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Tanner Stallbaumer
*Bates College*

Carter Goodell
*Bates College*

Annie Blakslee
*Bates College*

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Recommended Citation
Stallbaumer, Tanner; Goodell, Carter; and Blakslee, Annie, "Exploring Recreational Opportunities Along the Androscoggin River" (2019). *Community Engaged Research Reports*. 54.
https://scarab.bates.edu/community_engaged_research/54

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# Exploring Recreational Opportunities

# Along the Androscoggin River

ENVR 417 - Community Engaged Research

Bates College

Tanner Stallbaumer, Carter Goodell, Annie Blakslee

Winter 2019

# Executive Summary

Historical industrialization along the banks of the Androscoggin River from the 18th to the 20th century has given the river a public image of decay and pollution. As a result, the Androscoggin River became one of the main reasons the Clean Water Act of 1972 was successful. After more than forty years, limited development and strict waste management regulations have helped begin the process of restoring the river back to its natural beauty. Maine's growing nature-tourism industry is largely limited to the deep backcountry and coast, as well as its major rivers. As one of the last large rivers in Maine to remain largely unfriendly to boating and general recreation, communities along the Androscoggin have the potential to promote recreation on the river and help bring additional income and awareness of the natural beauty of the region. In conjunction with Maine Rivers and Jen Deraspe, this project presents a six-phase plan to establish a water trail along the Androscoggin River.

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# Introduction

## *I. History of Use and Misuse*

Rivers have historical significance in America, having transitioned through several imaginations and definitions of their uses that fundamentally altered many of these bodies of water. Currently, more than one-third of the rivers throughout the United States are listed as impaired or polluted (Bernhardt et al., 2005). Once providing food, clean drinking water, and a means of transportation to people along their banks, many rivers in America suffered from impoundment and pollution during the Industrial Revolution. Factories dumped waste and excess chemicals directly into the riverways making the water undrinkable and the fish unsafe to eat and dams were erected to regulate the flow of water, making rivers across America grow foul and highly polluted (McCool, 2012).

The Androscoggin River is a 170 mile river that begins near Errol, New Hampshire, at the outflow of Lake Umbagog. It crosses into Maine in Gilead, and makes its way intto Merrymeeting Bay, near Brunswick, Maine, where it joins the Kennebec River bound for the Gulf of Maine (see appendix 1). The river started being used for  industry in the 1800s, and by the end of the 19th century it was used to power a large amount of paper production (Bethel Historical Society, 2007-2011). Through the 19th and 20th centuries, the Androscoggin became heavily industrialized and heavily polluted (Landis et al., 2006). The pollution was so bad in the mid-1900s that paint on houses near the river would peel off due to fumes from the chemicals. It was not until the Clean Water Act of 1972 that steps were taken to reduce pollution from the many sources along the Androscoggin (McFarlane, 2012).

## *II. Clean Water Act Transforms the River*

The Androscoggin was one of the main rivers that inspired the creation of the Clean Water Act. Sen. Ed Muskie, one of the most influential people in helping pass the Clean Water Act, lived by the river in Rumford, ME, driven by state of the Androscoggin. In recent years, the water quality classification of the Androscoggin has been petitioned to be upgraded in order to assist the river becoming a recreationally viable waterway (Washuk, 2014). In part due to the visible results and potential, river restoration across the U.S. has become a highly profitable, popular movement. Methods for river restoration are widespread and often targeted at access to fresh water, food, and recreational opportunities (Bernhardt et al., 2005). These movements have the potential to gain momentum from any starting point, but projects that have shown the most success are the ones that find a way to spark connection between communities and the restoration project (Logar et al., 2019).

Healthy rivers are found at the roots of communities made up of populations that are both mentally and physically thriving as and are the foundation to well-functioning ecosystems. River restoration projects achieve environmental objectives by reaching a higher biodiversity and increasing the social and economic welfare of communities living along the river (Logar et al., 2019). Social and economic well-being can be increased by providing additional opportunities for recreation, such as establishing a safe and easily accessible water trail. A water trail is an accessible and navigable recreational waterway that encourages and supports activities like canoeing, kayaking, and other water sports. This definition is founded in terms that also define successful walking trails and canoe trails (River Network, 2006).

Maine has a long history of recreational waterways. As the industrial use of many rivers for logging and other industries began to decline, recreational opportunities started to rise. A report published in 1982 identified more than 4,200 miles of potentially viable recreational waterways, yet did not mention the Androscoggin downstream of Bethel, ME. (State of Maine Department of Conservation, 1982). The Androscoggin River Watershed Council is currently seeking to establish a water trail, which would extend along the length of the Androscoggin in its entirety (ARWC, Androscoggin River Trail). In theory, this would add an additional 164 miles of recreational waterway and contribute to Maine's growing recreational tourism economy.

## *III. Recreational Opportunities on the Androscoggin*

Establishing water trails is important to the well-being of communities and river ecosystems. Natural environments that are easily accessible thus offer a unique, yet important resource (Kaplan, 1995). By increasing the accessibility of a water trail, people, both those living along the banks of the Androscoggin and others that live elsewhere, will ideally begin to care about the restoration and prosperity of the river and its riparian ecosystem. In order to develop this symbiotic relationship between communities and the Androscoggin River, this project is in collaboration with Maine Rivers.

Maine Rivers is a non-profit that became an independent organization in 2003 (Maine Rivers, 2019). The group serves to protect and restore the rivers within Maine and generally supports projects and ideas that are related to the preservation and restoration of rivers within Maine (Maine Rivers, 2016). We will also be working with Jen Deraspe, from Nurture Through Nature Retreats, who through paddled the length of the river from Errol Dam to Brunswick. Her journey exposed the limitations currently in place to utilizing the river recreationally, and will

provide invaluable first hand accounts of conditions along the river that could be applicable to this project.

Working alongside Maine Rivers and Jen Deraspe, this project served to provide a resource for river communities to increase recreation and accessibility to the Androscoggin River while educating the public about the value of the river in its new context as a recreational waterway. In order to do this, we provided a document that outlines the steps needed to create a successful water trail along the Androscoggin River. This took the form of a plain language toolkit that included steps that were completed and future recommendations for implementing a viable water trail along the Androscoggin. The full toolkit can be found in *Appendix 2.* Within this toolkit, an inventory of all dams along the river was included to provide a comprehensive and more easily understandable web-based Story Map project. This allowed the collection of highly complicated and disparate information on dams into a user friendly platform that will assist in future planning of portages and travel routes.

# Methodology

The first part of our project included researching other water trails and water trail plans in order to understand processes used to establish water trails. We looked at feasibility, uses, accessibility, potential oppositions, as well as what aspects create a successful, accessible water trail. We used the research we collected to compile a toolkit specifically for the Androscoggin River. This included several plans from other water trails across the USA, a National Park Service document titled “Water trail planning 101,” and a book written by Dave Getchell, one of the founders of the Maine Island Trail Association called "A Guide to Establishing and Maintaining Recreational Waterways on Fresh and Saltwater."

Using those resources, we compiled a series of steps that we thought were important to include in our toolkit. These steps followed six phases laid out in the “Water Trail Planning 101” document. We completed steps within the first three categories, the Planning, Inventory, and Access phases. We then gave recommendations on how to implement the last three steps, the implementation, promotion, and operation phases. One of the steps included in this toolkit was the damn inventory. The steps laid out below encompass the methods to completing the first three phases of a six-phase toolkit to establish the Androscoggin River Recreational Waterway.

## *I. Planning*

Throughout the planning phase we built off of the vision that our community partners, Jen Deraspe and Landis Hudson, had given to us. We set goals for both the scope of our own project and the scope of the overall project. Our goal was to develop a long-term plan for the

Androscoggin River Water Trail, in the form of a "toolkit" as well as complete a dam and recreational inventory. To reach this goal, we researched other water and canoe trail "toolkits" that had successfully created a recreational water trail. These trail systems came from The National Water Trails System website. Each document provided concrete examples of how to go about mapping out a vision for creating a viable recreational water trail which was helpful for the scope of our project. Documents came from rivers and watersheds across the country.

Before we could move forward with the project, we needed to define both "accessible" and "water trail" in regards to our goals. We defined accessible as a "water trail that is easy to reach between dams. Dams are easily navigated. Maps of access points are available and it is clear whether these points have vehicle access or can only be reached by foot." We defined a water trail as an "accessible and navigable recreational waterway that encourages and supports activities like canoeing, kayaking, and other water sports. Based on canoe trail (water-based route) and river trail (walking routes)."

We researched organizations that exist locally along the Androscoggin River. We made an effort to teach out to a few of the land trusts along the river throughout this phase, however, we had limited success with response. We emailed the Androscoggin Land Trust, the Brunswick Topsham Land Trust, the Androscoggin River Watershed, and the Androscoggin Riverwalk. The Androscoggin Land Trust and the Brunswick Topsham Land Trust replied with suggestions for research outlets. They also expressed interest in helping the water trail efforts as the project progresses. We provided a list of land trusts and other organizations along the river or that we believe could be helpful in pursuing development of the water trail in the future. This list can be found in the toolkit in appendix 2.

## *II. Inventory*

As the Planning Phase began, we simultaneously worked on the Inventory Phase by exploring the licensing and regulation data for 31 dams along both the Androscoggin and Little Androscoggin. Alongside this research, we began to explore the licensing and regulation data for 31 dams along both the Androscoggin and Little Androscoggin. Information regarding the dams exists across several different databases, such as the National Inventory of Dams, New Hampshire Dam Bureau, and Maine Fish and Wildlife, and reports are often many pages long with dense, technical vocabulary. Each database was downloaded, and pared down to information our partners deemed most necessary for presentation.

Using arcGIS, layers were created displaying dams, access points, and rapids along the river. Presented together, a map was created that was able to answer our questions about where access points existed around dams especially. Additionally, shapefiles were added to show adjacent public lands, helping create a more useful display of recreational access along the river.

However, given seasonal restrictions and the time constraints of the project, a formal portage assessment could not be conducted. AWRC's access point data possessed a three level grading system which was utilized to display different levels of access, but did not show how this data was collected or graded.

## *III. Access*

The Inventory Phase helped us move forward with the Access Phase. The dam and recreation inventory indicated where there is access, and more importantly where access is

absent or weak long the potential water trail. We were able to identify where the Androscoggin River Water Trail would need more access points, or access that is improved. This phase is not yet complete as we were not able to gather all the information about the quality of the access points.

# Results and Discussion

## I. Discussion of Deliverables

*Toolkit*

Throughout our research of other water trails across the United States, we determined some essential characteristics and amenities that should be included if the Androscoggin River will be a successful water trail. The outline of these characteristics and amenities can be found below, but more detailed description and recommendations on how to best implement these can be found in *appendix 2* in the toolkit we compiled.

Before implementing a water trail, a plan should be in placed surrounding the basics of the water trail. For the Androscoggin, the trail should go from the headwaters at the outflow of Lake Umbagog in New Hampshire, until Merrymeeting Bay in Brunswick, Maine. Along the trail, there should be adequate access points every 3-8 miles and campsites about every 5 miles in order to promote recreational usage for one-day and multi day users. Dams along the river should have clearly marked, safe portages, as described in the toolkit (*appendix 2*). Dams, access sites, and public lands were compiled into the dam inventory, discussed below.

Once sites are identified and the river is deemed navigable, physical infrastructure should be implemented. Funds need to be sourced to implement this infrastructure. Some of the recommended sources of funding are government funds, land trusts, watershed councils, or working under a parent organization that already has access to funds. We determined that the largest need for physical infrastructure was signage, campsites, and portage routes along the river.

*Dam and Recreational Inventory*

One of the major things revealed by the inventory was lack of significant public green spaces along the Maine section of the River, particularly below the area of Bethel. Historically, the section of river between Berlin and Livermore Falls has been among the most heavily industrialized, and present modern major point sources of pollution. However, strict regulations set by the CWA and subsequent similar statutes have allowed for greater recreational possibilities. Furthermore, numerous access points already exist in this area with low difficulty gradings, further emphasizing the area as a region upon which to focus.

Another interesting development is the concentration of dam ownership around particular cities, and further show more consistently difficult access points around dams, contributing to the issue of difficulty of navigation. These areas, conveniently close to population centers, show that these areas may be the best place to start petitioning for better access and increasing recreational potential in the area. Jay and Livermore Falls present the highest relationship between poor access routes and a singular dam owner, in this case Eagle Creek Renewable Energy.

## *II. Conclusions*

Both the tool kit and the inventory work in conjunction to address the need for greater information about recreational potential on the river. This step is necessary to the greater implementation of a water trail, and provides users and activists with a framework and visual tool to push for greater access or recreational opportunities in communities along the river.

# Recommendations for Next Steps

Our first recommendation to continue exploring the possibility of a recreational water trail along the Androscoggin River is to complete the inventory of the river. This includes paddling the river and ensuring all access points are marked on the map and by signage on the river. Campsite locations should also be determined in this stage, and landowners of potential sites should be contacted.

One of the biggest needs we recognized throughout this project and through Jen Deraspe's journey along the Androscoggin is the need for better dam portages. By "better," we are referring to clearly marked paths that allow safe transport of boats by foot. Because of this, we recommend evaluating all portages for safety and accessibility using the checklist provided in the toolkit (*appendix 2*). This is crucial step to ensuring the connectivity of different sections of the Androscoggin River.

We hope that this project can continue to gain traction, and that the six step plan laid out in the toolkit is helpful for continuing ahead with the creation of a water trail along the Androscoggin River. Once the inventory of the river has been completed, the project should continue with the access phase. This phase can be perpetuated by going to access points and dam portages in person in order to figure out what should be improved. We also hope that the recreational inventory completed though this project will continue to be maintained and updated, and eventually provide a digital resource for people who want to use the water trail.

As the recreational inventory cumulates digitally, we would recommend a physical printed out map providing the same information. One of the critiques that Jen Deraspe had as we began the project, was that it was nearly impossible for her to track down a printed map of

portages and access points on the Androscoggin River. While this map may be more difficult to update like a digital map, we believe the recreational community would benefit from an official map of the Androscoggin Recreational Water Trail.

# References Cited

Androscoggin River Watershed Council. (n.d.) Androscoggin River Trail. Retreived from http://arwc.camp7.org/androscoggin_river_trail_home.html

Bernhardt, E., S. et al. (2005). Synthesizing U.S. River Restoration Efforts. *Science, 308*(5722), 336-337. Retrieved January 29, 2019.

Bethel Historical Society. (2007-2011). A River's Journey: The Story of the Androscoggin. Retrived from https://www.bethelhistorical.org/legacy-site/A_River%27s_Journey.html

Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology, 15*(3), 169-182. doi:10.1016/0272-4944(95)90001-2

Landis, W.G., Chen, V., Pfingst, A., and Kushima, G. (2006). Androscoggin River Watershed Ecological Risk Assessment. *National Council for Air and Stream Improvement Grant 1-56189.* Retrieved from https://www.researchgate.net/profile/Wayne_Landis/publication/265246875_ANDROSCOGGIN_RIVER_WATERSHED_ECOLOGICAL_RISK_ASSESSMENT/links/54b5574e0cf2318f0f976a33/ANDROSCOGGIN-RIVER-WATERSHED-ECOLOGICAL-RISK-ASSESSMENT.pdf

Logar, I., Brouwer, R., & Paillex, A. (2019). Do the societal benefits of river restoration outweigh their costs? A cost-benefit analysis. *Journal of Environmental Management, 232*, 1075-1085. doi:10.1016/j.jenvman.2018.11.098

Maine Rivers. (2019). *About Us*. Retrieved from https://mainerivers.org/about/

Maine Rivers (2016). *2016-2018 Strategic Plan*. Retrieved form https://mainerivers.org/wp-content/uploads/2009/05/2016-FINAL-Maine-Rivers-Strategic-Plan.pdf

McCool, Daniel. (2012). *River Republic: The Fall and Rise of America's Rivers*. New York: Columbia University Press. Accessed from ProQuest Ebook Central.

McFarlane, W.C. (2012) Defining a Nuisance: Pollution, Science, and Environmental Politics on Maine's Androscoggin River. *Environmental History 17, 307–335.* doi:10.1093/envhis/ems019

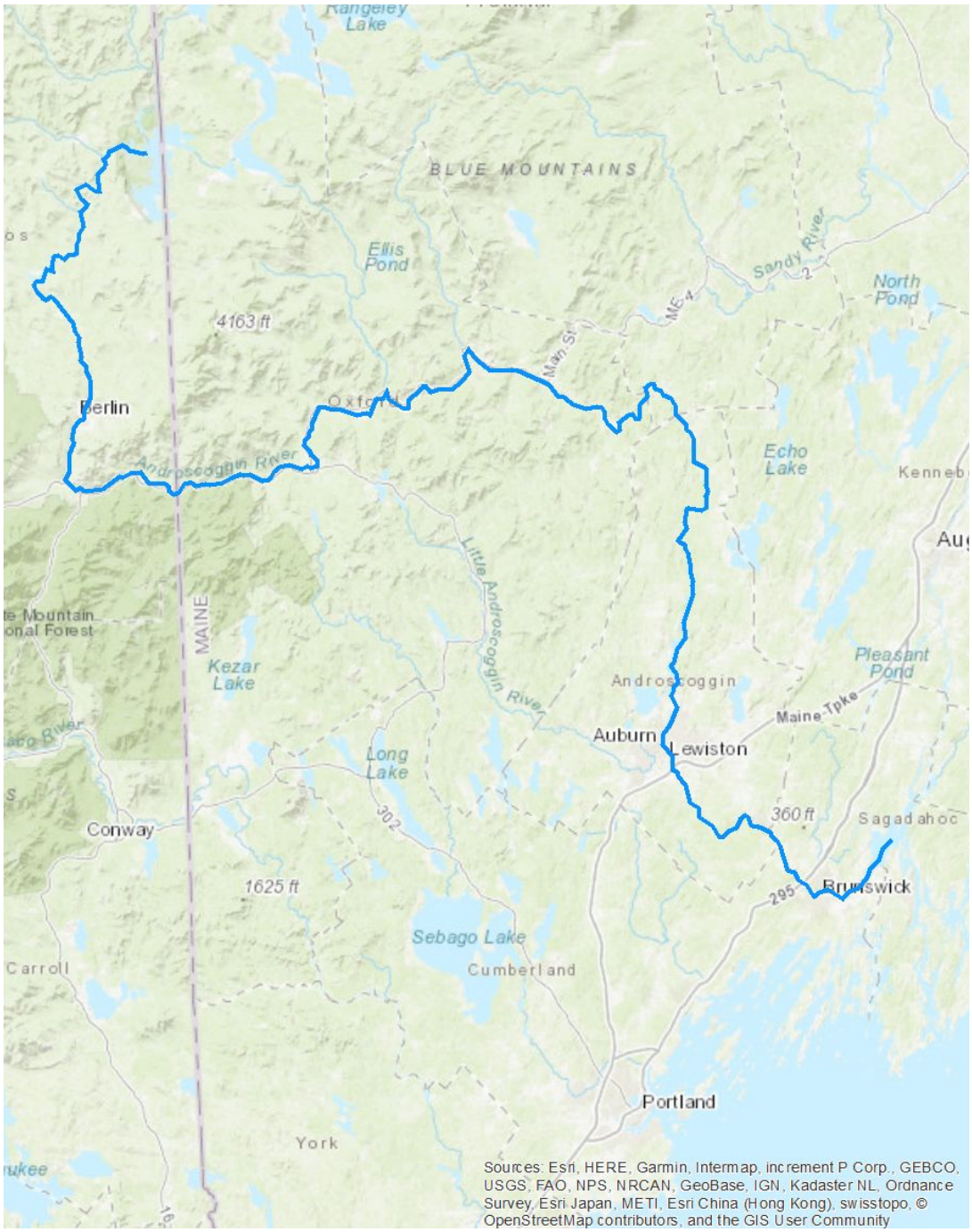
River Network. (2006) The History of Water Trail Systems. *River Voices, 16* (2), 1-26

State of Maine Department of Conservation. (1982). *Maine Rivers Study*. Retrieved from https://www.maine.gov/dep/gis/datamaps/lawb_maine_river_survey/pdf/1982MaineRiversStudy_FinalReport2011.pdf

Washuk, B. (2014). Quarter-mile Section All that Separates Androscoggin River from Improved Water-quality Standard. Retrieved from https://www.nrcm.org/waters/quarter-mile-section-all-that-separates-androscoggin-river-from-improved-water-quality-standard/

# Appendix

***Appendix 1:*** Map of Androscoggin river:




Made using ArcGIS Desktop.

***Appendix 2:*** Androscoggin Recreational Water Trail Toolkit

# *Androscoggin Recreational*

# *Water Trail Toolkit*

Tanner Stallbaumer, Carter Goodell, Annie Blakslee

Bates College

Winter 2019

**About this "toolkit"**

This document was created through collaboration with Landis Hudson, executive director of Maine Rivers, and Jen Deraspe, a river enthusiast who recently paddled the entire length of the Androscoggin River. The goal of this toolkit is to lay out the steps needed to make the Androscoggin River into a variable river trail for through paddlers and single day users. The backbone of this toolkit was adapted from a National Park Service document called "Water Trail Planning 101" (National Park Service, n.d.).

**What is a water trail?**

A water trail is an accessible and navigable recreational waterway that encourages and supports activities like canoeing, kayaking, and other water sports. Based on Canoe Trail (Water-based Route) and River Trail (Walking Routes). Water trails are accessible and typically designed for non-motorized boats and other recreation. Water trail is easy to reach between dams. Dams are easily navigated. Maps of access points are available and it is clear whether these points have vehicle access or can only be reached by foot.

# Phase 1: Planning

### *Develop a Vision*

The Androscoggin River has a long industrial history that lead to severe pollution in the water; resulting in severe consequences for life in the water and communities existing on the river. In 1972 the Clean Water Act was passed which establishes a structure to regulate the discharge of pollutants into the water. Under the Clean Water Act, the Environmental Protection Agency has implemented pollution control programs throughout the country, as well as providing a list of criteria recommendations for pollutants in the water (U.S. Environmental Protection Agency, 2009). Unfortunately, the Androscoggin has suffered, and is still suffering from the consequences of chemical discharge (Natural Resource Council of Maine 2019). In some stretches of river that reach enough distance from the mills in both Jay and Rumford, "the river is much cleaner than is used to be and people can now use it for recreation" (Natural Resource Council of Maine, 2019).

The vision for the Androscoggin Recreational Water Trail is to establish a 170 mile water trail from the start of the river in Errol New Hampshire to Merrymeeting Bay in Maine. This trail aims to promote and support the river and its communities as potential recreation opportunities. We have seen that communities along the river have begun to shift their view of the river away from industry, and forward toward opportunity.

Once completed, the vision is for communities to develop a relationship to the river, the water trail will be accessible, the dams will be easily navigated, and signate will exist along the

trail to support access and navigation. The trail will offer an opportunity to change the reputation of the river and support healthy communities along its banks.

### *Set Goals*

In order to design a successful water trail, goals are important. After developing a vision, goals give the vision pointed direction and drive. One of the main goals for this particular project is the clarity of signage along the river. A big focus was on figuring out where the trail is clearly marked around dams, access points, and at other points along the trail. Useful signage is easy to read, clearly seen, and is posted often.

### *Identify Support*

Creating a water trail is not easy to do as one entity. Especially as the river flows through many communities full of diverse organizations and interests. Finding support to get behind establishing a successful, accessible water trail is important. For this project in particular, Maine Rivers and The Androscoggin River Watershed Council have been identified as organizations willing to help. As the project continues, reaching out to other entities will be important. Some organizations to consider, include the Androscoggin Land Trust, Androscoggin Brunswick-Topsham Riverwalk, and the Brunswick-Topsham Land Trust.

### *Identify Users*

Thus far, we have identified communities along the Androscoggin and “outdoor enthusiasts” as groups and people who would be using the water trail. There is also hope that the

water trail will attract tourists from outside of Maine, New Hampshire, and even New England. We believe that the completion of an accessible recreational water trail will draw the crowds and attention of these specific groups, and will make an effort to reach out to these users as the process continues. Acknowledging these users will be important in creating and designing advertisements and marketing material later in the process.

### *Communities*

As the water trail vision develops into a plan, communities along the river have the opportunity to get involved and benefit from recreation. As the trail is in the planning phase, organizers can reach out to communities and gain support. Communities identified for this particular project include towns along the river itself as well as organizations and other miscellaneous groups of people who are excited to find new places for river recreation.

# Phase 2: Inventory

A map containing all of the dams along with known access points, rapids, and conserved public lands was made using ArcGIS online. Because of time and weather constraints, we were not able to visit sites in the field. Instead, we used data from the Androscoggin River Watershed Council (ARWC) concerning already established access points and rapids. In addition, we added information regarding all of the dams on the river, as well as parcels of public conserved land along the river bank. This data is available through an online mapping application called ArcGIS Online, and can be here: https://www.arcgis.com/apps/InteractiveLegend/index.html?appid=4ec26e02675f4d4794ea35136a84c772

***Access points:***

It appears form the map of map by ARWC that there are sufficient points of access across the majority of the river. The distance between access points is a large factor in planning a water trail. Other trails vary on the maximum distance between access points, but long distance, non-urban water trails recommend having access sites between 3 to 8 miles apart to make the trail the most appealing to users (Cayuga County Department of Planning & Economic Development, 2008; Farnham & Schreiber, 2012).

Access sites commonly fall into three broad categories based on design. The first is a boat ramp, which usually consists of a concrete or paved ramp large enough to accommodate boats on trailers. These have the advantage of being stable and durable, reducing erosion, and can be put in at differing slopes for accessibility. They can have slippery surfaces, but this can be controlled

with textured concrete. The main drawback is the damage that can occur during freezing and thawing and flooding of the area (Cayuga County Department of Planning & Economic Development, 2008).

The second type of access point is a dock. These can either be fixed or floating. In most bodies of water with variable water levels, floating docks are more practical than fixed ones. Floating docks adjust to changing water levels and provide a level, sturdy surface to enter vessels. They decrease the environmental impacts on the shoreline, and create less wear on boats. The downsides are that docks cannot be installed in all locations due to currents or shoreline constraints, they may not meat disability requirements, they can be more expensive to maintain and would have to be removed in the winter (Cayuga County Department of Planning & Economic Development, 2008).

The last type of access point is know as a naturalized shoreline, and can can vary based on location. This could be a grassy river bank, a beach, or a rock ledge. These launches are the cheapest and the easiest to maintain, and cause the least alteration to the natural environment. Naturalized access points are not accessible to all, can be hard to spot, and can be slippery or steep. These access points can also cause significant erosion on steep banks and with lots of use (Cayuga County Department of Planning & Economic Development, 2008).

Both docks and naturalized shorelines are hand carry only launches, meaning a boat on a trailer cannot be launched at those sites. The ArcGIS map created differentiates between ramp boat launches, where any type of boat can be launched, and hand carry launches, which are reserved for smaller vessels such as kayaks and canoes.

***Campsites:***

In our research, we found no published information about established campsites along the Androscoggin River. Research showed that having sites located approximately every five miles allows for trail users to have flexibility in trip planning (Connecticut River plan). For more Recommendations about establishing campsites, we recommend reading the "Connecticut River Primitive Campsites Campsite Stewardship Guidelines" document. We provide recommendations on campsite location selection in the "Implementation" section below.

***Hazards:***

Hazards on the river were identified mainly as being rapids and dams. Through the ARWC map, hazards were added to the map we created. More information about rapids needs to be completed in order to make a more exhaustive list. Rapids should be classified using the international scale for river difficulty, established by American Whitewater (American Whitewater, 2005). The different classes can be found in Appendix A.

***Portages:***

Based on anecdotal evidence from Jen Deraspe after she paddled of the entire Androscoggin river, it appears that one of the biggest obstacles to creating a water trail is dams and portage routes. While there are requirements set forth by FERC for relicensing, this process takes several years and can be difficult to maintain a constant active voice in promoting changes at these portage sites. We believe further evidence can be collected as recreation increases to create a new database where individuals can issue reports on the status of these Portage routes.

Once again due to the time of year and scope of our project, we were not able to evaluate the dams for safety and ease of access. However, we did find a checklist on evaluating dams and portage routes that we modified for use with the Androscoggin River. This list evaluates the safety features, signage, and amenities present at portage sites to help better inform what each site needs. We recommend that this list be taken out and completed for each dam to determine what is needed to ensure the Androscoggin is as navigable as possible. The list was also compiled into a spreadsheet so that notes for all of the dams can be kept in one place. An example of the spreadsheet modified from the Rock River Trail plan is attached in Appendix B below.

# Phase 3: Access

We have defined access and accessibility as it related to the Androscoggin Recreational Water Trail as, "a water trail that is easy to reach between dams. Dams are easily navigated. Maps of access points are available and it is clear whether these points have vehicle access or can only be reached by foot." This definition is narrowed to the abstract focus of our vision, looking specifically at dam navigation and frequency of access points. As the project develops, the definition of access and accessibility will look more concrete, including a rating system and rubric that will assess each access point and publicly advertise what exactly can be expected.

### *Identify Access*

The "Access Phase" builds off of the work that has been done throughout the inventory phase. It is important that locations where there is access are identified. However, the focus should prioritize the areas that lack access to the water. Through the previous dam inventory and mapping, it became clear that there are stretches of the river that do not have publicly available access points to the river. Identifying the lack of access is an important step moving forward.

This phase will need to address the access points and build off the information found throughout the Inventory Phase.

### *Permission*

The permission portion of this project will be based off of where access points are absent, yet have a potential to exist in locations that my be on privately owned land. This is where permission may be needed. Permission will find a range of meanings from foot access to road

access. Potentially some landowners may only allow some types of boats or little to no infrastructure on their property. See the toolkit section about campsites to find more information about permits on private land.

***Infrastructure***

When addressing each access point, there are several questions that need to be addressed in order to figure out the kind of infrastructure that is needed at each access point in order to support the vision of the water trail:

- Who will be using the access location?
- How many parking spaces are needed?
- Where is the nearest public green space?
- Does this site need trash receptacles?
- Does this access point need a picnic bench, restroom or shelter?
- What types of boats will be put into the river at this location?
- Where is the nearest road?

These questions may be answered in the form of access site surveys in order to identify the needs at each access site. We would recommend completing this survey at all access sites in order to establish a clean, supportive space for recreational water trail users.

# Phase 4: Implementation

### *Funding*

In order to implinet physical infrastructure, such as signage, campsites, and portage routes, there needs to be a source of funding for the water trail. Having a strong group of volunteers can offset costs, but materials will still be needed in order to implement new infrastructure.

One way to secure funding for a new project is to start it under a parent organization that already has the means and experience in soliciting funds. If the river trail is to grow into its own organization, it can later break from the parent organization. Other sources of funding can come from organizations, such as land trusts or watershed councils, that have invested interest in having a water trail on the Androscoggin River. Grants can also be written to fund startup costs.

Another potential source of money can come from government funds. Maine has a Boating Facilities Fund that offers money to projects that increase recreation along waterways in Maine (Bureau of Parks and Land, 2019). This grant will only be useful for owners of land looking to develop it for recreational opportunities, but other grants exist in both state and Federal governments (Getchell, 2000).

For continued upkeep of the trail, a steady source of funding needs to be identified. This can come from public funding, but those are susceptible to government budget cuts. One option it to have the trail become a membership organization, with members paying to use the amenities along the trail. This option does bring in a steady source of income, but it does provide a greater barrier of entry for those who want to use the river. Other potential sources can be yearly

fundraising, but funds from donations can vary year to year and are not a steady source of income (Getchell, 2000).

### *Campsites*

In order to have a successful river trail on the Androscoggin, campsites need to be established to allow users to do multi-day trips. As mentioned above, we recommend having a campsite about every five miles. This gives users the possibility to safely continue on to the next site if the first is full, and helps to spread the users out, ensuring that no one site gets too heavily used (Connecticut River Water Trail, n.d).

#### *Selecting locations:*

The first step in selection possible campsite locations is to look at topographic and satellite maps to identify potential areas for establishing campsites. Tax maps can then be used to determine the land owner. The most important part of selecting site locations, however, is to paddle the river and scout for potential campsites. Often locations along portage routes, on islands, or beach-like areas are ideal locations that might already receive public use. The size of the site can vary based on it's expected use, but having a site that can fit up to five two-person tents is a good size. It is best if sites can not be easily accessed by land through roads or hiking trails, as this will ensure that they are not crowded for paddlers. Sites should have a safe and easy landing zone. Alternative landing zones should be considered for islands to account of changing wind, weather, and current (Connecticut River Water Trail, n.d).

When choosing campsites, care needs to be taken not to pick sites that contain ecologically sensitive vegetation or have archeological significance as a pre-historic sites. Contacting state Archeologists or Biologists can help to determine if the area in question is suitable for a campsite or not (Connecticut River Water Trail, n.d).

*Working with landowners:*

Once a suitable site is found for a campsite, the landowner should be determined. If the land is owned by the state, than the correct agency needs to be contacted. Most commonly, public lands are owned either by States for recreation or by Fish and Wildlife within the state.

If the land is owned by a private individual or organization, they should be contacted. A written letter is better than a phone call, as it does not allow for an immediate "no" answer. The Maine Island Trail Association suggests sending a packet with a brief explanation of the project, common landowner questions and answers, a brochure of landowner liability laws, and a brochure about the organization running the trail. The package also contains a short letter that clearly states what the organization is asking of the landowner. This should be followed by a phone call a week after sending the package, if possible (Getchell, 2000).

The type of agreement will vary based on the landowner. The simplest but effective type of agreement is simply a handshake agreement, providing both parties are clear on the specifics of the agreement. A written letter can also be created to further clarify the terms of usage. Thes can be revocable, meaning either party can back out after a certain notice period, or renewable, meaning the letter will have to be renewed in a set number of years (Getchell, 2000).

In Maine and New Hampshire, private landowners have broad protection from lawsuits when allowing their land to be used for recreational purposes. These protections in both states will only be upheld if the landowner is not charging a fee for the use of their land (Connecticut River Water Trail, n.d.; Getchell, 2000). A more detailed description of the lows for both states can be found in Appendix C and D. These descriptions, or something similar, should be included in the initial mailing to the landowners (Getchell, 2000).

*Campsite amenities:*

Primitive campsites with few amenities have the smallest impact on the land and can help to not degrade sites. However, campsites should have some features for users as well as to for the organization to gauge the amount of use each site is getting. To that end, sites should have some sort of register system, allowing users to note when they stayed at the individual campsite. A watertight container, such as a metal mailbox or a plastic tupperware, should contain a logbook, pen, and instructions on what information is desired. Information such as the date, number of people, number of nights stayed, and general comments should be asked for in the logbook (Connecticut River Water Trail, n.d.; Getchell, 2000).

Other amenities, such as a privy, fire ring, and picnic tables should be considered. While many backcountry sites probably will not need picnic tables, more popular and accessible sites could benefit from these. The same applies for privies. While it would be least invasive to have people carry out human waste, as is the strategy of the Maine Island Trail Association, this is not the case for many trail users. Simple privies can be constructed and places at least 100 feet from

surface water (Connecticut River Water Trail, n.d.; Getchell, 2000). Many different plans can be found online for simple box privies.

Fire rings will have to be dealt with case-by-case, depending on landowner wishes. To have the least impact at camping sites, users should be encouraged to use camping stoves instead of fires. Having a fire ring also encourages the collection of wood, which further increases the impact by users (Connecticut River Water Trail, n.d.; Getchell, 2000).

### *Signage*

One of the largest pieces of infrastructure that we identified as missing along the length of the Androscoggin River was signage. The first type of signage needed is at access points, both for people beginning their journey there and for reference for those stopping. This can include a full kiosk with information such as a map of entire water trail, general water trail information, paddling safety guidelines, local emergency numbers, leave no trace principles, and a description of river section to the next downstream access point including distances and hazards, such as dams (Arkansas River Water Trail Signage Plan, n.d).

Another important place for improved signage is for wayfinding along the river. These signs should be placed at campsites, bridges, and other major landmarks. If there is a location with a sign, the sign should also be able to be found on a map of the water trail. Signs for campsites, landing areas, and portage routes should be able to be clearly seen from the water (Arkansas River Water Trail Signage Plan, n.d). Additionally, all signs pointing out major landmarks should have a unique number, usually the mileage of the river, for emergency situations (Delaware River Greenway Partnership, 2010). These function similarly to mile

markers on the highway, and users in need of help can use the number to direct help to their location. Portages and dams should be well marked and easy to find according to the spreadsheet in Appendix C.

***Leave no trace principles***

Leave no trace principles include seven principles to minimize human impact in natural environments. These include:

1. Plan ahead and prepare
2. Travel and camp on durable surfaces
3. Dispose of water properly
4. Leave what you find
5. Minimize campfire impacts
6. Respect wildlife
7. Be considerate of other visitors

These principles should be followed by both volunteers and users of the trail in its implementation and operation (Leave No Trace, 2012).

# Phase 5: Promotion

Publicising the trail will be important to providing users with information about the Androscoggin Recreational Water Trial and amenities available to those trail users. Recommendations for promotion include developing a logo, creating signs and maps, and engaging the community through outreach programs.

### *Develop a logo*

The first step to promoting the Androscoggin River Water Trail is developing a logo that will indicate location of access points, show up on signs, and help represent the water trail on other promotional materials. This logo should include the title of the trail, "Androscoggin Recreational Water Trial," appealing colors, and as well as an image that can simply represent the vision of the trail. The logo should be seen on all signs and maps. The logo can be made into promotional materials like stickers or t-shirts, as well as represented on a web-site.

### *Signage and Maps*

Sign placement and content is important to promoting the trail. Signs should be easy to read, and placed in convenient locations throughout the length of the trail. The water trail logo should be present on each of the signs, as well as serve as a marker to acknowledge assure recreational users they are on the trail.

Maps are another important tool to promote the use of the trail. Throughout this project we have developed an interactive map available online, however we would recommend making hard copies of the map available. These copies can be passed out to retail stores, hotels,

information centers, and other companies in an effort to share accessibility to the river with the communities of both locals and tourists.

### *Community Engagement and Outreach*

The community engagement and outreach as part of developing a functioning water trail is important. We want communities to get as involved as possible on the water trail. As communities continue to get involved with the river, they will begin to adopt Leave No Trace principles as well as transform the Androscoggin River reputation away from industry and towards recreation.

The first step to community outreach includes an Androscoggin Recreational Water Trail website (NWTS). A website would provide users with electronic access to the published guide and management plan, manger(s) contact information, route and access suggestions, navigation help, and as well as links and suggestions for touring companies and retail shops to aid recreational fun!

## Phase 6: Operation

Once infrastructure has been developed to successfully implement a water trail, attention should be turned to the continued operation and maintenance of the trail. The first step of this is to designate an "owner" of the trail. This person, or likely organization, will not own the trail itself, but will be tasked with ensuring its continued maintenance. These tasks include, but are not limited to, developing a management plan, assembling volunteers, and overseeing maintenance of the trail (National Park Service, n.d).

The management plan should determine rules surrounding the trail, such as weather campfires are allowed, the number of nights users are permitted to stay at campsites, and what should be done with human waste. Campfires, as mentioned earlier, should be discouraged to minimize the impact of users on the sites. Human waste, in an ideal world, should be carried out, but that is unlikely. Privies can be bought of built for a range of prices. The type of disposal system will also depend on the amount of use different sites receive over the season (Getchel, 2000).

Volunteers are needed to maintain the trail and to complete large projects, such as building privies. Through observations of the Maine Island Trail, it seems that volunteers are eager to help with the maintenance of the trail, especially if a trip out on the water is involved. MITA also offers discounts on memberships to those who help to maintain the trail.

The trail "owner" should determine what is needed for maintenance of the trail. For the Androscoggin, it does not appear that a powerboat is necessary at this time. However, tools to clear camping areas, such as saws, lopping shears, or weed wackers may be necessary. Trash bags are also helpful to cary, as they can keep items dry and are useful for removing trash from

sites. The management plan should also lay out a schedule for maintenance, such as a spring and fall cleanup of all sites along the trail. Training volunteers to perform monitor runs to sites along the trail can also help to ensure sites are kept in the best condition possible (Getchell, 2000).

Maintenance should also occur on trail guides, maps, and a website. New sites should be added, sites that need to be removed should be removed, and events should be broadcasted to increase public involvement through the trail.

***Recommendations for next steps:***

Our recommendations for the next step of this project are to first complete the inventory of the river. This includes ensuring all access points are recorded, assessing current signage and portage routes, and location spots for potential campsites. These steps could be completed by volunteers or through events on the river, such as a source to sea paddle that included an inventory.

The most immediate recommendation we have in establishing the Androscoggin Recreational Water Trail is to contact organizations along the river that might be interested in supporting the project. Support may include anything from funding and survey groups to advocates and enthusiasm for the project. See Appendix E for potential contacts.

# References:

American Whitewater. (2005). *Safety Code of American Whitewater*. Retrieved from https://www.americanwhitewater.org/content/Wiki/safety:start?#vi

Arkansas River Water Trail Signage Plan. (n.d). Retrieved from https://www.nps.gov/WaterTrails/Toolboxes/Planning

Bureau of Parks and Lands. (2019). *Boating Facilities Fund.* Retrieved from https://www.maine.gov/dacf/parks/grants/boating_facilities_fund.html

Cayuga County Department of Planning & Economic Development. (2008). *Seneca River Water Trail Draft Master Plan.* Retrieved from https://www.nps.gov/WaterTrails/Toolboxes/Planning

Clean Water Act (CWA) Action Plan. (2015, February 02). Retrieved from https://www.epa.gov/compliance/clean-water-act-cwa-action-plan

Cleaning Up Pollution in the Androscoggin River | Healthy Waters. (2019, January 16). Retrieved from https://www.nrcm.org/projects/waters/cleaning-up-the-androscoggin-river/

Connecticut River Water Trail (n.d). *Connecticut River Primitive Campsites: Campsite Stewardship Guidelines.* Retrieved from https://www.nps.gov/WaterTrails/Toolboxes/Trail%20Maintenance

Delaware River Greenway Partnership (2010). *Delaware River Water Trail Sign Plan.* Retrieved from https://www.nps.gov/WaterTrails/Toolboxes/Trail%20Maintenance

Doonan, Nina; Hilton, William; Millslagle, Max; and Stanley, Sarah, "Examining Recreation Potential of the Little Androscoggin River through the FERC Relicensing of the Lower Barker Dam in Auburn, Maine" (2015). *Community Engaged Research Reports*. 28.

Farnham, Greg, and Schreiber, David (2012). *Rock River Water Trail Inventory, Analysis and Plan.* Retrieved from https://www.nps.gov/WaterTrails/Toolboxes/Planning

Getchell, David R. (2000). *A guide to establishing and maintaining recreational waterways on fresh and salt water.* North American Water Trails Inc. Print.

Leave No Trace (2012). *Seven Principles Overview.* Retrieved from https://lnt.org/learn/seven-principles-overview

National Park Service (n.d.). *Water Trail Planning 101.* Retrieved from https://www.nps.gov/WaterTrails/Toolboxes/Planning

Natural Resource Council of Maine (2019). *Cleaning Up Pollution in the Androscoggin River.* (2019, January 16). Retrieved from https://www.nrcm.org/projects/waters/cleaning-up-the-androscoggin-river/

National Water Trails System. (n.d.). *Best Management Practice Toolbox.* Retrieved from https://www.nps.gov/WaterTrails/Toolboxes/Planning

Rock River Dams and Portages Checklist. (n.d). Retrieved from https://www.nps.gov/WaterTrails/Toolboxes/Trail%20Maintenance

U.S. Environmental Protection Agency. (2009). Clean Water Act (CWA) Action plan. Retrieved from https://www.epa.gov/compliance/clean-water-act-cwa-action-plan

# Appendices

## Appendix A: International Scale of River Difficulty from American Whitewater

From American Whitewater. (2005)

*Class I Rapids*

Fast moving water with riffles and small waves. Few obstructions, all obvious and easily missed with little training. Risk to swimmers is slight; self-rescue is easy.

*Class II Rapids*

Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed. Rapids that are at the upper end of this difficulty range are designated “Class II+”.

*Class III: Intermediate*

Rapids with moderate, irregular waves which may be difficult to avoid and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy but group assistance may be required to avoid long swims. Rapids that are at the

lower or upper end of this difficulty range are designated “Class III-” or “Class III+”, respectively.

*Class IV: Advanced*

Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self- rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong Eskimo roll is highly recommended. Rapids that are at the lower or upper end of this difficulty range are designated “Class IV-” or “Class IV+”, respectively.

*Class V: Expert*

Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain** large, unavoidable waves and holes or steep, congested chutes with complex, demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be dif ficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable Eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.

*Class VI: Extreme and Exploratory Rapids*

These runs have almost never been attempted and often exemplify the extremes of difficulty, unpredictability and danger. The consequences of errors are very severe and rescue may be impossible. For teams of experts only, at favorable water levels, after close personal inspection and taking all precautions. After a Class VI rapids has been run many times, its rating may be changed to an appropriate Class 5.x rating.

**Appendix B: Dam portage assessment spreadsheet example**

Example of a dam that meets all safety and accessibility requirements and includes all facilities. Modified from Rock River Dams and Portages Checklist. (n.d).

| **Dam Location** | **Dam name** |
|---|---|
| ***Dam safety checklist*** | |
| Signage is easy to read from a reasonable safe distance<br>Comments: | Yes |
| Signage is easy to understand<br>Comments: | Yes |
| At least two warning signs are apparent upon approach<br>Comments: | Yes |

| | |
|---|---|
| Signage is far enough upstream to provide safe egress<br>Comments: | Yes |
| Warning signs are found on the dam itself<br>Comments: | Yes |
| A safety cable exists in front of the spillway<br>Comments: | Yes |
| Safety lights are visible on the dam<br>Comments: | Yes |
| Signs indicate which side of the channel portage is located<br>Comments: | Yes |
| General comments: | Add any other important details here |
| ***Portage safety checklist*** | |
| Potage is easily accessible from the water<br>Comments: | Yes- grassy slope |
| Path to put in is easy to navigate<br>Comments: | Yes |
| Distance between take out and put in is less than 1/4 mile<br>Comments: | Yes |

| | |
|---|---|
| Take out signage is clearly visible from the river<br>Comments: | Yes |
| Information sign/kiosk provides navigational and location information<br>Comments: | Yes |
| Garbage/recycling container available<br>Comments: | Yes |
| Restrooms nearby<br>Comments: | Yes |
| Potable water nearby<br>Comments: | Yes |
| Shelter is nearby<br>Comments: | Yes |
| Put-in site is far enough downstream of turbulent waters from spillway/discharge<br>Comments: | Yes |
| General comments: | Add general comments here |

## Appendix C: Landowner liability laws in Maine (Informational pamphlet)

## If someone comes onto my land and gets hurt, am I liable?

No, except in rare circumstances. Maine has a strong law to protect landowners, known as the "landowner liability" law (or the recreational use statute), Title 14, M.R.S.A. Section159-A.

If someone uses your land or passes through your premises for outdoor recreation or harvesting, you assume no responsibility and incur no liability for injuries to that person or that person's property. You are protected whether or not you give permission to use the land.

If you allow volunteers to maintain or improve your land for recreation or harvesting, you are also protected from liability for injuries to them.

## Useful definitions taken from the Liability Law

"Premises" means improved and unimproved lands, private ways, roads, any buildings or structures on those lands and waters standing on, flowing through or adjacent to those lands. "Premises" includes railroad property, railroad right-of-way and utility corridors to which public access is permitted.

"Recreational or harvesting activities" means recreational activities conducted out-of-doors, including, but not limited to, hunting, fishing, trapping, camping, hiking, sight-seeing, bird-watching, operating snow-traveling and all-terrain vehicles, skiing, hang-gliding, dogsledding, equine activities, boating, sailing, canoeing, rafting, biking, picnicking, swimming or activities involving the harvesting or gathering of forest, field and marine products. It includes entry of, volunteer maintenance and improvement of, use of and passage over premises in order to pursue these activities. "Recreational or harvesting activities" does not include commercial agricultural or timber harvesting.

"Occupant" includes, but is not limited to, an individual, corporation, partnership, association or other legal entity that constructs or maintains trails or other improvements for public recreational use.

## Is the legal protection the same if I post my land "No Trespassing"?

Yes. As a practical matter, your legal protection is the same whether or not the land is posted.

## Is it still possible for me to get sued in spite of the landowner liability law?

Yes, but it is very unlikely for two reasons: (1) a person who brings suit and loses must pay the landowner's reasonable legal fees and court costs, and (2) the law protects landowners so clearly that there is little opportunity for the injured person to win. In fact, there has not been a single reported successful case against a landowner where the Maine Landowner Liability law applied.

## If I am found not liable in a court of law, do I have to cover my court costs?

No. The court shall award any direct legal costs, including reasonable attorneys' fees, to an owner, lessee, manager, holder of an easement or occupant who is found not to be liable for injury to a person or property pursuant to this section.

## Does my homeowner's or farmer's insurance provide me with protection from claims?

Your homeowner's or farmer's liability insurance gives you important protection. The insurance company has two responsibilities under most policies. The company has the duty to pay the costs of defending any lawsuits brought or threatened against you (the "duty to defend"). In addition, if you are found liable in a lawsuit, the insurer has the duty in most circumstances to pay the damages assessed against you (the "duty to indemnify").

Although each insurance policy has specific coverage and dollar amount limits, most personal injury actions against landowners will fall within the coverage provided by most home and farm liability policies. For all practical purposes, these policies assure landowners of a paid defense of any claims made against them and assure that judgements against them will be satisfied up to the dollar amount of the policy limit.

Be sure to check with your carrier regarding your specific coverage.

## Are there situations in which the landowner liability law does not protect me from liability?

Yes. The landowner liability law does not provide protection if a person is injured because of the landowner's "malicious" failure to guard or warn against a dangerous condition. "Malicious" does not mean that you must have a conscious dislike for the person. Malicious intent may be inferred when the landowner has knowledge of a highly dangerous situation, usually man-made, that would have been simple to remedy or warn against and the landowner failed to do so, knowing that people would be likely to be hurt.

## Am I still covered by the landowner liability law if I charge a fee to use my land?

Maybe. In general, landowners running commercial recreation on their land are not protected. For example, commercial campgrounds or ski areas cannot expect to be protected by the law.

However, landowners do not automatically lose their protection if they charge fees. The landowner liability law applies to landowners who charge fees for entry as long as the land is not used mainly for commercial recreation or as long as the payment is not for exclusive use, such as club membership or rental for an event or campsite.

**Appendix D: Landowner liability in New Hampshire**

*From Connecticut River Water Trail (n.d).*

The State of New Hampshire has two laws limiting the liability of landowners in order to encourage property owners to open their land to the public for recreational use: R.S.A. Sec. 508:14 and Sec. 212:34. The effect of the laws is that landowners, lessees, and occupants (hereafter "landowners") will be less vulnerable to lawsuits by recreational users of their land.

The laws state that a landowner is not liable for any personal injury or property damage claims by recreational users, unless the landowner intentionally or maliciously brings about the injury or damage.

Landowners do not have to inspect the premises for hazardous conditions, give any warnings of hazardous conditions, or keep the property safe for entry by recreational users. However, property owners cannot intentionally or maliciously fail to guard or warn against a known dangerous condition, use, structure, or activity with the purpose of causing injuries. These laws also protect the State, counties, and municipalities.

The laws do not protect landowners who collect a fee or some form of payment from the recreational users. Individuals who are invited onto the land for a reason other than recreation are also not covered by the law. In addition, the laws do not extend liability protection to landowners when a recreational user injures another person to whom the owner owes a duty to keep the premises safe or to warn of danger, such as someone invited onto the land for purposes other than recreation.

"Recreational use" is defined in the statute as hunting, fishing, trapping, camping, water sports, winter sports, hiking, sightseeing, removal of fuelwood, or off highway recreational vehicle use such as snowmobiles, ATVs, motorized trail bikes, or motor vehicles.

The law applies to all land. The law applies to land that has been posted. It also applies to water bodies on private land. Landowner liability is the same whether or not there is a conservation or recreation easement on the property. If private property is part of the New Hampshire Heritage Trail, then the State provides liability protection to private landowners for the trail portion of the property.

Case law indicates that the courts will narrowly interpret these landowner liability statutes by extending liability limitations only to what the legislature has set out in the laws.

**Appendix E: List of Suggested Contacts and Contact Information**

*From Doonan, Hilton, and Millslagle, 2015*

| *Conservation and Environmental* | *Recreational* | *Local Community* | *Government* |
|---|---|---|---|
| Maine Rivers* | American Whitewater* | Auburn Boys and Girls Club | City of Auburn* |
| Atlantic Salmon Federation* | Maine Trout Unlimited | Tree Street Youth | Auburn Parks and Rec. Department |
| Androscoggin Land Trust* | L.L. Bean Outdoor Discovery School | Healthy Androscoggin | Auburn City Council |
| Maine Department of Environmental Protection* | Maine Outdoor Adventure Club | New Auburn Neighborhood Group | Auburn Conservation Coalition |
| National Park Services* | Appalachian Mountain Club | Bates Outing Club | L/A Economic Growth Council |
| Maine Department of Inland Fisheries and Wildlife* | Penobscot Paddle and Chowder Society | Daryn Slover (Lewiston Sun Journal Photojournalist) | |
| | | Barker Mill Tenant Group | |
| | | Auburn Chamber of Commerce | |
| | | Colby Gilbert (Kennebec River Guide) | |
| | | Grow L+A River Working Group | |

** Organizations who have already made an appeal during the FERC relicensing process*