

Water Dependent Uses in Atlantic Highlands

Prepared by: Morgan Astorino, Janine Barr, Sophia Blanc, Brittin Boenning, Meg Cavanagh,
Joanne Chen, Hyojin Lee

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Introduction

Atlantic Highlands is a classic waterfront community at its core. Much of the local economy is tied to water dependent uses, such as the Sea Streak Ferry, and the greater coastal economy of the town. In the 2019 Master Plan, Atlantic Highlands reiterated its goals of retaining the character of a small town, yet maintaining an active, livable waterfront community, in addition to achieving fishable and swimmable waters. This report examines the stated visions, plans, and goals for each of the three waterfronts in Atlantic Highlands: the harbor, Many Mind Creek, and Wager Creek, and considers conversations with residents about the working waterfront. Following an overview of the existing plans, the team provides suggestions to expand upon water dependent uses with a focus on recreation and sustainability. A list of considerations for future municipal plans to further incorporate resilience and sustainability is also included, followed by a list of potential funding options for the expansion and preservation recommendations. The team hopes that this report can serve as a partner document with the previous Nature-Based Solutions report as a resource for discussions regarding preservation and expansion of the natural and bay shore activities.

Harbor

Current Status

The Atlantic Highlands harbor is the largest municipally owned harbor in New Jersey. The Borough is dependent on the harbor's many businesses including a ticket office, shore casino restaurant, restaurants, hair salon, the Seastreak ferry and more. The Seastreak ferry, a boat which runs out of Atlantic Highlands into Manhattan, is a major draw to the town that encourages tourism and commuters alike. In addition to businesses, the Borough sells fuel to the Navy and also is home to the state's marine police.

The harbor faces financial concerns due to factors including increasing costs, seasonal limitations, and parking constraints. The harbor requires constant maintenance due to infrastructure that breaks down from the saltwater environment. Maintenance includes repairs to water pipes, piers, and parking lot asphalt. Part of the Borough's budget is allocated towards harbor upkeep, however increasing costs must be considered. In addition to harbor upkeep, the harbor loses money from limited activity in the winter. In the winter, everyone must be out of the water by December 1. However, rent slips are still distributed and the commercial fleet, navy, and Seastreak ferry still operate. Lastly, parking near the harbor can present issues. While the harbor does have a lot of parking, during fishing season, parking can fill up quickly.

Goals

The 2019 Atlantic Highlands Master Plan outlines goals for the Borough's harbor and marina. The goals for the harbor and the marina can help the Borough solve broader issues that impact the entire town.

The Borough has three main goals for the harbor that are outlined in the master plan. First, the Borough intends to connect the business and entertainment district with the Many Mind Creek Greenway, the waterfront, and the harbor. Second, the harbor would like to look further into the redevelopment potential of both additional commercial spaces and improving existing structures like piers, dock space, and parking. Third, they would like to explore alternatives to the launch ramp operation that would include options like pedestrian safety, optimizing available parking, and enhanced boater safety.

The Borough has six main goals for the marina that are outlined in the master plan. First, the marina would like to maintain and improve the boat launch, docking, operation, and storage. Second, the marina would like to encourage dredging management. Third, the marina plans to encourage and enforce the "Clean Marina" program agenda. Fourth, the marina would like to strengthen non-boating activities in the marina. Fifth, the marina wants to foster a "gateway like" environment to attract visitors and commuters alike. Sixth, the marina intends to improve connections from downtown to the ferry by improving roads and implementing a shuttle bus service.

Expansion

Expansion within the Borough's recreation department could solve many of the concerns facing the harbor. The harbor could implement kayak rentals and fishing rentals to encourage tourism. Also, recreation days could bring money into the town as well as create awareness about environmental goals. For example, the town could have a yearly Harbor Day to stimulate community involvement. Additionally, the Borough could work with charter boats and local fishermen to bring local seafood to the downtown area. By doing so, this could bring more money into the local economy. Lastly, public transportation within the community, like a shuttle bus suggested from the 2019 Master Plan, could improve the harbor's economy by bringing people in from the central business district, while decreasing the need for cars in the area which could help remediate the parking issue.

Many Mind Creek

Current Status

Many Mind Creek is the Borough's main drainage channel, carrying stormwater from both Atlantic Highlands and Middletown. Wastewater is treated at the pumping station in Middletown. Occasionally, the creek floods due to stormwater, and it also experiences tidal flooding from Sandy Hook Bay as water ebbs and flows into the creek. Local land use regulations require a 50 foot buffer from stream banks to buildings and construction.

Though its saltwater and freshwater wetlands were mainly cleared and filled in over the twentieth century, Many Mind Creek still supports a broad biodiverse ecosystem as an estuarine wetland

and saltmarsh. Its ecological value has been important in calls for environmental protection and restoration.

The creek has an ongoing contamination issue related to coal tar and non-point source pollution, which led to a significant number of home and lot buyouts to ensure safety. The cleanup project, which has been underway for more than a decade under the management of NJ Natural Gas, is now entering its final phase and is set to finish by May 2022. Professional testing is required for six sites along the creek to monitor water quality, accounting for both non-point source pollution and fecal coliform. This is currently performed by the NY/NJ Baykeepers two to three times per year.

Goals

The Borough aims to conduct monthly water sampling in the Many Mind Creek, mainly using volunteers. It seeks to share responsibilities for watershed planning at the county level and develop a joint regional management strategy with Middletown. Atlantic Highlands could handle the bulk of local decision-making about the creek through the Environmental Commission.

The Borough has long-planned a greenway along the creek to meet various goals around the environment and open space as well as economic development and quality of life, although it has not been planned in detail or initiated. The proposed greenway would critically link the business and entertainment district with the waterfront and harbor, and provide a bike and pedestrian connection from the Henry Hudson Trail and west side residential areas to recreation and the downtown area. At the same time, it would enhance streambed and bank conditions, buffering, wetland functionality, flood control, and the creek's overall appearance. Contamination has held up the process for some time, although with the cleanup process wrapping up, the Borough may finally be able to start building on the greenway project.

Expansion

Improving water quality in Many Mind Creek is essential to expanding water-dependent uses in the region. Its health is vitally connected to Sandy Hook Bay and its maritime uses, illustrating the mutual dependency of ecosystem and economy. On the creek, addressing water quality is also an essential prerequisite for improving biodiversity and ensuring safety for public access to the greenway and beach.

Through coordination with state planning efforts, it may be advantageous to classify Many Mind Creek as a Coastal Critical Environmental Site (Coastal CES). This would enact a constraint on development by removing the creek from the borough's state-designated center, although it may help to access human and financial resources to manage the creek and enhance environmental quality. It would also effectively create a riparian buffer zone and guard against future flood losses in this vulnerable area.

Wagner Creek

Current Status

Wagner Creek, in combination with Center Avenue Park Extensions, is one of six areas of focus for the Borough in the Open Space and Recreation Element of the 2019 Master Plan. Wagner Creek currently provides several forms of water-dependent use, primarily water-based recreation through the adjacent beach area.

Wagner Creek comprises both riverine recreational opportunities as well as beach-based recreational opportunities. As described in the Master Plan, one of Atlantic Highlands' sandy beaches is located next to Wagner Creek at the western border with Leonardo (a section of Middletown Township). This beach forms part of the Center Avenue Park that is owned by the Borough. Center Avenue Park also contains several acres of mixed woodland and wetland that form a portion of Wagner Creek's northern bank, as well as upland recreational fields and parking.

There is a history of water quality monitoring throughout Atlantic Highlands, including at Wagner Creek. This historical data can be used in conjunction with ongoing and future water quality monitoring for more robust analysis and increased access to grants and other sources of funding.

Goals

In the Land Use Plan Element, there is an intent to establish 50-foot stream buffers along the Wagner Creek banks. The buffers will preserve trees and vegetation, allow establishment of public access trails, and prevent any forms of construction adjacent to the stream banks. This effort will require cooperation with Middletown Township.

According to the 2019 Master Plan, the Borough aims to continue monthly water sampling and testing at both Many Mind Creek and Wagner Creek, with the help of volunteers. This data will continue to be shared at the county level to get a larger-scale view of nonpoint source pollution and contribute to watershed planning efforts. Understanding pollution sources and water quality will also contribute to the Borough's overall goal of swimmable and fishable waterways as well as "reduc[ing] environmental impacts" to the harbor.

Expansion

Implementing the stream corridor and taking advantage of the opportunity to implement public access trails along the creek will improve connections with existing recreational infrastructure, such as the nearby Henry Hudson Bike Trail.

All goals listed above will contribute to cleaner water and more scenic value, which will encourage visitors seeking these amenities. Recreational fishing, birding, biking, and walking will all be more popular as the quality of the creek and its surroundings improves.

2019 Monmouth County Multi-Jurisdictional Hazard Mitigation Plan

Current Status

Atlantic Highlands is not threatened by immediate flooding, this gives them a great opportunity to identify pre-disaster preparation in their master plan.

Goals

The goals of 2019 Monmouth County HMP aligned with Atlantic Highlands include but are not limited to strengthen continuity of pre, during, and post disaster efforts; enhance local mitigation capabilities to reduce hazard vulnerabilities; and promote resilience development and protection of natural resources from hybrid hazards.

Expansion

Water quality has been one of the main criteria to grant access for the public to recreational water resources, such as Many Minds Creek, Wagner Creek and the harbor. Water quality of these water resources are impacted by stormwater outfall and runoff that need protection and routine maintenance.

Suggested Revisions to Planning Documents to Enhance Preservation and Expansion of Water Dependent Uses

The Rutgers team has outlined several suggested revisions that could be made to both the *Master Plan for the Borough of Atlantic Highlands* (2019) and the *Monmouth County, New Jersey Multi-Jurisdictional Hazard Mitigation Plan* (2020) based on the analyses provided above. The goal of these suggested changes is to expand upon existing statements that address the preservation and expansion of water dependent uses by more explicitly stating support for efforts that promote resiliency and sustainability of water resources. Suggested language revisions are outside the scope of this effort. Instead, the Rutgers team has identified sections of each plan that could be revised and general ideas for how to enhance each section. Suggested revisions to the Hazard Mitigation Plan are focused on a 5-10 year planning horizon.

Master Plan

Section XI. Coastal Waterfront Design

- Consider focusing on page VIII-9 (or page 58 of the Master Plan PDF) concerning the Waterfront Business District. An additional bullet in this section of the Master Plan may be beneficial to address the benefits of bringing the products of fishing trips or other landings from the water into the business district, rather than a unidirectional goal of “expan[ding] the business district into the waterfront area.” In this way Atlantic Highlands would more clearly articulate its understanding that growth in the marina/harbor fosters growth in the business district and vice-a-versa.

Section XII. Open Space/Recreation

- Consider focusing on page XII-7 through XII-9 (pages 137-139 of the Master Plan PDF) which highlights the Goals and Objectives of Atlantic Highlands’ Open Space and Recreation policy. It could be beneficial to add a bullet which supports the diversification of recreational activities for and involvement of community members in this process. One example of this could be kayaking ecotourism.

Section XIII. Conservation

- One overarching suggestion is to expand concern for biodiversity to beach, harbor, ocean, and creek locations. Currently, the objective of biodiversity is only broadly addressed at the floodplain level as seen on page 145 of the Master Plan PDF. It may be beneficial to create goals for biodiversity at each aforementioned site because each of these four ecosystems support different plant and animal life which, in turn, may provide unique resilience benefits to their habitat. For example, planting multiple wetland grasses in an area creates resilience by increasing the likelihood that at least one species will survive after exposure to environmental extremes such as extreme flooding during a hurricane. This speeds the ecosystem’s recovery from the natural disaster.
- Consider focusing on page XIII-13 (or page 153 of PDF) which is the Many Mind Creek Flooding section of the Master Plan. To further protect Many Mind Creek, it may be beneficial to add a bullet showing support for designating the water body as a Critical Environmental Site, or even an Outstanding National Resource Water for its surface water quality standard classification in coordination with New Jersey’s Department of Environmental Protection.
- Consider adding a new section to the end of page XIII-16 (or page 155 of Master Plan PDF). A common theme in the above report is the abundance of water quality data and completed/forthcoming resiliency projects in Atlantic Highlands. For this reason, Atlantic Highlands may enhance their relationship with community members if the former commits to publishing relevant environmental data and/or progress reports for nature based projects in the Borough. This element of transparency could be incorporated into a new section of the Conservation section of the Master Plan called “Communication Plan.” In other words, in addition to History, Impacts of Superstorm Sandy, Goals and Objectives for Water Resources, there could be a section on specific public engagement milestones the town would like to achieve and how the town will report completion of those milestones. This is relevant because (1) as mentioned earlier in this report, there is water quality data that is expected to be collected at both Many Mind Creek and Wagner Creek and (2) there are several relevant projects that are either planned, in progress, or completed in Atlantic Highlands (*e.g.*, the greenway, Wagner Creek stream buffer efforts). The new section of the Master Plan could propose a webpage where citizens can educate themselves on the water quality of their local water bodies as well as the status of certain restoration activities.

2019 Monmouth County Multi-Jurisdictional Hazard Mitigation Plan (HMP) Appendix
Vol I.5 Atlantic Highlands Borough

- The Rutgers team’s analysis has identified concern for the flooding issue caused by shoaling at the estuary of Many Mind Creek as well as goals to strengthen protection of the marina. Furthermore, the Borough has recognized providing habitat for fauna both in the 2019 Master Plan and HMP. Therefore, Atlantic Highlands may benefit from suggesting the following revision to the HMP: consider nature-based solutions to address flooding issues and strengthen infrastructure (*e.g.*, breakwall, seawall) on page 12 community action number 05_08 and page 13 community action number 05_09. This would also bolster Monmouth County’s HMP goals to “Promote hazard resilient

development and protection of natural resources from natural- and human-based hazards”.

- FEMA leans toward granting funds to property experiencing repetitive loss from flooding. Parts of Atlantic Highlands are exposed to secondary risks of flooding, though the Borough doesn't experience as many repetitive losses. Furthermore, the six identified repetitive loss structures and most of the houses impacted by Sandy have been elevated. Landslides are secondary effects of heavy rain, hurricanes, and flooding among other factors. In this sense, consider adding these multiple hazards addressed in page 3 HMP Mitigation Action Summary Table.
- Consider highlighting the importance of continuing the clean-up project in Many Mind Creek and expanding the scope to nearby contaminated sites that may pollute the creek by stormwater runoff. Consider adding this note into the future HMP meeting note section.
- It may be beneficial for the County HMP to address how the expansion of water dependent uses will be protected in the face of hybrid hazards such as storm surges, flooding, and coastal erosion. This will be valuable because it is important to protect these sectors of growth in the face of combined water threats.

Resources available to AH to expand water-dependent uses with focus on sustainability

1. National Fish and Wildlife Foundation in partnership with NOAA

The [National Fish and Wildlife Foundation in partnership with NOAA](#) strengthens natural systems that can help communities increase preparedness and improve coastal resiliency. NFWF will award up to \$30 million in grants to create, expand and restore natural systems in areas that will both increase protection for communities from coastal storms, sea and lake level changes, flooding, and coastal erosion and improve valuable habitats for fish and wildlife species.

2. United States Fish & Wildlife Service's Coastal Program

The [United States Fish & Wildlife Service's Coastal Program](#) utilizes tax revenue from hunting, boating, and fishing. A primary goal of the program is centered on seeking to help mitigate flooding and increase water quality. USFWS recently awarded nearly \$19 million to 22 projects in 13 coastal states to protect, restore or enhance more than 30,000 acres of coastal wetlands and adjacent upland habitats under the National Coastal Wetlands Conservation Grant Program.

3. New Jersey Water Resources Research Institute (NJWRRI)

NJWRRI offers grants primarily to academic researchers to study water related issues in New Jersey. Possible collaboration opportunities exist with the Haskin Shellfish Research Lab (affiliated with Rutgers University) to study water quality enhancement provided by bivalves in Atlantic Highlands' coastal waters. Check the NJWRRI website here (https://njwrri.rutgers.edu/njwrri_funding.htm) periodically for funding updates.

- 4. New Jersey Department of Environmental Protection Water Quality Restoration Grants**
NJ DEP offers [grants](#) to “reduce water quality impairment through implementation of nonpoint source (NPS) pollution control projects.” Natural infrastructure solutions for Many Mind Creek would be eligible for this grant. [A previous grant recipient](#) used funds to stabilize streambank erosion and plant a 35-foot forested buffer on either side of a wetland of the Middlebrush Brook tributary in northern New Jersey.
- 5. The Readiness and Environmental Protection Integration (REPI) Program**
The Department of Defense (DoD)’s [REPI program](#) offers grants to address military installation resilience. New opportunities for the REPI program to protect range assets include preserving coastal wetlands and oyster reefs to reduce flooding and storm surge. One successful project is the Naval Weapons Station (NWS) Earle in New Jersey. After Hurricane Sandy struck in 2012, in order to mitigate future costs and damage, NWS Earle is conserving coastal buffer areas wetlands in partnership with Monmouth County. To support these efforts, through [the 2020 REPI Challenge](#), NWS Earle and few DoD installations and ranges were awarded \$2 million for living shoreline establishment, beach nourishment, stormwater management and storm surge protection.
- 6. The Hudson River Foundation NY-NJ Harbor & Estuary Program**
Through the NY-NJ Harbor & Estuary Program, the Hudson River Foundation, a local nonprofit, offers several grant programs. Some of these grants include: [Habitat restoration grants](#), which could be useful for monitoring of the Wagner Creek wetland and [Citizen science grants](#), which could enable Atlantic Highlands to collect preliminary data that would make them a more competitive candidate for other grant programs. Applications for this year are closed, but Atlantic Highlands should monitor the [website](#) for the next round of applications.
- 7. The Nature Conservancy (TNC) Small Grants for Living Shorelines**
Through a grant from the Climate Resilience Fund, TNC has offered small grants to communities to assist with living shoreline planning and implementation. While there are no current grant applications open under [this program](#), opportunities such as these should be monitored for, as nonprofits including TNC can offer monetary and capacity support to municipalities separate from federal and state programs. To stay informed about these opportunities, TNC has an email list that you can join [here](#).
- 8. Building Resilient Infrastructure and Communities (BRIC) pre-disaster mitigation grant**
FEMA’s [BRIC program](#), which replaces the existing Pre-Disaster Mitigation (PDM) program, is a hazard mitigation assistance grant to support states, local communities, and tribes to implement projects for hazard mitigation. BRIC is funded by a 6% set-aside from federal post-disaster grant funding, and \$500 million is available in BRIC funding. Through BRIC, FEMA anticipates new approaches to partnerships and project design for multiple funding sources and shared funding mechanisms.
- 9. Monmouth County/DoD 2017 Joint Land Use Study- Permitting funds**
Based on conversations with partners in Monmouth County, some funding exists to carry out some of the plans detailed in the Bayshore Joint Land Use Study around Naval Weapon Station Earle through the permitting stage. Atlantic Highlands may consider discussing with Monmouth County about how to access these funds for permitting for projects that emerged as a result of that study.
- 10. Waterfront Alliance WEDG Resilient Waterfront Design Guidance**

Atlantic Highlands could consider connecting with the Waterfront Alliance group who is committed to resilience, ecology, and waterfront access. The WEDG arm of the alliance is focused on waterfront designs and can provide practical guidance at the site scale. This guidance might be useful particularly for any work done at the harbor involving the gateway concept. Learn more about the WEDG program [here](#), and about the Alliance more broadly [here](#).

11. NJ Department of Transportation Municipal Aid Grants

To further the Many Mind Creek greenway project, Atlantic Highlands could consider applying for the next round of Municipal Aid Grants from NJDOT for this project specifically. These grants can be used for both bikeways and quality of life improvements, making them suitable for this project. Atlantic Highlands has previously been awarded grants through this program, and is therefore likely familiar with the process. To learn more about these opportunities, visit this [link](#).