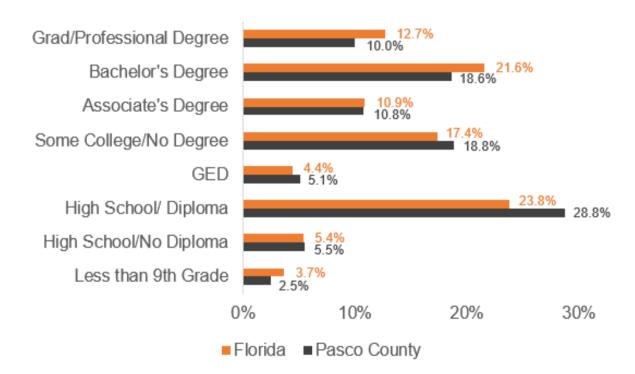


Pasco County Ethnicity Demographics

Education

Almost 40% of Pasco County adult residents hold a college degree (associates degree and above). Additionally, almost 53% of residents have earned a high school diploma or equivalent. While the percentage of persons with a college degree is less than the State average, only 2.5% of the County's residents have less than a 9th Grade education in comparison to 3.7% across the State.

Pasco County is home to a diverse array of technical training centers, such as the Marchman Technical College, the Fred K. Marchman Technical College, AmSkills Workforce Training Center, and AmSkills youth apprenticeship program at Anclote High School. These institutions provide a wide range of vocational and technical programs, spanning fields from healthcare and automotive technology to computer science and culinary arts, ensuring that residents have access to comprehensive educational opportunities.



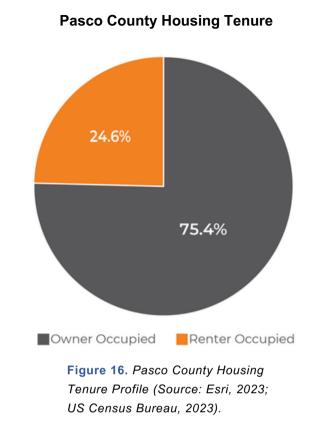
Pasco County vs Florida Educational Attainment

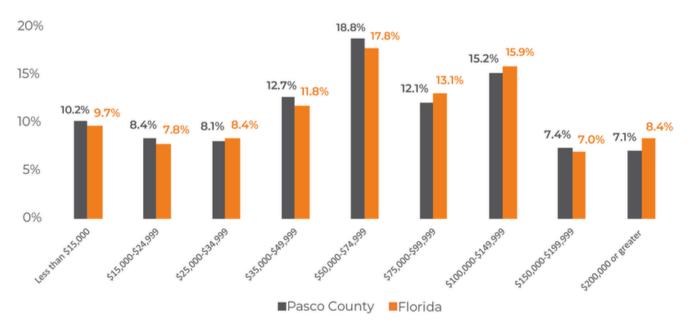
Figure 15. Pasco County Educational Attainment Profile (Source: Esri, 2023; US Census Bureau, 2023).

Homeownership

Pasco County exhibits a broad range of household incomes. The median resident income stands at \$67,384, which is slightly below the Florida average of \$71,711 (U.S. Census Bureau, 2023).

Pasco has a higher rate of homeownership at 75.4%, compared to the Florida average of 67.3%. This notable difference showcases a community deeply invested in the stability and growth of their neighborhoods and a desire to remain within Pasco County. The middle-income population plays a crucial role in sustaining local businesses, driving economic stability, and fostering community development.





Pasco County vs Florida Household Income

Figure 17. Pasco County Household Income Profile (Source: Esri, 2023; US Census Bureau, 2023).

Employment

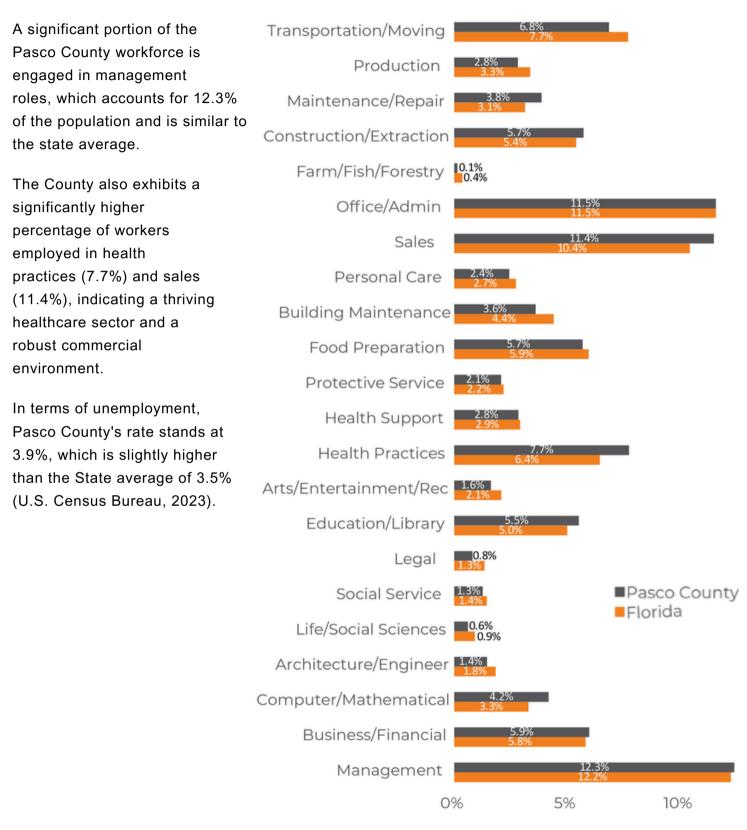


Figure 18. Pasco County Occupation Profile (Source: Esri, 2023; US Census Bureau, 2023).

Commuting Profile

The majority of Pasco County residents choose to drive alone to work (75.2%), while the remaining 24.8% rely on other modes of transportation such as public transportation, walking, biking, carpooling, or work from home (Pasco County, 2021). This reliance on personal vehicles highlights the County's need for transportation infrastructure development and promoting alternative modes of transit. The average commute time in Pasco County is 30.9 minutes, which is slightly higher than the Florida state average of 27.1 minutes (Pasco County, 2021). While this may seem modest, the cumulative effect impacts overall quality of life.

Inflow/Outflow Analysis

An intriguing aspect of Pasco County's demographics is the inflow/outflow of its working population. More than 50% of workers living in Pasco County are employed outside of the County and roughly a quarter of those employed in Pasco County reside outside its boundaries, benefiting from the county's employment opportunities. More than 60,000 workers are both employed and living in Pasco County (U.S. Census Bureau, 2023). It should also be noted that Pasco County is quite wide, which makes traveling between cities longer than in other counties. These statistics underscore the regional interconnectedness of Pasco County's workforce, illustrating the importance of examining broader economic and employment trends within the Tampa Bay metropolitan area. By creating attractive employment centers, Pasco can further establish itself as a community where people live, work, and play.

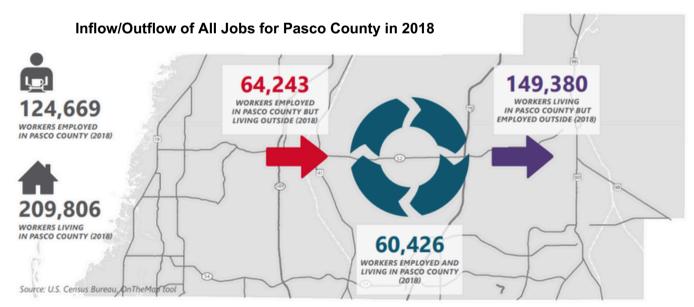


Figure 19. Pasco County Inflow/Outflow Counts of All Jobs (Source: Pasco 2050 Plan Diagnostic Report; US Census Bureau, 2023).

PROJECT DEVELOPMENT



A Community-driven Approach...

PROJECT DEVELOPMENT

The RPP activities were completed five phases: **Phase 1:** Establishing Context (Completed November 2023) **Phase 2:** Data Collection and Gap Analysis (Completed January 2024) **Phase 3:** Risk and Vulnerability Assessment (Completed June 2024) **Phase 4:** Resilience and Sustainability Action Plan (Completed April 2025) **Phase 5:** Living Shorelines Plan (Completed March 2024)

The project utilized a combination of internal, community and stakeholder engagement opportunities to inform the development of the RSAP. The outreach plan required the team to identify priorities, integrate local knowledge and promote inclusivity and equity in order to develop tailored solutions.

Internal Outreach

The RPP team consistently sought internal insights and endorsements from elected officials and County leadership throughout the project's duration. This stemmed from a common understanding that harnessing institutional knowledge and facilitating consensus building were vital for the success of the RPP.

Engagement began in March 2023, prior to the project's official start. It included County commissioner update meetings, interviews with department heads to develop process documents and intermediate work products, and participation in external engagement activities. These continued at multiple critical points throughout the life of the project, with a focus on County departments responsible for managing critical assets.

Pasco County staff outside of the project team were actively involved in reviewing the *vulnerability assessment*, offering technical support, and verifying the accuracy and relevance of datasets based on their comprehensive understanding of daily operations within their departments.



Project Development

At the project's outset, a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis was conducted by the consultant team to help guide the County's project team and consultants in fulfilling the grant's objectives. The RPP team held biweekly meetings to keep the Resilience Working Group (RWG) updated on project activities. The group comprised of County staff from multiple departments, including the project team and department delegates.

External Outreach

Community planning necessitates ongoing and active engagement to empower residents, raise awareness, and enhance decision-making processes to effectively address community needs based on local perspectives. During the course of the project, County project staff actively participated in several community events such as the African American Club Juneteenth Event, the Inaugural Food Policy Advisory Council (FPAC) Food Summit, and Pasco Earth Day. Through printed posters and discussions, staff aimed to increase awareness about the project.

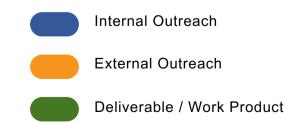
Engagement with local government was prioritized through participation at the Joint Cities Meeting in 2023 and a Local Government Workshop hosted by the RPP team in 2024. Technical support was solicited from the Florida Department of Environmental Protection (FloridaDEP) and the Tampa Bay Regional Planning Council (TBRPC) to ensure alignment with state statutes and regional planning efforts. Collaboration with resilience and hazard mitigation staff from neighboring Pinellas and Hillsborough Counties facilitated the comparison of work processes and outreach strategies to understand lessons learned by those jurisdictions.

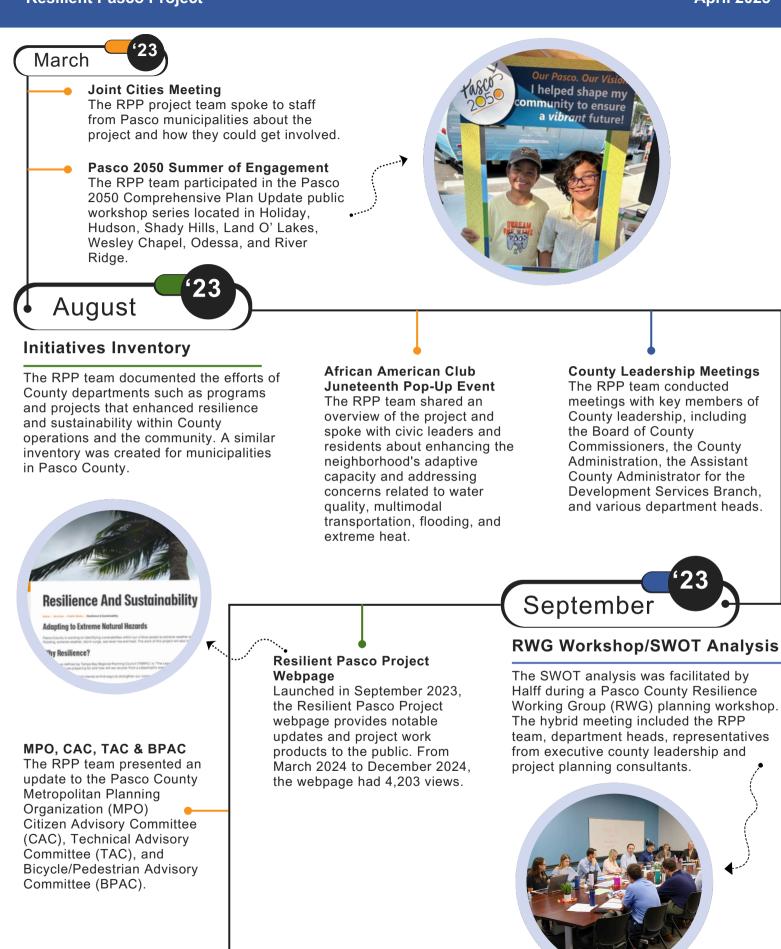
Informed by guidance from the Florida Adaptation Planning Guidebook, FEMA Local Mitigation Planning Handbook, and FDEP's Scope of Work Guidance for Vulnerability Assessments, the project team organized four public workshops and three stakeholder meetings for special interest groups in June 2024. These sessions aimed to present the Risk and Vulnerability Assessment findings and gather insights applicable to the Resilience and Sustainability Action Plan. For the special interest group presentations, representatives from emergency management, business, and development sectors were in attendance, with a similar goal of obtaining applicable insights based on their daily operations.

Activity Timeline

The activity timeline depicts the culmination of efforts to complete the RSAP. It shows the phases and outreach activities from March 2023 to April 2025.

Key:

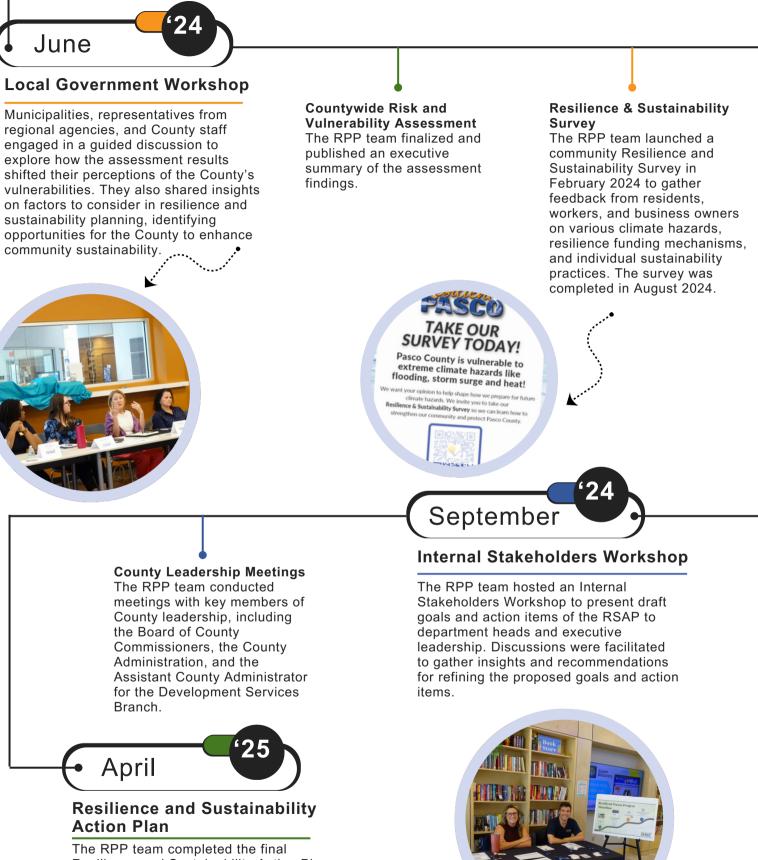




Living Shorelines FPAC Food Summit Living Shorelines Story Map Homeowner's Guide The RPP team was invited to The RPP team published a The RPP team published a present an overview of the story map detailing the work Homeowner's Guide to detail project's scope and outline how and products produced during the benefits of implementation food security will be integrated Phase 5 - Living Shorelines and process of permitting a into the County's RSAP at the Plan. living shoreline. inaugural Food Summit in New Port Richey in January 2024. April Sustainability Operations & **Trends Analysis** Pasco Earth Day **County Leadership Meetings** The RPP team participated in The RPP team conducted This activity assisted the project staff in Pasco County's Earth Day meetings with key members of obtaining insights from departments on celebration at Crews Lake County leadership, including how their daily operations intersected Park. RPP members informed the Board of County with sustainability planning and the public about the project and Commissioners, the County documenting existing data trends. kickstarted the promotion of the Administration, and the upcoming public engagement Assistant County Administrator workshops. for the Development Services Branch. June Public Workshops & Stakeholder Meetings The RPP Public Workshop Series was designed to present findings from the

designed to present findings from the Risk and Vulnerability Assessment and gather insights from the community on goals and action items to be included in the RSAP. The workshops occurred at four locations across the County: Elfers CARES Center, Hudson Regional Library, Pasco-Hernando State College, and the Land O' Lakes Branch Library. Stakeholder meetings included the PascoEDC Business Resilience and Sustainability Taskforce, the Local Mitigation Strategy Working Group, and the Horizontal Roundtable.

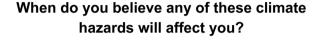
Project Development



Resilience and Sustainability Action Plan and concluded grant activities. In May 2025, the plan was presented to the County's Board of County Commissioners. A StoryMap was also published.

Resilience and Sustainability Survey Insights

In a concerted effort to bolster community and stakeholder engagement, the RPP launched a digital survey to collect valuable public input on pressing climate issues. The survey included targeted questions that encouraged respondents to contemplate not only the immediate effects of climate hazards but also the timelines associated with potential future impacts, fostering a deeper understanding of the situation's urgency. Participants were invited to prioritize their concerns, enabling the project to align its objectives with the specific needs and aspirations of the community. Of the responses received, 57% of the respondents lived in evacuation zones, and 80% resided in single-family homes.



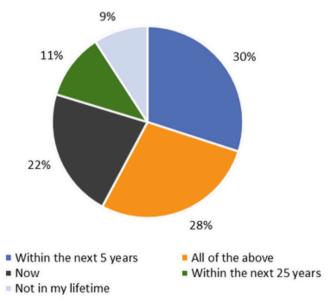


Figure 21. Survey Responses from Question 6: When do you believe any of these climate hazards will affect you? (*Source: Pasco County*)

From a list of 11 climate and natural hazards, respondents indicated that *hurricanes*, extreme heat, and subsidence were the hazards of greatest concern to them. They largely believed that these hazards will impact them in the near future, with only 9% indicating that they didn't believe that they would face any climate hazards in their lifetime (see **Figure 21.**). Environmental degradation, tornadoes, pollution, water insecurity and other storm events were identified as other areas of concern.

Over 65% of respondents identified water resources as their top sustainability concern in the County. This was followed by waste reduction and recycling, energy and buildings, food and food waste and reliable and diverse transportation. As part of their efforts to be more sustainable, they utilized energyefficient appliances, water saving devices and recycled most frequently.

Respondents indicated they would like the County's plans to be science-based, innovative, and address future climate hazards to protect public health and safety. Although 63% of respondents were not aware that the County was in the process of creating a Resilience and Sustainability Action Plan, they wanted to stay informed about resilience planning through a dedicated website, social media, and news articles. The respondents alluded to a common understanding that the responsibility of preparing for and adapting to climate hazards should primarily rest with local government. They anticipated more support from the federal government in the aftermath of climate disasters but still expected local government to lead recovery efforts. They identified grant funding, private sector cost sharing, and the development of bond measures as the top three preferred methods to fund adaptation and mitigation projects and programs.

Risk and Vulnerability Assessment Insights

Pasco County conducted a Risk and Vulnerability Assessment in compliance with 380.093, Fla. Stats. The assessment focused on storm surge and *tidal flooding*, with additional analyses performed to indicate the County's risk of impacts from rainfall and *compound flooding*. Detailed maps were produced for critical assets defined in the state statute, and for 2040, 2070, and 2100 time horizons. NOAA's Intermediate-Low and Intermediate-High *sea level rise* scenarios were used to identify the projected inundation extents. The risk of *extreme heat* was also investigated as part of the vulnerability assessment.

Storm Surge

Pasco County's West Market Area (WMA) is particularly vulnerable to storm surge impacts, which are exacerbated by rising sea levels. The WMA is the coastal region of Pasco County, and is identified in the Future Land Use Element of the County's Comprehensive Plan. It is highlighted in **Figure 22**, in the black outline.

In various storm surge scenarios, projections from the assessment indicate that between 30% and 50% of the WMA could experience significant inundation. For example, more than 46% of the WMA is anticipated to be inundated by a 1% annual chance storm surge by the year 2070, based on the projections for Intermediate-High sea level rise. This situation poses various risks, including damage to homes and infrastructure, disruption of essential services, and threats to public safety.

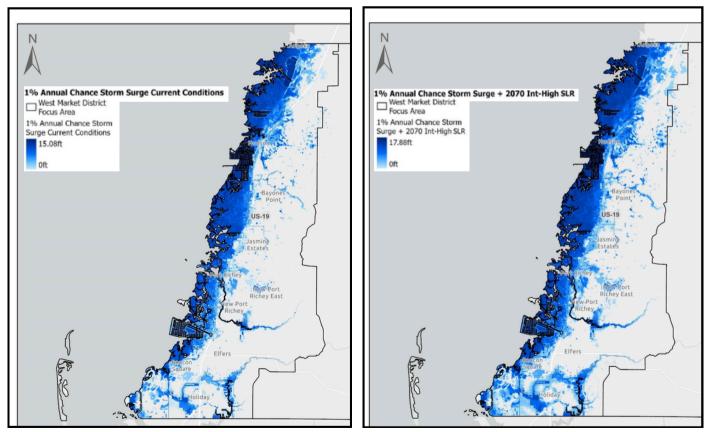


Figure 22. 1% Annual Chance Storm Surge Extents, with Current Conditions on Left and 2070 Intermediate-High Sea Level Rise Scenario on Right (Source: Halff, Taylor Engineering, Fernleaf, 2024).

Tidal Flooding

Pasco County is increasingly vulnerable to tidal flooding, a concern that is projected to escalate over the coming decades. As sea levels rise, the frequency of tidal flooding days are projected to rise sharply, affecting the WMA and surrounding regions.

Current and future projections indicate a marked increase in high-tide flooding events. According to NOAA's Intermediate-Low sea level rise (SLR) projections, the area could experience an average of 14 days of annual high tide flooding by 2040. This number increases dramatically to 83 days by 2070 and could reach as many as 240 days by 2100. Even more concerning, the Intermediate-High SLR projections suggest an average of 125 days of high tide flooding by 2040, with the potential for year-round flooding by 2070 and 2100. This is projected to impact up to 10% of Pasco County's transportation and evacuation routes and 8% of critical infrastructure.

The implications of these trends are profound, especially for vulnerable populations and communities that may lack the resources to adapt effectively. Increased tidal flooding impacts property and infrastructure and exacerbates social and economic inequalities in the region.

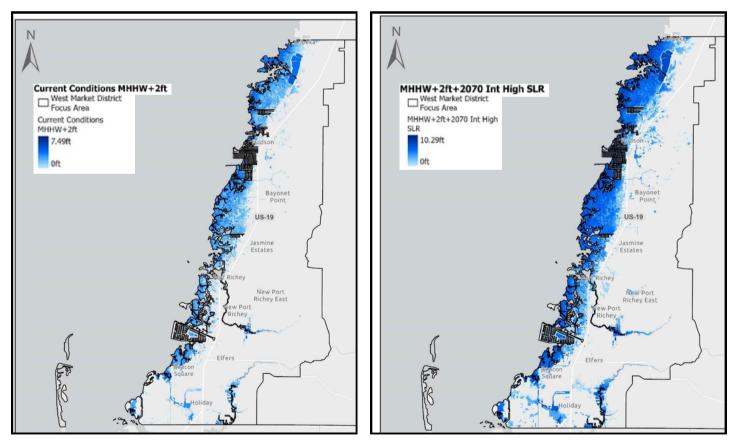


Figure 23. Mean Higher High Water (MHHW) +2, Feet Current Conditions on Left and 2070 Intermediate-High Sea Level Rise on Right (Source: Halff, Taylor Engineering, Fernleaf, 2024).

Extreme Heat Vulnerability

Extreme heat is characterized by prolonged periods of excessively hot weather, often accompanied by high humidity. It can lead to serious health risks and increased stress on infrastructure.

Over the past 30 years, Pasco County has experienced a notable increase in maximum summertime temperatures, rising by approximately 5.9°F. In the wider Tampa Bay area, the frequency of heat waves has surged, with an average increase of 9.6 heat wave events occurring each year between 1961 and 2021. Additionally, the duration of these heat waves has lengthened, with individual events extending by roughly two days (NOAA, 2022; Habeeb et al., 2015).

For the RPP, extreme heat vulnerability was determined by considering the tree canopy, median household income, and land cover. These provided insights into extreme heat exposure and the adaptive capacity of communities. As seen in **Figure 24.**, census block groups in areas immediately east of US-19 and locations in the greater Zephyrhills and Dade City areas are most vulnerable to extreme heat.

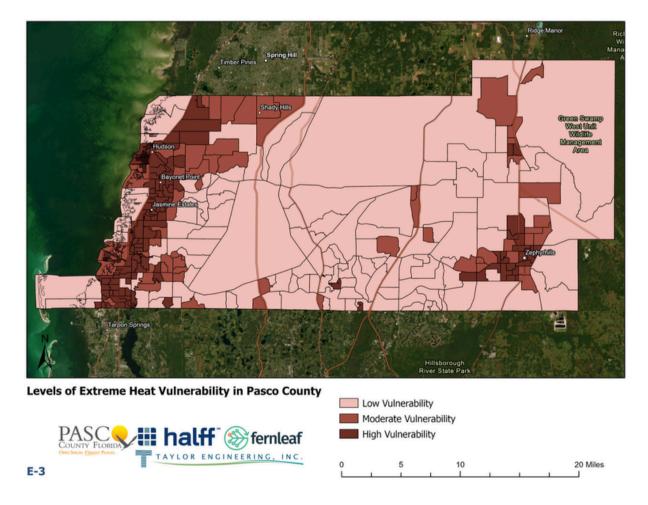


Figure 24. Levels of Extreme Heat Vulnerability by Census block groups in Pasco County (Source: Fernleaf, 2024).

Key Infrastructure Vulnerabilities and Opportunities

In keeping with the requirements of 380.093, Fla. Stats., the County's vulnerability assessment identified and mapped the vulnerability of critical assets in the following categories: transportation assets and evacuation routes, critical infrastructure, critical community and emergency facilities and natural, cultural and historical resources.

The assessment found that parcels containing critical infrastructure assets faced the highest vulnerability across all flooding scenarios. By 2100, up to 20% of these assets are anticipated to be impacted by a 1% annual chance storm surge under Intermediate-High NOAA SLR conditions. These assets include wastewater treatment facilities, lift stations, stormwater treatment facilities, pump stations, drinking water facilities, and other similar assets.

Transportation assets and evacuation routes are anticipated to be most impacted by tidal flooding up to 10% of those assets will be inundated by 2100 under Intermediate-High NOAA SLR scenario. These include bridges, major roadways, marinas and rail facilities among others.

Identifying these vulnerabilities facilitates planning efforts for the County's long-term challenges due to coastal flooding. Within this project's scope, the County identified 10 critical assets to perform adaptation assessments. These examples will guide future resilience infrastructure planning for critical assets. A long-range planning tool was also developed to assist department asset owners in making strategic investments in mitigation and adaptation projects to reduce vulnerabilities.





GOALS AND ACTION ITEMS



How to Read

Each theme of this plan consists of a series of related goals and associated action items. Please refer to the following guidelines to understand the relative costs, timeframes, department champions, potential partners, and implementation pathways associated with each action item.

Timeframe

Action items are categorized by their expected *Timeframe* for completion.



Immediate: 0-3 years



Short: 3-5 years



Medium: 5-10 years

Long: 10-25 years

Relative Cost

The *Relative Cost* for each action item is denoted by dollar sign symbols, representing the approximate cost to the County for implementation.

Negligible: Minimal cost; considered insignificant.\$\$10,000s - Cost estimated in the tens of thousands.\$\$\$\$100,000s - Cost estimated in the hundreds of thousands.\$\$\$\$\$1,000,000s - Cost estimated in the millions.\$\$\$\$\$\$1,000,000s - Cost estimated in the millions.\$\$\$\$\$\$1,000,000s - Cost estimated in the millions.

The relative costs were determined through consultation with subject matter experts and by reviewing similar projects completed by other communities, ensuring estimates are grounded in real-world data and best practices. Note that the costs reflect the County's expense to implement the action, which may include time commitments and direct project expenses if the County is the lead entity.

Department Champions and Potential Partners

Department Champions are Pasco County departments that will lead or coordinate the respective action item. For some action items, the input from multiple departments will be required to successfully complete the initiative. Several action items will also require coordination with departments such as Media Relations and Communications, County Attorney's Office, and Office and Management and Budget.

Potential Partners are non-county entities such as municipalities, State and Federal agencies, nongovernmental organizations, and universities who can provide resources, technical assistance, coordination, community outreach, or finances to accomplish the action item.

Implementation Pathway

Each action item is associated with an Implementation Pathway, indicating the approach or mechanism for completing the action item. The pathways are:



Planning Study Research or planning activities



Construction Project Physical projects or infrastructure development





Policy Enactment Suggested amendments to the goals, objectives or policies of the Comprehensive Plan and/or Land Development Code, or Code of Ordinances



Engagement and Partnerships Collaborative efforts with the

public or potential partners that are anticipated to include extensive stakeholder involvement

Case Studies

For each goal in the action plan, a *Case Study* is included. These examples explore the successful implementation of resilience or sustainability projects and are primarily from local governments across the State of Florida. The case study directly corresponds to at least one action item in the goal.

PROTECTING NEIGHBORHOODS





PROTECTING NEIGHBORHOODS

Neighborhoods are the foundation of any community where people live, work, learn, and play. These areas can also be the most vulnerable to the impacts of flooding and heat waves. Protecting Pasco County's diverse neighborhoods from these impacts requires investment in adaptable infrastructure, including *green infrastructure* solutions such as parks, trees, and rain gardens, which can reduce flood risk and mitigate urban heat.

Goals

- 1.1 Safeguard Critical Community and Emergency Facilities
- 1.2 Protect Critical Roadways and Evacuation Routes
- 1.3 Promote Flood Proofing Measures for Community Resilience
- 1.4 Support the Use of Appropriate Coastal Infrastructure to Protect Shorelines
- 1.5 Enhance the Adaptive Capacity of Socially Vulnerable Communities
- 1.6 Prioritize Strategic Investment in Stormwater Management
- 1.7 Establish and Promote Nature-based Solutions for Coastal Protection
- 1.8 Promote Combined-Use Development for Adaptive Use

Goal 1.1 Safeguard Critical Community and Emergency Facilities

Enhancing the resilience of critical community and emergency facilities to withstand flooding and storm surges is critical to community success during extreme weather events. These facilities include hospitals, fire stations, police stations, shelters, schools, and power plants, which serve vital functions before, during, and after natural hazards.

Figure 26- Deployment of

The County should support these critical facilities by working with community partners such as local hospitals to incorporate their data and projects into emergency and mitigation plans. The County should also implement structural and non-structural measures for County-owned properties such as retrofitting windows and doors for wind and water proofing, and installing additional backup generators. These measures will help ensure continuity of essential services and functions during and after extreme weather events.

ACTION ITEMS

Champion Public-Private Partnerships with Major Hospitals and Medical Facilities to Upgrade and Increase Capacity During Disasters.

Similar to the County's vulnerability assessment, evaluating hospital capacity and disaster response can help identify potential gaps and areas for improvement. Private owners will fund the assessments and implementation projects, while the County can provide technical coordination as needed.



1.1.1

Relative Cost





Implementation

Pathway

Department Champion: Emergency Management

Potential Partners: FEMA, U.S. HUD, FDEM, NOAA

1.1.2

Encourage Collaboration with Pasco Municipalities to Integrate Climate Hazard Data into Emergency and Comprehensive Plans.

Communities in Pasco County can help protect themselves by accessing relevant climate data to inform decision-making. They can also use research conducted by academic institutions to develop plans and policies for the future to mitigate negative effects on their residents.

Timeframe

Relative Cost





Department Champion: Emergency Management; Planning, Development & Economic Growth; Office of Strategy & Sustainability

Potential Partners: USF. PHSC. St. Leo University. FLSG, Pasco Municipalities



Tampa General Hospital, located in downtown Tampa, FL, is the only Level I trauma center in West Central Florida. Understanding their need to maintain operations and protect



their campus against flooding, they relocated their Emergency Department to the second floor, well above potential storm surge and inundation levels. To accommodate patient surge, additional locked medical gas cabinets are located throughout the emergency department in waiting areas, conference rooms, and administrative areas. In the case of a major event, the adjacent parking garage is designed to quickly become a triage area. Flood barriers were also procured for deployment around the building at the street level to prevent flood water from inundating the ground floor.

Goal 1.2 Protect Critical Roadways and Evacuation Routes

Figure 27. Flooding in Pasco Count

Pasco County's Risk and Vulnerability Assessment assessed critical roadways and evacuation routes at risk of storm surge and tidal flooding. The County should improve the drainage and elevation of the roads, bridges, and culverts that are prone to *coastal and inland flooding* and erosion. The County should also coordinate with State agencies to advocate for the prioritization of upgrades to roads that are not maintained by the County and to promote potential projects and improvements in evacuation plans and procedures.

ACTION ITEMS

1.2.1

Develop List of High Flood Risk Roads and Develop Solutions to Mitigate Flooding Issues.

Various Pasco County plans, including the CIP, LMS, and Resilient Pasco Vulnerability Assessment, should be reviewed by staff in conjunction with existing knowledge of flood-prone roads to establish a priority list for mitigation efforts. Discrepancies across documents should be addressed accordingly. Solutions can be tailored to the characteristics of roadway segments, while also supporting biodiversity and preserving the natural environment.



Timeframe



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Department Champion: Transportation Engineering; Emergency Management; Public Works

Potential Partners: U.S. DOT, FDOT

Cource: Pasco County)

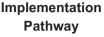
1.2.2 Incorporate Alternative Energy Sources for Street Lighting along Evacuation Routes (i.e., Solar Lighting).

Traditional infrastructure for street lighting is not always reliable in the aftermath of hurricanes. Providing alternative lighting sources ensures redundancy, enhances safety for residents, and builds community resilience.



Relative Cost







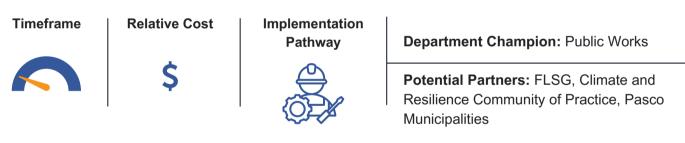
Department Champion: Transportation Engineering

Potential Partners: U.S. DOE, FDOT

1.2.3

Install Additional Flood Measuring Devices along Flood-Prone Roads.

Driving through floodwaters is extremely dangerous. To help residents assess floodwater depth and make informed decisions, some communities have installed depth markers, such as rulers. These markers clearly indicate the water depth, enabling individuals to evaluate the safety of driving through these areas.



Case Study

In Key Largo, the Monroe County Board of County Commissioners approved a \$21 million pilot project to elevate low-lying roads and enhance stormwater management infrastructure to mitigate flooding from storm surge and heavy rainfall in neighborhoods that experience frequent flooding. The upgraded infrastructure will not only ensure that evacuation routes remain open but also improve access for daily use. The project is funded by grants from FDEM and FDEP as well as by Monroe County. Community engagement and feedback were crucial, ensuring the project met local needs and improved overall resilience. This pilot project serves as a model for other coastal communities facing similar challenges. Next steps of the project will include the construction of a pump and treat stormwater drainage system and elevate low-lying sections of roadway based on 2040 Sea Level Rise Projections will begin.

Goal 1.3 Promote Flood Proofing Measures for Community Resilience

Pasco County should promote and incentivize the adoption of flood proofing measures for residential, commercial, industrial, and mixed-use properties that are exposed to flood hazards. The County should coordinate with relevant stakeholders, such as municipalities, regional agencies, State and Federal entities, private sector, and community groups, to develop a floodproofing guide to provide effective flood protection solutions for property owners. Offering technical assistance, financial support, and regulatory incentives for property owners to implement flood proofing techniques, such as dry flood proofing, wet flood proofing, elevation, or relocation can aid in efforts to reduce flood risk throughout the community.

ACTION ITEMS

1.3.1

Provide Guidance and Potential Incentives for Property Owners to Incorporate Flood Proofing Strategies.

Floodproofing is a feasible and relatively affordable solution to protect existing infrastructure from floodwaters without investment in rebuilding. Often, property owners may not know these solutions are available to them and could benefit from guidance from the County, State and Federal government to explore options available to protect their property.



Department Champion: Building Construction Services; Emergency Management

Potential Partners: FEMA, Flood Risk America, AFC, Pasco EDC

(Source: Pas

1.3.2

Implement Floodproofing Techniques in County-Owned Buildings and Assets.

Pasco County's Capital Improvement Plan can be used to plan retrofits of County-owned buildings and assets. Many grants and low-interest loan options are available to help local governments implement flood mitigation techniques. The County can use these funding mechanisms to enhance the resilience of existing structures located in floodplains and coastal areas.

Timeframe

Relative Cost

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Implementation Pathway



Department Champion: Office of Strategy and Sustainability; Emergency Management; Facilities

Potential Partners: FEMA, U.S. HUD, FDEM, NOAA



Organize Opportunities for County Staff to Learn about New Advancements in Flood Mitigation Techniques to Protect Critical Infrastructure.

Private sector companies and universities are on the forefront of new technology to protect urban environments from the threat of flooding. The County should explore scheduling recurring events where representatives can share information on new technology and projects with real-world applications.





Implementation Pathway



Department Champion: Emergency Management; Public Works; Office of Strategy and Sustainability

Potential Partners: TBRPC, Universities



Case Study

The City of Miami Beach established a local grant program to

help property owners fund adaptation projects aimed at reducing flood damage. These improvements can include a variety of projects such as floodproofing, home elevation, green infrastructure, and more. The program aims to adapt properties to the effects of climate change, including storm surges, increased rainfall, and rising groundwater and sea level rise. The program also includes technical support and guidance to ensure that property owners implement effective and compliant flood mitigation strategies. By shifting project management and administration responsibilities away from local government, the project timelines tend to be much shorter.

Figure 29. Aerial View of Miami Beach, Florida (Source: Flickr Creative Commons).

Goal 1.4 Support the Use of Appropriate Coastal Infrastructure to Protect Shorelines

Pasco County faces significant risks from sea level rise, storm surge, and erosion. To address these challenges, it is crucial to employ a range of solutions to protect the County's shoreline from future threats. Measures such as constructing robust seawalls, installing devices that dissipate wave energy, and implementing *living shorelines* will safeguard essential County and municipal infrastructure along the coast. These proactive strategies are vital for mitigating the effects of rising sea levels and severe weather events, thereby protecting both infrastructure and communities.

ACTION ITEMS

1.4.1 Strategically Invest in Fortified Shorelines.

Shoreline modifications, such as seawalls, bulkheads, and revetments can be utilized in appropriate locations with high-wave energy to reduce erosion. The suitability of this type of infrastructure must be carefully considered to prevent unintended erosion in adjacent areas. The impacts of sea level rise and storm surge should be factored in when evaluating these shoreline stabilization methods.











Department Champion: Office of Strategy and Sustainability; Public Works

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Potential Partners: TBRPC, USACE, FDEP

1.4.2 Install Devices That Dissipate Wave Energy Where Appropriate.

New technology focuses on dissipating wave energy before it reaches the shoreline. Artificial reef balls or riprap, along with natural vegetation, can be used to create aesthetic infrastructure that dispels the energy created by waves before it reaches the shore, thereby reducing the risk and extent of coastal erosion.





Department Champion: Office of Strategy and Sustainability; Public Works

Potential Partners: TBRPC, USACE, FDEP, FDEM, NOAA, GOMA

1.4.3

Promote Established Industry Best Practices for Shoreline Projects.

Organizations that certify shoreline projects which meet a certain standard of sustainability, accessibility, and resilience should be used by developers to build in a sustainable way that adds value to a community. The County should promote the use of these industry best practices.



Relative Cost



Implementation

Department Champion: Planning, Development and Economic Growth; Public Works

Potential Partners: N/A

1.4.4

Conduct a Feasibility Study for the Use of Levees for Flood Protection Along Waterways.

Levees are utilized to protect urban development located along rivers, channels, and other types of waterways but may not be feasible in all situations. Pasco County should investigate if levees are suitable flood protection structures for low-lying areas in the County.

Timeframe

Relative Cost

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Implementation Pathway



Department Champion: Public Works

Potential Partners: USACE, NOAA

Case Study

The Tyndall Air Force Base (TAFB) in northern Florida was directly hit in 2018 from Hurricane Michael and sustained significant damage. Leaders of the Base recognized that they needed to employ innovative approaches to protect the coastal base from future storms and threat of sea level rise. With funding from the Readiness and Environmental Protection Integration (REPI) Challenge Program, TAFB pursued nature-based solutions to improve their coastal resilience. The naturedbased solutions include living shorelines, an oyster reef breakwater, submerged shorelines, and a seagrass restoration project. The funded project includes plans to build up to 1,000 feet of living shoreline and up to 3,500 feet of submerged shorelines. Researchers with University of Florida Center for Coastal Studies and the U.S. Naval Research Laboratory (NRL) are monitoring the bathymetry, hydrodynamics and sediment transport in the project areas to help inform future project designs and engineering. The Nature Conservancy will also be using this data to create reports evaluating the long-term success of living shoreline and seagrass restoration projects.



Goal 1.5 Enhance the Adaptive Capacity of Socially Vulnerable Communities

There are many socially vulnerable populations that live in flood-prone areas that are highly susceptible to the impacts of sea level rise and severe weather. Enhancing the adaptive capacity of socially vulnerable communities to cope with the impacts of flooding, sea level rise, coastal erosion, and storm surge will take additional support from the County and community organizations. These populations include those with low-income, minorities, elderly, disabled, or linguistically-isolated persons.

Identifying coastal areas of high risk and vulnerability and designating them as Adaptation Action Areas can provide planning mechanisms to engage and empower these communities to participate in the planning and decision-making processes, and to access the information and resources needed for adaptation. The County should also provide guidance and potential incentives for elevating residences that are in high-risk flood areas.

ACTION ITEMS

1.5.1

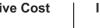
Identify and Map Adaptation Action Areas (AAAs) for Coastal Flooding in the Comprehensive Plan.

AAAs allow local governments to plan for sea level rise, designate vulnerable areas, and prioritize adaptation strategies. The State of Florida encourages counties to identify these areas and include them in local plans.

Timeframe

Relative Cost





Implementation Pathway



Department Champion: Planning, Development, and Economic Growth

Potential Partners: TBRPC, FDEP, FloridaCommerce

Figure 32. Disaster Relief Station Post-Hurricane Milton (Source: Pasco County

1.5.2

Align Future Development and Community Investment by Encouraging New Development to be Located outside of Identified AAAs.

AAAs are areas that experience coastal flooding due to extreme high tides and storm surge making them vulnerable to the related impacts of rising sea levels. Where possible, new development should be situated outside of AAAs to reduce the people, property, and infrastructure exposed to coastal flooding. Redevelopment in AAAs should have enhanced resilience design to improve the adaptive capacity of the community.



Relative Cost







Implementation

Department Champion: Planning, Development and Economic Growth

Potential Partners: FDEP, FloridaCommerce

Provide Guidance and Potential Incentives for Property Owners in Socially Vulnerable Communities to Elevate Residences that are in High-risk Flood Areas.

Recognizing the increasing threats to residents posed by flooding, the County should provide guidance and potential incentives to elevate homes. This will proactively mitigate that risk and enhance the safety and resiliency of socially vulnerable communities.

Timeframe



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Implementation Pathway



Department Champion: Building Construction Services; Emergency Management; Community Development

Potential Partners: FEMA, U.S. HUD

Case Study

Broward County, the South Florida Regional Planning Council, and the FloridaCommerce are working with the City of Fort Lauderdale on a pilot project to compile and select policy options to include in a designated AAA in the Fort Lauderdale local comprehensive plan. Fort Lauderdale developed a suite of aligned plans to ensure that the goals and long-range aspirations of the Comprehensive Land Use Plan are met. Fort Lauderdale's approach focused on partnerships and support, community engagement using diverse approaches, Integration of AAA policies into the City's plans, strategy, budget, and capacity building. Fort Lauderdale also hosted a Technical Assistance Panel (TAP) to facilitate discussion about building resilience, targeting the City's riverwalk. A final report was developed with one of the recommendations highlighting considerations to pursue an "Adaptation Action Area designation for the riverwalk to leverage sea level rise adaptation funds and connect to public space improvements."

Goal 1.6 Prioritize Strategic Investment in Stormwater Management

Figure 33. Stormwater Construction in Pasco Courity (Source: Pasco Cour

Flooding and pollution from heavy rainfall have long posed challenges, highlighting the need for stormwater infrastructure upgrades, particularly in older neighborhoods and areas reliant on septic systems.

Upgrades to stormwater infrastructure and facilities, such as pipes, pumps, and retention ponds, can increase the storage and conveyance capacity and improve water quality. These facility upgrades should be prioritized in the Capital Improvement Plan and future stormwater design manuals. Projects to preserve flood basins and enhance the use of green infrastructure, such as rain gardens, bioswales, and permeable pavements help reduce stormwater issues in the built environment and protect water bodies.

ACTION ITEMS

1.6.1

Evaluate Stormwater Infrastructure Needs Considering Future Rainfall Changes and Prioritize Upgrades to Systems Nearing End of Designed Life Span.

Current stormwater infrastructure is not designed to handle the increased demands of high intensity/duration rainfall events which are projected to increase in frequency in the future. The County should use climate data to assess whether existing systems have adequate capacity or if adjustments and upgrades are necessary.

Timeframe

Relative Cost



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Implementation Pathway



Department Champion: Public Works

Potential Partners: U.S. EPA

1.6.2

Identify and Map Additional Natural Resource Areas to Preserve as Floodplains Along Major Riparian Areas.

LiDAR and new satellite data should be utilized to identify priority preservation zones to promote conservation of important natural resources and as a strategy for protecting the built environment.

Timeframe



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Department Champion: Emergency Management; GIS; Office of Strategy and Sustainability

Potential Partners: SWFWMD, NOAA, FDEP

1.6.3

Require a Green Infrastructure Feasibility Study for New Large-Scale Developments and County Projects that Increase Drainage Needs.

Traditional stormwater management practices effectively direct water away from buildings and roads but can also increase runoff velocity, leading to potential downstream impacts. Pasco County should require green infrastructure feasibility studies for proposed large-scale projects to explore opportunities for integrating green infrastructure solutions.

Timeframe



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Implementation Pathway



Department Champion: Emergency Management; Public Works; Office of Strategy and Sustainability

Potential Partners: TBRPC, Universities



Case Study

In Tampa, a forward-looking project to install stormwater infrastructure that prioritizes future conditions, rather than just addressing current needs, has been funded through a Federal grant. The City is designing a large new pipe to be installed along South Manhattan Avenue, where there is currently no stormwater management system, to handle projected increases in rainfall. This portion of a larger stormwater management initiative in South Tampa has been awarded just under \$1 million in Federal grant funding and is expected to be completed in 2026.

Figure 34. A Stormwater Pipe Ready to be Installed in Tampa, Florida (Source: City of Tampa).

Goal 1.7 Establish and Promote Nature-based Solutions for Coastal Protection

Nature-based solutions, like living shorelines, can improve coastal protection, while helping preserve natural ecosystems that attract tourists to the coast. Restoring and enhancing wetlands and mangroves can reduce the degree of erosion, flooding, and storm surges, and enhance the overall ecosystem.

The County should engage the public and stakeholders on the value and importance of nature-based solutions and encourage their participation and support in implementing and maintaining them. This will help sustain their impact and promote coastal stewardship. A co-benefit of coastal protection is the preservation of historic sites that are located close to the coastline.

ACTION ITEMS

1.7.1

Require Coastal Infrastructure Designs to Include a Feasibility Assessment for Nature-Based Solutions (NBS).

When compared to typical coastal infrastructure, NBS preserve the natural environment, create habitat and support water quality. The County should encourage developers and property owners to choose NBS where feasible by incorporating it into permitting requirements. A combination of NBS and hardened structures should be considered where appropriate.





Implementation Pathway



Department Champion: Public Works; Planning, Development and Economic Growth

Potential Partners: TBRPC, TBEP, FWC, FDEP, FLSG, Tampa Bay Watch

1.7.2 Complete a Coastal Mapping Project of the County's Shoreline.

A high-resolution map of the coastline in Pasco County can help identify the best action to both protect the shoreline and preserve natural resources. Mapping the coastline can set a baseline for future decision making regarding coastal protection.





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Department Champion: Office of Strategy and Sustainability; Emergency Management; GIS

Potential Partners: UF/IFAS, TBRPC, NOAA, SWFWMD, USF



Case Study

SUNS is a multi-year effort to identify and promote nature-based solutions for resiliency in the Florida panhandle in response to the significant damage caused by Hurricane Michael in 2018. The project, led by The Nature Conservancy, brings together local stakeholders to identify and create a portfolio of NBS projects for coastal resilience in Bay, Gulf, and Franklin Counties. The goal is to develop a regional resilience planning framework that will guide investments in restoring and strengthening natural resources that can also protect the coastline. A working group was created and consists of representatives from Bay, Gulf, and Franklin Counties, municipal governments, environmental organizations, State and Federal entities, and the public. Their role is to advance resilience planning across the selected counties by facilitating increased coordination across jurisdictions and agencies and identifying potential projects and opportunities for policy-changes to support nature-based resilience solutions. The SUNS portfolio consists of 73 nature-based solution projects, 11 plans or assessments, and 5 connector projects such as linear parks and trails that other counties can use as examples to plan their own NBS projects.

Figure 36. Map depicting SUNS Portfolio Projects centered on different types of nature-based solutions. (Source: The Nature Conservancy)

Goal 1.8 Promote Combined-Use Development for Adaptive Use

Pasco County seeks to work with nature and promote adaptive communities. Developments which can accommodate periodic flooding without significant damage are favorable to improve resilience. These developments will minimize flood impacts and facilitate rapid recovery.

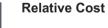
ACTION ITEMS

1.8.1

Encourage the Use of Water and Salt Resistant Materials in Buildings Constructed in Flood-Prone Areas.

Pasco County's coast is exposed to saline water, which can cause material degradation. Investing in materials that are resistant to the high salt content of the water can lengthen the life of the construction material and reduce maintenance costs.

Timeframe







Implementation

Pathway

Department Champion: Building Construction Services

Potential Partners: N/A



1.8.2 Promote the Installation of Combined-Use Parks.

Open spaces and parks can be designed to serve dual purposes of providing recreational areas for residents and act as temporary storage for stormwater during intense rain events. Diverting stormwater to these areas can help reduce the risk of flooding in homes and on roads.



Relative Cost



Department Champion: Public Works; Parks, Recreation and Natural Resources; Emergency Management

Potential Partners: N/A

1.8.3

Incentivize Developing Planned Neighborhoods with Higher Standards for Resilience and Sustainability.

Across Florida, communities are being planned and constructed to perform with enhanced levels of resilience and sustainability. Intentionally considering these elements during the planning stage allows for long term benefits, economically, environmentally, and socially. Incentives can support the development of more neighborhoods with the same structure and values.

Timeframe





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Implementation Pathway



Department Champion: Planning, Development and Economic Growth; Building Construction Services

Potential Partners: Smart Home America

Case Study

The City of Tallahassee, Florida, envisioned a different use for an EPA Superfund site located in the heart of the city.

Cascades Park is a "floodable" park designed to provide flood relief in this lowlying section of Florida's capital city. The Capital Cascades Trail Master Plan envisioned a comprehensive program for passive recreation development, extensive stormwater management facilities that would manage stormwater from a total contributing drainage area of approximately 1,478 acres. The landscape was designed in a way to enhance the natural environment and provide amenities for residents including an amphitheater, waterfall, interactive water play area, three miles of trails, adventure garden and memorial. The park can hold floodwater if there is an intense rain event, protecting the surrounding community.



ADAPTABLE AND TRANSPARENT GOVERNMENT



West Pasco Government Center

ADAPTABLE AND TRANSPARENT GOVERNMENT

Pasco County is responsible for providing essential services that promote public safety and wellbeing. To do so effectively in the face of future changing conditions will require a government that is adaptable and transparent. This can be achieved by embracing innovation, collaboration, and accountability. Data and technology can be utilized to improve decision-making, service delivery, and communication with the public regarding governmental actions. Developing a more transparent government can support a culture of learning and adapting by encouraging feedback, evaluation, and continuous improvement. This, in turn, can build trust and legitimacy, by engaging and empowering stakeholders, and ensuring that policies and actions are fair, ethical, and responsive. Ultimately, this trust will help the County become more adaptable in meeting the changing needs of the community over time.

Goals

- 2.1 Revise Land Development Code for Enhanced Resilience
- 2.2 Expand Public Awareness and Education on Climate Vulnerabilities
- 2.3 Expand Public Awareness and Accessibility of Recycling Options
- 2.4 Increase Awareness and Accessibility of Public Transportation
- 2.5 Create and Maintain External Reporting of Resilience and Sustainability Activities
- 2.6 Strategize Community-Driven Relocation for Risk Avoidance

Goal 2.1 Revise Land Development Code for Enhanced Resilience

Land use plays a major role in how the built environment withstands the impacts of severe weather. Effective stormwater management, reducing extreme heat, and creating safe corridors for evacuation can all be supported by land development regulations. Reducing impervious surfaces and incorporating low-impact development requirements can also create the co-benefits of improving stormwater management and reducing heat effects by increasing greenspace and shaded areas.

ACTION ITEMS

2.1.1

Increase the Amount of Green Space and Reduce the Allowed Maximum Lot Coverage for New Developments and Redevelopments in Flood-Prone Areas.

Green spaces are an important characteristic of any community, providing numerous benefits to residents' health and well-being, while supporting stormwater management and mitigating extreme heat. Pasco County should prioritize increasing green spaces within developments.

Timeframe

Relative Cost





Implementation

Department Champion: Planning, Development and Economic Growth; Building Construction Services

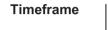
Potential Partners: TBRPC



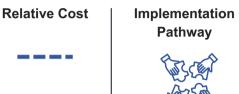
2.1.2

Encourage Coordination with Pasco Municipalities to Include Resilience **Regulatory Language in Comprehensive Plans and Land Development Codes.**

Comprehensive Plans are guide documents for future development and are required in the State of Florida. Pasco County can collaborate with municipalities within the County to ensure that the comprehensive plans address resiliency.







Department Champion: Planning, Development and Economic Growth; Office of Strategy and Sustainability

Potential Partners: FLSG, TBRPC, Pasco **Municipalities**

Require Permeable Surfaces for Non-structural Surfaces in New 2.1.3 Developments, Redevelopment, and Substantial Improvements to Existing **Developments**.

Permeable pavers are a low impact development strategy that allows stormwater to infiltrate into the ground. These can be utilized in areas that produce stormwater with relatively low pollutant loads such as pool decks and sidewalks. Reduction of directly-connected impervious areas will reduce stormwater volumes, which is especially helpful in high intensity rain events.

Timeframe











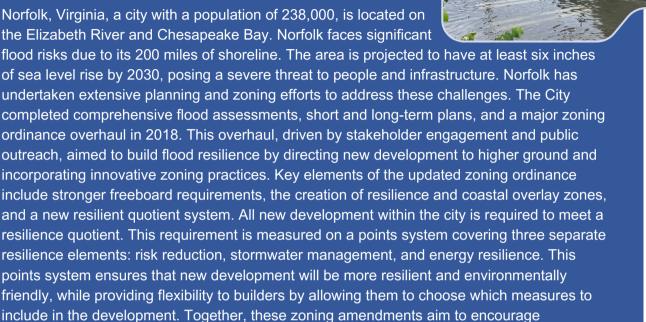
Department Champion: Planning, Development and Economic Growth; Public Works

Potential Partners: UF/IFAS, GOMA, SWFWMD



Case Study

Norfolk, Virginia, a city with a population of 238,000, is located on the Elizabeth River and Chesapeake Bay. Norfolk faces significant



development to include stronger flood resilience measures.

Goal 2.2 Expand Public Awareness and Education on Climate Vulnerabilities

2. Residents Participating in RPP Public Workshops in Land O' I

An informed public is critical to successful disaster preparedness and response. The County should support the expansion of public awareness on the current and projected climate vulnerabilities, the potential impacts on the health, safety, and well-being of the community and the environment, and the efforts the County is undertaking to address them.

This goal is supported by results from the Resilience and Sustainability survey that was conducted by Pasco County in 2024. Results of the survey indicated that 50% of respondents desired to be kept informed via a dedicated website, 24% via social media, and 12% via news articles.

ACTION ITEMS

2.2.1 Foster Partnerships with Organizations that Specialize in Engagement on Climate Issues.

Many organizations within the State of Florida focus on bringing knowledge to the public to educate and help create an informed populace. Pasco County can partner with organizations, including, but not limited to, Florida Sea Grant, Gulf of Mexico Alliance, and academic institutions, to expand their capacity for engaging with residents.





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Implementation Pathway



Department Champion: Office of Strategy and Sustainability; Cooperative Extension

Potential Partners: FLSG, GOMA, SSDN, TBRPC

2.2.2 Increase the Installation of Appropriate Signage in Areas Prone to Flooding and Storm Surge.

Signage that warns the public about roads and areas that are prone to flooding or potential inundation heights from storm surge can provide the public with a way to assess their risk during forecasted flooding events. This can encourage residents to take the necessary measures to protect life and property, such as obtaining flood insurance and heeding evacuation orders.

Timeframe

Relative Cost





Implementation Pathway



Department Champion: Public Works; Emergency Management

Potential Partners: FDOT

Case Study

St. Petersburg Mayor Ken Welch, in partnership with the Foundation for a Healthy St. Petersburg and the University of South Florida St. Petersburg, held three "Community Conversation" events prior to his inauguration. The goal of these events were to hear from residents on their top priorities related to the environment and resilience along with other important issues. These events not only engaged the community, but also highlighted what issues were most important to them. These conversations have been instrumental in shaping policies and identifying priority strategies for addressing climate challenges.



Goal 2.3 Expand Public Awareness and Accessibility of Recycling Options

Pasco County should enhance public awareness and accessibility of recycling options to increase waste diversion and reduction. Educating residents and businesses on the benefits and methods of recycling, and proper sorting and disposal of the recyclable materials could lead to increased participation in recycling and waste reduction programs.

The County should also assess the accessibility and convenience of recycling facilities and services, such as bins, carts, drop-off centers, or curbside collection, to encourage and facilitate participation and compliance with the recycling program.

ACTION ITEMS

WAST

2.3.1 Provide Potential Incentives for Building Developers to Practice Source Reduction, Salvaging and Reusing Existing Materials When Building.

Construction and demolition materials make up a significant portion of the waste stream in Pasco County. The County should work with partners to provide guidance for contractors and require efforts to reduce the amount of waste generated by construction and demolition through source reduction, salvaging, and reusing. The quantity of recycled construction and demolition debris should be tracked and made public to encourage the improvement of recycling initiatives in the construction industry.

Timeframe

Relative Cost





Pathway



Department Champion: Solid Waste; Building Construction Services

Potential Partners: U.S. EPA, FDEP

County Waste to Energy Facility (Source: NBC Ne

2.3.2 Explore Feasibility of Franchise Zone Collection Systems for Waste Haulers.

The County should research the feasibility of franchise zone collection systems to reduce the number of contractors on the road and help streamline the waste collection process. The County can establish zones or assigned areas, each with its own contract hauler. Contractors can be encouraged to use cleaner fuel or electric vehicles in their fleets and to set up more effective and efficient collection routes, minimizing road wear and reducing traffic congestion.

Timeframe





Relative Cost





Department Champion: Solid Waste

Potential Partners: NWRA, SWANA

Case Study

Sarasota County's Solid Waste Department implemented strategies to enhance its waste management system. Their approach includes new franchise hauler contracts, as well as a range of innovative features such as a service verification system and automated collection pickups. The new service verification system will allow the Sarasota County Solid Waste Department to track and monitor collections as the haulers work through their daily routes. These changes promise a more streamlined and responsive waste management experience for residents, with real-time tracking and enhanced customer support through a modernized 311 Contact Center.



Goal 2.4 Increase Awareness and Accessibility of Public Transportation

Figure 46. Pasco County GoPasco Bus (Source: Pasco County)

Public transportation is a sustainable alternative to driving. It reduces the quantity of greenhouse gasses emitted by burning gasoline and diesel. Additionally, public transportation reduces fuel costs for commuters. The County should work to increase the accessibility and ridership of public transit systems by improving the coverage and frequency of services and enhancing the public's awareness and perception of using public transit.

The County should also expand public information campaigns to inform residents and visitors about the availability, advantages, routes, and schedules of public transportation options like buses and ridesharing. The County should evaluate the accessibility and affordability of the public transportation system to identify service improvements that could increase ridership.

ACTION ITEMS

2.4.1 Expand Funding for ADA Accessibility Enhancements at Bus Stops.

Pasco County is aware of the needs of the community to have ADA accessible bus stops. However, funding for these enhancements is associated with notable expenses. Programs such as the All-Stations Accessibility Program make funding available to finance capital projects that repair, improve, modify, retrofit, or relocate infrastructure of stations or facilities to improve access for all transit users, including wheelchair users.

Timeframe

Relative Cost

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Implementation Pathway



Department Champion: GoPasco

Potential Partners: FDOT, U.S. DOT

2.4.2 Conduct a Sidewalk Assessment to Identify Needs Gaps.

Sidewalks provide accessible routes for residents of different ages, abilities, and socioeconomic status, making them vital lifelines for communities. The County should collaborate with the Pasco County School Board to identify gaps in access or deteriorating sidewalks and incorporate projects to address them in the CIP.

Timeframe



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Implementation Pathway



Department Champion: Transportation Engineering; Metropolitan Planning Organization

Potential Partners: Safe Routes to School Program, FDOT, U.S. EPA, Pasco County School Board



Case Study

The HART for All campaign, launched by the Hillsborough Area Regional Transit Authority (HART) in Hillsborough County, Florida, aims to significantly increase awareness and accessibility of public transportation for individuals with disabilities. This initiative was developed in collaboration with local organizations like the Center for Autism & Related Disabilities (CARD) at the University of South Florida and Lighthouse for the Blind, ensuring it meets the needs of its target audience. The campaign features comprehensive educational programs designed to inform riders with physical and intellectual disabilities how to use HART services effectively. It also includes training for HART employees on how to better accommodate these passengers, enhancing the overall transit experience. One of the campaign's notable elements is its focus on personalized, point-to-point transportation services, which are crucial for people who might find traditional bus routes challenging.

Figure 47. HART for All (Source: Hillsborough County Transit Authority).

Goal 2.5 Create and Maintain **External Reporting of Resilience and Sustainability** Activities

To maintain transparent and responsive communication with the public, Pasco County should create and maintain external reporting of the resilience and sustainability activities completed to showcase progress and achievements in advancing the goals of the County. This communication could be in the form of an annual publication or outreach that allows for community feedback. The County should also maintain transparency with active online communication regarding progress towards meeting those goals with reports and dashboards shared with the public and stakeholders on a regular basis.

ACTION ITEMS

2.5.1

Maintain Public-Facing Website, Bulletin Board, and Social Media Accounts with Quarterly Updates of County Efforts in Resilience and Sustainability.

Information sharing is an important component of community engagement. It builds trust in public institutions and enhances overall community preparedness. Pasco County should use multiple avenues to provide information to the public about resilience and sustainability initiatives.





Department Champion: Office of Strategy and Sustainability

Figure 48. Solar Panel Farm in Orlando, Florida (Source: City of Orlando)

Potential Partners: N/A

Produce an Annual Public Report of Resource Usage and Summary of Major Resilience and Sustainability Projects Accomplished During Reporting Period.

Pasco County can garner support for many initiatives by being transparent to the public about accomplishments and goals. Annual reports can track progress and highlight areas that need improvement.









Department Champion: Office of Strategy and Sustainability

Potential Partners: TBRPC

2.5.3 Maintain Annual Initiatives Inventory of Resilience and Sustainability Programs and Projects Status.

Pasco County should utilize a tracking system to gauge and document progress toward meeting resilience and sustainability goals, which key stakeholders can review and maintain as a living document for ongoing updates.

Timeframe

Relative Cost





Department Champion: Office of Strategy and Sustainability

Potential Partners: TBRPC

Case Study

Green Works Orlando, initiated in 2007, is a comprehensive sustainability program aimed at enhancing the quality of life, promoting economic growth, and ensuring equitable resource access across Orlando. Green Works Orlando emphasizes transparency and accountability through its robust public reporting system. Progress towards sustainability goals has been meticulously tracked and made available on their website, allowing residents and stakeholders to monitor advancements and participate in the City's green initiatives.

Goal 2.6 Strategize Community-Driven Relocation for Risk Avoidance

Flooding in Pasco Cou

Pasco County can reduce flood risk to critical assets by siting or relocating infrastructure to minimize vulnerabilities, which ensures the continuity of essential services, and promote public health and safety. The County's Risk and Vulnerability Assessment can be used in future planning related to land-use, development regulations, and environmental impact assessments in site selections.

ACTION ITEMS

2.6.1

Develop Engagement Programs for the Public to Discuss Community-Driven Relocation Concepts and Reasoning.

Community-driven relocation, also known as managed relocation, is often not the preferred adaptation strategy in the United States. To better inform residents of how this practice can protect lives and personal property through a methodical, equitable process, Pasco County should partner with organizations that are active leaders in this field to ensure public involvement in the decision-making processes.

Timeframe

Relative Cost







Implementation

Department Champion: Emergency Management; Office of Strategy and Sustainability

Potential Partners: FLSG, TBRPC, FEMA

Identify Potential Areas for the Relocation of Critical Infrastructure 2.6.2 Anticipated to be Impacted by Coastal Flooding.

The southeastern region of the United States is projected to experience accelerated sea level rise in the coming years, posing a threat to the designed lifespan of existing coastal infrastructure. To prepare for this change, Pasco County should collaborate with partners to identify potential inland relocation areas.

Timeframe

Relative Cost







Department Champion: Utilities; Public Works; GIS; Emergency Management; Facilities

Potential Partners: N/A

2.6.3

Investigate the viability of reestablishing a voluntary residential buyout and relocation program for high-risk flood areas.

A voluntary residential buyout and relocation program can provide residents that experienced repeated flooding a means to reduce their risk of future flooding by selling their homes and relocating to a safer area.

Timeframe



Relative Cost



Implementation Pathway



Department Champion: Emergency Management; **Community Development**

Potential Partners: U.S. HUD, Pasco Municipalities, FDEM, AFC, FEMA

Case Study

In response to increasing flooding threats, Satellite Beach, Florida, made a pivotal decision to relocate its fire station to a less vulnerable area. Following a Sea Level Rise Technical Assessment conducted in 2013, city leaders recognized the risks posed to critical infrastructure by storm events and rising sea levels. The assessment, spearheaded by Stetson University, identified the fire station as a key asset needing protection. By moving the station, the City aimed to ensure the safety of both its emergency services and the community it serves, demonstrating a proactive approach to infrastructure resilience in the face of climate change. The City Manager highlighted the importance of this relocation, noting that the fire station's new location enhances operational reliability during extreme weather events. This decision not only safeguards emergency response capabilities but also aligns with the City's broader strategy of updating stormwater systems and implementing long-term climate adaptation measures.

RESPONSIBLE RESOURCE MANAGEMENT

RESPONSIBLE RESOURCE MANAGEMENT

Boy Scout Preserve

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Natural resources, such as water and energy, support everyday community functions and enable economic growth. However, these resources are finite and mismanagement can have negative environmental impacts, such as greenhouse gas emissions, excessive waste generation, and pollution. To manage natural resources more responsibly, Pasco County should work towards creating sustainable and efficient practices that reduce consumption and promote the re-use and recycling of waste. The exploration and promotion of renewable and clean energy sources, such as solar power, will also improve energy efficiency of County operations.

Goals

- 3.1 Preserve Existing Wetlands and Increase County Conservation Lands
- 3.2 Encourage Energy-Saving Practices and Provide Potential Financial Incentives to Residents and Businesses
- 3.3 Enhance Recycling and Re-Use Programs for Waste Reduction
- 3.4 Develop and Promote Programs and Partnerships to Decrease Waste Generation
- 3.5 Examine and Mitigate the Impact of New Developments on Future Water Availability
- 3.6 Enhance the Quality of Pasco County Groundwater Resources
- 3.7 Explore Opportunities for Renewable Energy Use

Goal 3.1 Preserve Existing Wetlands and Increase **County Conservation Lands**

Wetlands and conservation lands are vital components of the socio-ecological system in Pasco County, providing benefits such as improved water quality, flood control, wildlife habitat and carbon sequestration, while also offering opportunities for recreation. Protecting and restoring these ecosystems can enhance the County's resilience to climate change and other stressors, while also improving the overall guality of life for current and future generations.

ACTION ITEMS

3.1.1

Establish Protections for Ecological Planning Units and Agricultural Reserves.

Ecological Planning Units are identified areas of valuable habitat warranting special consideration because of their ecological significance. Natural resources and agricultural reserves in Pasco County are important to economic development and conservation.



Relative Cost







Department Champion: Parks, Recreation and Natural Resources; Planning, Development and Economic Growth; Office of Strategy and Sustainability

Figure 50. Aripeka Sandhills Preserve (Sou

Potential Partners: The Nature Conservancy, SWFWMD, FDEP, Florida Wildlife Corridor Foundation, FDACS, UF/IFAS

3.1.2

Develop an Educational Campaign on the Rural and Family Lands Protection Program for the Northeast Rural Protection Area and Agricultural Reserve.

The Rural and Family Lands Protection Program is an agricultural land preservation program overseen by the FDACS that can help residents of Pasco County protect their land. The County should market this program to residents who need financial assistance preserving their agricultural lands.







Relative Cost





Department Champion: Parks, Recreation and Natural Resources; Planning, Development and Economic Growth; Office of Strategy and Sustainability

Potential Partners: UF/IFAS, FDEP, USDA, FDACS



Case Study

The Joe's Creek Habitat Restoration Project represents a significant wetland restoration and conservation effort, which Pinellas County continues to enhance. The 15-acre area had suffered from decades of environmental degradation, including the use of the site as a mining borrow pit and a landfill for construction debris and yard waste. The restoration initiative, a collaboration between Pinellas County and the SWFWMD, aimed to rehabilitate and enhance the site's ecological value by restoring native upland and wetland habitats and improving stormwater management. The project's comprehensive plan included the preservation of various habitats such as estuarine marshes, upland hammocks, and tidal flats. Key accomplishments included transforming a former drainage ditch into a tidal wetland platform, removing invasive species, clearing landfill debris, and planting over 31,000 native plants. This effort, supported by funding from Pinellas County and Federal grants related to the Tampa Bay Oil Spill settlement, successfully revitalized the site, which now supports diverse flora and fauna. In 2024, Pinellas County continued to build upon this successful effort by implementing another restoration and trail building project at Joe's Creek with a focus on increasing recreational opportunities with funding from SWFWMD and Florida Department of Commerce.

Figure 51. Joe's Creek in Pinellas County (Source: Pinellas County).

Goal 3.2 Encourage Energy-Saving Practices and Provide Potential Financial Incentives to Residents and Businesses

Figure 52. Pasco County Code Safety (Source: Pasco County).

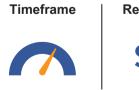
The County should support and promote funding opportunities and financial incentives for residents and businesses that install solar panels, LED lighting, or other energy-saving devices. The County currently utilizes metrics used in common sustainability certification processes to improve overall efficiency and could promote those metrics as best practices to the public. Technical assistance could also include conducting energy audits and connecting residents with contractors and suppliers for solar installations and sustainable retrofits. Recognition programs could involve awarding certificates, plaques, or badges to participants who achieve certain levels of energy savings, documenting the economic and environmental benefits of energy efficiency.

ACTION ITEMS

3.2.1

Incentivize Commercial Landowners to Invest in the Installation of Solar Panels on Commercial Buildings.

Advancements in solar panel technology have made solar energy a more viable investment. Encouraging more commercial buildings to adopt this alternative energy source can help business owners increase their energy efficiency.









Implementation

Pathway

Department Champion: Building Construction Services

Potential Partners: FDACS Office of Energy

3.2.2 Increase Awareness of EV Charging Stations in Public Parking Lots at County Buildings.

Pasco County has supported the use of electric vehicles by installing EV chargers at parking spaces at government buildings. However, public utilization of these charging stations remains relatively low. Increasing awareness of these facilities will help bolster the County's ongoing efforts to utilize diverse energy sources.



Relative Cost







Implementation

Department Champion: Facilities

Potential Partners: FDACS Office of Energy, FDOT

3.2.3

Develop a Community Energy Efficiency Program Aimed at Targeting Underserved Communities.

Socially vulnerable populations often face a disproportionate energy cost burden. Developing a community energy efficiency program can help alleviate this burden and enhance cost savings for these individuals.

Timeframe



Relative Cost

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Department Champion: Cooperative Extension; Community Development

Potential Partners: U.S. HUD, UF/IFAS, Southeast Energy Efficiency Alliance, WREC, Duke Energy

Case Study

Sarasota County is focused on expanding clean energy options to benefit residents. They created an energy efficiency awareness campaign and a volunteered-led community resource hub, EnergyUpgrade. The County found that 42% of households are paying over 30% of their income on energy costs. The program works with organizations, including the Sarasota Housing Authority, offering assistance in the form of direct connections to other assistance-based nonprofits, teaching free workshops on energy-saving strategies for residents, one-onone energy consultations, and in-home retrofits to help residents reduce their energy costs. The program has also provided tax credits that cover up to 30% of the cost for specific home efficiency improvements, and eligible households can claim up to \$1,200 in credits each year.

Figure 53. Weatherstripping Being Performed by EnergyUpgrade (Source: Sarasota County).

Goal 3.3 Enhance Recycling and Re-Use Programs for Waste Reduction

Pasco County Earth Day Celebratior

Pasco County

As Pasco County continues to grow the demand for expanded waste management capacity has increased. The County's Solid Waste Master Plan should be updated to reflect current needs. A key goal is to minimize the amount of land used to landfill waste. The County should focus on increasing recycling and reuse opportunities. Initiatives should include promoting sustainable consumer behaviors, such as composting and mulching yard waste, and raising awareness about reuse options for commonly discarded household items.

ACTION ITEMS

3.3.1

Create Partnerships with Local Organizations to Promote and Implement a Glass-to-Sand Recycling Initiative at Neighborhood Community Centers.

Many local governments leverage existing and newly developed partnerships to create and support programing for recycling and educating the public with Federal funding. Through such partnerships, a glass-to-sand recycling initiative should be implemented to help provide a local avenue for the community to recycle glass.

Timeframe	Relative Cost	Implementation Pathway	Department Champion: Cooperative Extension Potential Partners: Keep Pasco Beautiful, UF/IFAS, U.S. EPA, Rosebud Continuum

3.3.2

Invest in the Expansion of Recycling Infrastructure.

Pasco County residents are dedicated to recycling. Expanding the County's current recycling capacity, such as building an additional transfer station, would further enhance recycling efforts throughout the County.

Timeframe







Department Champion: Solid Waste

Potential Partners: FDEP, U.S. EPA



Partner with Organizations to Educate Residents and Businesses on Waste Management and Recycling.

Education plays a crucial role in encouraging residents to adopt new practices and participate in programs. Recycling programs often face challenges due to non-recyclable items being placed in recycling bins, which can cause issues with sorting machines. Targeted marketing can educate residents on what is recyclable and how to properly clean recyclable materials before disposal.

Timeframe



Relative Cost



Department Champion: Solid Waste

Potential Partners: Keep Pasco Beautiful, FDEP, UF/IFAS

Case Study

In 2021, Flagler Beach suspended much of their recycling due to the high cost and low benefit. The City Commission developed

a recycling program that is more economically viable. A small fee of \$2 or less was added to customer bills to fund the program, which was used to purchase a glasspulverizing machine nicknamed "Big Blue". The machine transforms recycled glass into useable products by pulverizing the glass into glass sand and glass gravel. These products meet the standards of FDOT and USACE and allows the city to recycle more than 600 tons of glass per year. The pulverized glass can be used to fill potholes, sold as glass mulch, utilized in beach nourishment projects, or in landscaping. It is also used as an additive in concrete products to increase the silica content.

Figure 55. "Big Blue", Flagler's New Glass-Crushing Machine Purchased in 2022 (Source: FlaglerLive).

Goal 3.4 Develop and Promote Programs and Partnerships to Decrease Waste Generation

and encourage beautification.

o Coun

Reducing waste generation across Pasco County could provide benefits not only locally by reducing the burden on the County's waste management system but also support the global system by creating less use of single-use plastics and other disposable materials. The County should develop and promote programs and partnerships that encourage waste prevention, source reduction, and product stewardship among residents, businesses, and institutions.

One of the main sources of waste is disposable packaging and utensils that are used in food service and retail sectors. These items, such as plastic bags, straws, cups, plates, and Styrofoam containers, are often not recycled and end up in landfills or littering the environment. The program can educate consumers about the environmental and economic benefits of reducing their consumption of single-use plastics and other disposables. Some possible incentives for businesses to participate in the program could include grants, recognition awards, or certification schemes.

ACTION ITEMS

3.4.1

Investigate the Feasibility for Developing a Residential Curbside Composting Program and Investing in a Composting Facility to Collect Food Waste.

Commercial composting programs that collect curbside can reduce the amount of food waste in landfills, decreasing the release of greenhouse gases into the atmosphere. Commercial composting can also produce soil and fertilizer for use in parks and landscape improvements across the County.

Timeframe

Relative Cost

Implementation Pathway



Department Champion: Solid Waste

Potential Partners: FDEP, Florida Organics Recycling Center for Excellence, UF/IFAS

3.4.2

Create Partnerships to Provide Educational Activities Regarding Waste Reduction for Residents in the County.

Farmers markets and other public events centered around food are perfect opportunities to provide educational materials related to recycling, waste reduction, and composting. Pasco County should partner with local organizations to provide educational materials at such events.

Timeframe









Department Champion: Cooperative Extension

Potential Partners: UF/IFAS, Keep Pasco Beautiful

3.4.3

Investigate the Viability of Commercial Food Waste Diversion Programs within Pasco County.

Food waste is a significant component of solid waste that increases methane production in landfills, leading to environmental pollution. Introducing a commercial food waste diversion program should decrease the volume of food waste sent to landfills and generate local revenue such as through the sale of compost.

Timeframe



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Implementation Pathway



Department Champion: Cooperative Extension: Solid Waste

Potential Partners: USDA, UF/IFAS, FPAC, FDACS

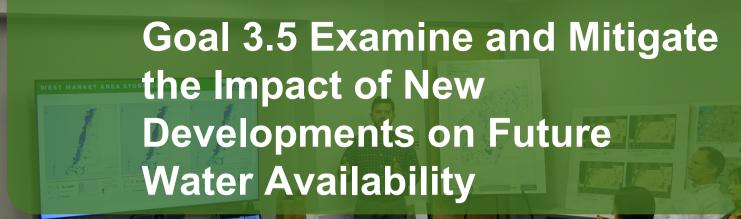
Case Study

Indian River County received a Recycle Florida Today Environmental Sustainability Award in 2022 for demonstrating



noticeable efforts to increase recycling and reduce waste. Such efforts have included programs that increase awareness of the importance of sustainability and community recycling. Indian River launched a tool, CARTer's Corner, aimed to assist residents with their waste disposal questions. The County also provided a single, 64-gallon container that allowed residents to gather more mixed recycling than the previous bin system. Indian River also introduced a pilot program called The Community Fridge Program, which aimed to reduce food waste, build stronger communities and promote equal access to healthy food through the motto, "Take what you need, leave what you can." The fridge is maintained by a communal collective of partners.

Figure 57. Indian River County Community Fridge (Source: Waste 360).



There are several ways to assess and mitigate the potential impact of new developments on the future water supply and demand in Pasco County. Planning for development based on potential impacts to surface water systems and assessing access to well water should be considered to support future water availability.

While the County can directly impact infrastructure planning and water management practices that conserve and protect limited water resources it should also focus on raising public awareness about actions that citizens can take.

ACTION ITEMS

3.5.1

Research Reuse Water Strategies to Enhance Supply Resilience and Reduce Potable Water Consumption.

Pasco County has a robust water system, but the current supply is not sustainable to meet the irrigation needs of residents. Alternative supplies should be explored to reduce potable water irrigation consumption and reduce outdoor use.



Department Champion: Utilities

Potential Partners: TBW, FDEP, SWFWMD

re 58, RPP Land O' Lakes Public V

3.5.2

Develop a System to Assess the Water Supply Commitments Created by Other Utilities within Pasco County.

SWFWMD is currently responsible for assessing commitments of Pasco County Utilities (PCU) and their effect on the water supply. However, for areas of the County that are outside of the PCU service area, the County should develop a process for private utilities to verify their commitments for future expansions. Conversely, Pasco County should consider the impact of its density increases on other suppliers within the County.

Timeframe





Department Champion: Utilities

Potential Partners: SWFWMD, TBW, Private Utilities operating in Pasco County

3.5.3 Potentially Incentivize Developments to Prioritize Water Conservation.

During the review of building construction and utility plans Pasco County can provide incentives to developers who demonstrate and quantify anticipated water savings based on design plans.

Timeframe





Implementation Pathway



Department Champion: Utilities; Building **Construction Services**

Potential Partners: UF/IFAS, USDA

3.5.4

Proactively Engage with HOA and Community Development Districts to Discuss Water Availability in Pasco County.

Building relationships and coordinating communication with external organizations can help Pasco County and its residents enhance their understanding of water availability through collaboration on conservation efforts and the establishment of effective water management within their communities.

Timeframe

Relative Cost

Implementation Pathway



Department Champion: Utilities

Potential Partners: SWFWMD, TBW

Case Study

After experiencing prolonged droughts in the 1990s, the West Coast Regional Water Supply Authority, predecessor to TBW, the regional water



utility serving Hillsborough County, Pasco County, Pinellas County, along with Tampa, St. Petersburg and New Port Richey, began using groundwater to meet customer needs. While this decision addressed immediate demands, it caused ecological damage by lowering water levels in local wetlands and lakes. To ensure future water availability and the protection of ecosystems, TBW integrated climate outlook planning into their groundwater management strategy. TBW now delivers 'blended' water using groundwater, surface water, and desalinated water. In 2023, TBW approved their Long-term Master Water Plan Update, which includes water conservation programs, public education, and infrastructure investments to promote sustainable water use. TBW also offers various water conservation incentives, such as the Tampa Bay Water Wise Regional Rebate Program. This program, in partnership with the SWFWMD, provides rebates to residents, commercial property owners, contractors, and builders who implement water-saving measures.

Figure 59. C.W. Bill Young Regional Reservoir (Source: Tampa Bay Water).

Goal 3.6 Enhance the Quality of Pasco County Groundwater Resources

Common sources of groundwater pollution include septic tanks and marine bodies of water. Neglected or obstructed septic tanks can lead to nutrient pollution and bacterial contamination. Pasco County has established areas where septic-to-sewer conversion is appropriate but does not have a robust funding source to carry out a conversion plan. Other threats to groundwater include saltwater intrusion. The County should explore potential coastal saltwater intrusion, especially in areas that are not served by TBW.

ACTION ITEMS

3.6.1 Develop a Septic-To-Sewer Funding Plan.

Septic tanks, many of which are located in unincorporated areas of the County, can be major contributors to water quality issues and groundwater contamination. The County has identified areas for septic-to-sewer conversions, but a funding plan has not been established. A funding plan that includes updates to the fee structure may allow for the implementation of the project.

Timeframe	Re

Relative Cos	t





Potential Partners: FDEP

Utilities Staff (Sou

3.6.2 Perform a Study on Coastal Saltwater Intrusion.

Saltwater intrusion can negatively impact groundwater resources as sea levels rise. A mapping study can investigate the issue and highlight potential strategies to protect groundwater for drinking and vital ecosystems in communities not served by TBW wellfields.



Relative Cost



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Department Champion: Office of Strategy and Sustainability

Potential Partners: SWFWMD, TBW, FDEP



Case Study

The City of St. Augustine is in the process of creating a groundwater monitoring network that will help the community better understand how sea level rise will impact the City's groundwater resources. Potential negative impacts include destabilizing foundations, declining water quality, damaging buried utility lines, and putting stormwater and sanitary sewer functions at risk. A better understanding of the potential impacts through monitoring will help ensure the City can plan for and mitigate future impacts. The groundwater monitoring project is funded by a Resilient Florida implementation grant and will install 60 monitoring stations throughout the City that will measure rates of change in shallow groundwater elevation and water quality. The monitoring system will form the foundation for the City's efforts to mitigate the potential negative impacts to critical infrastructure from changes in the groundwater.

Figure 61. Cat's Paw Marsh in St. Augustine, Florida (Source: Orlando Cordero).



Responsible Resource Management

Goal 3.7 Explore Opportunities for Renewable Energy Use

Renewable energy sources can offer environmental and economic benefits for Pasco County and its residents, as well as contribute to energy independence and diversification, enhancing overall resilience. The County should utilize solar technology in areas such as carports to cool parking areas and harness energy for use.

Additionally, the County should investigate the feasibility of using biomass and/or biodigesters to produce biogas from organic waste, such as animal manure, crop residues, or food scraps. These technologies can reduce greenhouse gas emissions, divert waste from landfills, and create valuable products such as fertilizer and electricity.

ACTION ITEMS

3.7.1

Create Partnerships with Local Organizations that are Interested in Installing Biodigesters in Neighborhoods.

Biodigesters are a relatively new technology that turns food waste that would otherwise end up in the landfill into energy and liquid fertilizer. Installing biodigesters in community centers provides residents with a means to divert food waste from landfills, creates educational opportunities for children, and enhances a community's overall sustainability efforts.



Department Champion: Office of Strategy and Sustainability; Cooperative Extension

Potential Partners: USDA, FDACS Office of Energy, FPAC, USF, Rosebud Continuum

Figure 63. Agri-solar Utilized by Tampa Electric in Pasco County (Source: Tampa Bay Times)

3.7.2

Conduct a Feasibility Study for the Installation of Solar Panels on Public Property

Solar panels typically require a significant amount of land to work effectively to produce large quantities of electricity. Pasco County should utilize underused land such as parking lots to expand the use of solar. Panels can provide shade and protection for persons and their vehicle while also working to power office buildings and streetlights.

Timeframe





Relative Cost





Department Champion: Office of Strategy and Sustainability; Facilities

Potential Partners: USF, SSDN, FDACS Office of Energy

Case Study

In 2016, the City of Lake Worth maximized the redevelopment potential of a closed landfill by siting a two megawatt ground-mounted solar array. The electricity generated by the solar plant supplies two percent of the city's energy load. Additional benefits to the City include reduced emissions, and enhancement of the visual environment of the former landfill. Due to the public-private partnership that was used to fund the project, there was no cost to the City to complete the project.

HEALTHY AND CONNECTED COMMUNITIES

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HEALTHY AND CONNECTED COMMUNITIES

Pasco County is home to many diverse and dynamic communities, where people of different backgrounds coexist and contribute to a thriving economy. These communities bring growth to the area and create social capital that strengthens the overall community. The County is focused on supporting the development of walkable communities that are supported by multimodal transportation, heat-resilient neighborhoods, and access to locally-grown foods.

Goals

4.1 Expand Multimodal Transportation Networks for Better Access, Connectivity and Increased Safety

- 4.2 Enhance Policies for Green Spaces to Provide Recreation and Reduce Heat Effects
- 4.3 Encourage Infill for New Development and Redevelopment
- 4.4 Promote Equitable Support for Food Sovereignty
- 4.5 Develop and Maintain Programs to Address Extreme Heat Vulnerability in Communities

Goal 4.1 Expand Multimodal Transportation Networks for Better Access, Connectivity, and Increased Safety

gure 64. Traffic Calming Measure (I.e., Roundat out) in Pasco County (Source:

Public transportation can have multiple benefits for a community by connecting neighborhoods, improving the local economy, reducing greenhouse gas emissions, traffic congestion, and personal fuel costs. Expanding and improving Pasco County's public transportation network would provide more coverage and options for residents to use the transportation modality that suits their needs and abilities.

The needs of disadvantaged residents should be prioritized. The County should coordinate with neighboring jurisdictions and regional agencies to ensure connectivity and integration of the public transportation systems into larger regional systems for potential funding and policy decisions.

ACTION ITEMS

4.1.1

Encourage Collaboration with Pasco Municipalities to Invest in Transit-Oriented Development.

Transit-oriented development maximizes the amount of residential, business and public spaces within walking distance of public transportation. The County should encourage municipalities to support transit-oriented development to reduce traffic congestion and create economic opportunities.

Timeframe

Relative Cost

Implementation Pathway







Department Champion: Transportation Engineering; Planning, Development and Economic Growth; Metropolitan Planning Organization

Potential Partners: Pasco Municipalities

4.1.2 Identify New Trail Development as Part of a Trail-Oriented Transit Design.

Identifying new trail development as part of a trail-oriented transit design involves integrating trails into a broader transportation and land use strategy to enhance connectivity, accessibility and recreational opportunities.



Department Champion: Planning, Development and Economic Growth; Parks, Recreation and Natural Resources; Metropolitan Planning Organization; Transportation Engineering

Potential Partners: FDEP, FDOT

4.1.3 Identify New Regional Transit Routes and Locations for Transfer Hubs.

Regional transit routes can help to alleviate roadway pressure and traffic, improve access to underserved communities, reduce emissions, and boost local economy through residential development and increasing housing value.



Department Champion: GoPasco

Potential Partners: FDOT, Sun Coast Transportation Planning Alliance

4.1.4

Mandate the Integration of Complete Streets and Traffic Calming Measures in all New Development Projects.

Complete streets is an approach to planning, designing, and operating roadways and right of ways with all user types in mind including drivers, bicyclists, and pedestrians. Calming measures are physical measures designed to reduce vehicle speeds and improve overall road safety. These in combination create safer streets.

Timeframe

Relative Cost

Implementation Pathway



Department Champion: Planning, Development and Economic Growth; Transportation Engineering

Potential Partners: FDOT, U.S. DOT

Case Study

The Central Avenue Bus Rapid Transit (BRT), known as the SunRunner, opened in 2022 to connect downtown St. Petersburg



to South Pasadena and St. Pete Beach. As Tampa Bay's first BRT project, the SunRunner offers high-frequency, limited-stop service with semi-exclusive travel lanes, making it a fast and convenient option. Led by the Pinellas Suncoast Transit Authority (PSTA) and supported by the Florida Department of Transportation, City of St. Petersburg, and other stakeholders, this \$44 million project spans 10.3 miles along the Central Avenue corridor. This initiative enhances transit accessibility and alleviates congestion in a corridor previously served by five local bus routes with limited direct connectivity.

The SunRunner has significantly enhanced transit accessibility and economic development in the region. Since its launch, ridership has steadily increased, reaching a record 115,218 trips in March 2023. The route features 30 stops, with plans for a new station near Beach Drive, a popular area for shopping and dining. This expansion, along with the addition of two new buses, aims to improve service reliability and ease congestion during peak times. The SunRunner has also driven economic growth, with local businesses benefiting from increased foot traffic and the construction of new developments along the route. The project's success has been attributed to its efficient service, modern amenities, and the support of local leaders advocating for transit-oriented development.

Figure 65. SunRunner in St. Petersburg, Florida (Source: Pinellas Suncoast Transit Authority).

Goal 4.2 Enhance Policies for Green Spaces to Provide Recreation and Reduce Heat Effects

Preserving green spaces such as parks, trails, gardens, and forests, can increase recreation options, improve health, and provide environmental benefits for residents by reducing heat exposure and supporting stormwater management. A tree canopy assessment should be conducted to evaluate the equitable distribution of green spaces across the County, highlighting areas with high concentrations of socially vulnerable populations and low green space coverage. These areas should be prioritized for investment to reduce the *urban heat island effect* and improve air quality. Pasco County should also enhance design standards and guidelines for new development, such as increasing minimum open space requirement ratios and tree canopy cover. These policies should be incorporated into long-range planning documents.

ACTION ITEMS



Conduct a Tree Canopy Assessment and Develop Strategies for Filling in Canopy Gaps.

Tree canopies are important for stormwater management, reducing urban heat island effect, and supporting ecosystems. An assessment would highlight which neighborhoods need more investment and which tree types thrive in certain environments.

Timeframe



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Department Champion: Planning, Development and Economic Growth; Building Construction Services

Potential Partners: FDACS

4.2.2 Identify Infill Parcels for Pocket Parks.

Infill development utilizes vacant or underutilized parcels within existing urban areas that are largely built-up. This strategy is a more efficient use of land as these areas are already serviced by roads and utilities. Pocket parks are one solution for utilizing these types of vacant lands, providing use for small, hard to develop lots that have social and environmental benefits for the community.





Implementation Pathway



Department Champion: Planning, Development and Economic Growth

Potential Partners: Florida Communities Trust

Provide Potential Incentives for Preserving Green Space/Open Space in New 4.2.3 **Developments and Redevelopments.**

Pasco County should prioritize preserving green spaces by providing incentives or benefits for developers that set aside more than the minimum requirements of green space for new development. Open space provides many social, environmental, and economic benefits for communities.











Department Champion: Planning, Development and Economic Growth; Parks, Recreation and Natural Resources

Potential Partners: USDA, FDACS, FDEP

4.2.4

Integrate Nature-based Solutions into Updates for Guiding Planning **Documents, Including Stormwater and Park Master Plans.**

Nature-based solutions use native vegetation to manage stormwater runoff, improve water and air quality, and manage erosion. Outlining goals to implement nature-based solutions across the County demonstrates the County's dedication to sustainability.

Timeframe

Relative Cost

Implementation Pathway



Department Champion: Public Works; Parks, Recreation and Natural Resources

Potential Partners: TBRPC

Case Study

Pinellas County, in collaboration with PlanIt Geo, conducted an Urban Tree Canopy Assessment by mapping the urban tree



canopy (UTC), possible planting area (PPA) and tree canopy changes from 2010 to 2021. High resolution imagery was used to create land cover datasets. The study revealed that there was an eight percent increase in the County's urban tree canopy during the 11-year study period. UTC was also conducted on the municipality and census block group levels, which showed differences between unincorporated and incorporated areas of the County, and different socioeconomic groups. Ecosystem services provided by the County's urban tree canopy, such as air and water quality improvements and stormwater absorption, were valued at over \$512 million. Finally, the assessment identified areas where planting should be prioritized, based on environmental, socio-demographic and public health data.

Figure 67. Tree Planting Prioritization Map by Census Block in Pinellas County (Source: Pinellas County).



Goal 4.3 Encourage Infill for New Development and Redevelopment

As Pasco County grows there is an opportunity for infill development to meet requirements for density and connectivity. Infill and density requirements, mixed-use zoning, and transit-oriented development encourage compact and efficient land use to support growth while minimizing the disturbance of undeveloped land and the unnecessary expansion of County infrastructure and services. The County should provide incentives and assistance for developers to locate and build in areas with existing infrastructure and services that have the potential to support higher densities and diversity of uses.

ACTION ITEMS

4.3.1 Map Areas for Potential Infill Development Across the County.

Infill development is an efficient strategy for incorporating new housing and commercial developments into existing urban areas. Infill lots are already serviced by road networks, transit, and utilities making it a cost-effective development strategy.



Department Champion: Planning, Development and Economic Growth

Potential Partners: West Pasco Board of Realtors

4.3.2 Potentially Incentivize Developments to Exceed Minimum Requirements for Density and Connectivity.

Mapping existing transit hubs and identifying areas where new development can be concentrated at or near those hubs should be utilized to potentially maximize the benefits of public transit and walkability. Concentrating density and connectivity in these areas should be incentivized to encourage developers to develop in areas closer to transit hubs.

Timeframe

Relative Cost







Department Champion: Planning, Development and Economic Growth

Potential Partners: N/A

4.3.3

Incentivize the Cleanup and Redevelopment of Brownfields.

Brownfields are abandoned parcels that potentially contain various types of pollutants. The assumed or evident pollution makes the site difficult to redevelop and often contributes to blight in communities. Pasco County should continue to work with U.S. EPA and FDEP to identify, prioritize, fund, and remediate brownfields across the County.

Timeframe

Relative Cost



Implementation Pathway



Department Champion: Planning, Development and Economic Growth

Potential Partners: U.S. EPA, FDEP



Case Study

Sarasota County implemented several zoning regulations to promote higher-density infill development and attainable housing options. The

Housing Authority Overlay District expanded the district and doubled the allowable residential density from 25 to 50 dwelling units per acre while increasing the maximum building height from 35 to 45 feet. This change aims to support efficient land use and address housing shortages. The Attainable Housing Density Bonus now allows developers to quadruple base density in specific downtown zones if a portion of the additional units are designated as attainable housing for at least 30 years. Additionally, the Missing Middle Overlay District increases allowable residential density up to 35 units per acre for projects providing attainable housing, encouraging the development of diverse housing types like duplexes and triplexes.

Figure 70. Lofts on Lemon Development Sarasota County, Florida project (Source: City of Sarasota).

Goal 4.4 Promote Equitable Support for Food Sovereignty

FPAC is the leading County body for the development of food policy in Pasco County, and is comprised of representatives from Pasco County, Florida Department of Health, local farmers, university partners, non-profits and other community members. Pasco County and its partners are working to create *food sovereignty* for all residents, which entails enabling persons to access healthy and culturally appropriate food.

As the County works to understand where food insecurity is most prevalent in the community, there are also opportunities to support community-based food distribution. Bolstering support for foodbanks and community gardens creates community cohesion and food access where commercial grocers are not present. The County should identify small parcels that are undevelopable or currently vacant and explore opportunities to create community garden centers.

ACTION ITEMS

4.4.1

Partner with Pasco County School Board to Promote Community Garden Development in Open Spaces.

Fostering food security throughout the community should begin in schools by coordinating with the Pasco County School Board to develop programs that teach about food production and security. This can be in the form of community gardens which can serve as an educational opportunity about the importance of pollinators and native plants in urban areas.

Timeframe

Relative Cost

Implementation Pathway



Department Champion: Cooperative Extension

Potential Partners: Pasco County School Board, FDOH – Pasco County, FPAC, UF/IFAS

4.4.2 Identify Infill Parcels as Opportunities to Act as Community Garden Spaces.

Community gardens have tremendous value as learning tools and providing food resources in areas that lack reliable access to nutrient dense foods. Infill lots can be prime locations to establish community gardens in urbanized areas.

Timeframe



Implementation Pathway



Department Champion: Cooperative Extension; Community Services

Potential Partners: UF/IFAS, FPAC, FDACS, USDA



Review Urban Agriculture Policies in other Jurisdictions to Incorporate Best Practices into Existing County Policy.

The County should perform a review of existing regulations in local government jurisdictions. This can help the County discover implementable policy initiatives to support financing of land and equipment, community gardens, and the local food distribution network.



Relative Cost





Department Champion: Planning, Development and Economic Growth

Potential Partners: USDA, FPAC, TBRPC



Conduct a Food Assessment.

Ensuring equitable access to a diverse and healthy food system is crucial for promoting food sovereignty within a community. To gain a clearer understanding of the status of Pasco County's food sovereignty a comprehensive food assessment should be conducted.

Timeframe





Department Champion: Planning, Development and Economic Growth

Potential Partners: USDA, FDACS, USF, FDOH – Pasco County, FPAC

Case Study

Sarasota County, Florida has partnered with University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) Extension to



facilitate the creation and management of community gardens across the County. The Community Gardens Program supports community members to create new gardens in their community or to join existing programs. The program offers many forms of assistance including guidance on how to identify new sites for gardens or enhance gardening knowledge through free or low-cost classes. These community gardens offer numerous benefits, including reducing food costs, improving health and nutrition, and providing recreational opportunities. The program also supports gardeners through resources such as a "Community and Demonstration Gardens Story Map," which highlights garden locations and their contributions to sustainability and local food production. The program also provides educational materials, video tutorials, and grant opportunities to encourage community involvement and support sustainable gardening practices.



Figure 72. Heritage Park Community Garden in Land O' Lakes, FL (Source: Spectrum News).

Goal 4.5 Develop and Maintain Programs to Address Extreme Heat Vulnerability in Communities

Pasco County's vulnerability assessment identified areas in the County with high exposure and vulnerability to extreme heat based on land cover, tree canopy, and median household income. To effectively provide resources for protection against extreme heat it is essential to use this data to work with communities and organizations to understand their specific needs, concerns, and capacities.

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Raising awareness about the dangers of extreme heat and ensuring access to shaded or indoor spaces can help prevent heat-related illnesses. Additional studies on the disproportionate impacts of extreme heat can help identify further resources needed by these communities and organizations.

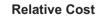
ACTION ITEMS

4.5.1

Identify and Upgrade Spaces to Act as Resilience Hubs in Identified Socially Vulnerable Areas.

Community spaces can be vital lifelines for residents, not only providing programming and a place for socializing and education, but also as a resource hub for information and supplies during severe weather events such as heat waves or hurricanes. Pasco County can also engage with municipalities through the LMS process to identify existing locations to retrofit as resilience hubs.

Timeframe









Department Champion: Office of Strategy and Sustainability; Emergency Management

Potential Partners: FEMA, FDEM, FDOH – Pasco County, U.S. EPA, LMS Working Group, Pasco Municipalities

4.5.2 Mandate Natural Shade Requirements for New Residential, Commercial, and Public Spaces.

Planning for shade requirements is an important component of new development because it can reduce the cost of retroactively establishing shade elements after land has been cleared for construction. Establishing shade in built spaces reduces the effects of urban heat island and prolongs the life of building materials.







Department Champion: Planning, Development and Economic Growth

Potential Partners: FDEP, USDA



Require the Development of Cool Corridors for Motor Vehicle and Recreational Networks in Areas Severely Impacted by Urban Heat Island.

Cool corridors are environmental designs in urban planning that support pathways or roads that mitigate heat and enhance the comfort of being outside in built environments during hot summer months. Cool corridors can be developed using tree canopies or incorporating shade infrastructure along sidewalks, recreational trails and roadways.



Relative Cost



Implementation

Pathway

Department Champion: Planning, Development and Economic Growth; Metropolitan Planning Organization; Transportation Engineering

Potential Partners: FDEP, USDA, TBRPC



Incorporate Educational Programming and Materials on the Health Effects of Extreme Heat Exposure into Community Events.

Although Florida routinely experiences high temperatures the concepts of exposure and impacts of extreme heat are not often part of public discourse. This should be better communicated to the public. Pasco County should provide educational material for residents to understand the enhanced risks and how to reduce them.

Timeframe

Relative Cost

Implementation Pathway



Department Champion: Emergency Management; Office of Strategy and Sustainability

Potential Partners: FDOH – Pasco County, USF, UF/IFAS

4.5.5

Conduct Needs Assessment to Address Extreme Heat in Identified Focus Areas with High Social Vulnerability.

Conducting a needs assessment will assist the County in addressing the gaps in a community's adaptive capacity to extreme heat. Identifying these factors can assist in tailored implementation projects to suit a community's needs.



Relative Cost



Implementation Pathway



Department Champion: Planning, Development and Economic Growth; Emergency Management

Potential Partners: FDOH – Pasco County, TBRPC

Case Study

In July 2024, the City of Tampa released its first ever Heat Resilience Playbook, in collaboration with researchers at the USF and Resilient Cities Catalyst. The playbook includes policies, programs, and projects that the city intends to implement to address the impacts of extreme heat. It focuses primarily on East Tampa, an area with high heat vulnerability, and outlines actionable steps to increase access to heat resilience solutions. This effort improves the City's understanding of the risks vulnerable populations face, and serves as a public engagement and education tool. Community organizations can use this information to better cater their services to residents and those living in vulnerable areas can better understand the risks they face and strategies they can take at the personal level to address them. To launch the playbook, the City of Tampa held a community event that featured a "cool corridor simulation" to simulate the potential impact of tree-shaded sidewalks and distributed sunscreen and cooling towels.



AMERILS

TARGETED ECONOMIC AND CULTURAL DEVELOPMENT





TARGETED ECONOMIC AND CULTURAL DEVELOPMENT

In the face of shocks and stresses strong economic and cultural activity creates economic prosperity and growth, supports a diversified workforce, and increases resilience. These activities generate income, expand employment opportunities, and enrich cultural identity. Targeted economic and cultural development through diversifying the economy, supporting entrepreneurship, and enhancing the local competitive market are key. This can include supporting local arts and entertainment venues, performers, and events that showcase local culture and support cultural assets and community members.

Goals

- 5.1 Support Local Agriculture and Farmers Markets
- 5.2 Support Job Training Programs for Emerging Industries
- 5.3 Foster Local Entrepreneurship and Economic Growth
- 5.4 Incentivize Revitalization of Commercial Corridors
- 5.5 Support Arts and Cultural Events for Community Engagement
- 5.6 Increase Affordable Access to Venues for Public Event Use

Goal 5.1 Support Local Agriculture and Farmers Markets

Pasco County values its agricultural heritage and recognizes the importance of supporting local farmers and producers to strengthen the local economy. Promoting and expanding farmers markets, community-supported agriculture, and urban farming initiatives by providing incentives and assistance to local farmers and food businesses will bring economic stability to farmers and enhance the overall local economy. The County should also promote the consumption of locally grown food among its residents and institutions through festivals and marketing campaigns.

ACTION ITEMS

5.1.1

Support Public/Private Partnerships Between Local Food Suppliers, Grocery Stores and Restaurants.

Pasco County should support local agriculture/urban agriculture by developing pathways to connect Pasco growers to local markets, grocery stores, and restaurants, and encouraging community events for vendors to promote and share their goods collectively.



Department Champion: Cooperative Extension

75. Access to Fresh Tabling at a Community E

Potential Partners: FDACS, USDA, FPAC

5.1.2

Incorporate Food Systems Educational Programming and Materials into **Community Events.**

Community events are great locations to provide educational information to families about food production and the benefits of supporting local agriculture. Pasco County should support raising awareness about food sustainability and reducing negative environmental impacts.

Timeframe









Department Champion: Planning, Development and Economic Growth; Office of Strategy and Sustainability; Cooperative Extension

Potential Partners: FPAC, USDA, USF, FDOH -Pasco County

5.1.3

Assess Aquaculture Options in Florida and Explore Programs for Farm to Market Aquaculture.

Aquaculture is an industry that creates local jobs, generates revenue, and enhances food security. Many programs exist in Florida that support research and offer resources for aquaculture businesses that can be implemented in Pasco County.





Case Study

In an effort to rejuvenate its downtown area and support local agriculture, North Wilkesboro, North Carolina, a town of about 4,000 residents, undertook a significant project to relocate and expand the Wilkes County Farmers Market. Renamed the Yadkin Valley Marketplace, this new permanent structure became a centerpiece for downtown revitalization. The town raised \$633,000 from nearly a dozen funding sources, allowing for the construction of the marketplace and various downtown improvements. After the opening of the marketplace in 2015, it not only hosted the farmers market, but also featured a stage for concerts and events like the Brushy Mountain Apple Festival, drawing crowds and boosting local commerce. The influx of visitors attracted new businesses, including a farm-to-table restaurant, and helped to create a vibrant downtown hub. Infrastructure upgrades, such as pedestrian alley enhancements, safer crosswalks, and streetscape improvements, further elevated the area's appeal. This project demonstrated how strategic planning, community involvement, and diverse funding sources can transform a small town's economic landscape by promoting local foods and supporting farmers' markets.



Goal 5.2 Support Job Training Programs for Emerging Industries

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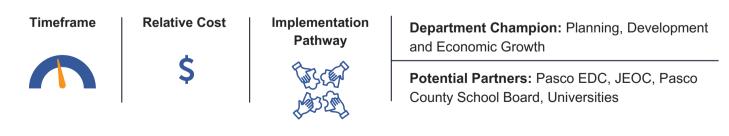
Pasco County aims to foster a skilled and diverse workforce that can meet the demands of the changing future economy. Job training programs that prepare workers for industries such as biotechnology, defense and security, advanced manufacturing, logistics, and sustainable resources can help provide stability for Pasco County residents, strengthening the overall local economy. It is critical to assess equitable access to job training programs and provide additional support to vulnerable citizens where needed.

The County should continue to collaborate with educational institutions, employers, and community organizations to identify and address the needs of the local labor market, promote the AmSkills Center, and other opportunities for vocational training.

ACTION ITEMS

5.2.1 Improve Access to Adult Vocational Training in Emerging Industries.

By leveraging K-12 spaces and tertiary educational organizations for adult vocational training Pasco County can enhance workforce development efforts, support local economic growth, and make effective use of existing educational resources.



5.2.2

Establish a Coalition of Government and Community Partners Focused on Job and Skills Development.

Building a coalition of government and community partners for local job development can drive the creation of programs such as job trainings, internships, and career fairs. The coalition should represent diverse views and better meet the needs of residents.

Timeframe





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Department Champion: Planning, Development and Economic Growth

Potential Partners: Pasco EDC, JEOC, Pasco County School Board, AmSkills, Pasco-Hernando Work Force

5.2.3

Support Local Organizations to Develop Bilingual Night School Courses for Adults and Increase Vocational Training for High School Students.

The County can assist in fostering the development of a talented workforce in underserved communities by enhancing the skills and qualifications of non-English speaking residents. To support this effort, retiring workforce experts can be recruited as instructors. The County should assemble stakeholders and potentially develop a council to support the efforts.



Department Champion: Planning, Development and Economic Growth

Potential Partners: Pasco EDC, JEOC, FloridaCommerce, Pasco County School Board, AmSkills, Pasco-Hernando Work Force, Universities

5.2.4

Partner with Communities to Apply for Grants for Workforce Development and Training.

Pasco County should collaborate with community stakeholders to apply for grants for workforce development. This can enhance the chances of success for receiving funds to diversify expertise, creating a local talent pool, and building an informed workforce ready to start in emerging industries.

Timeframe

Relative Cost

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Implementation Pathway



Department Champion: Planning, Development and Economic Growth

Potential Partners: Pasco EDC, FloridaCommerce

Case Study

Miami Tech Works, an initiative spearheaded by Miami Dade College (MDC) in partnership with various local organizations, aims



to support job training programs for emerging industries, particularly in the technology sector. Funded by a \$10 million grant from the U.S. Department of Commerce's Economic Development Administration as part of the Good Jobs Challenge, this program is designed to boost the local tech ecosystem and provide economic mobility for underserved communities over the next three years. By offering comprehensive training, wraparound services, and job placement assistance, Miami Tech Works aims to prepare thousands of residents for highquality tech jobs. The initiative involves robust collaboration between academic institutions, private sector companies, and government entities. Key partners include Miami-Dade County, City of Miami, CareerSource South Florida, Florida International University, Florida Memorial University, OIC of South Florida, and Refresh Miami, along with over 50 local employers committed to hiring for tech positions. This collective effort ensures that participants receive industry-relevant skills and pathways to employment, thereby fostering a resilient, tech-savvy workforce that can drive Miami's economic growth.

Figure 79. Miami Tech Works Gathering (Source: Refresh Miami).



Goal 5.3 Foster Local Entrepreneurship and Economic Growth

Local entrepreneurship and innovation enhances community resilience and provides financial stability to the local economy. The County should promote and facilitate networking and mentoring opportunities for entrepreneurs and innovators to create a conducive environment for business development and collaboration.

ACTION ITEMS

Create Inland Ports in East Pasco County.

Inland ports are areas that merge traffic modes such as rail, air, and truck routes that can boost local economies by attracting businesses and stimulating regional growth. Ports are efficient forms of transporting goods and developing a port in East Pasco County can improve supply chain logistics and create local jobs.

Timeframe

5.3.1

Relative Cost

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Implementation Pathway



Department Champion: Planning, Development and Economic Growth

Figure 81. PascoEDC 35th Annual Awards (Source: Tampa Bay Busin

Potential Partners: U.S. EDA, JEOC, FloridaCommerce

5.3.2

Promote Pasco County Job Creation Incentive (JCI) Grant by Holding Workshops and Community-Based Events.

The JCI is a County-supported program that provides incentives for new businesses that create local jobs. This Program funds grants for businesses that create quality, high wage jobs and can support retrofits for buildings, new facilities, workforce training, and purchase supplies.

Timeframe



Implementation Pathway



Department Champion: Planning, Development and Economic Growth

Potential Partners: Pasco EDC, FloridaCommerce, AmSkills, PHSC



Case Study

Tampa Bay Wave is a nonprofit in the Tampa Bay region dedicated to supporting local entrepreneurship through tailored accelerator programs and resources. These include the Build program for earlystage tech startups, the TechDiversity Accelerator, and specialized tracks for fintech and cybersecurity. Entrepreneurs gain access to a strong mentor network, networking events, and investor introductions, which provide essential guidance, industry connections, and funding opportunities. With over ten years of experience, Tampa Bay Wave has helped participating startups raise a cumulative \$860 million. The organization also offers coworking space, a resource library, and the Grow program for scale-ups, ensuring startups receive support at every stage. Additionally, Tampa Bay Wave fosters a favorable environment for entrepreneurship in the region through community engagement and advocacy. One notable startup, Kind Designs, participated in Tampa Bay Wave's programming. The company uses 3D printing to create "Living Seawalls" that mimic coral reefs and mangroves, which significantly reduces the cost of building seawalls that can help prevent erosion and flooding. This innovative approach helped Kind Designs secure \$5 million in seed funding.

Figure 82. 3-D Printed Seawall Produced by Kind Designs (Source: 3Dnatives).

Goal 5.4 Incentivize Revitalization of Commercial Corridors

Pasco County strives to enhance the focus on its commercial corridors and revitalize them to be more attractive, vibrant, and functional spaces for business and community activities. The County should incentivize the redevelopment of underutilized or vacant properties within these commercial corridors by creating tax incentives and promoting State and Federal funding programs. These would be in addition to Penny-4-Pasco funding available for redevelopment. The County should also promote and target certain areas for mixed-use and walkable developments by working with developers to enhance the infrastructure to provide amenities along the commercial corridors with appropriate lighting, landscaping, wayfinding, and public art.

ACTION ITEMS

5.4.1

Explore Partnerships with Emerging Industries to Attract New Development in Commercial Corridors.

Strengthening partnerships with emerging industries can drive economic growth, enhance infrastructure, and diversify business environments in Pasco County's commercial corridors. Vibrant commercial corridors attract new business investment and can spur tourism.



Department Champion: Planning, Development and Economic Growth

Potential Partners: Pasco EDC, JEOC

5.4.2

Promote Vertical Mixed-Use Developments with Floodproofed Ground Floors.

Vertical mixed-used developments are an efficient use of land, introduces middle housing into available residential spaces, enhances economic revenue, and improves on returns for public investment in infrastructure. These developments can be floodproofed on the commercial ground floor, which, among other benefits, protects the integrity of the building and decreases recovery time.

Timeframe



Relative Cost



Implementation

Department Champion: Emergency Management; Building Construction Services; Planning, Development and Economic Growth

Potential Partners: Pasco EDC



Case Study

The Downtown Investment Authority (DIA) in Jacksonville plays a pivotal role in supporting commercial development and revitalization efforts within the city's downtown area. Established to stimulate economic growth, improve infrastructure, and enhance the overall appeal of downtown Jacksonville, the DIA implements a variety of programs and initiatives aimed at fostering a vibrant urban core. For example, the DIA offers a number of commercial incentive programs aimed at increasing commercial development and job creation by attracting quality development projects. Additionally, the DIA utilizes tax increment financing within Community Redevelopment Areas to fund infrastructure projects and property acquisitions, fostering further economic growth. DIA's programming has attracted projects such as the development of the FIS headquarters in downtown Jacksonville, which is a 12-story building that will house up to 1,800 local employees. Development projects such as these help to drive traffic and business to downtown areas while also supporting job growth and economic development.

Figure 84. FIS Headquarters in Downtown Jacksonville, Florida (Source: Jacksonville Daily Record).

Goal 5.5 Support Arts and Cultural Events for Community Engagement

Figure 85. Parks, Recreation and Natural

Art and culture foster a community's sense of pride and identity, and the availability of these elements is a crucial aspect of placemaking. The County should support the development of arts, cultural organizations, venues, and programs to increase exposure and opportunities for local artists. The County should also promote the participation and engagement of residents and visitors in arts and cultural activities.

ACTION ITEMS

5.5.1

Enhance Partnerships with Private and Nonprofit Groups to Organize and Promote Community-Wide Events that Focus on Local Culture.

Cultural events celebrate the diverse backgrounds and traditions of the County's residents, helping to build a shared sense of identity and pride. Pasco County can build on existing partnerships to identify opportunities for supporting education and awareness of important historical and cultural events.



Targeted Economic & Cultural Development

Source: Pasco County).

5.5.2

Partner with Local Art Community Groups, Educational Institutions and Tourism Partners to Incorporate Public Art into Developments and Public Spaces.

Art can enhance public spaces with aesthetic and functional qualities such as providing wayfinding to points of interest, revitalizing the urban scene, building a sense of identity, and attracting tourism. Additionally, art can serve to inform the public of important concepts such as climate, stormwater, biodiversity, and other concepts depending on the community's goals.



Relative Cost







Department Champion: Destination Management Organization; Libraries

Potential Partners: USF, PHSC, Pasco Cultural Affairs Advisory Council, West Pasco Art Guild



Case Study

Creative Pinellas, Pinellas County's nonprofit local arts agency, is dedicated to fostering a vibrant and inclusive arts community through

funding, support, and connection. By providing various grants and funding opportunities, Creative Pinellas supports artists across multiple disciplines, including film, music, visual arts, and performance. The organization emphasizes inclusivity, collaboration, and accessibility, ensuring that art is available to all community members. The organization supports arts and cultural events for community engagement by supporting a wide range of event programming, which includes annual exhibitions of artwork, the Third Saturday's events at local galleries, artist talks, and other events are open to the public. Creative Pinellas' work is made possible through partnerships with the City of St. Petersburg, Pinellas County, and the State of Florida Division of Arts and Culture.

Figure 87. A Mural at a Warehouse in Lealman, Pinellas County, FL (Source: Creative Pinellas).

Goal 5.6 Increase Affordable Access to Venues for Public Event Use

There is a need for affordable and accessible venues for public event use, such as meetings, workshops, festivals, and performances across the County. Large venues are mainly concentrated in the southern area of the County. Pasco County should conduct an inventory assessment of the availability and affordability of public venues, such as parks, libraries, community centers, and schools that considers geographic distribution, price, and complexity of the reservation and permitting process. The County should also explore the possibility of creating new venues or repurposing existing ones for public event use.

ACTION ITEMS

5.6.1

Potentially Incentivize Developments to Add Publicly Accessible Spaces for Events.

Pasco County should encourage developers to provide public accessible spaces in private developments. Incentives can potentially include tax deductions and streamlined permitting.

Timeframe

Relative Cost









Department Champion: Planning, Development and Economic Growth

Potential Partners: Pasco Cultural Affairs Advisory Council



5.6.2

Conduct Inventory of Existing Event Spaces and Map Potential New Spaces for Public Active Spaces.

By working together with residents and community groups, opportunities can be identified to increase the number of potential active spaces that could be used by the public throughout the County.

Timeframe







Implementation Pathway



Department Champion: Parks, Recreation and Natural Resources; Destination Management Organization; Libraries

Potential Partners: Pasco Cultural Affairs Advisory Council

5.6.3

Develop a County Co-sponsorship Program for Smaller Pasco County Based Nonprofit Community Organizations.

By providing financial assistance to small non-profit community organizations the County can help support the success of cultural activities available to residents.

Timeframe



Relative Cost

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Implementation Pathway



Department Champion: Parks, Recreation and Natural Resources

Potential Partners: Pasco Cultural Affairs Advisory Council

Case Study

The City of Clearwater launched a program to provide grants for city co-sponsorship of community events that have a positive impact on the community and activate the downtown spaces. Applications are reviewed by a committee and can be submitted under either a "Community Event" or a "High Impact Event." The Community Event category seeks to assist small non-profit community organizations with up to \$20,000 in grant funding for community events held in the City of Clearwater that have a minimum attendance of 300 people. The High-Impact Event category is designed for regional, national, or global events with an estimated attendance above 5,000 people, or as designated by the Special Events Committee, requiring a minimum of \$20,000 to cover city service fees.



NEXT STEPS



Building a More Resilient & Sustainable Future...

NEXT STEPS

As the RPP concludes, Pasco County's commitment to fostering a sustainable and resilient community remains at the forefront. One of the key outcomes of this initiative is the integration of the policy recommendations derived from the RSAP into Pasco County's 2050 Comprehensive Plan Update. This strategic alignment will ensure that resilience goals are embedded into the foundational framework to guide future development and resource allocation. Other planning initiatives such as the update to the Post Disaster Redevelopment Plan will help the County to lead the community through long-term recovery and redevelopment after a natural disaster, using policies derived from the RSAP and experiences learned from the passage of Hurricanes Idalia, Helene, and Milton.

In tandem with policy integration, the County recognizes the importance of securing funding for the implementation of various projects and programs identified in this project. Seeking financial support from federal, state, and other sources will be essential in completing these action items. County departments have been identified as champions to actively pursue grants, partnerships, and other funding opportunities to transform this vision into reality. Together, we can create a resilient future for Pasco County - one that is prepared to face challenges while capitalizing on opportunities for growth and sustainability.





GLOSSARY



GLOSSARY

The first occurrence of each term found in the glossary is italicized in the document.

Adaptation Action Areas (AAA): Designation in the coastal management element of a local government's comprehensive plan which identifies one or more areas that experience coastal flooding due to extreme high tides and storm surge, and that are vulnerable to the related impacts of rising sea levels for the purpose of prioritizing funding for infrastructure needs and adaptation planning.

Adaptive Capacity: The ability of a system, community, or society to adjust, respond, and proactively adapt to the impacts of climate change, variability, or extreme weather events.

Climate: Climate is determined by the long-term pattern of oceanic and atmospheric conditions in a given area. Climate is described by statistics, such as means and extremes of temperature, precipitation, and other variables, and by the intensity, frequency, and duration of weather events.

Coastal and Inland Flooding: Coastal flooding occurs when water from the ocean inundates normally dry land, often due to storm surges or sea-level rise. Inland flooding, on the other hand, results from excessive rainfall or the overflow of inland water bodies.

Compound Flooding: The occurrence of two or more flood hazards driven by a single weather event, or the occurrence of two or more independent events that produce flood hazards jointly in space and/or time. **Extreme Heat:** Extreme heat refers to unusually high temperatures that can pose health risks, especially to vulnerable populations, and can lead to heat-related illnesses and stress on infrastructure and ecosystems.

Food Desert: A census tract with substantial low income populations that have low access to affordable, healthy food retail such as supermarkets.

Food Sovereignty: The right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.

Green Infrastructure: Also known as green stormwater infrastructure or low impact development (LID). These are a range of measures that use plant or soil systems or other permeable surfaces to store, infiltrate, or evapotranspirate stormwater.

Hurricanes: Hurricanes are large, powerful storms that form over warm ocean waters and can cause devastating winds, heavy rainfall, and storm surges, leading to widespread destruction. Living Shorelines: A shoreline management practice that provides erosion control benefits; protects, restores, or enhances natural shoreline habitat; provides wave energy dissipation benefits; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural organic materials (e.g. biologs, oyster reefs, etc).

Living Shorelines Plan: A living shorelines plan is a strategic framework that emphasizes the implementation of nature-based solutions for coastal erosion management and shoreline stabilization.

Nature-Based Solutions (NBS): NBS are sustainable and cost-effective approaches that harness the power of nature to address various environmental challenges. These solutions utilize natural processes and biodiversity to provide beneficial outcomes for both human communities and the ecosystem.

Resilience: The ability of communities, businesses, governments, and natural environment to adapt to changing conditions and to prepare for, withstand, and rapidly recover from disturbances to everyday life, such as storms and other hazardous events.

Resilience and Sustainability Action

Plan: A resilience and sustainability action plan outlines a comprehensive strategy for addressing both short-term and long-term resilience and sustainability goals within a community or organization. This type of action plan is synonymous with what is also referred to as an adaptation plan. **Sea Level Rise:** Sea level rise is the increase in the average level of the ocean over time, primarily caused by the melting of polar ice caps and glaciers, and the thermal expansion of water in the world's oceans, leading to coastal erosion, inundation, and heightened flood risks.

Storm Surge: An abnormal rise in sea level accompanying a hurricane or other intense storm, and whose height is estimated by subtracting the normal or astronomic high tide from the observed storm tide.

Sunny Day/Tidal Flooding: High tide flooding, sometimes referred to as nuisance flooding or sunny-day flooding, occurs when tides hit 1.75 to 2 feet above the daily average high tide, flooding low-lying streets and often filling stormwater pipes.

Sustainability: Sustainability pertains to meeting the needs of the present without compromising the ability of future generations to meet their own needs. It involves balancing environmental, social, and economic factors to ensure long-term well-being and ecological balance.

Urban Heat Island Effect: Heat islands are urbanized areas that experience higher temperatures than outlying areas. Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun's radiation more than natural landscapes such as forests and water bodies. Urban areas, where these structures are highly concentrated and greenery is limited, become "islands" of higher temperatures relative to outlying areas. **Vulnerability:** The degree of an exposed asset to be effected by a given hazard and the assets ability to cope.

Vulnerability Assessment: A vulnerability assessment involves the comprehensive evaluation of a community's or region's susceptibility to the impacts of natural hazards. It includes mapping and datasets relative to hazards and the projected impacts on communities and assets.

Weather: Short-term atmospheric conditions at a specific location. Typical weather measurements include wind speed and direction, humidity, atmospheric pressure, cloudiness, and precipitation.

ACTION ITEM MATRIX



Sumi

Protecting Neighborhoods

Action Item	Title	Timeframe	Relative Cost	Department Champion	Pathway
Goal 1.1 S	Safeguard Critical Co	ommunity and	l Emergeno	cy Facilities	
1.1.1	Champion Public-Private Partnerships with Major Hospitals and Medical Facilities to Upgrade and Increase Capacity During Disasters.			Emergency Management	
1.1.2	Encourage Collaboration with Pasco Municipalities to Integrate Climate Hazard Data into Emergency and Comprehensive Plans.			Emergency Management; Planning, Development & Economic Growth; Office of Strategy & Sustainability	123 EN
Goal 1.2	Protect Critical Road	ways and Eva	acuation R	outes	
1.2.1	Develop List of High Flood Risk Roads and Develop Solutions to Mitigate Flooding Issues.		\$\$	Transportation Engineering; Emergency Management; Public Works	
1.2.2	Incorporate Alternative Energy Sources for Street Lighting along Evacuation Routes (i.e., Solar Lighting).		\$\$	Transportation Engineering	
1.2.3	Install Additional Flood Measuring Devices along Flood-Prone Roads.		\$	Public Works	

Goal 1.3 I	Promote Flood Proofi	ng Measures	for Comm	unity Resiliend	;e
1.3.1	Provide Guidance and Potential Incentives for Property Owners to Incorporate Flood Proofing Strategies.		\$\$	Building Construction Services; Emergency Management	
1.3.2	Implement Floodproofing Techniques in County- Owned Buildings and Assets.		\$\$\$\$	Office of Strategy and Sustainability; Emergency Management; Facilities	
1.3.3	Organize Opportunities for County Staff to Learn about New Advancements in Flood Mitigation Techniques to Protect Critical Infrastructure.		\$	Emergency Management; Public Works; Office of Strategy and Sustainability	A CON

Goal 1.4 Support the Use of Appropriate Coastal Infrastructure to Protect Shorelines

1.4.1	Strategically Invest in Fortified Shorelines.	\$\$\$	Office of Strategy and Sustainability; Public Works	
1.4.2	Install Devices That Dissipate Wave Energy Where Appropriate.	\$\$\$	Office of Strategy and Sustainability; Public Works	
1.4.3	Promote Established Industry Best Practices for Shoreline Projects.		Planning, Development and Economic Growth; Public Works	
1.4.4	Conduct a Feasibility Study for the Use of Levees for Flood Protection Along Waterways.	\$\$	Public Works	

Goal 1.5 Enhance the Adaptive Capacity of Socially Vulnerable Communities

1.5.1	Identify and Map Adaptation Action Areas (AAAs) for Coastal Flooding in the Comprehensive Plan.		Planning, Development, and Economic Growth	
1.5.2	Align Future Development and Community Investment by Encouraging New Development to be Located outside of Identified AAAs.		Planning, Development and Economic Growth	
1.5.3	Provide Guidance and Potential Incentives for Property Owners in Socially Vulnerable Communities to Elevate Residences that are in High-risk Flood Areas.	\$\$\$\$	Building Construction Services; Emergency Management; Community Development	

Goal 1.6 Prioritize Strategic Investment in Stormwater Management

1.6.1	Evaluate Stormwater Infrastructure Needs Considering Future Rainfall Changes and Prioritize Upgrades to Systems Nearing End of Designed Life Span.	\$\$	Public Works	
1.6.2	Identify and Map Additional Natural Resource Areas to Preserve as Floodplains Along Major Riparian Areas.	\$\$	Emergency Management; GIS; Office of Strategy and Sustainability	
1.6.3	Require a Green Infrastructure Feasibility Study for New Large-Scale Developments and County Projects that Increase Drainage Needs.	\$\$\$	Emergency Management; Public Works; Office of Strategy and Sustainability	

Goal 1.7 Establish and Promote Nature-based Solutions for Coastal Protection

1.7.1	Require Coastal Infrastructure Designs to Include a Feasibility Assessment for Nature- Based Solutions.			Public Works; Planning, Development and Economic Growth	
1.7.2	Complete a Coastal Mapping Project of the County Shoreline.		\$\$	Office of Strategy and Sustainability; Emergency Management; GIS	
Goal 1.8 I	Promote Combined-U	se Developm	ent for Ad	aptive Use	
1.8.1	Encourage the Use of Water and Salt Resistant Materials in Buildings Constructed in Flood-Prone Areas.			Building Construction Services	
1.8.2	Promote the Installation of Combined-Use Parks.			Public Works; Parks, Recreation and Natural Resources; Emergency Management	
1.8.3	Incentivize Developing Planned Neighborhoods with Higher Standards for Resilience and Sustainability.		\$\$	Planning, Development and Economic Growth; Building Construction Services	

Adaptable and Transparent Government

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Action Item	Title	Timeframe	Relative Cost	Department Champion	Pathway
Goal 2.1 F	Revise Land Develop	ment Code fo	or Enhance	d Resilience	
2.1.1	Increase the Amount of Green Space and Reduce the Allowed Maximum Lot Coverage for New Developments and Redevelopments in Flood- Prone Areas.			Planning, Development and Economic Growth; Building Construction Services	
2.1.2	Encourage Coordination with Pasco Municipalities to Include Resilience Regulatory Language in Comprehensive Plans and Land Development Codes.			Planning, Development and Economic Growth; Office of Strategy and Sustainability	
2.1.3	Require Permeable Surfaces for Non-structural Surfaces in New Developments, Redevelopment and Substantial Improvements to Existing Developments.		\$\$	Planning, Development and Economic Growth; Public Works	
Goal 2.2 B	Expand Public Aware	ness and Ed	ucation on	Climate Vulne	rabilities
2.2.1	Foster Partnerships with Organizations that Specialize in Engagement on Climate Issues.		\$	Office of Strategy and Sustainability; Cooperative Extension	
2.2.2	Increase the Installation of Appropriate Signage in Areas Prone to Flooding and Storm Surge.		\$	Public Works; Emergency Management	

Goal 2.3 Expand Public Awareness and Accessibility of Recycling Options

2.3.1	Provide Potential Incentives for Building Developers to Practice Source Reduction, Salvaging and Reusing Existing Materials When Building.	\$\$\$	Solid Waste; Building Construction Services	
2.3.2	Explore Feasibility of Franchise Zone Collection Systems for Waste Haulers.	\$	Solid Waste	

Goal 2.4 Increase Awareness and Accessibility of Public Transportation

2.4.1	Expand Funding for ADA Accessibility Enhancements at Bus Stops.	\$\$	GoPasco	
2.4.2	Conduct Sidewalk Assessment to Identify Needs Gaps.	\$\$	Transportation Engineering; Metropolitan Planning Organization	

Goal 2.5 Create and Maintain External Reporting of Resilience and Sustainability Activities

2.5.1	Maintain Public-Facing Website, Bulletin Board, and Social Media Accounts with Quarterly Updates of County Efforts in Resilience and Sustainability.		Office of Strategy and Sustainability	
2.5.2	Produce Annual Public Report of Resource Usage and Summary of Major Resilience and Sustainability Projects Accomplished During Reporting Period.		Office of Strategy and Sustainability	
2.5.3	Maintain Annual Initiatives Inventory of Resilience and Sustainability Programs and Projects Status.		Office of Strategy and Sustainability	

Goal 2.6 Strategize Community-Driven Relocation for Risk Avoidance						
2.6.1	Develop Engagement Programs for the Public to Discuss Community-Driven Relocation Concepts and Reasoning.		\$	Emergency Management; Office of Strategy and Sustainability		
2.6.2	Identify Potential Areas for the Relocation of Critical Infrastructure Anticipated to be Impacted by Coastal Flooding.		\$\$	Utilities; Public Works; GIS; Emergency Management; Facilities		
2.6.3	Investigate the viability of reestablishing a voluntary residential buyout and relocation program for high- risk flood areas.		\$	Emergency Management; Community Development		

Responsible Resource Management

Action Item Goal 3.1 I	Title Preserve Existing We	Timeframe tlands and In	Relative Cost crease Co	Department Champion unty Conserva	Pathway tion Lands
3.1.1	Establish Protections for Ecological Planning Units and Agricultural Reserves.			Parks, Recreation and Natural Resources; Planning, Development and Economic Growth; Office of Strategy and Sustainability	
3.1.2	Develop an Educational Campaign on the Rural and Family Lands Protection Program for the Northeast Rural Protection Area and Agricultural Reserve.		\$	Parks, Recreation and Natural Resources; Planning, Development and Economic Growth; Office of Strategy and Sustainability	

3.2.1	Incentivize Commercial Landowners to Invest in the Installation of Solar Panels on Commercial Buildings.	\$\$\$	Building Construction Services	
3.2.2	Increase Awareness of EV Charging Stations in Public Parking Lots at County Buildings.		Facilities	
3.2.3	Develop a Community Energy Efficiency Program Aimed at Targeting Underserved Communities.	\$\$	Cooperative Extension; Community Development	

Goal 3.3 Enhance Recycling and Re-Use Programs for Waste Reduction

3.3.1	Create Partnerships with Local Organizations to Promote and Implement a Glass-to-Sand Recycling Initiative at Neighborhood Community Centers.	\$\$	Cooperative Extension	
3.3.2	Invest in the Expansion of Recycling Infrastructure.	\$\$\$	Solid Waste	
3.3.3	Partner with Organizations to Educate Residents and Businesses on Waste Management and Recycling.	\$	Solid Waste	

Goal 3.4 Develop and Promote Programs and Partnerships to Decrease Waste Generation

3.4.1	Investigate Feasibility for Developing a Residential Curbside Composting Program and Investing in a Composting Facility to Collect Food Waste.	\$	Solid Waste	
3.4.2	Create Partnerships to Provide Educational Activities Regarding Waste Reduction for Residents in the County.	\$	Cooperative Extension	
3.4.3	Investigate the Viability of Commercial Food Waste Diversion Programs within Pasco County.	\$	Cooperative Extension; Solid Waste	

Goal 3.5 Examine and Mitigate the Impact of New Developments on Future Water Availability

3.5.1	Research Reuse Water Strategies to Enhance Supply Resilience and Reduce Potable Water Consumption.		\$	Utilities	
3.5.2	Develop a System to Assess the Water Supply Commitments Created by Other Utilities within Pasco County.		\$	Utilities	
3.5.3	Potentially Incentivize Developments to Prioritize Water Conservation.		\$\$	Utilities; Building Construction Services	
3.5.4	Proactively Engage with HOA and Community Development Districts to Discuss Water Availability in Pasco County.			Utilities	133E
Goal 3.6	Enhance the Quality of	of Pasco Cou	nty Groun	dwater Resour	ces

3.6.1	Develop a Septic-To-Sewer Funding Plan.		Utilities	
3.6.2	Perform a Study on Coastal Saltwater Intrusion.	\$\$	Office of Strategy and Sustainability	

Goal 3.7 Explore Opportunities for Renewable Energy Use

3.7.1	Create Partnerships with Local Organizations that are Interested in Installing Biodigesters in Neighborhoods.	\$	Office of Strategy and Sustainability; Cooperative Extension	
3.7.2	Conduct a Feasibility Study for the Installation of Solar Panels on Public Property	\$	Office of Strategy and Sustainability; Facilities	

Healthy and Connected Communities

	Title Expand Multimodal T vity, and Increased S	Relative Cost Networks	Department Champion for Better Acc	Pathway
4.1.1	Encourage Collaboration with Pasco Municipalities to Invest in Transit-Oriented Development.		Transportation Engineering; Planning, Development and Economic Growth; Metropolitan Planning Organization	
4.1.2	Identify New Trail Development as Part of a Trail-Oriented Transit Design.	\$	Planning, Development and Economic Growth; Parks, Recreation and Natural Resources; Metropolitan Planning Organization; Transportation Engineering	
4.1.3	Identify New Regional Transit Routes and Locations for Transfer Hubs.	\$\$	GoPasco	
4.1.4	Mandate the Integration of Complete Streets and Traffic Calming Measures in all New Development Projects.		Planning, Development and Economic Growth; Transportation Engineering	

Goal 4.2 Enhance Policies for Green Spaces to Provide Recreation and Reduce Heat Effects

4.2.1	Conduct a Tree Canopy Assessment and Develop Strategies for Filling in Canopy Gaps.	\$\$	Planning, Development and Economic Growth; Building Construction Services	
4.2.2	Identify Infill Parcels for Pocket Parks.	\$	Planning, Development and Economic Growth	
4.2.3	Provide Potential Incentives for Preserving Green Space/Open Space in New Developments and Redevelopments.		Planning, Development and Economic Growth; Parks, Recreation and Natural Resources	
4.2.4	Integrate Nature-based Solutions into Updates for Guiding Planning Documents, Including Stormwater and Park Master Plans.		Public Works; Parks, Recreation and Natural Resources	

Goal 4.3 Encourage Infill for New Development and Redevelopment

4.3.1	Map Areas for Potential Infill Development Across the County.	\$	Planning, Development and Economic Growth	
4.3.2	Potentially Incentivize Developments to Exceed Minimum Requirements for Density and Connectivity.	\$\$	Planning, Development and Economic Growth	
4.3.3	Incentivize the Cleanup and Redevelopment of Brownfields.		Planning, Development and Economic Growth	

Goal 4.4	Goal 4.4 Promote Equitable Support for Food Sovereignty						
4.4.1	Partner with Pasco County School Board to Promote Community Garden Development in Open Spaces.		\$	Cooperative Extension			
4.4.2	Identify Infill Parcels as Opportunities to Act as Community Garden Spaces.		\$	Cooperative Extension; Community Services			
4.4.3	Review Urban Agriculture Policies in other Jurisdictions to Incorporate Best Practices into Existing County Policy.		\$	Planning, Development and Economic Growth			
4.4.4	Conduct a Food Assessment.		\$	Planning, Development and Economic Growth			
Goal 4.5	Goal 4.5 Develop and Maintain Programs to Address Extreme Heat						

Vulnerability in Communities

4.5.1	Identify and Upgrade Spaces to Act as Resilience Hubs in Identified Socially Vulnerable Areas.	\$\$\$	Office of Strategy and Sustainability; Emergency Management	
4.5.2	Mandate Natural Shade Requirements for New Residential, Commercial, and Public Spaces.		Planning, Development and Economic Growth	
4.5.3	Require the Development of Cool Corridors for Motor Vehicle and Recreational Networks in Areas Severely Impacted by Urban Heat Island.		Planning, Development and Economic Growth; Metropolitan Planning Organization; Transportation Engineering	

Goal 4.5 Develop and Maintain Programs to Address Extreme Heat Vulnerability in Communities

4.5.4	Incorporate Educational Programming and Materials on the Health Effects of Extreme Heat Exposure into Community Events and Programs.	\$	Emergency Management; Office of Strategy and Sustainability	
4.5.5	Conduct Needs Assessment to Address Extreme Heat in Identified Focus Areas with High Social Vulnerability.	\$\$	Planning, Development and Economic Growth; Emergency Management	

Targeted Economic and Cultural Development

Action Item	Title	Timeframe	Relative Cost	Department Champion	Pathway			
Goal 5.1 Support Local Agriculture and Farmers Markets								
5.1.1	Support Public/Private Partnerships Between Local Food Suppliers, Grocery Stores and Restaurants.		\$	Cooperative Extension				
5.1.2	Incorporate Food Systems Educational Programming and Materials into Community Events and Programs.		\$	Planning, Development and Economic Growth; Office of Strategy and Sustainability; Cooperative Extension				
5.1.3	Assess Aquaculture Options in Florida and Explore Programs for Farm to Market Aquaculture.		\$	Cooperative Extension				
Goal 5.2 Support Job Training Programs for Emerging Industries								
5.2.1	Improve Access to Adult Vocational Training in Emerging Industries.		\$	Planning, Development and Economic Growth	TO CON			
	Establish a Coalition of Government and		•	Planning,	(Jascen)			

\$

Development and

Economic Growth

5.2.2

Community Partners Focused on Job and Skills

Development.

ioal 5.2	Support Job Training	Programs fo	r Emerging	g Industries	
5.2.3	Support Local Organizations to Develop Bilingual Night School Courses for Adults and Increase Vocational Training for High School Students.		\$\$	Planning, Development and Economic Growth	Les Contractions of the second
5.2.4	Partner with Communities to Apply for Grants for Workforce Development and Training.		\$	Planning, Development and Economic Growth	A CONTRACT
ioal 5.3	Foster Local Entrepre	eneurship and	d Economi	c Growth	
5.3.1	Create Inland Ports in East Pasco County.		\$\$\$	Planning, Development and Economic Growth	
5.3.2	Promote Pasco County Job Creation Incentive (JCI) Grant by Holding Workshops and Community- Based Events.		\$	Planning, Development and Economic Growth	
ioal 5.4	Incentivize Revitaliza	tion of Comm	nercial Cor	ridors	
5.4.1	Explore Partnerships with Emerging Industries to Attract New Development in Commercial Corridors.		\$	Planning, Development and Economic Growth	
5.4.2	Promote Vertical Mixed-Use Developments with Floodproofed Ground Floors.			Emergency Management; Building Construction Services; Planning, Development and Economic Growth	

Goal 5.5 Support Arts and Cultural Events for Community Engagement							
5.5.1	Enhance Partnerships with Private and Nonprofit Groups to Organize and Promote Community-Wide Events that Focus on Local Culture.		\$\$	Destination Management Organization; Libraries			
5.5.2	Partner with Local Art Community Groups, Educational Institutions and Tourism Partners to Incorporate Public Art into Developments and Public Spaces.		\$\$	Destination Management Organization; Libraries			
Goal 5.6 Increase Affordable Access to Venues for Public Event Use							
5.6.1	Potentially Incentivize Developments to Add Publicly Accessible Spaces for Events.		\$\$	Planning, Development and Economic Growth			
5.6.2	Conduct Inventory of Existing Event Spaces and Map Potential New Spaces for Public Active Spaces.		\$	Parks, Recreation and Natural Resources; Destination Management Organization; Libraries			
5.6.3	Develop a County Co- sponsorship Program for Smaller Pasco County Based Nonprofit Community Organizations.		\$\$\$	Parks, Recreation and Natural Resources			

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