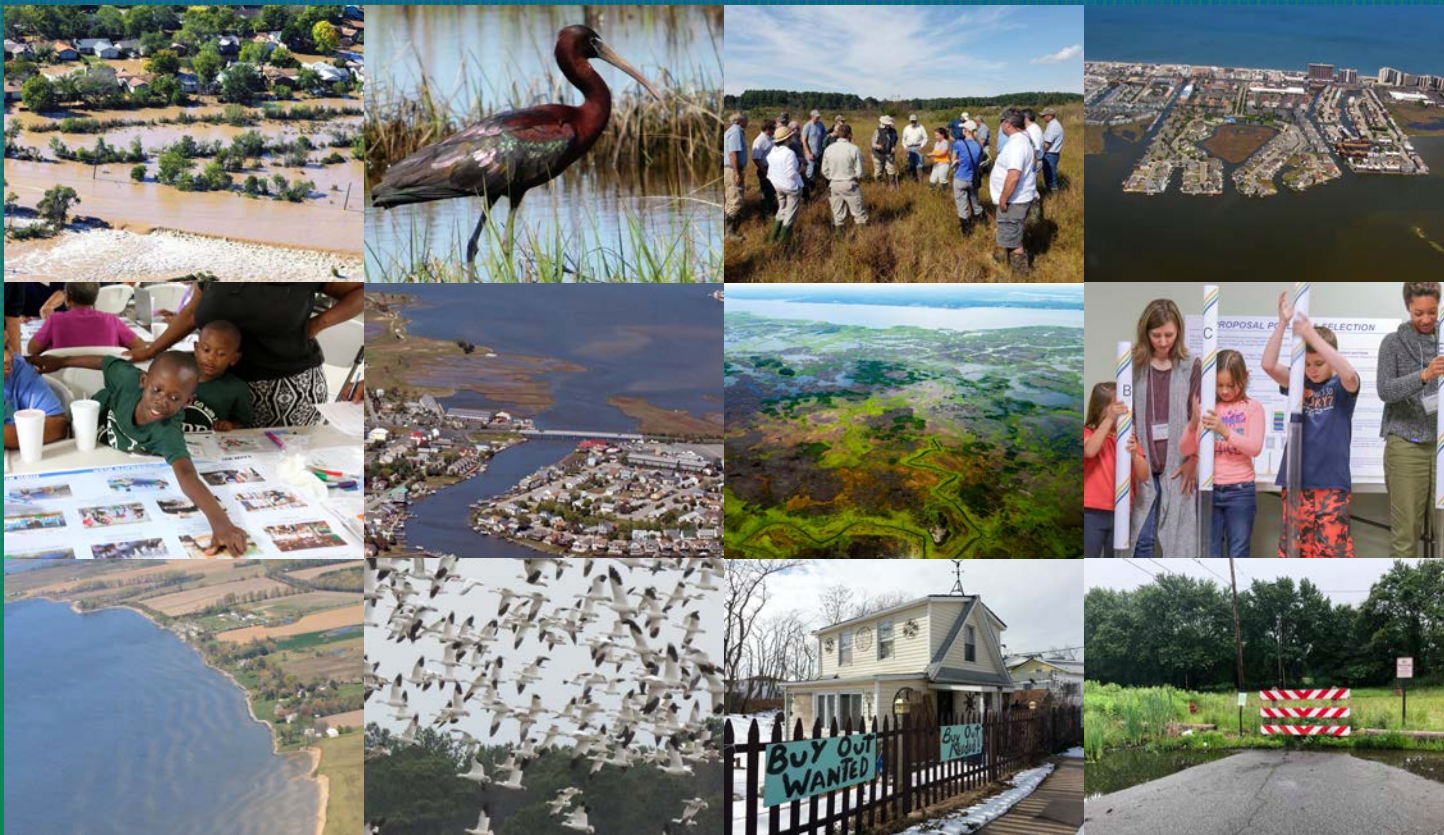


Managing the Retreat from Rising Seas

Quinault Indian Nation, Washington: Taholah Village Relocation Master Plan



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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**.

Quinault Indian Nation, Washington: Taholah Village Relocation Master Plan

Executive Summary

Quinault Indian Nation (QIN), a federally recognized tribe located in Washington state, is currently implementing a phased relocation plan as part of a managed retreat strategy in response to the impacts of sea-level rise, flooding, and concerns about the increased likelihood of tsunamis and storm surges attributed to climate change. In 2017, QIN adopted the *Taholah Village Relocation Master Plan* that outlines a vision and development plan for relocating a portion of QIN living in the Lower Village of Taholah to a higher ground location in the Upper Village Relocation Area. The Master Plan contains eleven chapters covering the history and the need to relocate, goals and principles of the plan, and different aspects of the Upper Village blueprint including appropriate community facilities, housing, infrastructure, culture, sustainability, and resilience. It also sets forth implementation steps for the project through phasing, necessary regulatory changes, and funding. QIN developed the Master Plan with significant community input. The community engagement processes and sustainable planning strategies can provide transferable lessons for other state and local jurisdictions considering similar questions of strategic planning for coastal retreat and relocation, even on a smaller scale.

Background

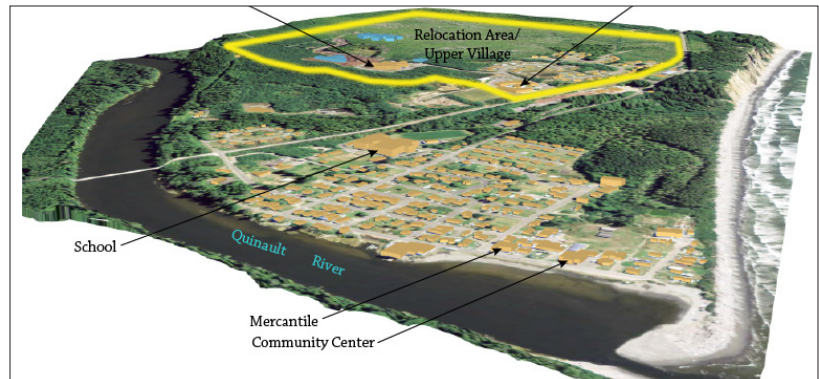
Quinault Indian Nation (QIN) is a federally recognized tribe with approximately 3,000 tribal members. The Quinault Indian Reservation is located on the southwestern coast of Washington State, at the confluence of the Quinault River and the Pacific Ocean, and contains two major villages: the Village of Taholah and the Village of Queets. The Lower Village of Taholah, home to one-fifth of the QIN population, is located approximately at sea level and is particularly vulnerable to flooding and tsunamis due to its proximity to the Cascadia Subduction Zone. In 2014, the QIN Community Development and Planning Department (department) began preparing the *Taholah Village Relocation Master Plan* (Master Plan) to plan for relocation to safer land that is less exposed to the threat of tsunamis and climate impacts including sea-level rise, storm surge and riverine flooding.¹ In 2017, the QIN Tribal Council adopted the Master Plan. As a result, QIN aims to construct new upland community facilities and infrastructure and phase-in new residences from the Lower Village over time to a new 200-acre, higher ground Village Relocation site.

Managed Retreat Examples

Planning for Retreat

Site Selection and Early Planning Phases

QIN conducted multiple public processes, including a General Council Resolution, and concluded that it was necessary to relocate residents, businesses, and other community amenities and infrastructure, including the early childhood education center and elder program center, from the Lower to the Upper Village of Taholah. To develop the Master Plan, QIN received a grant from the Administration for Native Americans — an office under the U.S.



Department of Health and Human Services.² The grant enabled QIN to hire three new employees to work for the department and lead the planning process beginning in 2014.

QIN selected the Upper Village Relocation Area because the largely undeveloped site is at a higher elevation above the tsunami zone and outside of the 100-year (one-percent annual chance) floodplain. In proceeding with plans to relocate the Lower Village, it was important for the tribe to identify a site that was safer than its current location. To inform this decision, QIN conducted geographical and topographic studies to inform the best way to relocate people on the reservation while keeping them near their families and jobs. As of 2019, QIN has purchased most of the land in the Upper Village from individual landowners. QIN also owns much, although not all, of the land in the Lower Village and is currently leasing it to tribal members for housing and other uses.

When the department began this process, there were few large-scale relocation examples or plans. Currently, there are relocation efforts by other tribes in Washington State, Alaska, Louisiana, and the Pacific Islands that could serve as direct models for the tribe's work. The department started thinking about how to approach and organize the plan from a technical perspective in terms of the types of structures, infrastructure,

Taholah Village.

This image depicts the existing conditions of the Taholah Village on the southeastern coast of Washington State, including the location of the Quinault River and the Lower and Upper Village Relocation areas.

Credit: *Taholah Village Relocation Master Plan*, QUINAULT INDIAN NATION (last updated Apr. 25, 2018).

services, and community amenities tribal members have now and what they will need in the Upper Village. From there, the department initiated a community engagement process to inform priorities for the development of the Upper Village and the design of the Master Plan.

In addition, the department is pursuing ongoing plans for infrastructure and community buildings, like fire and police stations, in conjunction with a need for new and more housing outside of the evacuation zone to reduce risks to tribal members from a tsunami. The department is also evaluating the feasibility of a potential biomass facility for heat and solar microgrids. Local sources of energy can provide power before, during, and after a disaster event while reducing the greenhouse gas emissions that contribute to climate change. This comprehensive, local approach for managed retreat demonstrates how community priorities and needs can be reflected in long-term land-use planning and design.

Overview of the Taholah Village Relocation Master Plan

The department utilized the community engagement process (see below) to create a vision for a Relocation Village that is just as walkable as the existing Lower Village, but will be more densely developed and resilient. The Master Plan contains eleven chapters, beginning with a brief summary of the history of QIN at Taholah and how the tribal community arrived at the decision to relocate from the Lower to Upper Village Relocation Area. In the plan, the department then describes the tribe's overall goals and priorities that shaped the plan's development, including the guiding principles that informed the project blueprint. Through subsequent

chapters, the department discusses different components of the relocation effort, including community facilities, housing, neighborhoods, culture, infrastructure, and sustainability.

In order to serve the varied needs of the community, the department recommended a range of housing types and lot sizes in Chapter Four of the Master Plan that should be constructed in each phase of development. In addition, the department also considers the importance of sustainability as a core facet of the new Relocation Village, and the Master Plan includes sustainability suggestions for energy efficiency and resiliency, native landscaping, and low-impact development. Relocation of the most vulnerable populations is highlighted as a priority. No residents will be forced to move from the Lower to the Upper Village as a result of the Master Plan and may remain in the Lower Village; however, in the Master Plan, the department suggests placing a moratorium on the development of new residential buildings on QIN-owned land in the Lower Village.

The Master Plan also includes a chapter on land-use code changes and text amendments that would have to occur in order for QIN to build the Relocation Village. By identifying necessary regulatory changes upfront in advance of development, QIN can ensure that there are no regulatory barriers to construction to ensure that projects are "shovel ready" when funding is secured. The final chapter of the Master Plan considers resilience and how QIN can prepare for the aftermath of an earthquake and tsunami to ensure a safe recovery before and after relief arrives.

Community Engagement

To create the Master Plan, the department carried out a variety of community engagement projects, including village-wide meetings, personal conversations, presentations at tribal dinners, door-to-door and online surveys, and convened stakeholder committees over a two-year period. The department also created an inventory of existing vulnerabilities to natural disasters and community requests for improved infrastructure, affordable housing, and recreational facilities currently lacking in the Lower Village. To encourage meeting participation, the department provided meals, which are very important to the tribal culture, and held raffles. These engagement efforts helped to ensure that tribal members were involved in the relocation process from the outset and that the plan identified critical community issues, concerns, challenges, desires, and partnerships. As a result, the Master Plan incorporates goals that reflect an understanding of current conditions and future aspirations and needs for the new Upper Village site, such as appropriate facilities, types of housing, and recreation requirements. In addition, one of the priorities for the Upper Village will be to create a sense of community, history, and culture through art and build a repository for tribal records to reflect the QIN's ties to the Quinault River in the Lower Village but at a higher elevation.

Throughout these multiple forms of community engagement, the department and the Tribal Council government played integral roles. First, the lead

department employees initially hired through the Administration for Native Americans grant were directly involved in working with and learning from tribal members. It is notable that these department leads have lived nearby since that start of the planning process in 2014. The daily physical presence of department leads on the Quinault Indian Reservation has fostered relationships and built trust in a meaningful way that is reflected in the relocation project plans. Compared to temporary, outside consultants, project leads who live in — or are present in — an area long term can better engage with community members. In addition, the department leads cultivate relationships and maintain trust by making regular project updates to the Tribal Council, publishing articles in the tribe's monthly newsletter, and taking meaningful steps towards implementing infrastructure projects in the Upper Village. This commitment to having regular face time with tribal members and the Tribal Council has deepened connections with the tribe and helps to keep the phased relocation on people's minds amidst other important issues confronting QIN and the reservation.

Second, the Tribal Council was instrumental in providing input and institutional support for the community engagement process. With the Council's involvement, general resolutions were passed to create hiring preferences for tribal members to implement the Master Plan. For example, QIN created a position for a tribal member who just graduated from college to serve as the contract officer for the first building being constructed in the Upper Village, the Generations Building. This position

will train a Quinault member to manage future building projects by interfacing between the tribe, the tribe's construction management consultant, and contractors. It is the QIN's hope that the relocation process will build generational capacity and that construction in the Upper Village and throughout the reservation will support job creation.

Funding

Implementation of the Master Plan will require significant funding. Chapter Nine of the plan identifies funding sources for community facilities and infrastructure; and economic opportunities that could be supported by new development and resources available on the reservation. The plan lists a number of potential public programs and private funding opportunities including: tribal revenues; federal grants (e.g., U.S. Department of Agriculture, Federal Emergency Management Agency, U.S. Department of Housing and Urban Development); venture capital; private foundations, tax credits, and other instruments. The chapter then outlines how the different components of the Master Plan, such as community facilities, roads, utility infrastructure, and housing, might be implemented with different funding sources. The department suggests that each phase of development should be aligned with funding and financing so that neither outpaces the other.

Chapter Nine also outlines the potential economic opportunities that could be created for QIN tribal members throughout the relocation process including potential materials on the Quinault Indian Reservation that could

be locally sourced, and different business development opportunities that QIN could invest in, such as construction-related plants and facilities.

Next Steps

Through the Master Plan, the QIN Community Development and Planning Department designed a phased program for building out the Village Relocation Area in a gradual, strategic manner, as funding allows. Despite the early phase of implementation in 2019, QIN has already started work on the Upper Village in accordance with the plan's phased priorities. In 2007, QIN identified a Generations Building as the first one that would be relocated. The tribe has provided \$15 million of its own revenue to begin construction of the Generations Building, which will support early childhood education and elder programs and can give two of the more vulnerable segments of the community — children and the elderly — a safe place to stay during a potential tsunami. To date, QIN has not constructed any homes or infrastructure in the Upper Village; therefore, no one has relocated from the Lower Village yet. In addition, nothing has been established in terms of who — among those who choose to relocate — will receive new homes in the Upper Village, for example, through an application or some other type process. Regardless, once the move does begin, it is anticipated that uses more compatible with the Lower Village's low elevation, like sports fields and estuary conservation efforts, will be allowed in previously developed areas.

Considerations and Lessons Learned

The completion and adoption of the Master Plan has provided QIN with a blueprint for relocation to a site strategically studied and slated for development because it will be less vulnerable to flooding and tsunami risks. The Master Plan outlines an approach that can serve as an example for others to prioritize the relocation of structures and infrastructure and to align these phased action items with funding availability and needed regulatory changes. Phasing development and relocation provides time for the development of necessary infrastructure, prioritization of community needs, and continuity for residents and businesses of the Lower Village of Taholah relying on government

services. Phased implementation processes allow for a gradual transition that may mitigate the social and psychological impacts residents might otherwise experience during a swift transition.

The community engagement and public participation process initiated to develop the Master Plan can also offer transferable lessons for other state and local jurisdictions evaluating similar questions about retreat and relocation, regardless of the scale. The Master Plan reflects the needs and vision of the community by incorporating sustainable practices, culture, and other amenities. The Master Plan calls for the Upper Village to include tribal art, culture, and history to create a sense of place for those who may choose to move away from the Quinault River. The QIN planning process could be considered by other planners and decisionmakers as a model for

encouraging strong public participation in planning for relocation and building support for managed retreat proposals.

Moreover, the role played by the department leads and the Tribal Council highlights the value of institutionalizing support for managed retreat throughout the government. This type of support can help build and maintain long-term relationships and trust with community members to inform these inherently long-term processes. In addition, other governments can follow QIN's example to utilize relocation decisions as a catalyst for economic growth and build local capacities to address questions about climate adaptation, resilience, and emergency management as coastal impacts and disaster events occur with greater intensity and frequency.

Endnotes

- 1 QUINULT INDIAN NATION CMTY. DEV. & PLANNING DEP'T, THE TAHOLAH VILLAGE RELOCATION MASTER PLAN (2017), *available at* http://www.quinaultindiannation.com/planning/FINAL_Taholah_Relocation_Plan.pdf.
- 2 *About*, ADMIN. FOR NATIVE AMERICANS, <https://www.acf.hhs.gov/ana/about> (last updated July 10, 2018). The goals of the Administration for Native Americans are to promote tribal self-sufficiency by providing funding and technical support for community-based projects.

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