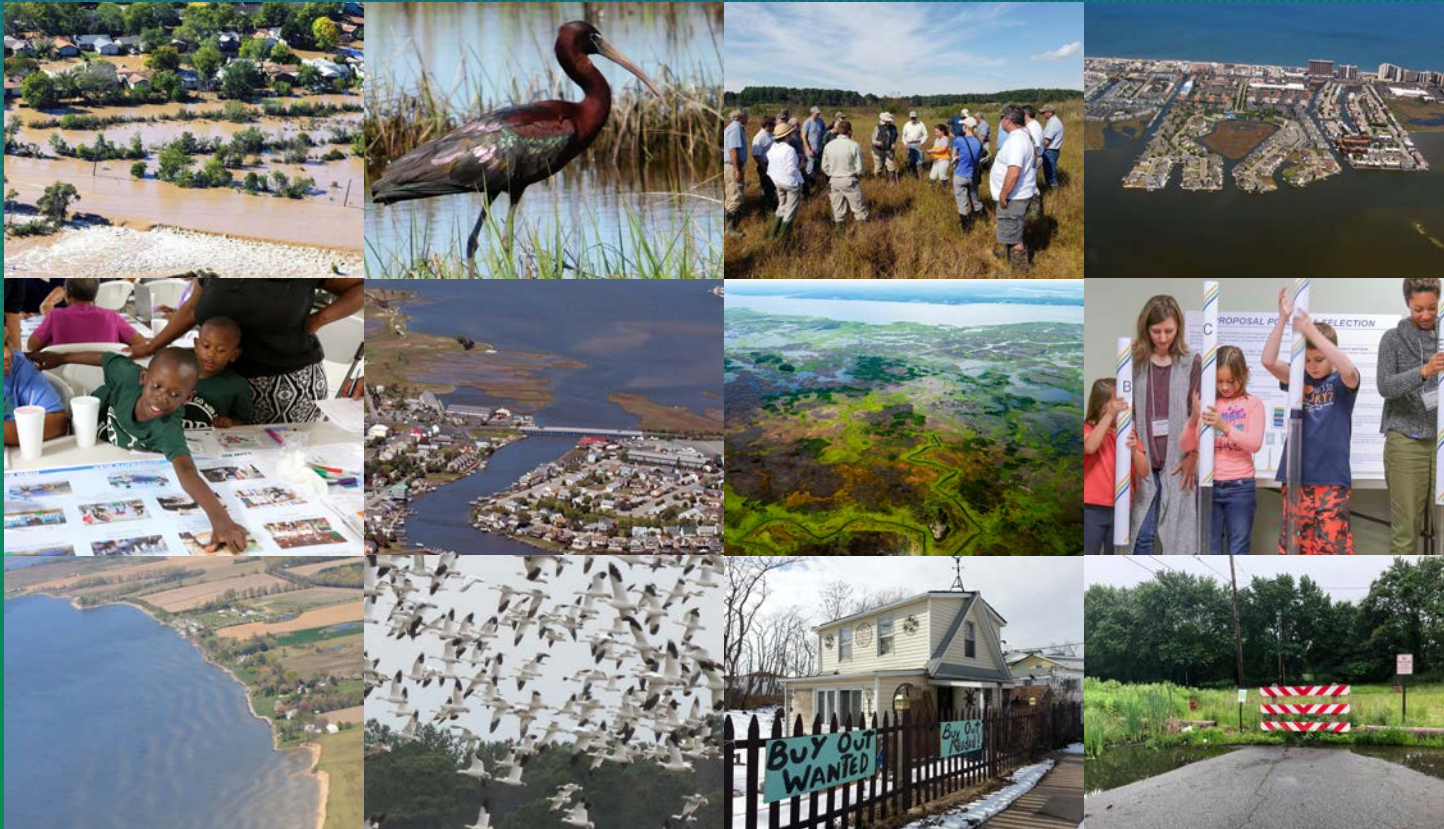


Managing the Retreat from Rising Seas

Punta Gorda, Florida: Climate Adaptation and Comprehensive Plans and Updates



Authors

This report was written by Katie Spidalieri, Senior Associate, and Isabelle Smith, Research Assistant, Georgetown Climate Center at Georgetown University Law Center; and Jessica Grannis, Coastal Resilience Director at National Audubon Society. The *Louisiana Strategic Adaptations for Future Environments (LA SAFE)* case study was written by Jennifer Li, Staff Attorney, and Alex Love, student, Harrison Institute for Public Law at Georgetown University Law Center. Editorial and writing support were provided by Vicki Arroyo, Executive Director, and Lisa Anne Hamilton, Adaptation Program Director, Georgetown Climate Center.

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Georgetown University Law Center
600 New Jersey Avenue, NW
Washington, D.C. 20001

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Managing the Retreat from Rising Seas: Lessons and Tools from 17 Case Studies

About This Report

As seas continue to rise and disaster events and extreme weather increase in frequency and intensity, climate change is driving state and local policymakers to evaluate strategies to adapt to various risks affecting many communities. In addition to protection (e.g., hard shoreline armoring) and accommodation (e.g., elevating or flood-proofing structures) measures, coastal governments and communities are increasingly evaluating managed retreat, where appropriate, as a potential component of their comprehensive adaptation strategies. Managed retreat is the coordinated process of voluntarily and equitably relocating people, structures, and infrastructure away from vulnerable coastal areas in response to episodic or chronic threats to facilitate the transition of individual people, communities, and ecosystems (both species and habitats) inland.

The aim of managed retreat is to proactively move people, structures, and infrastructure out of harm's way before disasters occur to maximize benefits and minimize costs for communities and ecosystems. For example, policymakers may maximize opportunities for flood and risk reduction by conserving wetlands and protecting habitat migration corridors and minimize the social, psychological, and economic costs of relocation by making investments in safer, affordable housing within existing communities.

This report is composed of 17 individual case studies. Each one tells a different story about how states, local governments, and communities across the country are approaching questions about managed retreat. Together, the case studies highlight how different types of legal and policy tools are being considered and implemented across a range of jurisdictions — from urban, suburban, and rural to riverine and coastal — to help support new and ongoing discussions on the subject. These case studies are intended to provide transferable lessons and potential management practices for coastal state and local policymakers evaluating managed retreat as one part of a strategy to adapt to climate change on the coast.

Collectively, these case studies present a suite, although not an exhaustive list, of legal and policy tools that can be used to facilitate managed retreat efforts. Legal and policy tools featured include: planning; hazard mitigation buyouts and open space acquisitions, as well as other acquisition tools like land swaps and reversionary interests; land use and zoning; and Transfer of Development Rights programs. The case studies also highlight various policy tradeoffs and procedural considerations necessitated by retreat decisions. Each jurisdiction is confronting different challenges and opportunities and has different, perhaps even competing, objectives for retreat. In addition, stakeholders in each of these cases are attempting to balance multiple considerations, including:

protecting coastal ecosystems and the environment; fostering community engagement and equity; preparing “receiving communities” or areas where people may voluntarily choose to relocate; and assessing public and private funding options and availability. The case studies included in this report were selected to reflect the interdisciplinary and complex nature of retreat decisions and underscore the need for comprehensive solutions and decisionmaking processes to address these challenging considerations.

Where possible, all of the case studies share a consistent organizational format to allow easier cross-comparison of strategies, processes, and takeaways:

- The **Background** section introduces state or local context for each case study, including the risks and hazards facing each jurisdiction and its road to considering or implementing managed retreat strategies.
- The **Managed Retreat Examples** section focuses on the legal and policy tools that have been designed and implemented to support managed retreat strategies on the ground.
- The **Environment** section highlights how floodplains and coastal ecosystems have been restored, conserved, and protected as a part of comprehensive managed retreat strategies to provide ecosystem and community benefits, like reducing flood risk and creating community assets such as parks and trails.
- The **Community Engagement** section summarizes how affected residents have been contributing to planning and decisionmaking processes for climate adaptation and managed retreat.
- The **Funding** section identifies how the programs, plans, and projects discussed have been funded by federal, state, and local government and private sources.

- The **Next Steps** section captures the anticipated future actions that jurisdictions may take in implementing these managed retreat strategies.
- The **Considerations and Lessons Learned** section concludes with the primary takeaways from each example that other coastal state and local policymakers and communities may consider when developing or implementing their own managed retreat strategies using these legal and policy tools.

The case studies in this report were informed by policymakers, practitioners, and community members leading, engaging in, or participating in the work presented in this report. No statements or opinions, however, should be attributed to any individual or organization included in the *Acknowledgements* section of this report. It is also important to note that the programs and planning processes described in each case study are ongoing and the content included in this report is current as of early 2020. Future updates about these case studies will be captured in Georgetown Climate Center’s online resources on managed retreat.

These case studies were written to support Georgetown Climate Center’s Managed Retreat Toolkit, which also includes additional case study examples and a deeper exploration of specific legal and policy tools for use by state and local decisionmakers, climate adaptation practitioners, and planners. For future updates about these and other case studies and the Managed Retreat Toolkit, please visit the **Managed Retreat Toolkit** and the **Adaptation Clearinghouse**.

Punta Gorda, Florida: Climate Adaptation and Comprehensive Plans and Updates

Executive Summary

The harborside city of Punta Gorda, Florida has responded to the threat of coastal storms and climate change impacts with two different plans — a Climate Adaptation Plan and a local comprehensive plan — to promote, manage, and protect the city’s natural resources and plan for development in a way that minimizes risks to people and property and conserves ecosystems. The Adaptation Plan is unique because it was developed through a “citizen-driven process” designed to identify effective local responses to climate change and includes a variety of adaptation options that enjoy broad community support, including managed retreat or “planned relocation.” The city incorporated the Climate Adaptation Plan into its comprehensive plan to ensure that climate change is considered in land-use decisionmaking efforts. In 2019, the city released an update to its Adaptation Plan that identifies the city’s progress to date and future adaptation actions the city could consider implementing. Punta Gorda provides a useful example of how effective community engagement can enhance adaptation planning and build community support for managed retreat strategies and how adaptation plans can be used to inform future land-use decisions to ensure safer, more resilient development.

Background

Punta Gorda is a harborside city located in southwest Florida with a population of approximately 19,961 residents. Founded in 1887, the city is surrounded by Charlotte Harbor and has a unique layout of neighborhoods on waterfront canals. Neighborhoods, parks, and commercial areas are connected by a network of bicycle and pedestrian trails known as “Punta Gorda Pathways.” The city’s typography is generally flat with elevations ranging from sea level to approximately 15 feet above sea level.

Punta Gorda’s system of waterfront canals leave the city vulnerable to both coastal storms and climate change impacts. The city has been affected by high tide flooding and damage from tropical storms and hurricanes. After being severely impacted by Hurricane Charley in 2004, the Punta Gorda City Council and residents made a commitment to maintain a livable, historic city while preparing for climate change impacts, like sea-level rise, by adopting an adaptation plan and incorporating the plan into the city’s comprehensive plan, which informs land uses and development within the city.

Managed Retreat Examples

Planning for Retreat

Punta Gorda has embraced climate change adaptation planning to reduce vulnerabilities and increase the city’s resilience to climate change impacts. Punta Gorda partnered with Charlotte Harbor National Estuary Program and Southwest Florida Regional Planning Council to develop a Climate Adaptation Plan.¹ The city and its partners engaged citizens in an extensive public process that resulted in the identification of 54 vulnerabilities and corresponding adaptation actions that the city could consider implementing. The city used data and forecasting models to assist

planning for the long-term effects of shoreline changes in order to protect property and residents. Among the adaptation actions proposed, some included managed retreat or “planned relocation” (as referred to in the plan) in order to address shoreline and flooding issues. In 2009, Punta Gorda adopted the Adaptation Plan to promote, manage, and protect the city’s natural resources and plan for development in a way that minimizes risks and conserves natural ecosystems. In addition, the City Council voted unanimously to incorporate the full Adaptation Plan (and future updates to it) into the city’s comprehensive plan.

A decade later, the city updated its Adaptation Plan by identifying additional adaptation actions that could be implemented in three “focus” areas of the city that are most vulnerable to coastal impacts.² The update is consistent with the city’s guiding objective to address climate change through an incremental, phased approach to save money and increase public safety over time. The 2019 update features a vulnerability analysis of city-owned critical infrastructure, a more prominent living shorelines component, and an assessment of the city’s progress in implementing adaptation actions. For instance, the city implemented several managed retreat actions between 2009 and 2019 including:

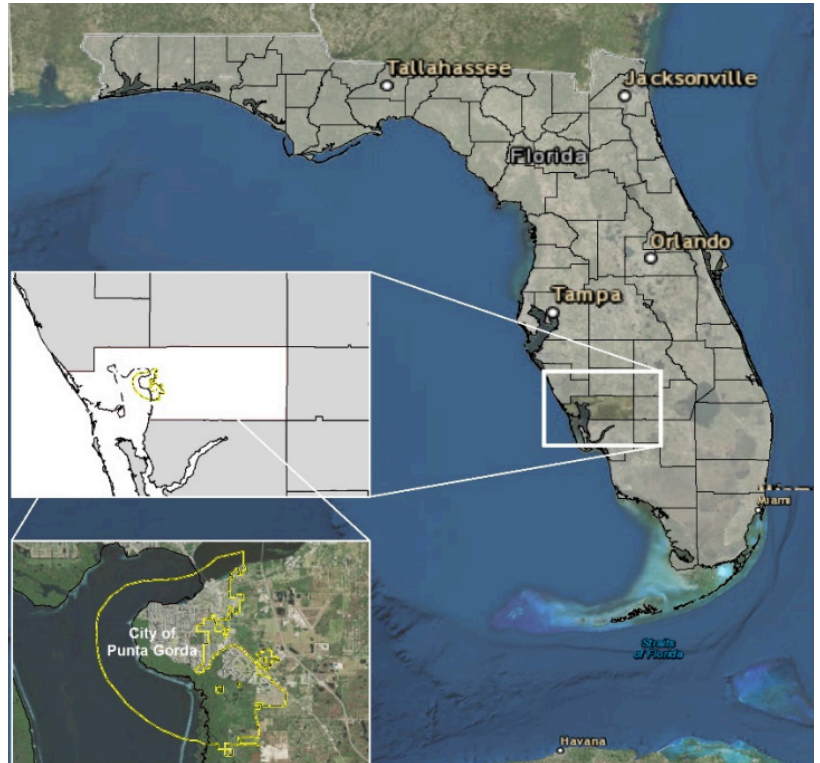
- Increasing sea grass acreage from 247 acres to 391 acres (a 58 percent increase);
- Installing living shorelines that can act as a flood buffer and facilitate the inland migration of coastal habitats due to sea-level rise better than hard armoring structures;
- Buying out properties with recurrent storm flood damage to help people move out of harm’s way while restoring those areas to their natural conditions and creating public spaces for environmental and community benefits;
- Relocating the city’s public works facility to a less flood-prone area further inland; and

- Building the city’s new emergency management center (which was destroyed by Hurricane Charley) on higher ground with storm resistant and energy efficient features.

The 2019 update also highlights ongoing examples of managed retreat that have contributed to the city’s overall adaptation efforts. First, the city relocated a limited number of other buildings in response to different threats, including a historic structure, the A.C. Freeman House, which has been relocated multiple times. Second, consistent with the city’s founding principles that all waterfront blocks remain undeveloped, a large amount of the waterfront and low-lying areas have been designated as parks. This policy restricts public and private development in these flood-prone areas to preserve important coastal protection buffers. Third, the city has adopted a voluntary annexation policy to acquire higher and drier land that can provide the city with options to potentially relocate development and infrastructure locally and maintain tax bases as climate impacts occur.

Additionally, the 2019 update identifies potential strategies and actions that can enhance the city’s long-term resiliency. Among other protection and accommodation strategies, the 2019 update includes legal and policy recommendations for facilitating managed retreat through zoning and land-use plans and regulations including:

- Limiting new development and redevelopment in flood-prone and environmentally sensitive areas;
- Prohibiting hard shoreline armoring;
- Proactively reviewing land-use plans in light of future development pressures and shifts in development patterns due to climate change; and
- Conducting “coastal realignment” planning to address the conversion of land to salt marsh and grassland to provide more sustainable and environmentally friendly coastal defenses.



Managed retreat could also potentially play a role in the city’s work to identify and make key infrastructure and vulnerable areas more resilient before they are significantly threatened. The 2019 update recommends the city consider:

- Surveying vulnerable areas that are currently inhabited while developing relocation plans and contingency emergency measures;
- Developing strategies to address different examples of changing ingress/egress routes to properties as public support for access roads in areas vulnerable to sea-level rise and other flood hazards is possibly withdrawn or reduced overtime; and
- Investigating a range of potential legal tools, such as vesting, grandfathering, amortizing strategies, and rolling easements, that could be used to encourage relocation.

Location of Charlotte County and the City of Punta Gorda.

The City of Punta Gorda is located in southwest Florida in Charlotte County.

Credit: CITY OF PUNTA GORDA, CITY OF PUNTA GORDA ADAPTATION PLAN UPDATE 2 (June 28, 2019).

Community Engagement

The 2009 Adaptation Plan was developed through a “citizen-driven process.” During the process, the city engaged directly with residents and state and local agencies to identify climate vulnerabilities and priorities and evaluate adaptation options. The city used public participation games, individual interviews, pre- and post-workshop surveys, and other tools. The city reports that community engagement produced a more effective local response and greater support for adaptation actions. For the 2019 update, the city conducted a survey to assess local awareness of risks and the city’s Adaptation Plan as part of an ongoing effort to build a vision for adaptation that is informed by community needs and priorities.

Funding

The 2009 Adaptation Plan was funded through the city’s partnership with Charlotte Harbor National Estuary Program and Southwest Florida Regional Planning Council. The 2019 update was funded by a Resiliency Planning grant from the National Oceanic and Atmospheric Administration and administered by the Florida Department of Environmental Protection. Individual projects, like infrastructure relocation and property acquisition, have been funded on a project-by-project basis, including through the use of municipal funds.

Next Steps

The city will consider adopting policies from the 2019 Adaptation Plan to update its next comprehensive plan. Punta Gorda aims to pursue and implement adaptation projects through its capital improvement program as resources, city priorities, and opportunities are evaluated. The city is also committed to continuing to educate and engage the community throughout this process.

Considerations and Lessons Learned

Punta Gorda presents an example for other municipalities considering long-term comprehensive planning approaches to adaptation and managed retreat that are informed by community engagement processes. The city’s approach demonstrates how longer-term efforts to adapt to climate change can be integrated into short-term planning processes to create a vision for phasing in adaptation actions over many years. Moreover, recurring updates to adaptation and comprehensive plans can allow municipalities to modify their approaches as coastal impacts and other factors like funding and land-use patterns may change. Punta Gorda’s efforts demonstrate how local governments can support “living” planning processes where plans are regularly updated (e.g., every ten years) to incorporate new information about vulnerabilities, take stock of implementation progress, and include new adaptation recommendations and actions.

Punta Gorda also provides an example of how adaptation plans can be used to inform land-use decisions and institutionalized through other local plans. The city incorporated the 2009 Adaptation Plan into its comprehensive plan to better coordinate land-use and climate adaptation policies and decisions. By incorporating adaptation recommendations in local land-use plans, municipalities can ensure that adaptation decisionmaking is coordinated across different agencies and sectors. Plans can also be an important first step in implementing legal tools for managed retreat that include land acquisitions, relocation of buildings and infrastructure, and living shorelines.

Community engagement has been instrumental in helping to build community and political support for public investment in local plans and adaptation projects that maintain Punta Gorda’s small town character and preserve Charlotte Harbor’s environment. Planning processes, especially for retreat, should take community priorities and needs into account to maximize potential opportunities for climate adaptation.

Endnotes

- 1 Georgetown Climate Ctr., *City of Punta Gorda, Florida Adaptation Plan*, ADAPTATION CLEARINGHOUSE (Nov. 18, 2009), <https://www.adaptationclearinghouse.org/resources/city-of-punta-gorda-florida-adaptation-plan.html>.
- 2 CITY OF PUNTA GORDA, CITY OF PUNTA GORDA ADAPTATION PLAN UPDATE (June 28, 2019), *available at* <http://www.ci.punta-gorda.fl.us/home/showdocument?id=9987>.

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