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## Part Three: Interpretive Plan

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## 6. INTERPRETIVE PLANNING FUNDAMENTALS

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**Part Three** defines a visitor information network for the Allagash Wilderness Waterway. It provides a vision for trip planning, orientation, interpretation, and formal education. Together, chapters 6 through 9 constitute a “blueprint” for facilitating the Allagash visitor experiences desired by Waterway managers. It provides us—managers, partners, interpreters, educators, and designers—sufficient detail to implement recommended actions. It is, however, a plan rather than a fully developed interpretive program.

Go to Methodology in chapter 1 for a full description of the planning process that led to this programmatic concept. An interdisciplinary team, composed of individuals from Bureau of Parks and Lands, Allagash Wilderness Waterway Advisory Council, Allagash Wilderness Waterway Foundation, and Storied Lands & Waters project personnel, collaborated to

- craft goals that establish the purpose of the information network
- identify target audiences for the program
- identify limiting or beneficial circumstances under which the overall program must be implemented
- inventory focal points for interpretation (features on the land, objects, events, etc.)
- develop key messages or interpretive themes.

Storied Lands & Waters project personnel then crafted recommendations, with priorities and cost estimates.

### WHAT IS INTERPRETATION?

Interpretation is a form of communication used by managers of parks, museums, and historic sites that addresses visitors’ interests and needs while accomplishing management objectives. Maine Bureau of Parks and Lands defines interpretation as an “activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information” (BPL, 2000, p. 85).

Communication, psychology, and conservation social studies scholar Sam Ham reinforces the need to communicate more than facts. He, like most practitioners, differentiates between “education” and “interpretation.” Ham says, “In the classroom, the teacher’s goal sometimes is to communicate facts alone, a process necessary in the long-term education of students. In interpretation, however, the facts are a means to an end, rather than the end itself.” Interpreters carefully choose facts to help an audience

relate to and appreciate a place, object, or concept, in keeping with management goals and objectives. And, to “communicate a message—a message that answers the question ‘so what?’ or ‘big deal?’ with regard to the factual information we’ve chosen to present” (Ham, 2016, p. 8).

It is important to reinforce that the purpose of Waterway interpretation is neither simply sharing information nor educating the public. Rather, the purpose is two-fold. First, communicate with identified audiences in order to accomplish management objectives. Second, provoke visitors to make their own connections with the meanings of Allagash resources. For the purposes of this plan, we understand interpretation to be a form of communication with identified audiences. It is defined in Terminology, chapter 1, as a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource, rather than simply communicating factual information.

## PURPOSE OF INFORMATION NETWORK

We conduct trip planning, orientation, and interpretation, and offer curriculum resources, within a goal-driven framework: six goals establish the purpose of the Waterway information network, based in management guidance such as the 2012 management plan. The management plan, in turn, expresses a vision for the Waterway “as seen through the lens of the [2010] strategic plan’s guiding principles” (BPL, 2012, p. iii). Appendix D presents those management plan vision statements particularly relevant to Waterway interpretation and the visitor experience.

Six communication goals described below deal with pre-arrival Information, wildness, resource protection, nature and history appreciation, stewardship ethic, and formal education. The goals arise from Waterway policies and guiding principles.

### Policies and Guiding Principles

The 2012 management plan establishes a hierarchy of guidance in which policies arise from the missions of Maine Bureau of Parks and Lands, and the Allagash Wilderness Waterway. Goals, objectives, and strategies flow from those policies, which are tied to the Waterway strategic plan. See Mission and Guiding Principles in chapter 2 at page 17, and consult the management plan (BPL, 2012) for a presentation of the guidance hierarchy. Figure 76 reflects the guidance structure.

It is Bureau of Parks and Lands policy to use interpretation to “assist visitors, achieve management objectives, and increase public understanding and appreciation of the natural resources in its care. . . . Based on research, planning, training, and evaluation, these services may include, but not be limited to, personal services, such as interpretive programs on Bureau-managed land and outreach programs in the schools, and non-

personal services, such as brochures, panels, and self-guiding trails” (BPL, 2000, p. 82). Similar Bureau policies apply specifically to heritage resources. BPL uses research findings in regards to ethnographic resources “to develop interpretive programs accurately reflecting Native American and other cultures.” To “foster public appreciation for the careful management of historic and cultural resources,” BPL provides “educational and interpretive materials and experiences to visitors and community members” (BPL, 2000, pp. 38–39).

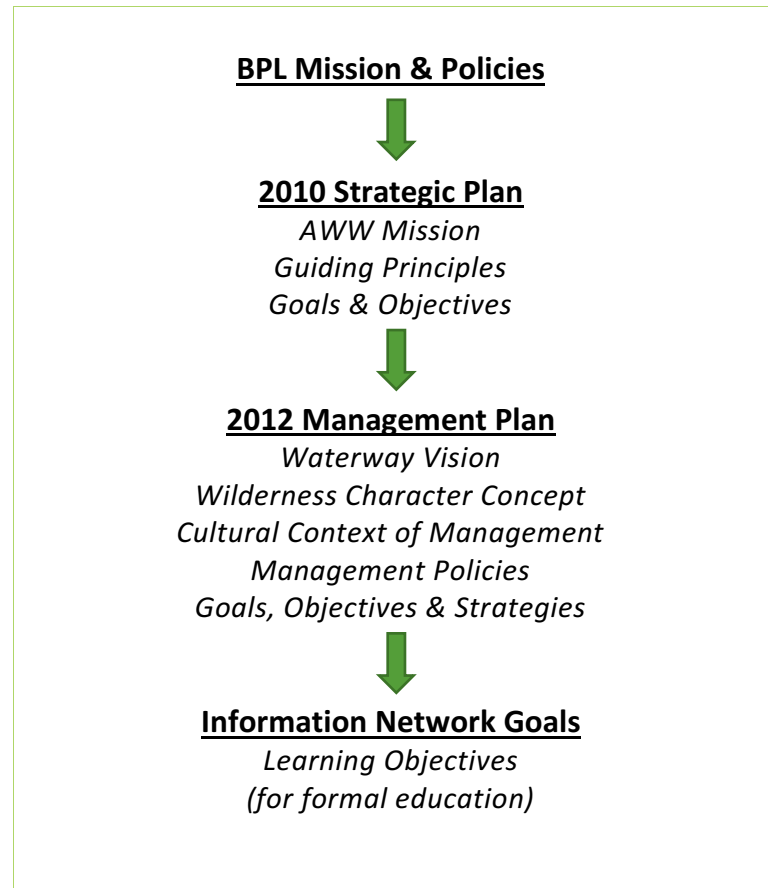


Figure 76. Waterway management guidance.

Policy 9 of the Waterway management plan emphasizes the need to inform, educate, and inspire visitors and potential visitors. Policy 9 and its associated goals and objectives provide a foundation for interpretation (BPL, 2012, pp. 157–161).

*Provide a variety of public information and interpretive materials/services in order to facilitate visitation, enhance resource appreciation, and bolster stewardship.*

**Management Goal:** Improve public information used to plan visits to the Allagash Wilderness Waterway.

*Objective 9.1:* Provide quality public information in a variety of media to inform visitors of the logistics, rules, and other important considerations associated with visits to the Waterway.

*Purpose:* It is essential that potential visitors to the Waterway have information that will allow them to safely visit the Waterway and have positive experiences. . . .

**Management Goal:** Interpret the natural and cultural resources within the Allagash Wilderness Waterway.

*Objective 9.2:* Share and celebrate the natural and cultural resources within the Allagash Wilderness Waterway to build appreciation [of] these assets.

*Purpose:* Interpreting the natural and cultural heritage of the Waterway is a technique for instilling greater appreciation for resources while enhancing visitor experiences. Interpreting the special character experienced along the Waterway can help visitors connect with the Waterway in ways that foster stewardship. . . .

**Management Goal:** Reduce visitor impacts through education [i.e. interpretation].

*Objective 9.3:* Minimize visitor impacts to resources and other users' experiences by promoting low-impact outdoor skills and ethics.

*Purpose:* Low-impact outdoor skills and ethics have the potential to reduce resource impacts and visitor conflicts arising from visitor actions in which impact or conflict occurs not out of willful neglect of rules/recommendations but rather from a lack of knowledge/awareness.

One of the 2010 strategic plan's guiding principles is also specific to interpretation. Furthermore, the strategic plan's goals and objectives provide guidance, specifically Goal B.

*The rich history, culture and traditions of the Allagash River contribute to its uniqueness, and will be preserved and interpreted as an asset to the Waterway and its visitors (BPL, 2010, p. 2).*

**Strategic Goal:** The archaeology, history, and culture of the Allagash Wilderness Waterway will be shared with the public, in the context of its wilderness character.

*Objective B.1.e:* Develop interpretive materials for the AWW that have minimal impact on its ecological integrity and on the wilderness experience of users (e.g., maps and guidebooks as opposed to kiosks on the river) (BPL, 2010, pp. 6–7).

*Objective B.1.f:* Establish cooperative relationships and explore additional interpretive opportunities with organizations connected culturally to the Waterway such as the Allagash Historical Society, the Maine Acadian Heritage Council, and the Lumberman’s Museum in Patten to explore additional interpretive opportunities.

### Information Network Goals

The following six goals establish the purpose of the Waterway information network. They are general statements about the results we envision from implementing the Allagash Wilderness Waterway interpretation program.

The guidance discussed above charts a course explicitly for interpretation, while a variety of other stated management objectives also influence orientation, interpretation, and education. Applicable management guidance is paired with the goals below. The rationale behind the management guidance is found in the Waterway management plan (BPL, 2012).

#### *Pre-arrival Information*

Visitors arrive in the Waterway prepared for a safe and enjoyable backcountry experience, one that will have minimal negative effects on important Waterway resources or other visitors’ experiences.

#### Explanation

This goal is to promote visitor behavior that is appropriate for the Allagash. Potential visitors who have easy access to accurate information about the conditions and requirements of an Allagash visit are more likely to comply with Waterway rules and be prepared with the proper gear for an enjoyable backcountry experience. Pre-arrival information can also establish norms for behavior once in the wild, such as low-impact camping techniques and courtesy regarding other visitors’ experience. Wayfinding and arrival orientation can alleviate stress for those unfamiliar with the area.

#### Management Guidance<sup>24</sup>

Objective 9.1: Provide quality public information in a variety of media to inform visitors of the logistics, rules, and other important considerations associated with visits to the Waterway.

Objective 9.3: Minimize visitor impacts to resources and other users’ experiences by promoting low-impact outdoor skills and ethics.

Objective B.1.f: Establish cooperative relationships and explore additional interpretive opportunities with organizations connected culturally to the Waterway such as the Allagash Historical Society, the Maine Acadian Heritage Council, and the Lumberman’s Museum in Patten to explore additional interpretive opportunities.

<sup>24</sup> Management guidance: Objective 0.0 = 2012 management plan; Objective X.0.x = 2010 strategic plan.

## *Wildness*

Visitors experience feeling solitude in nature with little conflict from other uses, and understand the Waterway's context as a wild and scenic river within the Maine Woods.

### Explanation

Maintaining wilderness character is a tenet of Waterway management. See the so-named heading below in the Influences Affecting Interpretation and Education section, page 191.

Objective B.1.e: Develop interpretive materials for the AWW that have minimal impact on its ecological integrity and on the wilderness experience of users (e.g., maps and guidebooks as opposed to kiosks on the river).

Objective 1.3: Limit the number and impact of state-owned administrative structures located in the Restricted Zone.

Objective 1.5: Limit the number and impact of signs located in the Restricted Zone.

Objective 1.8: Minimize the sound and/or impact of motors and other equipment or appliances used on the watercourse or in the Restricted Zone.

Objective 1.9: Enhance Opportunities for Solitude.

Objective 1.10: Minimize the impact of large groups on the wilderness character of the Restricted Zone.

Objective 1.11: Minimize the impact of consecutive night stays at individual campsites.

Objective 2.1: Manage winter access to facilitate snowmobiling, ice fishing, and non-motorized recreational uses while also protecting the wilderness character of the Restricted Zone during winter.

Objective 2.2: Continue to support ice fishing and snowmobiling while ensuring opportunities abound for solitude in primitive settings.



### ***Resource Protection***

Important scenic, natural, and heritage Waterway resources are safeguarded for the future.

#### ***Explanation***

Inappropriate visitor use can negatively affect important resources of the Waterway. For instance, erosion from foot traffic and looting can damage heritage resources such as significant archaeological sites. Inattention or deliberate vandalism might also harm heritage resources.

Natural resources, processes, systems, and values are vulnerable to visitor use. For example, disturbance can stress rare or endangered species such as over-wintering bats, leading to their demise. Misguided actions by visitors can degrade water quality in the streams, lakes, and the river itself or “the fish and wildlife resources found within the Waterway [which] are part of the core Allagash experience” (BPL, 2012, p. 126).

See the definition of “natural resources” in the Terminology section, chapter 1, for a description of the breadth of resources that a well-designed information system can help conserve. Appendix C describes distinctive Waterway natural resources. In addition, see chapter 3 for descriptions of archaeological sites, historic structures, monuments, and material objects of all kinds considered heritage resources.

Objective 3.1: Identify, protect, and manage important natural resources, features, and ecosystems in the Restricted Zone.

Objective 7.1: Landowners and [BPL] identify and protect important natural features and resources located within the One Mile Area that complement the management objectives of the Restricted Zone.

Objective 7.3: Work with landowners to identify and protect important historical and cultural structures, features, and resources located within the One Mile Area that complement the management objectives of the Restricted Zone.

Objective 8.2: Achieve the highest water quality possible for the lakes, ponds, and river sections of the watercourse.

Objective 3.3: Work cooperatively with partners including but not limited to the Department of Inland Fisheries and Wildlife to combat existing or potential exotic, invasive species located in the Restricted Zone or the watercourse.

Objective 3.4: Identify, manage, and, where appropriate, restore important pre-historic, historic and cultural features in the Restricted Zone.

Objective 9.3: Minimize visitor impacts to resources and other users’ experiences by promoting low-impact outdoor skills and ethics.

Section. 2. 12 MRSA §1801, sub-§4-A: Among three aspects, ecological reserves are intended to serve as a “site for ongoing scientific research, long-term environmental monitoring and education.”

### ***Appreciation of Nature and History***

Visitors appreciate the dynamic history and prominent natural and heritage resources of the Allagash watershed.

#### ***Explanation***

The actions undertaken to achieve this goal constitute the most common understanding of Waterway interpretation: tell the stories of the Allagash. As explained elsewhere, however, we must tie those stories to the Waterway core message and prominent features.

### ***Stewardship Ethic***

Visitors form intellectual and emotional connections with the Allagash Wilderness Waterway that result in volunteer and philanthropic support.

#### ***Explanation***

An underpinning of the interpretive process is that visitors make personal connections to natural and heritage resource meanings. It is widely understood that intellectual and, especially, emotional connections are precursors to action. Interpretation that is successful in provoking audiences to make connections can increase support for the Waterway.

### ***Formal Education***

Participants in formal education programs that utilize Waterway curriculum resources comprehend the Waterway core message.

#### ***Explanation***

Providing resources for formal education is a new endeavor for the Waterway, initiated as part of the Storied Lands & Water project, though consistent with BPL policy (BPL, 2000, p. 82). See chapter 9, “Education and Learning,” for more information including learning objectives tied to this goal.

Objective 9.2: Share and celebrate the natural and cultural resources within the Allagash Wilderness Waterway to build appreciation [of] these assets.

Objective B.1.f: Establish cooperative relationships and explore additional interpretive opportunities with organizations connected culturally to the Waterway such as the Allagash Historical Society, the Maine Acadian Heritage Council, and the Lumberman's Museum in Patten to explore additional interpretive opportunities.

Strategic Goal: The Allagash Wilderness Waterway Advisory Council in collaboration with [BPL] . . . will establish a program for obtaining funds to help fulfill the mission and goals of the Waterway. . . .

Objective 9.2: Share and celebrate the natural and cultural resources within the Allagash Wilderness Waterway to build appreciation [of] these assets.

## INFLUENCES AFFECTING INTERPRETATION

The guiding principles, policies, goals, and objectives of Waterway management affect the nature and content of the Waterway’s information network. They dictate what we should do. The overriding mandate is that wilderness character is fundamental to the purposes of the Waterway: it engenders visitor experiences within the context of Allagash history, culture, and traditions of the Allagash while protecting natural and heritage resources. We explore the implications of that overriding concept below because, in addition to stating what we should do, it influences what is possible to accomplish through the information network. Also discussed are other constraints and possibilities that affect our ability to communicate with the public, summarized in Table 3.

### Wilderness Character

Meanings of the legislative language creating the Waterway have been a topic of public discourse since the 1960s—particularly the phrase, “wilderness character.” Unlike most wilderness areas, the Waterway enabling statute allows restricted motorized uses (floatplanes, snowmobiles, motor vehicles, and motor-powered watercraft), new construction is allowed within a quarter mile of the Restricted Zone (see Terminology, page 12), and timber harvesting is allowed within the One-Mile Zone. Therefore, the Waterway management plan presents a working concept of “wilderness character” to guide managers in providing desired visitor experiences in the Restricted Zone, including the watercourse. “Wilderness character can be thought of [as] a mix of physical, social, managerial, and even symbolic conditions coming together to create a setting with specific traits experienced by visitors” (BPL, 2012, p. 81).

The management plan characterizes settings to be experienced by visitors and then addresses those conditions in management goals and objectives. The values of the social setting and the symbolic aspects of the Allagash are key to creating desired visitor experiences, as expressed in the 2012 plan, and thus specifically relate to interpretation (BPL, 2012, pp. 80–82).

This outline is intended to guide management and showcase the vision of wilderness character for the Restricted Zone.

- Natural views, sounds, and smells dominate.
- Solitude, freedom, adventure, self-reliance, appreciation for nature and history, and a sense of connectedness with something larger than one’s self are predominant values. . . .
- The history, culture, and traditions of the Allagash River add to the symbolic value of the Waterway.
- Interpretation, whether inside or outside of the Waterway, will seek to impart to visitors the dynamic history associated with the river and how

the current wilderness setting is a unique blend of human history and natural processes.

- Intangible Waterway values such as heritage and pride, freedom, conservation, the interconnectedness of nature, mystery, restraint and humility, etc. will be emphasized in Waterway information with the intention of enriching visitor experiences. Visitor experiences are enriched and wilderness character is enhanced by forging intellectual and emotional connections between visitors and the natural and cultural resource stories unique to the Waterway.

In order to promote wilderness character there is deliberately little infrastructure within the Waterway, with law and policy restricting future development. Table 2, chapter 3, lists existing buildings. Of these, few are accessible to general Waterway visitors. Prior planning documents identify Taylor Camp, the Churchill Depot Storehouse and Boarding House, and Tramway as possible sites for interpretive media.

### *Implications*

We should focus interpretation on “wildness” and the natural environment, yet overall, blend cultural and natural topics. Information delivery must be appropriate to the varying wild character of locales throughout the Waterway. While some signs are essential for safety, wayfinding, and visitor management, the potential to create signs and wayside exhibits is very limited. Any indoor interpretive media must be within existing structures, rather than new construction.

### Cultural Context

The Bureau explicitly established a cultural context for Waterway management, to be implemented in concert with the wilderness concept. **Part Two** of *Storied Lands & Waters* was developed in response to BPL’s stated desire “to understand and consider the array of cultural connections to the Waterway and put forward a plan for honoring those connections in balance with and enhancement of the values articulated in the Allagash Statutes as well as the spirit of the Wild River designation” (BPL, 2012, p. 83). **Part Two** identifies distinctive Waterway objects, structures, and landscapes, plus significant archaeological resources. It recommends that BPL tell the stories of Allagash heritage resources, and the people who created them, through interpretive media when they support Waterway interpretive themes.

### *Implications*

There are many tangible markers of the Allagash watershed’s rich history we could interpret.

### Staffing and Support

The Waterway has a year-round staff of three: superintendent, chief ranger, and ranger. From mid-May to early October, a seasonal staff of about 10 joins them. Allagash

personnel receive assistance from other BPL and Agriculture, Conservation and Forestry Department staff; Inland Fisheries and Wildlife wardens and biologists; and Maine Conservation Corps as well as volunteers.

Table 3. Influences Summary

Influence	Implications
Wilderness Character Concept	Focus interpretation on “wildness” and the natural environment, yet blend cultural and natural topics. Information delivery must be appropriate to the varying wild character of Waterway locales.
Cultural Context	There are many tangible markers of the Allagash watershed’s rich history available for interpretation.
Staffing and Support	Interpretation must be appropriate to the personnel and funding resources available. Funding may be needed from sources supplemental to BPL budgets.
Waterway Access	Travel for hours on gravel logging roads is not for everyone. North Maine Woods checkpoint staff and local outfitters are potential sources of accurate Waterway information. The likelihood of getting lost—or feeling insecure—is high when driving Maine Woods roads.
Remote Setting/Physical Configuration	Informing visitors about how to behave safely in a remote outdoor setting is a high priority. On-site interpretive media cannot utilize cellphone or internet service.
Changing Technology	Digital devices can be used to supply and record information during a Waterway visit.
Visitor Use	Interpretive planning must rely on general principles of interpretation to supplement scant data about Waterway visitors.
Wildland Recreation in the Maine Woods	Collaborative opportunities abound among entities managing public use in the Maine Woods region to reinforce trip planning, orientation, and interpretive messaging.

Visitor safety and resource protection are the primary responsibilities of Waterway staff, along with maintenance activities. They spend a considerable amount of time informing visitors of proper backcountry etiquette and Waterway rules, and assisting paddlers with upset canoes or injuries. At Churchill Depot, staff provides a portage service around Chase Rapids. The seasonal Assistant Ranger job description includes the task of answering visitor questions and providing information “concerning the park and surrounding area in order to provide accurate directions and ensure proper and safe use of the park.” However, neither interpretive skills and training nor knowledge of history and nature is specifically required of staff. Nonetheless, returning staff accumulate a wealth of facts and lore about the Waterway.

The 2010 strategic plan clearly states the situation regarding the Waterway's funding.

Given limited State Government financial resources, the fact that the Waterway is not intended for intensive visitor use and the inherent financial and personnel costs of preserving and enhancing the natural areas of the Waterway and interpreting the natural and cultural character of the area, it is evident it will be impossible to fulfill the Waterway's mission and goals without supplemental financial, personnel and in-kind services and materials (BPL, 2010, p. 10).

Supplemental funding is sometimes available, such as the support for the Storied Lands & Waters project procured by Allagash Wilderness Waterway Foundation. Volunteers assist with resource management and maintenance tasks.

### *Implications*

Interpretation must be appropriate to the personnel and funding resources available. Hence, the basic interpretive program must be able to function without personal interpretation, especially in winter. Funding for development of interpretive facilities, media, and programs will often come from sources supplemental to BPL budgets.

### Waterway Access

Most visitors enter the Waterway on privately owned gravel roads. Others arrive via water or ice, and some use trails. (BPL allows floatplanes at a few designated sites.) Everyone entering the Waterway must register at the first local opportunity, either at a North Maine Woods, Inc., checkpoint or with the first Waterway ranger encountered.

### *Water Access*

The longest-standing access to the Allagash has been over water. These routes travel through private lands before entering the Waterway. They include "Mud Pond to Chamberlain Lake; Caucomgomoc Lake to Round Pond [T7 R14] to Allagash Lake; Johnson Pond/Allagash Stream to Allagash Lake; and from the town of Allagash up the Allagash River as far as one cares to navigate." Since the Waterway was established, visitors have additionally used Indian Stream to Eagle Lake, and Allagash Stream to Allagash Lake (BPL, 2012, p. 14). The Northern Forest Canoe Trail promotes water access for "through-paddlers" arriving from points south. Only a small percentage of visitors are thought to access the Waterway by water routes, though no statistics are available.

### *Road Access*

No public roads enter the Waterway. The nearest public highway is 6 miles from the northern boundary at Maine Route 161 in the town of Allagash. The next closest are Route 11 in Ashland, which is 55 miles from Umsaskis Thoroughfare, and Route 11/157 in Millinocket, which is 55 miles from Chamberlain Thoroughfare (BPL, 2012, p. 12).

Instead, visitors use unpaved roads built by private landowners for forestland management, passing through checkpoints managed by North Maine Woods, Inc. These

roads are for large trucks (Figure 77) that have limited maneuverability—and the right of way at all times! At the checkpoints, North Maine Woods staff collect user fees, distribute maps, provide information on rules and regulations, and road conditions. BPL contracts with North Maine Woods to collect Waterway camping fees.<sup>25</sup>



*Figure 77: Logging truck filled with spruce and fir on a North Maine Woods road in October. (n.d., photo by B. Mays/Alamy Stock Photo)*

The owners of logging roads allow public access to the Waterway, subject to a few simple rules. Logging roads enter the Waterway from both Maine and Québec, with vehicle ingress primarily from (a) Millinocket and Greenville through North Maine Woods “Telos” checkpoint, (b) Ashland through “Six-Mile” checkpoint, and (c) Allagash through “Allagash” checkpoint.

While there are some 3,500 miles of principal unpaved roads within North Maine Woods area, only about 13 miles are within the Restricted Zone. During spring, summer, and fall, Ramsay Ledge is the only campsite where Waterway rules (#2.10.D) allow motor vehicles. BPL and others maintain several parking areas where visitors may leave vehicles while enjoying the Waterway. BPL provides handicapped parking at Michaud Farm, Umsaskis, Churchill Depot, and Chamberlain Bridge. Local outfitters transport many paddlers—36% in a 2003 survey by Daigle (2005)—to parking before or after a trip. Others have their vehicles shuttled to their take-out by outfitters.

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<sup>25</sup> Although North Maine Woods, Inc., charges a day-use fee to enter the larger region encompassing the Waterway, BPL does not receive day-use revenue from North Maine Woods and does not charge any day-use fees (BPL, 2012, p. 62).



Directional signs on logging roads are a variety of styles. There is no consistent, recognizable format directing visitors to the Waterway. At the junction pictured in Figure 78 the only assistance offered those not familiar with the area is a green arrow pointing to “Churchill Dam” put up for the 50<sup>th</sup> anniversary celebration in 2016.



Figure 78. Directional signs at "Six Mile" checkpoint. Green arrow in the middle points to "Churchill Dam." (2017, photo by B. Jacobson)

### Foot Access

There are fewer than 20 foot trails in the Restricted Zone, all less than 2.5 miles, for a total length of under 20 miles. BPL authorizes foot access to the watercourse only over 14 of these, such as carry trails. BPL maintains carry trails and portions of other foot trails within the Restricted Zone. Trail use is low compared to other access routes, though there are no statistics for verification. Authorized trails are described in chapter 3, starting on page 44.

### Winter Access

Winter access is primarily by snowmobile. Landowners plow roads within the Waterway mostly as needed for timber harvesting, though a few are typically open for vehicles in winter months. Winter motor vehicle access to the watercourse is allowed only at Chamberlain Thoroughfare, Churchill Dam, Umsaskis Thoroughfare, Henderson Brook Bridge, Michaud Farm, and Twin Brooks.

### Implications

Modes of access will influence the type of audiences for Waterway interpretation, opportunities for engaging them, and the overall number of visitors. For instance, travel for hours on gravel logging roads to reach the Waterway is not for everyone. North Maine Woods checkpoint staff and local outfitters are potential sources of accurate Waterway information. The likelihood of getting lost—or feeling insecure—is high when driving Maine Woods roads to the Waterway.



### Remote Setting/Physical Configuration

The Waterway winds through the Maine Woods, which is a thinly populated, sparsely developed area of more than 3.5 million acres. As stated above, there are few public roads in the region. Public utilities are limited. The Waterway stretches for 92 miles along the watercourse—with wild, forested shorelines—spanning a large geographic area. Visitors and potential contractors do not have access to electricity, internet, or cellphone service.

#### *Implications*

Informing visitors about how to behave safely in a remote outdoor setting is a high priority. Accurate pre-trip information is vital. On-site interpretive media cannot utilize cellphone or internet service at this time. Most electronic devices must have backup power for longer trips within the Waterway. Implementation costs must consider the remote location and are difficult to estimate. Relatively few visitors will experience the entire 92 miles of the Waterway, but rather smaller geographic areas.

### Changing Technology

Technology is part of the Allagash. Dams, railroads, Lombard log haulers, steamboats, and other technological solutions transformed how people have interacted with the Allagash landscape, changing it in significant and lasting ways. Not only has technology changed the environment, technology has changed the ways that visitors enjoy the Allagash. Once on the water, many visitors paddle craft made of synthetic materials, rather than the older technology of bark or cedar. Technology has transformed clothing, tents, and cooking gear. Technology, and change, is not new to the Waterway.

Some visitors see digital technology as contrary to the Allagash experience. Others, especially “digital natives” born after 1980, see electronic devices as essential to most experiences. Today, paddlers record their journey on cell phones. GPS (global positioning system, available from satellites) guides visitors in their travels. Applications (“apps”) on electronic devices can function as long as there is battery power; battery packs and solar chargers are readily available for purchase prior to a trip. Some visitors will always have a digital device with them during an Allagash journey. One only need search “Allagash Waterway” on YouTube, Instagram, or Facebook to confirm the use of digital technology in the Waterway.

#### *Implications*

Digital devices can be used to supply and record information during a Waterway visit. Apps downloaded prior to a visit present a potential interpretive medium.

## Visitor Use

John Daigle conducted a 2003 study of Waterway visitors (2005). Daigle leads the University of Maine’s parks, recreation, and tourism program. The study was conducted 15 years ago and only during spring, summer, and fall. Nonetheless, it is the best source regarding Allagash visitors—which anecdotal evidence suggests has not changed much in the intervening years.<sup>26</sup>

Table 4 shows the activities in which visitors reported engaging during their 2003 Waterway visits. Campers, paddlers, and anglers being among the top five user groups informally identified by the 2017 Waterway staff (meeting on August 22) indicates some consistency since 2003. Camping was the most common 2003 activity reported (89% of respondents), with the highest proportion of visitors staying three and four nights. Over the past 10 years, camping from year to year in spring, summer, and fall has remained fairly steady with an annual average of 4,237 campers in 1,123 parties, camping 19,329

Table 4. 2003 Waterway Visitor Activities\*

Activity	Number of Visitors	Percent of Total Visitors
Camping	402	89%
Canoeing	358	79%
Taking pictures	350	78%
Fishing	286	63%
Swimming	232	51%
Talking to people in other groups	219	49%
Spending time all alone	172	38%
Visiting historical sites	165	37%
Nature study	159	35%
Hiking	143	32%
Learning about local history	113	25%
Picnicking	80	18%
Collecting fiddleheads, berries, etc.	41	9%
Boating	39	9%
Other	38	8%
Hunting	8	2%

N = 451. Percentages do not equal 100 because visitors could do more than one activity (Daigle, 2005, p. 8). \*Survey did not gather winter activities data.

<sup>26</sup> Other Waterway visitor studies include the following, none of which surveyed winter users (Cieslinski, 1980, p. 148): 1966 Waterway visitor survey by Maine Bureau of Forestry (not located); 1973 survey of all 1,877 parties using the Waterway by BPL (1974); 1978 survey of 1,309 parties, about 50% of those using the Waterway, by BPL (not located); 1988 and 1989 research study of Allagash users by Harry Zinn, a then University of Maine graduate student (1989).

nights (Figure 79). Authorized Waterway campsites are open for winter tenting, and RV camping is permitted at Chamberlain Thoroughfare, Kellogg Brook, and Umsaskis parking areas from December to May.

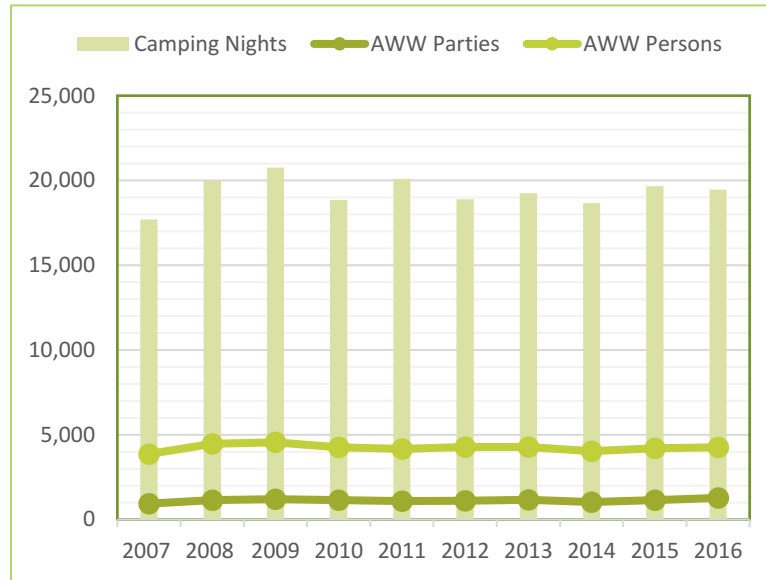


Figure 79. Waterway 10-year camping use, May–November. (source, BPL)

The Allagash remains an overnight experience for most visitors; however, day use by northern Maine residents may be increasing. A small number of visitors make motor-vehicle day-trips to the Waterway during spring summer and fall, without traveling the watercourse. For example, Michaud Farm and Churchill Depot were a one-day destination during the Waterway’s 50<sup>th</sup>-anniversary celebration. Regional residents have sought out the locomotives in the past few years for day trips.

Regional residents and visitors staying at commercial sporting camps and private camps in the Maine Woods make Waterway day trips for fishing, boating, snowmobiling, and hunting. All parties report a destination at North Maine Woods checkpoints, but the number of visitors entering the Waterway for day use only is not accurately tracked: visitors may note only one of several destinations planned during a visit. From December to April, when North Maine Woods checkpoints are unstaffed, statistics are not gathered (automated checkpoints may provide future data). It is not possible for the Waterway’s three year-round staff to count day visitors over the 92-mile span of the Waterway. Therefore, we do not know the level of day use—especially winter day use. Consequently, annual Waterway visitation is unknown.

Activities prevalent on the Allagash prior to establishing the Waterway have remained the focus of management. The 2010 strategic plan places priority “on providing a memorable wilderness recreation experience to its primary visitors, the canoeists and fishermen” (BPL, 2010, p. 2). The 2012 management plan additionally calls for hunting,



Figure 80. Information kiosk with Northern Forest Canoe Trail interpretive panel. (2016, photo by B. Jacobson)

hiking, nature education, wildlife observation, photography, snowmobiling, ice fishing, and restricted use of motors on canoes and boats (BPL, 2012, p. 76). Statistics are not available for visitor participation in these activities.

### *Implications*

Interpretive planning must rely on general principles of interpretation to supplement scant data about Waterway visitors.

### Wildland Recreation in the Maine Woods

The Northern Forest Canoe Trail connects waterways from New York’s Adirondack Park to Fort Kent, Maine. The 740-mile water trail traverses 22 rivers and streams, 58 lakes and ponds, and 45 communities. Two regions of the trail cover the Allagash Wilderness Waterway, with accompanying guides and maps developed by the nonprofit organization that manages the trail concept.

The Northern Forest Canoe Trail crosses another remote forest recreation area west and south of the Waterway—the Penobscot River Corridor. The Corridor spans more than 100 miles of river and lakeshores and offers camping, fishing, and paddling in four distinct areas. It includes the headwaters of the Penobscot and St. John rivers. The

Canoe Trail traverses Upper West Branch Penobscot River and Chesuncook Lake to enter the Waterway at Chamberlain Lake, via Mud Pond. In addition to the above recreation activities, the Lower West Branch area also hosts commercial whitewater rafting. The Bureau of Parks and Lands manages the Penobscot River Corridor in cooperation with several landowners.

The Bureau manages three units of Maine Public Reserved Lands abutting the Waterway (within the One-Mile Zone). BPL manages these lands for resource protection, and forest recreation: all three offer fishing, hunting, and wildlife viewing. They are: Round Pond (all of T13 R12 WELS, and Round Pond fire tower and trail); Telos (all of T6 R11 WELS, which abuts Baxter State Park; portion of T7 R11 WELS; and the Waterway's starting point on Telos Lake); and Chamberlain (8 parcels abutting the Waterway on Chamberlain, Eagle and Allagash lakes; includes Chamberlain Lake Ecological Reserve, and Allagash Mountain Fire Tower and trail).

Baxter State Park is a backcountry park—no electricity, running water, or paved roads—that abuts Telos Public Reserve Land. Managers regulate use of the 200,000-acre park to maintain the “forever wild” philosophy expressed by Governor Percival Baxter, who created the park. The 30,000 acres closest to the Waterway is a scientific forest management area meant to be a showcase for experimental, long-term forestry. Only northbound long-distance Appalachian Trail hikers on their way to the trail's terminus atop Mount Katahdin may stay in Baxter without reservations. A three-member Baxter State Park Authority administers the park.

The wild landscape of Katahdin Woods and Waters National Monument offers views of Mount Katahdin, 14 miles (as the crow flies) downstream of Allagash Wilderness Waterway. The monument, along East Branch Penobscot River, is administered by the National Park Service. Management planning is underway for the park, created in 2016. Recreation and interpretation will undoubtedly be part of the multiple-use concept that is anticipated for the 87,500 acres.

“Providing proper management of day use and camping is the main goal of the North Maine Woods organization,” a nonprofit entity (“North Maine Woods, Inc.,” 2016). More than 100,000 recreational visitors pass through checkpoints annually, where North Maine Woods, Inc., charges a fee to offset costs of maintaining 350 rustic campsites and other recreation improvements. North Maine Woods, Inc., administers uniform rules for recreational use of private lands in the region. The North Maine Woods website sets the tone for these recreational resources: “There are no rangers or hookups at the campsites; no lifeguards and no beaches. And while the spirit of friendship and cooperation is deep among outdoors people, you're really on your own here” (“North Maine Woods, Inc.,” 2016).

Though rules and regulations vary on the lands used for wildland recreation in the Maine Woods, they share the landscape, history, and traditions of the region.

### *Implications*

Collaborative opportunities abound among entities managing public use in the Maine Woods region to reinforce trip planning, orientation, and interpretive messaging, potentially realizing cost savings and improving the visitor experience.

## EXISTING INTERPRETATIVE SERVICES AND FACILITIES

While this is the first Waterway interpretive planning document, BPL addressed trip preparation and historic resource preservation and interpretation in the 1973 Waterway concept plan and 2012 management plan. It was also a topic in the Advisory Council's 2010 strategic plan. Waterway managers have accomplished many proposed actions, as enumerated in the status of interpretation summarized below. Formal natural resource interpretation has been minimal.



*Figure 81. Waterway roadside identity sign. (2016, photo by B. Jacobson)*

- Waterway identity signs maintained on roads at boundaries (Figure 81) and small campsites identity signs on the shore at authorized areas.
- Orientation panel at Chamberlain Bridge ranger station and Churchill Depot information kiosk installed by Northern Forest Canoe Trail (Figure 80).
- Jr. Ranger materials available, including Waterway Jr. Ranger T-shirt for those who complete requirements.
- Henry Taylor camp reconstructed (Figure 19) and dedicated to interpretation.
- Portion of the tramway reconstructed and fiberglass interpretive panel installed (Figure 82).
- Web resources ([www.maine.gov/allagash](http://www.maine.gov/allagash)) including:
  - trip planning and general background information about Allagash history and natural history
  - “History and Tradition in the Allagash Wilderness Waterway,” a 71-minute video produced by BPL to “inform, educate, and prepare potential visitors to the Waterway” (BPL, 2015, p. 7)
  - “View Campsites on Google Earth” campsite descriptions that include photos (BPL, 2013)
  - the 1994 “Allagash Wilderness Waterway: A Natural History Guide” (S. Bennett & Bennett, 1994).
- Four-color map and brochure available for visitors, redesigned in 2016.
- Photos, drawings, and documents collected about the heritage resources of the Waterway held in BPL Augusta, Churchill Depot, and Ashland offices.



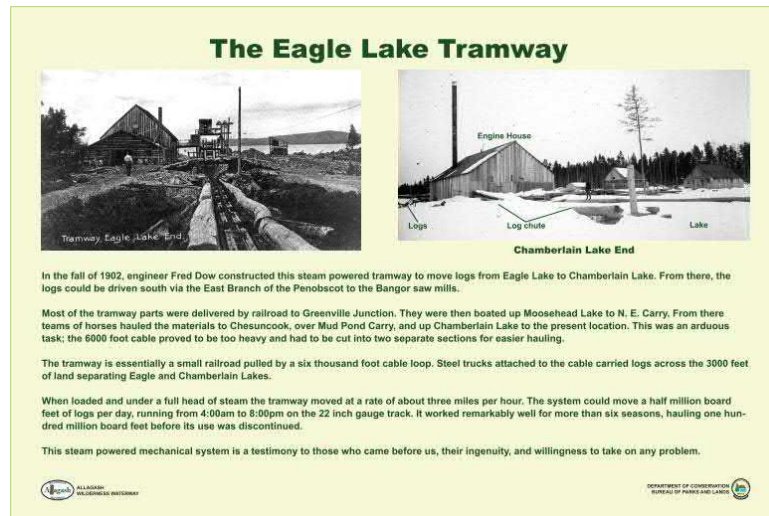


Figure 82. Tramway fiberglass-embedded interpretive panel. (2015, BPL).



Figure 83. Reproduction artifacts at Churchill History Center. (2016, photo by B. Jacobson)

- Reproduction artifacts from precontact archaeological excavations produced in 2001, in cooperation with Maine Historic Preservation Commission, and displayed in the history center (Figure 83).<sup>27</sup>
- Objects and photos displayed at the Churchill History Center (Figure 84).



*Figure 84. Photo display at Churchill History Center. (2016, photo by B. Jacobson)*

- Rangers:
  - share information through informal conversations
  - post laminated information sheets and historical photos within the Waterway from time to time, such as Taylor Camp and Tramway
  - conduct occasional outreach to community groups and trade shows; e.g., one 2016 presentation was “How to Prepare for an Allagash Canoe Trip.”

## AUDIENCES

With the understanding that interpretation engages visitors in two-way communication, also comes the recognition that it is unrealistic to plan individualized programs for the interests, needs, and expectations of each Waterway visitor. Inversely, there is no “typical” visitor we can serve with a standard offering. Identifying audience segments that share characteristics allows us to create a program that responds to visitors’ varied interests and needs, yet is practical to implement.

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<sup>27</sup> In addition to those on display, some of the 36 casts were in storage at BPL’s Augusta office in 2016.



When describing audience segments, reasons for visiting and expectations are more relevant than, say, whether individuals reside in Maine, their income level, race, or gender. Age is important as it relates children, who process the world in decidedly different ways than adults. Prior experience in the Allagash is relevant to trip planning



*Figure 85. Angler shows off a togue she caught ice fishing on Eagle Lake.  
(n.d., photo courtesy M. LaRoche)*

and orientation. However, even return visitors are not all the same and their motivation for repeat visits varies: an individual may return for different reasons when traveling with different companions or at different times of year.

A mandatory concern of managers, planners, and interpreters is that *we are not the audience* for interpretation. Our attitudes, beliefs, values, preferences, interests, and knowledge of the Allagash are not necessarily the same as Waterway visitors.

There are two main user groups, both of which travel on the watercourse: those who travel primarily on water and those who travel primarily on snow. (Those who arrive by aircraft use watercraft or snowmobiles, once within the Waterway.) A small number of visitors may visit the Waterway without traveling the watercourse, such as fall hunters.

### Small Groups

Foremost, people visit the Waterway in groups. Few people surveyed in 2003 had visited the Waterway alone (6%). Waterway staff report that groups remain the most prominent visitors. Most groups are small, 2 to 4 persons, but none are more than 12 (groups larger are prohibited). The majority of 2003 visitors were with one other person (33%) or in small groups of three or four (29%). Smaller groups are likely family and

friends. Schools, churches, boys and girls camps, and youth groups usually organize the larger groups. Groups are from Maine mostly, but come from throughout New England, and beyond.

### Snow Travelers

During winter (December–May), when frozen waters are mostly snow-covered, Allagash visitors travel the watercourse on snowmobiles. Some Snow Travelers congregate for ice fishing on the lakes (Figure 85), particularly south of Churchill Depot. Others tour more widely in the Waterway and in the region, where snowmobile routes change year-to-year depending on activities of surrounding landowners. These tour groups are perhaps four people on three machines, though there is no record of group size. Some are out for a single day while others spend several days in the wintry Waterway.

Visitors spend overnights in RVs at established parking areas, at area sporting camps, or in authorized Waterway campsites (the practice of overnights in ice shacks is dwindling). Visiting the locomotives at Tramway is a favorite stop for both winter anglers and touring snowmobile groups.

Supporting and facilitating ice fishing, snowmobiling, and non-motorized winter recreational uses are objectives (#2.1 and 2.2) of the 2012 Waterway management plan. Non-motorized winter recreational activities in the Waterway, such as snowshoeing or cross-country skiing, are difficult to track but considered minimal. The 250-mile Can-Am sled dog race, which starts in Fort Kent, uses a section of trail near Round Pond for the annual event. Snowmobiling is the main mode of winter travel, allowed everywhere on the watercourse except Allagash Lake and Allagash Stream.

### Water Travelers

After ice-out in May and into early fall, visitors travel the watercourse in canoes and kayaks. Paddling powers both types of watercraft. Small outboard motors (10-hp. max.) propel some canoes on all but Allagash Lake and Allagash Stream, where BPL prohibits all motors. Waterway rules allow larger motors on Telos and Chamberlain lakes. Rules prohibit personal watercraft, hovercraft, airboats, racing boats, pontoon boats, and fixed sails.

These visitors include small groups of family and friends, and larger organized groups of up to 12 persons. Most groups traveling on the water stay for several days, either tenting or staying at one of the two Waterway sporting camps. A professional guide could lead any group, but the larger ones are more likely to have a designated trip leader of some kind. They also often have organizational objectives such as developing leadership skills, environmental education, or woods craft. Groups camping with young people are the primary visitors during July and early August (BPL, 2016a).

Far fewer Water Travelers come for single-day outings than for overnight stays. Some drive to authorized access points to put in their watercraft or stay at sporting camps with access to Allagash waters. Fishing is probably the prime motivation for day visits in the spring. Sightseeing—viewing wildlife and visiting Allagash Falls, for instance—is another reason for day trips.

### Potential Visitors

Not all audiences for Waterway information have dipped a paddle or wet a line in Allagash waters. Some individuals experience the Waterway from afar, such as in a classroom, browsing the web, or reading publications. Included are potential visitors who may use the information to plan a trip. Other consumers of Waterway information may never see the Allagash in person, yet are interested and may wish to support its stewardship. Water and Snow travelers remain the primary audience; we must also consider non-visitors.

### Visitor Motivations

Thinking about visitors' motivations, rather than demographics, helps us focus on visitors' needs and the kinds of experiences they are seeking. John Falk, Professor of Free-Choice Learning at Oregon State University, has been researching visitor motivations for some 40 years. Though focused on museum and science education settings, his findings help us understand what might motivate visits to the Waterway. He describes five universal "experience types" (Falk, 2009).

- explorers
- facilitators
- experience seekers
- professionals/hobbyists
- rechargers

A person can experience the Waterway in differing ways during different visits (or during the same visit). Visitors might be motivated by curiosity, or being a supportive parent, or learning more about Allagash history, or finding relief from the stresses of daily life. If we recognize these motivations and provide information that responds to their differing interests and needs, then they will leave feeling good about their visit and the Waterway. Visitors will also be more open to engaging with Waterway resources and values.

#### *Explorers*

Explorers are curiosity-driven; they expect to find something that grabs their attention. They highly value learning but are not expert. They don't want a structured visit, so avoid interpretive tools and guided trips. Explorers enjoy discovering things on their own: coming upon the remnants of logging equipment in the woods, for example.

Table 5. Primary Waterway Audience Segments

	Characteristics/Needs
<b>Snow Travelers</b>	<p>Come during winter, when lakes are frozen and snow is on the ground.</p> <p>Primarily groups of adults, though some families.</p> <p>Have traveled hours in transit to Waterway, either on plowed roads or snowmobile trails.</p> <p>Vehicle drivers need a place to park vehicles and snowmobile trailers.</p> <p>Travel within the Waterway is on snowmobiles.</p> <p>Want up-to-date ice, snow, and snowmobile trail information.</p> <p>Regional residents large percentage.</p> <p>Ice fishing and touring regional snowmobile trails primary activities.</p> <p>Overnights spent in RVs, sporting camps, ice shacks, or tents. Private and commercial sporting camps utilized.</p> <p>Includes Explorers, Facilitators, Experience Seekers, and Rechargers. Professionals/Hobbyists may be fewer than in other seasons.</p>
<b>Water Travelers</b>	<p>Come during spring (after ice-out), summer, and fall. Seasonal water levels influence group composition.</p> <p>Largest percentage of visitors to Waterway.</p> <p>Group size ranges from 2 to 12.</p> <p>Traveled several hours over dusty logging roads in transit to Waterway. Some have traveled additional hours on highways to reach North Woods area.</p> <p>Most from Maine, but other New England states well represented.</p> <p>Paddle canoes and kayaks within the Waterway; some use small outboard motors.</p> <p>Engage in multiple activities (see Table 4).</p> <p>Most tent several nights; also utilize private and commercial sporting camps.</p> <p>Many rely on shuttle services at beginning or end of visit.</p> <p>All ages represented. Some are multi-generational, others adults or youth. Boys and girls camps in largest groups during July and August.</p> <p>Includes Explorers, Facilitators, Professionals/Hobbyists, and Rechargers. Experience Seekers likely to come in spring when rapids more challenging.</p>

*Facilitators*

Facilitators are primarily focused on supporting the engagement and experience of others in their group. For instance, they might be facilitating parents who travel with their children. Or, facilitating socializers who come with other adults (spouse, friends) to enjoy each other's company. In both cases, the primary objective with this motivation is to ensure their companions are satisfied with their Allagash visit.

*Experience Seekers*

Experience seekers are "collecting" experiences and perceive the Allagash as an important destination. They have heard of it and want to have "been there, done that." They are socially motivated and want to have fun with friends or family. They are not strongly motivated by the stories of the Allagash.

*Professional/Hobbyists*

Professional/Hobbyists seek a particular content-related objective. Often they are the most critical visitors. They come with a goal in mind and are on a mission. Volunteers assisting with interpretation and stabilization of Waterway historical sites come to mind.

*Rechargers*

Rechargers are motivated by desire for a contemplative or restorative experience. They visit the Waterway in order to reflect, rejuvenate, or just bask in the wonder of a wild place. Rechargers come to get away from people.

## INTERPRETIVE OPPORTUNITIES

Some Waterway resources automatically pique visitors' interest. Allagash Falls, Locomotives No. 1 and No. 2, and moose are prime examples. When visitors see, hear, touch, or otherwise experience something, they are more likely to pay attention to Waterway communication associated with their experience. Allagash places, objects, animals, plants, and other features provide tangible, sensory opportunities to share Waterway meanings, especially intangible concepts such as "wildness." They provide our best interpretive opportunities because visitors are already curious and attentive!

The remainder of chapter 6 presents prominent tangible resources likely to capture visitors' attention. We identified them by talking with Waterway visitors and staff, reviewing BPL's Waterway visitor guide and map (2016b), consulting other publications and websites, and considering results of a 2003 visitor survey (Daigle, 2005).

Table 6 presents a longer list of human-worked and naturally occurring features, some being distinctive resources, that embody hundreds of centuries of history. Some are not specifically categorized as prominent features, yet they also support the interpretive program. Together these features comprise four Waterway landscapes, as discussed in

chapter 5. As a reminder, they are the Indigenous Landscape and three heritage landscapes: Logging and Forest Management, Sporting Camps, and Moosetowner. Features listed in Table 6 are either (a) distinctive, (b) likely to capture an uninformed visitor's attention, or (c) both distinctive and noteworthy.



*Figure 86. Allagash Falls. (c. 2014, photo courtesy of M. LaRoche)*

See chapters 4 and 5 for the rationale behind identifying distinctive heritage resources. One or more government agencies have recognized the natural resources noted as distinctive in Table 6; for instance, National Park Service, U.S. Fish & Wildlife Service, Maine Department of Inland Fisheries and Wildlife, Maine Natural Areas Program, or other agencies that report on distinctive resources, such as Maine Geological Survey. See Appendix C for more details.

In summary, the most prominent Allagash Wilderness Waterway features are:

- Allagash Falls
- Allagash Lake
- Bald Eagles
- Chamberlain Farm
- Chase Rapids and Allagash River
- Churchill Depot
- Cunliffe Depot
- Dams
- Fire Towers
- Fish
- Forested Shores
- Katahdin Views
- Little Allagash Falls
- Michaud Farm
- Moir farm and Taylor Camp
- Moose
- Railroad Trestle
- Sporting Camps
- Stars
- Tramway and Locomotives
- Umsaskis
- Water
- Wind/Weather

Table 6. Features of the Allagash

Prominent Features	<p><u>Prominent Features</u> (★) – tangible Allagash resources that have captured visitors’ attention, thus offering interpretive opportunities.</p> <p><u>Distinctive Resources</u> – features with <b>heritage (H)</b> or <b>natural (N)</b> resource distinction.</p> <p><u>Allagash Landscapes</u> – as correlated with features (▲).</p>	Distinctive Resources	Indigenous Landscape	Heritage Landscapes		
				Sporting Camps	Logging and Forest Management	Moosetowner
★	<b>Allagash River.</b>	N	▲	▲	▲	▲
★	Wind/weather.		▲	▲	▲	▲
★	<b>Allagash Falls.</b>	N	▲	▲	▲	▲
	<b>Allagash Falls Portage Trail.</b>	H	▲	▲	▲	▲
★	Stars/night sky.		▲	▲	▲	▲
★	<b>Moir Farmhouse ruin.</b>	H			▲	▲
★	Taylor Camp building and sporting camp site.			▲		▲
★	Fish, including <b>Native Eastern Brook Trout.</b>	N	▲	▲		▲
★	Michaud Farm depot site.				▲	▲
★	<b>Bald Eagles</b> and other birds.	N	▲	▲		▲
★	Cunliffe Depot site and <b>Remains of Lombard log haulers.</b>	H			▲	▲
★	<b>McKeel Stone</b> (grave memorial).	H			▲	▲
	<b>Canada lynx.</b>	N	▲			
★	Round Pond Mtn. fire tower.				▲	
	<b>Round Pond</b>	N	▲	▲	▲	▲
★	<b>Jalbert’s Sporting Camps</b> (Windy Point, Halfway Camp, and Whittaker Brook).	H		▲		▲
★	Forested/undeveloped shores.		▲	▲	▲	▲
	<b>McNally’s Ross Stream Camps</b> (privately owned).	H		▲		
★	Long Lake Dam site.			▲	▲	
★	Umsaskis Lake.		▲	▲	▲	
★	Umsaskis Meadows.		▲	▲		
★	<b>Moose</b> and other mammals.	N	▲	▲		▲
	<b>Clayton Lake boarding house</b> and depot (privately owned).	H			▲	
★	<b>Chase Rapids</b> (Class II).	N	▲	▲	▲	▲
	<b>Watson Dump Wagon</b> at Ashland Logging Museum.	H			▲	
★	Churchill Dam/Churchill Depot.				▲	



Prominent Features	<p><b>Prominent Features (★)</b> – tangible Allagash resources that have captured visitors’ attention, thus offering interpretive opportunities.</p> <p><b>Distinctive Resources</b> – features with <b>heritage (H)</b> or <b>natural (N)</b> resource distinction.</p> <p><b>Allagash Landscapes</b> – as correlated with features (▲).</p>	Distinctive Resources	Indigenous Landscape	Heritage Landscapes		
				Sporting Camps	Logging and Forest Management	Moosetowner
★	<b>Storehouse</b> and History Center at Churchill Depot.	H			▲	
	<b>Batteau</b> at Churchill Depot History Center.	H			▲	
★	<b>Boarding House</b> at Churchill Depot.	H			▲	
	<b>Waterway Dedication Plaque</b> at Churchill Depot.	H				
★	Old-growth forests, <b>Chamberlain Lake Ecological Reserve</b> .	N	▲		▲	
★	<b>Locomotives No. 1 and No. 2 with their tenders at Tramway EL&amp;WB Eagle Lake terminal.</b>	H			▲	
	<b>Tracks and switches at EL&amp;WB Eagle Lake terminal.</b>	H			▲	
	<b>40 Pulp Car Remains at Eagle Lake terminal.</b>	H			▲	
★	<b>Tramway power plant, powertrain (gears and cable), rails, trucks, and other components.</b>	H			▲	
★	<b>EL&amp;WB Trestle remains</b> at Allagash Stream.	H			▲	
	<b>EL&amp;WB roadbed and mainline tracks</b> running toward Umbazooksus Lake.	H			▲	
	<b>Lock–1962 dam and Chamberlain–1841 dam.</b>	H			▲	
	<b>Lock Dam Camp</b> (provisional heritage resource: more information needed about structure).	?				
★	Chamberlain Farm site and <b>Farm Camp</b> .	H		▲	▲	
	<b>Remains of H. W. Marsh</b> at Chamberlain Farm site.	H				
★	<b>Nugent’s Sporting Camp</b> (Leadbetter Brook).	H		▲		
★	<b>Telos–1981 dam and cut.</b>	H			▲	
★	<b>Allagash Lake (and Little Round Pond).</b>	N	▲	▲		
★	Little Allagash Falls.		▲	▲		
★	<b>Allagash Mtn. Fire Tower.</b>	H		▲	▲	
	<b>Mud Pond Carry</b> (privately owned).	H	▲	▲		
	Other threatened and endangered species.	N		▲	▲	▲
	Other rare, unique, or exemplary natural communities.	N		▲	▲	▲
★	Views of Katahdin.		▲	▲		
★	Water (pristine waters, lakes, streams, wetlands).		▲	▲	▲	▲



### Allagash Falls

“The roar from Allagash Falls extends a quarter mile upriver” (Collins, 2001). Dropping some 30 feet, the roaring white torrent of the Allagash River has impressed and impeded river travelers for generations. It is the place of an ancient portage. A metal ring secured in the sandstone on the portage attests to the work of hauling laden boats around the falls in the 1800s. Fishing or swimming is common in the pools at the base of the falls. See Figure 86.

Allagash Falls is a distinctive natural resource (see Appendix C); Allagash Falls Portage Trail is a distinctive heritage resource discussed in chapters 3 and 5.

### Allagash Lake and Little Allagash Falls

Allagash Lake is a world unto itself. It has a rugged beauty and peace not found at some other lakes in the Waterway. Motorized watercraft, aircraft, snowmobiles, and ice shacks are prohibited. There is also a sense of accomplishment in being on Allagash Lake because it’s not easily accessed. The cold water averages 35 feet deep, with the deepest point being 98 feet, and covers 4,360 acres. A former logging dam is at its outlet (Figure 31).

Allagash Stream flows 6 miles from Allagash Lake to Chamberlain Lake, pausing at Little Round Pond. At the outlet of the pond, the stream drops 20 feet over Seboomook slate forming Little Allagash Falls, including a 12-foot cascade. The falls and stream banks show evidence of glaciation in grooves and general shaping of the slate. In total, the stream drops 93 feet over its run, passing over several ledges below the falls.

Allagash Lake and Little Round Pond (Eagle Lake TWP) are distinctive natural resources (see Appendix C).

### Bald Eagles

Eagles are memorable features of Allagash visits: “I always see dozens of eagles on each trip; 25 on my last trip, including 1 golden” (K. Hill, pers. comm., May 18, 2017). Bald eagle sightings were reported by 76% of 2003 visitors. In addition, great blue herons, osprey, loons, herons, jays, and other birds are part of the Allagash experience. Dean and Sheila Bennett list 86 common bird species in their natural history guide to the Waterway (1994).

Bald and golden eagles are distinctive natural resources (see Appendix C and Figure 87).

### Chamberlain Farm

David Pingree and his partner Eben S. Coe established this farm and supply depot in 1846 to support their logging operations. It served as headquarters for construction of the tramway between Eagle and Chamberlain lakes and of Lock dam. Winter haul roads



*Figure 87. Bald eagle taking flight on the Allagash shore. (2016, photo by D. Conley/Canoe The Wild)*

connected it to the south and east. Thoreau visited the farm and camped on the shore in 1857. One building from that era survives, known as Farm Camp.

Farm Camp (Figure 27) and the remains of *H. W. Marsh* (Figure 69) are distinctive heritage resources described in chapter 3 (pages 66 & 131) that are located within the Chamberlain Farm site context, as discussed in chapter 5 (page 156).

### Chase Rapids and Allagash River

The Allagash River begins just below Churchill–1998 dam, at Chase Rapids, and drops 300 feet as it flows 68 miles to the St. John River. Lakes, channels, and fluctuating flows change the river’s character along the way. Vegetation and wildlife vary in its waters and along its shores where some structures are visible. West Twin Brook, one of many streams entering the river, is at the Waterway’s northern boundary 6 miles shy of the St. John.

Within the first mile of a churning 3-mile stretch of Chase Rapids, standing waves of 3 to 5 feet are frequently present. The rapids extend 9 miles from Churchill–1998 dam to Umsaskis. Some experienced paddlers run the whitewater. Others use the 1.5-mile portage trail, while still others hitch a ride to below the rapids. Whatever the mode of travel, Chase Rapids is a signature feature for those paddling this Waterway section.

Allagash River and Chase Rapids are distinctive natural resources (see Appendix C).

### Churchill Depot

Between 1926 and 1938, Churchill Depot was a supply and administrative hub for Édouard “King” Lacroix’s Allagash lumbering operations. About 20 families lived permanently in the depot’s village, which had houses, a church, a school, and



*Figure 88. Coins left at McKeel memorial stone.  
(n.d., photo by D. Conley/Canoe The Wild)*

maintenance facilities. A boarding house and storehouse remain.

BPL has built a Waterway manager’s residence, a ranger cabin, a maintenance building, campsites, a canoe landing, and privies. In 1997–98, BPL built a new “Churchill Dam” (Figure 30). The Storehouse is a repository for objects, discussed in chapter 3, that were retrieved from the Allagash watershed. Collectively, the objects draw the attention of visitors.

The Boarding House (Figure 22), Storehouse (Figure 26), dedication plaque (Figure 38), and a batteau at Churchill Depot (Figure 67) are distinctive heritage resources. See chapters 3 and 5 for details about each.

### Cunliffe Depot

William Cunliffe settled on a high bank above the Allagash River in the late 1800s, 2 miles upriver from Michaud Farm, where he ran his logging operation until the 1930s.

The depot housed the men and animals that worked in the woods throughout the fall and winter seasons. No historic structures remain. Cunliffe Depot campsite is located here. The remains of two Lombard log haulers are located at Cunliffe Depot, one steam- and one gasoline-powered.



*Figure 89. Site of Long Lake Dam. (n.d., photo courtesy of M. LaRoche)*

Steam-powered Lombard haulers revolutionized woods work by freeing thousands of horses from the dangerous work of hauling sleds full of logs over snow and ice. The mechanized haulers had skis on the front and were powered by rear tracks, which was an innovation. Alvin Lombard went into full production in 1903 and began offering gasoline-powered machines in 1915. (Some Lombard remains are also at the former Churchill Depot machine shop location and in off-site collections.)

Joe McKeel, who worked at Cunliffe, was buried in two barrels near the river, his grave being subsequently moved. A memorial stone stands on the old Inn Road between Cunliffe Depot and Ramsay Ledges campsites. (The latter is the only Waterway site where RV camping is allowed, spring to fall.) The stone—and McKeel himself—stands for a common man who worked in the 1800s logging industry. Visitors leave coins at his stone as tokens of remembrance (Figure 88).

The McKeel stone and Lombard log hauler remains are distinctive heritage resources.

### Dams

The site of the former wooden Long Lake Dam is located at the north end of Harvey Pond. Built by the St. John Lumber Company in 1907, it merged Harvey Pond and Long Lake. Its purpose was to aid log driving in late spring and early summer. It also carried



the California Road. The dam was discontinued in the 1920s, and only some log cribbing remains (Figure 89). The nearby shore is the location of the Long Lake Dam campsite.

In 1841, landowners at Telos and Webster lakes dammed Chamberlain Lake's outlet. In 1846, Eben S. Coe developed another dam below it to create a lock for transferring logs



*Figure 90. View of 60-foot steel ladder up Round Pond Mountain fire tower. (2016, photo by B. Jacobson)*

upstream from Eagle Lake to Chamberlain Lake. Few vestiges remain of the lower dam (called “Lock Dam” when built). The timber crib structure of the last dam at Chamberlain Lake outlet (Chamberlain–1841) is buried under the earthen dike of Lock–1962 dam (Figure 32). Lock Dam campsite and Lock Dam Camp are adjacent.

A dam at Telos Lake worked in conjunction with Chamberlain Dam to drive logs through Webster Stream to Webster Lake, on their way to Bangor. Telos Cut, a canal 10–15 feet wide and 1–6 feet deep, fed water and logs to Telos dam. All was in place by the fall of 1841, part of a scheme to redirect the natural northerly flow of water. Telos Landing campsite offers access to Telos–1981 dam (Figure 34).

Lock–1962, Chamberlain–1841, and Telos–1981 dams are distinctive heritage resources discussed in chapters 3 and 5.

## Fire Towers

There are two fire towers in the Allagash watershed. A tower was installed atop Round Pond Mountain in 1946. In 1993, the steel tower was replaced (by helicopter) and a plywood observation platform installed. Visitors reach the 60-foot tower (Figure 90),



*Figure 91. Eastern brook trout (Salvelinus fontinalis). (n.d., photo courtesy of U.S. Fish and Wildlife Service)*

located on BPL's Round Pond Public Reserved Land, via a 2.4-mile trail from the shore of the pond. The platform offers sweeping views of the surrounding working forest. BPL posts the tower prohibiting public access.

A log tower was built on Allagash Mountain in 1916, with the current 27-foot steel tower installed in 1924. The cab remains, and is accessible to the public. It is located on BPL's Chamberlain Lake Public Reserved Land. Allagash Mountain Trail leads 0.75 mile from the ranger station on the lake to the tower. Availability of the historic alidade panorama map, depicting the view from that tower, enriches the interpretive potential of Allagash Mountain tower. See Figures 14, 29, and 46.

Allagash Mountain Fire Tower is a distinctive heritage resource discussed in chapter 5.

## Forested Shores

The Waterway remains part of the Maine Woods where boreal spruce-fir meets the northern hardwood transition forest, with pockets of bog, swamp, and floodplain forests. This biological complex is home to myriad organisms of the northern temperate zone. Thoreau and others have taken note of three old-growth stands near the shores of

the watercourse that punctuate the “wildness” of the Waterway. Passing forested shores on water or ice shapes the Allagash experience.

Chamberlain Lake Ecological Reserve, including old growth and other forest types, is a distinctive natural resource, described in chapter 2 at page 18.



*Figure 92. Katahdin Range from Chamberlain Lake in fall. (n.d., photo by D. Bennett)*

## Fish

Brook trout, lake trout, lake whitefish, and burbot (cusk) are fish native to Maine present in Allagash waters. Brook trout (Figure 91) thrive in the cool waters of the Allagash watershed, though found throughout Maine. Fewer, and especially non-native, fish species compete with or prey on them in the Waterway. Lake trout, lake whitefish, and cusk are confined to the clear, deep, well-oxygenated waters of the larger lakes in the Waterway, which attract eagles, ospreys, loons, and gulls, in addition to human anglers.

The native eastern brook trout is a distinctive natural resource (see Appendix C).

## Katahdin Views

“I could see down the lake to a range of mountains, including Mt. Katahdin. . . . How many others, I wondered, had sat in this same spot, mesmerized by this panoramic view?” (D. B. Bennett, 2001, p. 5) The southern lakes and summits in the Waterway offer scenic views of iconic Mount Katahdin and Baxter State Park. Mountains visible within the Allagash watershed also contribute to the scenic beauty of the Waterway.

## Michaud Farm

J. T. Michaud grew grain and vegetables to support his lumber operation here in the early 1900s. Michaud ran a store for as many as 13 families who lived in the area. In the 1920s and '30s, Michaud Farm was a fully operating supply depot. Little evidence of past

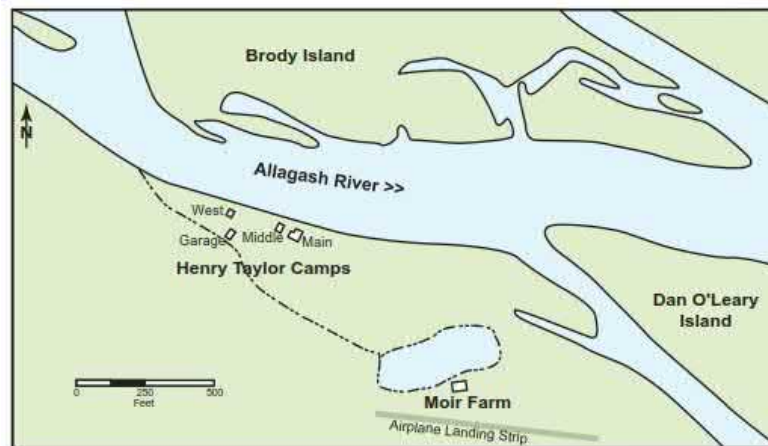


Figure 93. Juxtaposition of Moir farm and Henry Taylor camps (BPL, n.d.).

use remains on the land surface today. Joseph McKeel worked at the farm for a time (see Cunliffe Depot, page 215). The site is accessible by vehicle, where there is a circa-1968 ranger station (Figure 16), parking area, and campground.

## Moir Farm and Taylor Camp

One of the earliest farms along the Allagash was established about 1838 above Allagash Falls. A group including two Diamond family sisters made their way from New Brunswick. Other family members followed; agriculture continued into the 20<sup>th</sup> century when a small settlement developed. Today many in the town of Allagash trace their heritage to the Moir and Diamond families. A farmhouse ruin survives, probably built by George Moir (and Lucinda Diamond) around the turn of the 20<sup>th</sup> century (Figure 18).

Henry Taylor and his wife Alice built and ran a sporting camp on the shore of the river at the Moir farm from the 1930s to 1970s. There were three camp buildings: Main Lodge, West Camp, and Middle Camp. One structure now serves as an interpretive resource (Figure 93).

Moir Farmhouse ruin is a distinctive heritage resource described in detail in chapter 3 at page 56; also see chapter 5, page 161.

## Moose

“It is difficult to explain, but when you paddle up close to a giant bull moose and actually hear the water running off his antlers when he picks his head up out of the water, while



feeding on water plants—that is something very special” (LaRoche, 2011). Moose sightings were reported by 91% of visitors in 2003. Viewing wildlife is a major feature of a trip on the Allagash. More than 30 other mammal species, including Canada lynx, are present in the area (S. Bennett & Bennett, 1994).



*Figure 94. Bull moose (Alces alces) along the Allagash Wilderness Waterway. (n.d., photo by D. Conley/Canoe The Wild)*

Moose and Canada lynx are distinctive natural resources in the Waterway (see Appendix C).

### Railroad Trestle

During the winter of 1926–27, Lacroix’s Madawaska Company constructed a 13-mile railroad to move pulpwood. It ran from the Eagle Lake side of Tramway south to Umbazooksus Lake (later extended 5 miles to Chesuncook Lake). The road included a 1,500-foot-long wooden trestle across the northern end of Chamberlain Lake, near Allagash Stream, supported by stone piers. Ruins of the Trestle remain (Figure 37).

Eagle Lake & West Branch Trestle remains at Allagash Stream and the mainline tracks are distinctive heritage resources, see chapters 3 (pages 76–79) and 5 (page 163).

### Sporting Camps

Willard Jalbert Sr., known as “The Old Guide,” built a camp on the east side of Round Pond (T13 R12) in the early 1940s. After the Waterway was established, BPL leased several subsequent Jalbert camps at Halfway, Windy Point (Figure 20), and Whittaker Brook back to the family; the current operator is a registered Maine Guide and granddaughter of “The Old Guide.” There are now 10 camps, and associated structures.

Al “Nuge” and Lila-Beatrice “Patty” Nugent began building sporting camps in 1936 on the shore of Chamberlain Lake, about 3 miles east of Chamberlain Farm. They hosted

deer hunters that first year. In 1952, the Nugents purchased Heart O’ Maine Sporting Camps located at the farm. Private individuals now lease the camps at these two locations from BPL. A single building remains at the Chamberlain Farm site, known as Farm Camp (Figure 27).



*Figure 95. Stargazing on the Allagash. (n.d., photo by D Conley/Canoe The Wild)*

Jalbert’s and Nugent’s sporting camps are distinctive heritage resources described in chapters 3 (pages 59–60 & 66) and 5 (pages 161 & 163).

### Stars

“Imagine standing out on the ice on a calm, frigid, moonless February night, seeing only by light originating from a myriad of stars above, illuminating a silhouette of the unbroken forest on the horizon” (Johnson, 2016). A starry night sky is part of the historic fabric on the Allagash: Visitors today see essentially the same sky as Wabanaki travelers thousands of years ago. Wildlife and many natural processes depend on the night sky and darkness.

### Tramway and Locomotives

A log-conveying system operated between Eagle and Chamberlain lakes, 1903–07. Small dollies or trucks attached to a steel cable, powered by a steam engine, traveled two levels of rails. Logs loaded at Eagle rode the upper level to Chamberlain (3,000 feet), and then empty trucks returned on the lower rails. A portion of the tramway, shown in Figure 35, was reconstructed for interpretive purposes. Also, see Figures 57 and 58.

Tramway includes the Eagle Lake & West Branch railroad’s eastern terminus (1926–1933). Two standard-gauge locomotives rest where they were parked upon the railroad’s demise. The six- and eight-wheeler dominate the site, as shown in Figure 64.

Distinctive heritage resources of the National Register Tramway District include Locomotives No. 1 and No. 2 with their tenders, tracks, switches, and 40 pulp-car remains; and the tramway power plant, powertrain (gears and cable), rails, trucks, and other components described in chapters 3 and 5. A portion of the district is included in the Chamberlain Ecological Reserve (a.k.a. Bear Mountain), a distinctive natural resource described in chapter 2.

### Umsaskis

Umsaskis Meadows is a wetland just below Allagash River's Chase Rapids, which has fed sediment to the marsh for centuries. In summer wild rice, rushes, sedges, and grasses grow here providing cover and food for herons, ducks, and other birds in its maze of channels, islands, oxbows, and small pools. It's common to see bald eagles working the Meadows. Meadows campsite is located nearby. Chisolm Brook campsite overlooks the Meadows and offers a peaceful evening paddle.

#### ALLAGASH WATER

Water in all its forms . . . mud-puddles on the road, streams flowing from cedar swamps under bridges, quick water just deep enough to float our boats, green canopy giving way to big sky, tufted grassy hummocks and weathered snags as the inlet opens to the lake, distant shores, eagle overhead, a northwest wind in our faces.

Water as driving rain, pock-marking the roiling waters, water from the ancient springs captured in our water bottles, drunk raw to quench a thirst, infused with the silt of ground coffee to wake us, a few crystal drops to enliven the bourbon as the campfire fades, dew on morning grass and cupped in unfolding blossoms, drops on feathers of the loon breaching the quiet surface of the lake after a long dive, water streaming as the moose lifts her head and chews long chains of submerged vegetation.

Water as fog clinging to the lake before the sun warms, water as clouds that highlight the setting sun.

Water as blood where the black-fly has rasped a tiny wound on my neck.

Water flowing, swirling, splashing the bow. When asked for a word to describe the drops falling from the paddle when you lift it clear of the river, a Scottish friend named it "oar-play."

Tiny whirlpools trailing a deep paddle-stroke, water as a friendly "V", allowing entry and the other, urging the paddler to go around—water as standing wave, bow wave, water as eddy. Water as the whispers of the river as you sleep on its shore.

— Ron Beard (pers. comm., May 21, 2017)



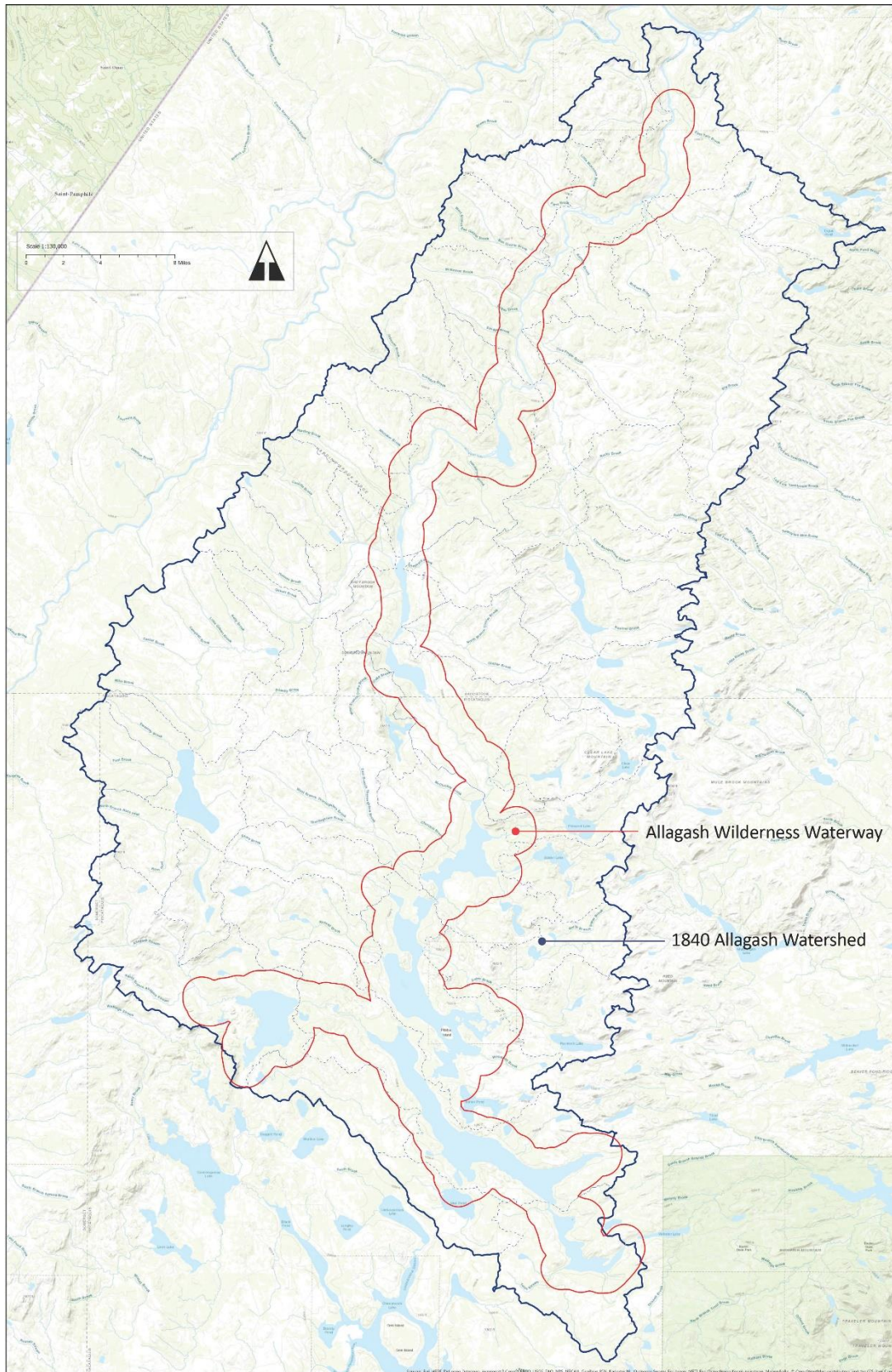


Figure 96: Allagash watershed prior to 1841 dam construction, with 48 sub-basins, and Waterway One-Mile Zone. (2017, produced by James W. Sewall Company)

Sometimes pronounced “Am-zaz-cuss” or “Umm-sass-kiss,” this 4-mile-long lake lies nearly midway north-to-south in the Waterway, bordered by steep ledges and Ledges campsite. Umsaskis, Long Lake, and Harvey Pond are considered separate yet they easily flow into one another and paddlers frequently pass through all three lakes in the course of one day. For those who portage around Chase Rapids, Umsaskis Lake is a little over 3 miles downstream of the Bissonette Bridge site.

### Water

The central feature of the Waterway is—water! Water in rills, rapids, eddies, quiet pools, or frozen sheets attracts most visitors, as over the millennia it has drawn others for enjoyment, sustenance, and transport. The surface of eight lakes, four ponds, and the river accounts for greater than half of the area within the One-Mile Zone. An estimated 100 brooks and streams flow down the Waterway’s small mountains and rugged ridges. One cannot visit the Allagash without experiencing water in some form.

Figure 96 shows the land that was drained by the Allagash River prior to 1841, which is the geographic focus of the interpretive plan. The area includes some lands that now drain south to East Branch Penobscot River, due to dam construction, and lands north of West Twin Brook, extending to the St. John River. (The watershed encompasses 7,100 more acres than the heritage resource **Part Two** study area, shown in Figure 1.) The flow of waters into, within, and from the 948,000-acre watershed is fundamental to understanding Allagash-related travel, work, recreation, and natural systems over time.

### Wind/Weather

All who travel the watercourse are aware of the weather, especially sudden winds on the lakes. “Wind is the bane of canoeists” (Gilpatrick, 2004, p. 62). Wind and accompanying waves frequently delay the start of planned trips. “After a day or two you become super-sensitive to any change in the weather: wind direction, approaching clouds, increasing humidity, whatever” (Grant, 2010). Perhaps the question posed most frequently to rangers by Waterway travelers is, “What’s the weather forecast?”

## 7. INTERPRETIVE THEMES

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Topics associated with the prominent features of the Allagash are abundant, though we will not develop all subjects into storylines. “Just because it is possible to tell a particular story does not mean that it should be told,” as interpretive planner and trainer David Bucy counsels (2009, p. 53). Rather, we must choose among the array of possible topics to reinforce our goals. Themes help us make choices about what information to select.

Unlike a topic, which is the subject matter, “theme is the main point or idea a communicator is trying to convey about that topic” (Ham, 2016, p. 20). Good interpretation, like a good story, has a beginning, middle, and end—most importantly, a good story also has a point or conclusion to be drawn from its telling. Themes help frame the “story” we communicate to visitors.

The core message is the “big idea” that applies throughout the 92-mile length of the Waterway. Themes are more specific, related ideas. The core message, three themes, and corresponding sub-themes comprise chapter 7. Storylines connect themes to tangible resources, using the Waterway’s prominent features as departure points for communication. These are the components of the Waterway thematic framework—a systematic way to provide meaningful experiences for visitors, while pursuing the information network goals (see chapter 6).

Themes operate on two levels: broadly for the entire network and specifically for individual elements, such as an exhibit panel. Interpreters rarely repeat broad, central themes verbatim to visitors. In contrast, an exhibit theme could be its title or opening sentence, and must therefore beg for additional detail and provoke visitors to make their own meanings and connections. By implementing individual interpretive elements that convey central themes in ways specific to each locale, we provide visitors a cohesive experience that reinforces central messages.

Time and place are both key to understanding the meanings of the Waterway. There is a close relationship between interpretive themes and the historic context discussed in chapter 4 where, as a reminder, five historical periods are suggested for the Waterway. Furthermore, places within the Allagash watershed provide tangible context. Heritage landscapes are described in chapter 5 and presented in Table 6 which can be found in chapter 6. The Sporting Camps, Logging and Forest Management, and Moosetowner heritage landscapes are joined by the Indigenous Landscape, including naturally occurring features, to provide “place” for communicating interpretive themes.

In summary, there are four components in the Waterway thematic hierarchy.

- **Core Message:** The key concept reflecting the purpose and significance of the Waterway. Applies throughout the Waterway.
- **Central Themes:** Ideas or concepts that together support the core message. Ideally, all visitors will understand at least one of the themes based on their specific area of interest or locale visited.
- **Sub-themes:** Ideas or concepts that narrow and support a theme.
- **Storylines:** Stories that communicate a sub-theme or theme, tied to tangible Allagash places and features.

Other information delivered in the Waterway network helps visitors plan a trip to the Allagash and orients them to a place upon arrival.

### CORE MESSAGE

*The Allagash is a wild place where flowing waters reflect centuries of life, work, and travel in Maine's North Woods; it is a place set aside for all.*

### THEME I – The Waterway is a wild place set aside for all to enjoy and care for.

#### A Wild Place

A ribbon of now wild lands and waters, earlier transformed by logging, winds through the Maine Woods.

#### A Valued Place

Visitors enjoy and value the Waterway's wild character the year-round, and help care for its heritage and nature.

### THEME II – Flowing waters sustain wild life throughout the Waterway.

#### Basins of Water

Low mountains and ridges surround the Waterway, forming basins where water flows downhill into lakes and the Allagash River.

#### Life Support

Plants and animals depend on life-giving water flowing in Waterway soils, streams, wetlands, ponds and lakes, and the Allagash River.



## THEME III – People have lived, worked, and traveled in the Maine Woods since ancient times.

### Allagash Travelers

Waterway visitors travel routes that have been in use for a long time by Native Americans, colonials, “rusticators,” trappers, “sports,” guides, and recreational paddlers.

### A Working Forest

Timberland investors changed the flow of history—and Allagash waters—by floating harvested logs north to markets and then logs and pulpwood south, relying on the labor of men, draft animals, and machines.

### At Home in the Woods

People of European descent began living in the Wabanaki homeland along the Allagash during the early 1800s, occupying seasonal camps, farmsteads, or a few year-round logging communities, now gone.

## STORYLINE EXAMPLES

A few storylines in Table 7 illustrate ties between the above sub-themes, Waterway prominent features described in chapter 6 (additional tangible resources in parentheses), and Allagash landscapes presented in chapter 5. The examples only hint at the complex stories that will be shared as thematic interpretive content is developed for the Waterway.

Table 7. Example Storylines With Associated Features and Landscapes.

Example Storylines	Features (★) and Landscapes (▲)
<b>A Wild Place</b>	
<i>Some trees more than 200 years old survive in the Waterway, protected in an ecological reserve surrounding Tramway. Other forests in the Waterway are younger, having grown after timber harvests.</i>	<p>★ — Forested shores (Chamberlain Lake Ecological Reserve and other old-growth).</p> <p>▲ — Indigenous, Sporting Camps, Logging and Forest Management.</p>
<b>A Valued Place</b>	
<i>More than 100 volunteers assist the Waterway each year with maintenance and helping to care for historic resources.</i>	<p>★ — Churchill Depot Boarding House and Storehouse, tramway and locomotives, Moir farm and Taylor Camp.</p> <p>▲ — Sporting Camps, Logging and Forest Management, Moosetowner.</p>

Example Storylines	Features (★) and Landscapes (▲)
<b>Basins of Water</b>	
<i>Water cascades over erosion-resistant bedrock of Seboomook light-brown sandstone and grey slate to create waterfalls.</i>	<p>★ – Allagash Falls, Little Allagash Falls, water.</p> <p>▲ – Indigenous, Sporting Camps, Logging and Forest Management, Moosetowner.</p>
<b>Life Support</b>	
<i>Moose depend on a watery home in the forest for their diet of aquatic plants and they, like all mammals including humans, need water to sustain life.</i>	<p>★ – Moose (and other mammals), forested shores, water.</p> <p>▲ – Indigenous, Sporting Camps, Moosetowner.</p>
<b>Allagash Travelers</b>	
<i>Ancestral Wabanaki peoples traveled the Allagash to hunt, fish, and trade; to find materials for tools, weapons and shelter; and for social purposes. Wabanaki people continue to travel Allagash waters.</i>	<p>★ – Allagash Falls, Chase Rapids and Allagash River, fish, forested shores, Katahdin views, moose, stars, water, wind/weather (reproduction Native American artifacts on display).</p> <p>▲ – Indigenous, Sporting Camps, Logging and Forest Management, Moosetowner.</p>
<b>A Working Forest</b>	
<i>Investors built dams in the 1800s and 1900s to regulate the flow of Allagash waters in order to control when their men could float logs to market. The land draining to the Allagash River was reduced by more than 143,000 acres with 1841 dam construction.</i>	<p>★ – Dams (former dam sites).</p> <p>▲ – Logging and Forest Management.</p>
<b>At Home in the Woods</b>	
<i>The Waterway north of Churchill Depot has special significance to the people of the town of Allagash, who have called its lands and waters home for more than 10 generations.</i>	<p>★ – Allagash Falls, Chase Rapids and Allagash River, Cunliffe depot, Moir Farmhouse, Michaud Farm, Jalbert's Sporting Camps (Round Pond, Round Pond Mountain fire tower).</p> <p>▲ – Indigenous, Sporting Camps, Logging and Forest Management, Moosetowner.</p>

## 8. FUTURE VISITOR EXPERIENCE

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A series of nested events, together, constitute the Waterway visitor experience. Travelers become interested in the Allagash, plan a visit, travel from their home base, get settled upon arrival, experience the Waterway, return to vehicles for travel home, and then reminisce about their trip or share parts of it with others. When focused on the physical lands and waters within the boundary of the Waterway, we may see these events as distinct unrelated events. Not so the visitor. Their Allagash journey begins when the idea first enters their consciousness and ends sometime after they have returned home and processed their travels.

The proposed Waterway information network addresses visitors' interests, needs and motivations throughout the continuum of their experience: pre-visit, visit, and post-visit. This means offering easy-to-use trip planning media, orientation information, interpretive messaging in various formats, and follow-up opportunities employing central themes.

As described in chapter 6, the Waterway information network must also address network goals; respond to the Waterway's inherent possibilities and constraints; build on current interpretive efforts; and take advantage of Allagash places, features, and objects that offer interpretive opportunities. To be effective, it communicates a core message (chapter 7) to identified audiences.

### DESIRED CONDITIONS AND RECOMMENDATIONS

While not all who consume Waterway information have exactly the same interests, most share a few base-level needs. Consider Maslow's hierarchy which generalizes basic human needs as physiological (food, water, warmth, and rest) and safety/security. Before we can expect visitors to turn their attention to interpretation, they must feel their basic human needs are satisfied. Therefore, we desire simple wayfinding to reassure visitors traveling through the Maine Woods.

We envision exhibits and interpretive panels that improve the visitor experience at the Storehouse, Boarding House, Taylor Camp, and a few other select locations. Moreover, a trip planner is one component of a web portal, which also hosts resources for educators and collects data about Waterway natural resources. A printed and mobile app pocket guide provokes visitors to connect with Waterway resources through interpretive themes. Social media offers follow-up engagement that builds support for the Waterway. The following describes these future conditions, and more.

Recommendations to achieve desired conditions are offered to Bureau of Parks and Lands and Allagash Wilderness Waterway Foundation for consideration. Each entity will assess the appropriateness of the proposed actions and determine whether to proceed with independent or, in some cases, collaborative implementation. The recommendations are not prescriptions; some may be modified in the design process.

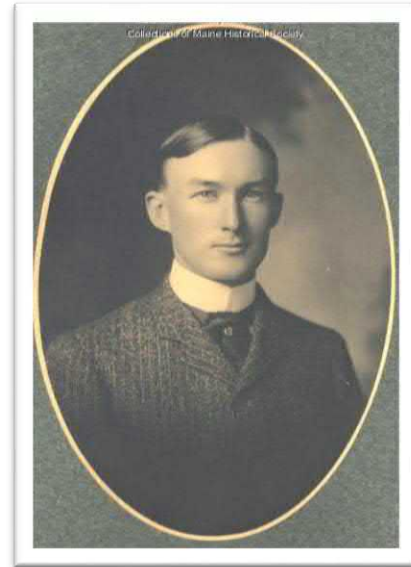
Given the broad nature of this plan, and unknown factors such as royalties for use of proprietary exhibit materials, cited costs are “ball park” cost range estimates. They will need to be reconsidered prior to implementation. The lower end of the range will be favored if like projects in this remote location are bundled together. Recommendations noted as “priority” should be addressed first.

We cannot mandate that visitors act, think, sense, and feel the ways we envision. In fact, some visitors will successfully experience the Allagash entirely independent from our actions. We can, however, make the visitor experience we desire a reality for some. Each section below begins with a present-tense statement of the outcomes we desire, followed by actions that Waterway management and partners can take to create those conditions.

### Storehouse Interpretive Center

The interpretive center is located roughly in the center of the Waterway, on the ground floor of the Storehouse at Churchill Depot. Visitors drive, paddle, or snowmobile to the location. The barn-like space contains thematic exhibits communicating that the Allagash is a wild place where flowing waters reflect centuries of life, work, and travel in Maine’s North Woods; it is a place set aside for all. Two large doors facing Churchill Dam Road lead visitors into southern or northern sections of the building, with viewing doors opposite that overlook the Allagash River. Once inside, visitors pass easily between the two interior areas.

The north area (1,000 sq. ft.) explores Themes I and II, supported by the sub-themes A Wild Place, A Valued Place, Basins of Water, and Life Support. The south exhibit area (1,500 sq. ft.) focuses on the people who have lived, worked, and traveled in the Maine Woods since ancient times—Theme III. Two small rooms (375 sq. ft.) provide storage. See Figure 98.



*Figure 97: Allagash 1911 paddler Henry L. Withee from Maine Historical Society exhibit. (2016, courtesy of MHS)*

The exhibits are in keeping with the simple, rustic character of the Storehouse and its surroundings. They conform to Waterway interpretive standards (recommendation i.24). Comfortable seating in the interpretive center affords visitors a place for rest and contemplation. Smaller objects inventoried as part of the Waterway’s holdings

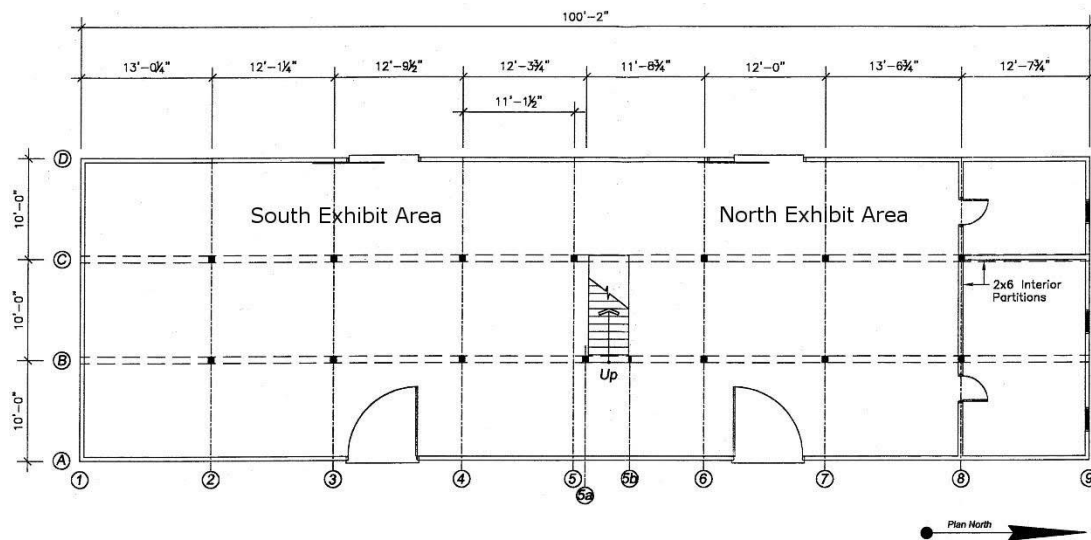


Figure 98: Churchill Depot Storehouse floor plan (2010, BPL).

(recommendation d.8) and not displayed in the thematic exhibits are stored elsewhere, perhaps on the second storey of the building.

The Storehouse is designated “the primary exhibit space within the Waterway” in BPL’s 2012 management plan (p. 159). *Supports management plan strategy 3.3.E, strategy 3.3.D, strategy 3.3.F, strategy 9.2.A, strategy 9.2.C, strategy 9.2.D, strategy 9.2.E, strategy 9.2.F, strategy 9.2.I, strategy 9.2.K, and strategy 9.3.B (BPL, 2012). Supports treatment of the Storehouse as a heritage structure, with an active public use.*

- i.1. Design, construct, and install Theme I and Theme II exhibits in the 1,000-square-foot north area of the Storehouse interpretive center exploring the sub-themes A Wild Place, A Valued Place, Basins of Water, and Life Support, once current operations functions are relocated.

COST ESTIMATE: \$150,000–300,000.

- i.2. PRIORITY – Design, construct, and install Theme III exhibits in the 1,500-square-foot south area of the Storehouse interpretive center exploring Ancient Travelers, A Working Forest, and At Home in the Woods sub-themes; store objects not needed for thematic display.

COST ESTIMATE: \$225,000–450,000.

- 1.3 Evaluate desired facility improvements at the Storehouse to support the overall visitor experience. These could include security upgrades and universal access improvements. Develop cost estimates.

Cost: Operations.

### Boarding House

Visitors explore the history of “King” Lacroix’s Churchill Depot through interpretive panels (12) on the ground floor of the Boarding House. The graphic panels highlight life in the historic building, as told by Helen Hamlin in *Nine Mile Bridge* (1945), part of the sub-themes At Home in the Woods. The open floor plan accommodates circulation, and provides occasional indoor program space with abundant natural light. Conforms to interpretive standards, recommendation 1.24. *Supports management plan strategy 9.2.I* (BPL, 2012).

- 1.4. After stabilizing the Boarding House, develop and install exhibit panels on the ground floor exploring the Theme III sub-theme, At Home in the Woods (“King” LaCroix’s historical use of the building).

COST ESTIMATE: \$18,000–24,000.

### Taylor Camp and Moir Farm

Wall-mounted interpretive panels (six) inside Taylor Camp explore the sub-themes A Valued Place and At Home in the Woods. One element: the “sports” who arrived to fish, hunt, and paddle, staying at numerous camps built by entrepreneurs like Henry and Alice Taylor, and Al and Patty Nugent.<sup>28</sup> Another element: the special significance of the Waterway north of Churchill Depot to “Moosetowners,” i.e. the people in the town of Allagash who have called Allagash lands and waters home for more than 10 generations. As elsewhere, the core message of the Waterway is also addressed. The graphic interpretive panels conform to Waterway interpretive standards, recommendation 1.24. *Supports management strategy 3.4.F, strategy 9.2.D, and strategy 9.2.I* (BPL, 2012).

- 1.5. Design, produce, and install exhibit panels in Taylor Camp about Theme III (Moosetowners, Moir farm, “sports” and sporting camps). Consider incorporating Maine Historical Society images and text.

COST ESTIMATE: \$9,000–12,000

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<sup>28</sup> The Maine Historical Society 2016 exhibit, installed at the Society’s headquarters in Portland, Maine, in celebration of the Allagash Wilderness Waterway’s 50th anniversary presented Henry L. Withee’s photo journal of a trip he and a companion took down the river in 1911. The Society has agreed to allow reproduction of the exhibit as part of the Waterway interpretive program (K. McBrien, pers. comm., July 20, 2016). See Appendix G: “Down the Allagash” Exhibit.

### Tramway Village “Discovery”

A valued experience of visiting the Allagash is “discovering” the tramway and Locomotives No. 1 and No. 2 at the former railroad terminal at Tramway village. As Waterway volunteer Terry Harper puts it, “one of the fascinating characteristics of these sites such as Tramway is the opportunity to explore and discover—it doesn’t matter that thousands of people have discovered the same artifact—what matters is that you did” (pers. comm., November 29, 2016). To retain the sense of wonder that comes with exploring these objects, no permanent interpretive panels are installed. Instead, the “Allagash Explorer” interpretive media communicates the related themes and sub-themes.

- i.6. Maintain reconstructed tramway section and stabilized locomotives; preserve visitors’ sense of discovery at Tramway village by using “Allagash Explorer” media to relate storylines, rather than installing permanent interpretive panels.

COST: Operations

### Lock Dam “Working” Camp

The legacy of creativity associated with the Waterway is strong. For more than 150 years engineers, photographers, biologists, surveyors, writers, archaeologists, artists, naturalists, and others have utilized the Allagash as the subject of their work and, in some cases, their inspiration. This legacy continues at Lock Dam Camp through a short-term residency program for amateur and professional practitioners, at the invitation of the Waterway superintendent. The camp is full of copies of articles and books written by Allagash authors, maps and plans, and other related works to provide inspiration. Some staying in the camp and bunkhouse are volunteers on work details. Others might be scientists or artists. In the case of individuals, a formal online application process leads to selection for a two- or four-week residency at Lock Dam Camp.

In exchange for the immersive experience, participants share their work with the public. First, they are available to talk with Lock Dam visitors during reasonable hours. Second, they lead at least one public outreach presentation organized in the context of at least one of the Waterway’s three interpretive themes (I, II, and III). Selected individuals travel to and take part in the program at their own expense. *Supports management plan strategy 9.2.1* (BPL, 2012).<sup>29</sup>

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<sup>29</sup> The National Park Service artist-in-residence program, which many parks offer, is a model for the application process for individuals. See Acadia, as one example, where applications are reviewed by appointed juries including park staff, community members, past program participants, and subject matter experts. <https://www.nps.gov/acad/getinvolved/artist-in-residence.htm>



- 1.7. PRIORITY – Institute a process that allows creative amateurs and professionals performing work in and about the Waterway to use Lock Dam Camp for a short-term residency program tied to interpretive themes (I, II, and III).

COST: Operations.

### Fire Towers

The story of fire protection in forest management is told at the Allagash Mountain Fire Tower. Inside the preserved Allagash Mountain cab (recommendation c.15) visitors who climb the 30-foot ladder find reproduction fire-finder equipment, including a re-printed alidade map that was used in the tower when active. An interpretive panel at the base of the tower explores the sub-theme A Valued Place, focused on fire wardens. Visitors who venture up to the reconstructed observation platform atop the 65-foot-tall Round Pond Mountain tower are rewarded with a panoramic view of the surrounding managed forest<sup>30</sup>. An interpretive panel at the base focuses on the A Working Forest sub-theme. Both interpretive panels include safety messages and conform to Waterway interpretive media standards, recommendation 1.24. *Supports management plan strategy 9.1.E, strategy 9.2.F, strategy 9.2.G, and strategy 9.2.I* (BPL, 2012).

- 1.8. Create and install an interpretive panel at the base of Allagash Mountain Fire Tower exploring the sub-theme A Valued Place. Volunteers construct reproduction fire-finder equipment and install it in the preserved cab.<sup>31</sup>

COST ESTIMATE: \$3,000–3,500; BPL volunteer coordination.

- 1.9. Create and install an interpretive panel at the base of the Round Pond Mountain tower exploring the sub-theme A Working Forest.

COST ESTIMATE: \$3,000.

### Junior Ranger Program

The Junior Ranger program relies on “Allagash Explorer” content (recommendation 1.11) that is reconfigured to better match the cognitive processes of children. Children don’t have a vast array of experiences on which to build their learning and focus on firsthand acquisition of data. The updated workbook is copied locally, as needed. *Supports management plan strategy 9.2.I and strategy 9.2.L* (BPL, 2012).

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<sup>30</sup> Assumes replacement of the Round Pond Mountain observation platform through a Maine Public Lands planning and decision-making process.

<sup>31</sup> Maine Firetower Association is a potential source of volunteer assistance: <https://www.facebook.com/FFLAMaine/>

- I.10. Incorporate interpretive themes I, II, and III into the Junior Ranger program, including the design of an expanded workbook.

COST ESTIMATE FOR DESIGN AND GRAPHICS: \$500–900.

### “Allagash Explorer”

Visitors form questions about Waterway resources and make their own connections to this special place through the “Allagash Explorer,” which provides multiple entry points to Waterway information. Printed and online media deliver storylines exploring Waterway interpretive themes, tied to prominent Waterway features, also reinforcing that life-long learning is at the heart of interpretation.

- I.11. PRIORITY – Engage an interpretive writer to compose “Allagash Explorer” content that explores the Waterway’s three interpretive themes for use in pocket guide booklet, pocket guide mobile app, and web portal.

COST ESTIMATE: \$6,000–12,000.

### *Pocket Guide Booklet*

One format of the “Explorer” is an illustrated, graphically pleasing, pocket-size booklet. The “Explorer” differs from recreational guides that relate paddling and camping tips, and also from narrative histories.<sup>32</sup> The difference is that an interpretive writer composed “Allagash Explorer” to provoke personal connections between the reader and the resource, rather than to inform, instruct, or persuade. The “Explorer” differs from current publications in another way: it is for use in all seasons. The content is keyed to authorized campsites, which are near most prominent features. It is available in a full-color printed edition or two free, online formats (HTML to provide universal accessibility and PDF) viewable on a mobile device. Blank note pages encourage visitors to make their own observations about the Waterway. *Supports management plan strategy 9.2.B, strategy 9.2.D, strategy 9.2.E, strategy 9.2.I, and strategy 9.3.C* (BPL, 2012).

- I.12. PRIORITY – Use “Allagash Explorer” content to create a pocket guide in a format that can be downloaded by visitors (PDF) and also professionally printed (files prepared for printer), as well as an accessible HTML version.

COST ESTIMATE: \$4,000–6,000; \$2,500 to print 500 full-color copies.

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<sup>32</sup> Some examples of published guides and histories include the guide and map produced by BPL (BPL, 2016b), *The Allagash Guide* (Gilpatrick, 2004); National Geographic’s recreational maps of the Waterway (n.d.-a, n.d.-b), *Northern Forest Canoe Trail Guidebook* and maps #12 and 13 (2010), *Above the Gravel Bar* (Cook, 2007), and *Wilderness at Chamberlain Farm* (D. B. Bennett, 2001).

### *Pocket Guide App*

Another carry-along format for the “Allagash Explorer” is a mobile app, or application, for iOS and Android devices. The downloadable application has essentially the same content as the pocket guide. GPS triggers “Allagash Explorer” content, once the user is near prominent features being interpreted. Some screens have small slideshows or links to short videos.<sup>33</sup> Cell reception and internet are non-existent in the Waterway, so visitors download the native app prior to a visit. The functionality of the app is similar to the “Maine Ice Age Trail Map and Guide: Down East” developed by the University of Maine (though the Ice Age content is instructional, rather than interpretive). The “Allagash Explorer” app is linked to a Waterway biodiversity data network so visitors can record observations.<sup>34</sup> *Supports management plan strategy 9.2.B, strategy 9.2.D, strategy 9.2.E, strategy 9.2.I, and strategy 9.3.D* (BPL, 2012).

- I.13. PRIORITY – Use “Allagash Explorer” content to design and deploy a hand-held device application.

COST ESTIMATE: \$8,000–12,000.

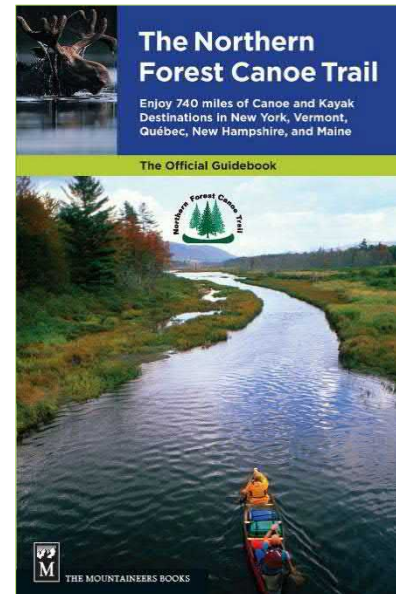


Figure 99. Example of existing “how to” guide to the Waterway. (n.d., NFCT)

### *Web Portal*

A web portal serves as a point of access for information about the Waterway. The specially designed website utilizes a customized content management system that provides seamless experiences to visitors, educators, and administrators using the website. It includes an e-commerce function for acquiring the printed “Allagash Explorer” pocket guide.<sup>35</sup> Elements include:

- trip planning, wayfinding, and orientation
- “Allagash Explorer” pocket guide (PDF download and print copy sales) and pocket guide mobile app.

<sup>33</sup> Depending on the current assignment of rights, segments from the BPL video (2014) could be incorporated into the “Allagash Explorer.”

<sup>34</sup> Many apps have been developed for parks and other protected areas. Examples include Baxter State Park, Acadia National Park, and other national parks by Chimani: <https://www.chimani.com/>. The model for the “Allagash Explorer” could be: <http://iceagetrail.umaine.edu/>.

<sup>35</sup> The “exploreallagash” domain is reserved for Waterway use until December 1, 2018, along with .com, .org, .net, .info, and .me extensions. Similar domain extensions are reserved for “visitallagash.”

- online social community
- educators' resource guides
- biodiversity network.

*Supports management plan strategy 9.2.B, strategy 9.2.D, strategy 9.2.E, strategy 9.2.H, strategy 9.2.I, strategy 9.3.A, and strategy 9.3.B (BPL, 2012).*

- I.14. PRIORITY – Design and build custom “Allagash Explorer” web portal (website) with editable areas, live text areas, image gallery, news boxes, e-commerce capability, and news and resource pages.

COST ESTIMATE: \$6,500–11,000.

### Trip Planning and Arrival

#### *Maine Woods Wayfinding*

A few directional signs at critical juncture points, similar in style to the Waterway's routed wooden roadside identity signs (Figure 81), guide visitors from the “Telos,” “Six-Mile,” and “Allagash” checkpoints to major Waterway vehicle destinations. North Maine Woods, Inc., and private landowners collaborate with BPL.

- I.15. PRIORITY – Design, install, and maintain Waterway directional signs at critical junctions on roads in the North Maine Woods.

COST: Operations.

#### *Orientation*

Outdoor orientation panels welcome visitors at several Waterway ranger stations, where visitors already look for information. The graphic panels orient visitors within the geographic context of the Waterway, and supplement the Waterway's core message with thematic media relevant to each locale. The orientation panels conform to Waterway interpretive media standards, recommendation I.24. *Supports management plan strategy 9.2.I, strategy 9.3.A, and strategy 9.3.B (BPL, 2012).*

- I.16. PRIORITY – Design, produce, and install orientation panels near Waterway ranger stations at Michaud Farm, Umsaskis, and Chamberlain Bridge, and at a Churchill Depot site to be determined.

COST ESTIMATE: \$12,000–16,000.

#### *Allagash Trip Planning*

A dynamic internet trip planner targets the Waterway's primary audience: Snow Travelers and Water Travelers. The trip planner enables visitors to create an Allagash trip tailored to their specific interests and to address their basic needs. It complements the official Waterway website ([maine.gov/allagash/](http://maine.gov/allagash/)). The planner is one part of an

Allagash Waterway web portal; see recommendation I.14. It is fully compatible with mobile devices.<sup>36</sup> Figure 100 depicts a hypothetical landing page. *Supports management plan strategy 9.1.A, strategy 9.3.C, and strategy 9.1.F* (BPL, 2012).

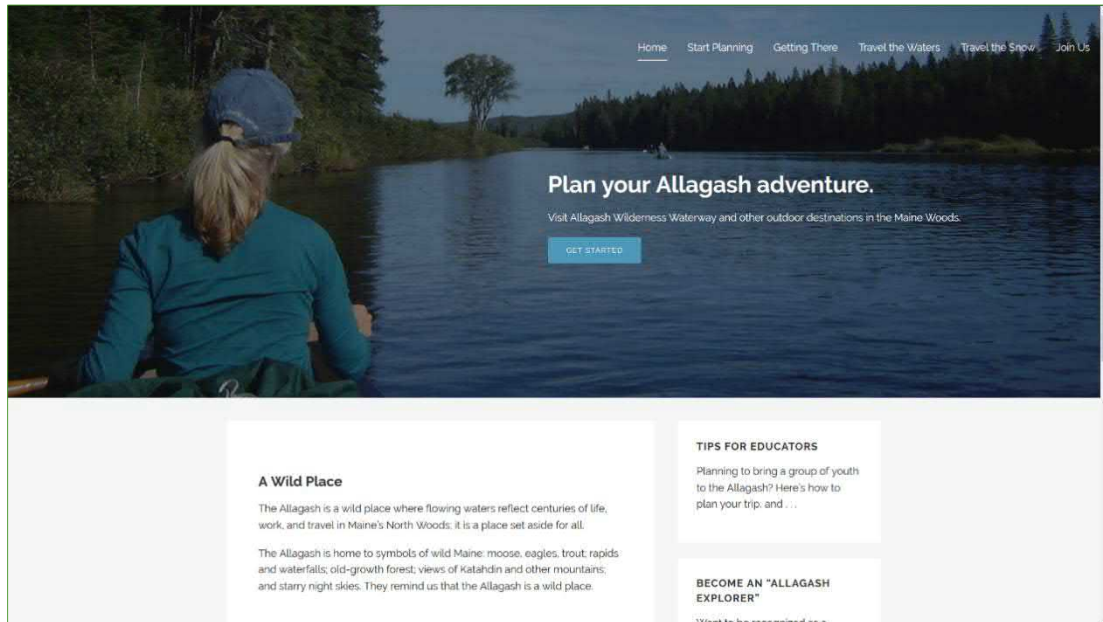


Figure 100. Hypothetical landing page for Allagash web portal. (2017, created by B. Jacobson)

- I.17. PRIORITY – Develop and deploy an internet trip-planner as part of an Allagash Waterway web portal to complement BPL’s official Waterway website.

COST ESTIMATE: \$3,000–9,000.

- I.18. Update the BPL Allagash Wilderness Waterway Guide & Map to incorporate Themes I, II, and III.

COST ESTIMATE: \$3,500–5,000

<sup>36</sup> The internet trip planner is functionally similar to the Northern Forest Canoe Trail trip planner, which already covers paddling the Allagash, and cost estimate assumes access to NFCT code. The NFCT planner seems to use MapBox (<https://www.mapbox.com>) for map images and functionality, and custom-built scripts for marker placement and trip planning. The interface is somewhat unintuitive, lacks some features (such as re-sorting trip items), and has apparent errors (such as failure to load custom or prepackaged itineraries). See:

<https://www.northernforestcanoetrail.org/trip-planner/>.

One reason for the planner’s success could be the flexibility and responsiveness that comes with a partner hosting it, independent of a standardized government platform.

## Online Community

Visitors remain in communication with each other and the Waterway following their Allagash travels using social media. They share photos, journal entries, reference materials, and other information relevant to the Allagash and the visitor experience. Thus, it touches all three interpretive themes (I, II, and III), as well as safety and resource protection. *Supports management plan strategy 9.2.I, strategy 9.2.J strategy 9.3.A, and strategy 9.3.B* (BPL, 2012).

- i.19. Develop and maintain a social media environment for Waterway visitors employing several online platforms.

Cost: Operations.

### *Biodiversity Network*

A committed community of visitors, volunteers, and staff engage with the Waterway's biotic resources—and each other—by recording information critical to understanding and sustaining those resources. Secondly, the community generates scientifically useful biodiversity data. The crowd-sourced records are entered, maintained, and analyzed in a database accessed through the Allagash web portal (recommendation i.14). It is similar to the State Parks NatureFinder administered by Colorado Parks and Wildlife, in cooperation with iNaturalist.<sup>37</sup> *Supports management plan strategy 9.2.D, strategy 9.2.E, strategy 9.2.I* (BPL, 2012).

- i.20. Create an online network of people sharing biodiversity information as part of the Waterway's online community that helps members learn about nature, and collect crowd-sourced Waterway biodiversity data.

COST ESTIMATE: \$1,000–3,000.

## Outreach and Events

### *2026 Celebration*

Ten years after the successful 50<sup>th</sup> anniversary celebration in 2016, the Waterway community celebrates stabilization of the Boarding House at Churchill Depot, and completion of the Storehouse interpretive center and the Boarding House interpretive panels. BPL and partners hold events at Churchill Depot and around the state of Maine. The year 2026 marks the 100<sup>th</sup> anniversary of when Édouard Lacroix established

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<sup>37</sup> The California Academy of Sciences is the home for iNaturalist, employed for Colorado state parks: <https://www.inaturalist.org/projects/state-parks-naturefinder>. It appears that iNaturalist would allow for full integration of data collection into the Allagash web portal with little cost. Another possibility is Anecdata, developed by The Mount Desert Biological Laboratory: <https://www.anecdata.org/>. It offers more customization than iNaturalist, but is not as robust. A stand-alone Anecdata app is another possibility, with development cost of about \$25,000.

Churchill Depot and had the Boarding House and Storehouse built; they remain the only structures at Churchill Depot from that period. Also in 1926, the Madawaska Company built Long Lake–1926 dam. The Allegash [sic.] Dam Company was founded in 1851 and built Allagash Falls–1851 dam, making 2026 the 175<sup>th</sup> anniversary of that event. Table 8 lists these and other meaningful Allagash anniversaries. *Supports management plan strategy 9.2.1* (BPL, 2012).

Table 8. Upcoming Allagash Anniversaries

Year	Anniversary	Event
2020	75 <sup>th</sup>	Helen Hamlin publishes <i>Nine Mile Bridge</i> , including account of living and teaching at Churchill Depot (1937).
	50 <sup>th</sup>	U.S. Secretary of the Interior Walter J. Hickel designates Waterway part of National Wild and Scenic River System. Bronze plaque dedicated at Churchill Depot on July 19, 1970, for Wild River designation.
2021	175 <sup>th</sup>	Pingree and E. S. Coe establish Chamberlain Farm as a supply depot. E. S. Coe oversees construction of Chamberlain Farm in 1846.
2023	100 <sup>th</sup>	Édouard LaCroix establishes the Madawaska Co.; purchases Van Buren Lumber Co. holdings; 1923.
	100 <sup>th</sup>	Maine Governor Percival Baxter travels through the Allagash; tents on the shore of Chamberlain Lake in 1923 at the “warden camp.”
2024	175 <sup>th</sup>	Holman Cary brings horseboat (towboat) above Allagash Falls in 1848, which he bought for \$200 in Fredericton, New Brunswick.
	150 <sup>th</sup>	Thomas Moir and Lucinda Diamond settle on shore of Allagash River, above the falls: c. 1874.
	150 <sup>th</sup>	John Way, Jr., publishes first map and guidebook to the region for outdoor recreationists in 1874.
2026	175 <sup>th</sup>	Allegash Dam Co. incorporates on June 3, 1851, “for the purposes of erecting and maintaining a dam across the Allagash Falls on the Allagash River”; ends 1901. Allagash Falls–1851 erected by Allegash Dam Co.
	100 <sup>th</sup>	Long Lake–1926 dam built by Madawaska Co. to replace Long Lake–1911; flooded out in 1950s.
	100 <sup>th</sup>	Édouard Lacroix establishes Churchill Depot as headquarters for his Allagash-Musquacook lumber operations; 1926–1938. Lacroix employs approximately 3,500 in Allagash Region.
	100 <sup>th</sup>	Churchill Boarding House constructed by Madawaska Co. c. 1926. Churchill Storehouse constructed by Madawaska Co. c. 1926. Clayton Lake boarding house constructed by Madawaska Co.; c. 1926.



Year	Anniversary	Event
2027	125 <sup>th</sup>	Construction of steam-powered tramway between Eagle and Chamberlain lakes begins on March 1, 1902; complete by the fall. Chamberlain Farm leased as headquarters for constructing tramway.
	100 <sup>th</sup>	Eagle Lake & West Branch railroad built by Madawaska Co. 1926–27; 13-mile stretch graded by first autumn 1926 snowfall. EL&WB railroad begins operating on June 1, 1927; lasts until 1933.
2028	125 <sup>th</sup>	The tramway begins operating in 1903; ends 1907.
	125 <sup>th</sup>	Paddle steamer <i>H. W. Marsh</i> built at Eagle Lake side of Tramway, complete on May 10, 1903.
	125 <sup>th</sup>	Landowners in Allagash region hire 4 fire patrolmen during a 1903 dry spell. Model for Maine forest fire protection system.
2030	150 <sup>th</sup>	Photographer Thomas Sedgwick Steele publishes his account, with photos and maps, of 1880 Allagash visit (1879).
	125 <sup>th</sup>	G. Stanton Smith travels through the Allagash in 1905; publishes account.
2031	150 <sup>th</sup>	Photographer Sedgwick Steele visits the Allagash for the second time; publishes his account (1882).
	150 <sup>th</sup>	Lucius Hubbard (lawyer, geologist, writer, and mapmaker) visits the Allagash; publishes his account (1884).
	75 <sup>th</sup>	Maine State Park Commission suggests Allagash River for acquisition in “A Recreation Plan For Maine.”
	175 <sup>th</sup>	Henry David Thoreau visits Chamberlain Lake, camping at the shore July 27 and 28, 1857. Thoreau and his party spend the afternoon of July 28 waiting out a thunderstorm on Pillsbury Island, his northernmost reach into the Maine Woods.
2032	175 <sup>th</sup>	Naturalist Manly Hardy visits the Allagash, recording the 1858 trip in journals. Stays at Chamberlain Farm.
2033	125 <sup>th</sup>	Steam-powered Lombards begin operating in the Allagash in 1908; soon replaced by gasoline engines.
	200 <sup>th</sup>	First authorized harvest of white pine in the Allagash headwaters near Telos Lake in 1835.

*See Appendix E: Allagash Chronology for sources of entries.*

- i.21. Use the 100<sup>th</sup> anniversary, in 2026, of Churchill Depot’s construction to celebrate stabilization of the Boarding House (recommendation c.12), plus completion of the Boarding House interpretive panels (recommendation i.3) and the Storehouse interpretive center (recommendation i.2).

Cost: Operations.

### *Ranger Talks*

Waterway interpretation relies on non-personal delivery strategies due to the fluctuating and small number of Waterway rangers. As staff is available, they conduct programs, workshops, and special events tied to interpretive themes for communities surrounding the Waterway. These might include a Waterway overview presentation, visual exploration of an interpretive theme, or a “learning to camp or paddle” workshop.

- I.22. Continue community outreach programs, as staff is available.

COST: Operations.

### Interpretation Training

Waterway rangers use online competency-based courses to increase interpretation skills on a voluntary basis. Many state park systems and the National Park Service utilize courses offered by the Eppley Institute for Parks and Public Lands at the University of Indiana. Rangers may earn basic certificates by reading course material and passing the objective assessment at the end of the online course. The National Association of Interpretation offers interpretation certification as a way to document that individuals possess skills and knowledge that enable them to perform effectively in the interpretive profession. Membership in NAI is not required for certification.

- I.23. Inform Waterway rangers and volunteers of the availability of online interpretive training opportunities and encourage participation.

COST: Free–\$500 each.

### Interpretive Media Standards

#### *Principles of Interpretation*

Three general principles of interpretation guide all media content and presentation. Resources possess meanings and have significance. The visitor is seeking something of value for himself or herself. Interpretation facilitates connections between the interests of the visitor and the meanings of the resource. *Supports management plan strategy 9.2.1* (BPL, 2012).<sup>38</sup>

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<sup>38</sup> The principles of interpretation underlying the Waterway interpretive program originate in the literature for interpreters and interpretive planners, e.g., Ham, 2016; Larsen, 2011; Lewis, 1981; and Tilden, 1957; as well communication and information theory. Larry Beck and Ted Cable (2007) present 15 principles of interpretation for the 21st century, building upon the work of others (as cited in Bacher, K. & Lacome, 2007, pp. 3–4), which clearly state the principles upon which these recommendations are based.

*Interpretive Writing Guidelines*

An interpretive writer—whose goal is not to inform, instruct, or persuade their audience—creates content for the information network. He or she writes to help an audience think or feel something new. It is a given that an effective interpretive writer must possess basic skills in writing; in addition they must understand the art and practice of interpretation and the principles of universal accessibility.

*Exhibit and Panel Guidelines*

Waterway exhibits reflect the surrounding historical industrial forest and the character of the setting in materials, colors, and graphics. Some exhibits use historic or reproduction objects; some have low-tech interactivity. Objects are displayed only when they amplify the sub-themes being communicated. All exhibit panels are graphically rich, with minimal text that is visually layered in meaning from big ideas to more specific details. Exhibit panel elements are emphasized in the following descending order of effectiveness at engaging visitors in interpretive content:

**TITLE** > **PICTURES** > **Picture Captions** > **subheads** > **narrative text**.

*Universal Accessibility Standards*

All people, regardless of abilities, are able to access the Waterway’s information network to the greatest extent possible, without the need for adaptation or specialized design. Upgrading facilities (ranger stations, campsites, picnic tables, and privies) to better serve visitors of all physical abilities at vehicle access sites is a focus of the Waterway management plan (Objective 1.13). The Waterway information network informs visitors about where accessible facilities exist in the Waterway. Interpretive facilities developed at sites such as Churchill Depot employ universal design. *Supports management plan strategy 1.13.C* (BPL, 2012).

In addition to physical access to information, interpretive content should be accessible at the experiential level. A universal design approach creates experiences that all parts of the target audience can enjoy, including those with impairments. This approach involves multiple delivery strategies that include all senses. The result is an overall experience that meets the needs of the few while enhancing the experience of everyone. (See: “The principles of universal design, version 2.0.” (1997).

Center for Universal Design, North Carolina State University,  
[https://projects.ncsu.edu/www/ncsu/design/sod5/cud/about\\_ud/udprinciples.htm.](https://projects.ncsu.edu/www/ncsu/design/sod5/cud/about_ud/udprinciples.htm.))

*Historical Place Names*

Waterway information consistently uses historical place names to reinforce interpretive messaging. For example, “Churchill dam” is a modern concrete structure. “Churchill Depot” evokes the historical use of the place and provides context for two historic structures, the Storehouse and Boarding House. Another example: “Tramway” is the

name of the village that supported the tramway railway and EL&WB rail terminal. Use Tramway (capital “T”) to denote the village and the tramway (lower case “t”) when referring to the equipment for moving logs.

- i.24. Utilize principles of interpretation, guidelines for interpretive writing, exhibit and interpretive panel design standards, universal accessibility standards, and historical place names in all Waterway interpretive media and programs.

COST: None.

### Additional Partnership Opportunities

Bureau of Parks and Lands cooperates and coordinates with others for most aspects of Waterway management, including with organizations whose mission is relevant to interpreting Waterway resources. (See chapter 5, page 179–180, for suggested collaboration regarding treatment of heritage resources.) Clearly, this process is already underway and need only be continued and enhanced. *Supports strategic plan objective B.1.f* (BPL, 2010). *Supports management plan strategy 3.4.A* (BPL, 2012).

COST FOR PARTNERSHIPS: Direct costs are minimal at this time; however, building relationships requires a long-term investment of Bureau and partner human resources.

### *Maine Woods Recreation Destinations*

The various state, federal, and private entities managing and promoting public recreation resources in the Maine Woods coordinate their efforts and offer visitors a cohesive trip planning experience. Such an effort avoids duplication of basic information and saves organizational resources needed for frequent individual updates. A collaborative website is maintained, with one partner committed to its maintenance based on financial support from other prime players.<sup>39</sup> Many among the following contribute to the collaboration’s success. *Supports management plan strategy 9.1.E, strategy 9.1.F, and 9.2.G* (BPL, 2012).

- Maine Bureau of Parks and Lands, which manages the Waterway, three units of Maine Public Reserved Lands that abut the Waterway (within the One-Mile Zone) and several more in the Maine Woods, and, in cooperation with others, the Penobscot River Corridor.
- North Maine Woods, Inc., which collects user fees from 100,000 recreational visitors annually, and administers 350 rustic campsites and other wildland recreational improvements.

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<sup>39</sup> The “visitmainewoods” domain is reserved for implementing this idea until December 1, 2018, along with the .com, .org, .net, .info, and .me extensions.

- Northern Forest Canoe trail, a nonprofit that manages the concept of a 740-mile water trail that traverses the Allagash Wilderness Waterway, with its northern terminus at Fort Kent, Maine.
  - Baxter State Park, a 210,000-acre “forever wild” park and the northern terminus of the Appalachian National Trail; supported by the nonprofit Friends of Baxter State Park.
  - Katahdin Woods and Waters National Monument’s wild 87,500-acre landscape along the East Branch Penobscot River. Friends of Katahdin Woods and Waters, a nonprofit, provides interpretive materials.
  - Regional and local snowmobile associations.
  - Maine Office of Tourism and regional tourism organizations that promote visits to Aroostook and Piscataquis counties.
  - Maine Wilderness Guide Organization which is made up of Maine Guides and sporting camp owners committed to protecting habitats in which they guide, including the Allagash.
  - Maine Professional Guides Association, many members of which guide in the Waterway and own sporting camps in the Maine Woods.
  - Surrounding gateway communities.
- 1.25. Cooperate with other Maine Woods recreation destinations to provide collaborative trip planning information to the public through online resources, and joint staff training and sharing of information.

#### *Area Historical Museums*

Patten Lumbermen’s Museum and Ashland Logging Museum, described in chapter 3 as holding the most objects directly linked to the Allagash (including a Watson Dump Wagon owned by BPL), cooperate in presenting Theme III, especially sub-themes A Working Forest and At Home in the Woods.

- 1.26. Cooperate with Patten Lumbermen’s Museum and Ashland Logging Museum in presenting Theme III to the public.

In 2003, BPL considered purchasing land in the town of Allagash to build a historical and cultural museum. According to the *Bangor Daily News*, the idea was to construct a museum on land at the mouth of the river to create a place where canoeists could leave the waterway and learn about the region's history (Edgcomb, 2003). Since that time, the Allagash Historical Society has constructed a new museum building to house its local history collections, which are described on page 88. The 2003 idea is reevaluated in light of the recommended Storehouse interpretive center, and recommended exhibit panels inside the Boarding House and Taylor Camp. *Supports strategic plan strategy 3.4.E* (BPL, 2010).

- I.27. With Allagash Historical Society, reevaluate the desirability and feasibility of developing a regional historical and cultural museum in the town of Allagash.

#### *Area Environmental Education Organizations*

Cooperation with environmental education organizations, such as the Natural Resource Education Center at Moosehead, extends the reach of Waterway messaging by exploring the compelling natural history, ecological, and science related stories that support Theme II. (In the past, interest among the Waterway community has skewed toward historical storylines, as manifest in **Part Two** of *Storied Lands & Waters*.)

*Supports management plan strategy 9.2.D, strategy 9.2.E, strategy 9.2.F, and strategy 9.2.I (BPL, 2012).*

- I.28. Cooperate with environmental education organizations to present Theme II storylines to the public.

#### *Research Organizations*

Relationships with scholars and scientists produce peer-reviewed works about the Allagash that use primary sources and original research to support interpretive programming. Such works correct oft-repeated, yet unsubstantiated, information found in published sources. The environmental and social history of the Allagash is researched and documented, and baseline research conducted in environmental science (ecology, biology, physics, chemistry, plant science, zoology, mineralogy, limnology, soil science, geology, physical geography, etc.) to support interpretation. Data about visitor use in the Waterway during the four seasons is collected and analyzed to aid future interpretive planning. (Also see recommendations H.1 through H.5, chapter 3, and I7).

*Supports management plan strategy 3.1, strategy 7.1, strategy 8.2, and strategy 9.1 (BPL, 2012). Supports strategic plan strategy B.1.e and strategy B.1.f (BPL, 2010).*

- I.29. Cooperate with universities, museums, nonprofits, and government agencies to research Allagash social and natural history, and environmental science; collect and analyze four-season visitor use data.

#### *Consultation*

- I.30. Consult with historical societies and cultural organizations in Aroostook and Piscataquis counties regarding the presentation of local history.
- I.31. Consult with Maine Historic Preservation Commission regarding interpretation of archaeological resources and the interpretation and alteration or adaptive use of historic structures for interpretation.
- I.32. Consult with Maine State Museum regarding the display of historic objects for interpretation.
- I.33. Consult with Native American tribes regarding interpretation through Maine Historic Preservation Commission and Maine State Museum.



## VISITOR SCENARIOS

How will future visitors experience the Waterway, once recommendations are implemented? Here are a few possible scenarios for Water Travelers and Snow Travelers.

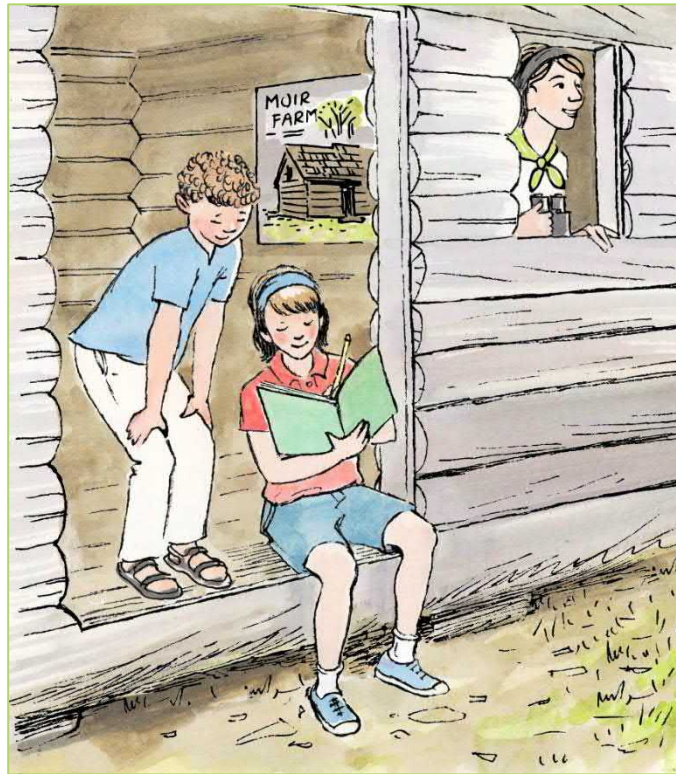


Figure 101. Future Jr. Rangers at Taylor Camp. (2018, A. Carver)

### Family Outing

Paul had been on trips up the Allagash since childhood and was eager to take his grandkids, John and Judy, on a June camping trip. He picked up the kids early on a Saturday morning and departed Fort Kent for Michaud Farm, with his trailered canoe in tow.

After unloading the canoe and gear, they left the truck and trailer in the parking area. Near the ranger station they saw a panel about how the former farm, and others like it, had served the logging industry. A small inset about Joe McKeel, who was buried in two barrels, caught John's interest. Another part was about the Waterway, but Paul only glanced at it, already familiar with the 92 miles of state-managed land and water.

A Waterway ranger greeted them at the ranger station when they registered. She asked if John and Judy were Jr. Rangers. They were not, so she gave each a workbook they could use during their trip and encouraged them to check back when done.

One workbook activity explored Moir farm so, once all were aboard, John turned the canoe downstream. When they landed, John and Judy ran ahead to a log camp they saw while Paul secured the boat. They were at Taylor Camp. The door was open so the three went inside and found photos on the walls showing how people had used similar Allagash sporting camps in the 1900s.

There was a question in the workbook asking Jr. Rangers to find two ways to build a house with logs. Judy noticed that one camp wall had square logs and the others were made of round ones. John found an exhibit panel with drawings explaining the two styles.

John and Judy were eager to explore outside. They quickly found the farmhouse ruin and, using their workbooks, learned about the families who had lived at Moir farm. Judy asked her grandfather which of their relatives were from Canada, Scotland, or Ireland.

Leaving Moir farm, and heading upstream, Paul was glad to have the small outboard on the stern of his canoe. He was also happy about the trip so far: John and Judy were having fun—and learning about their history too!

### Friends Reunion

Beth, who has a love for the outdoors, wanted an adventure with friends. Women only. Beth texted Anna in Boston, who was immediately on board. With the addition of college buddy Rachel, they were soon thinking about a river trip. The Allagash is class I and II water, beautiful, and remote. Anna had it on her kayaking “bucket list.” So it was decided: they would do the Allagash Wilderness Waterway.

Beth looked forward to being together and wanted everyone to have a great time. She had never been to Maine or the Allagash. She found that the [exploreallagash.org](http://exploreallagash.org) website had step-by-step help for planning a four- or five-day excursion. It led her to an outfitter to shuttle them between kayak and car at either end of the trip. She also discovered that Katahdin Woods and Waters National Monument was nearby, and got ideas for an extra two days in the Maine Woods. They planned a 65-mile journey on the Allagash River from Churchill Dam to the town of Allagash.

The three met in July, shopped, checked gear, loaded up, and drove the 8 hours north from Boston. They spent the night with an outfitter in Allagash, Maine, and in the morning left their car and rode 3 hours south on logging roads to Churchill Depot. Rachel was thankful the experienced outfitter was driving because, even with a few signs pointing the way, she thought she would have been lost on those back roads.

The three women weren’t to put in until early the next day, so after lunch they spent the afternoon relaxing. Beth suggested a visit to the Storehouse interpretive center

where they were excited to learn about moose and eagles they might see during their travels. They also spent time there thinking about the past, the history of Allagash logging and Native American use of the area.

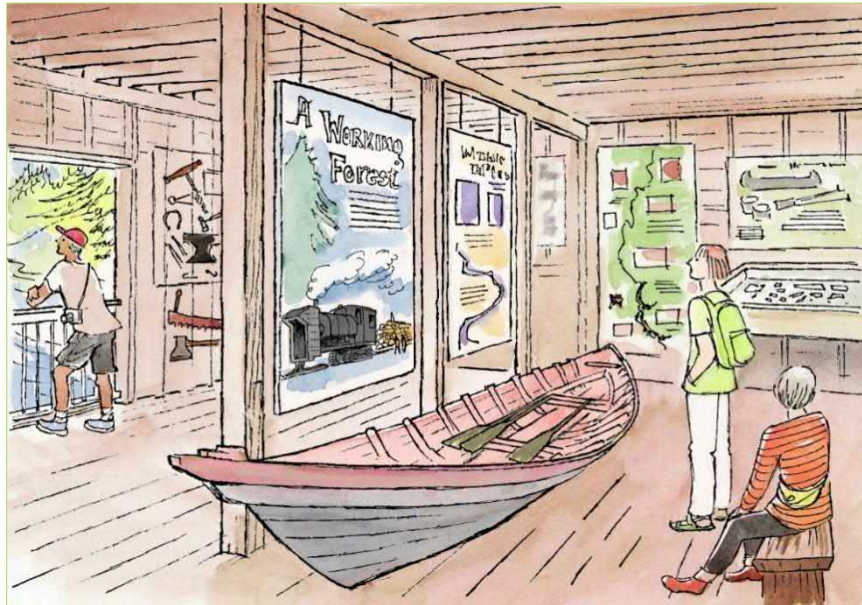


Figure 102. Future Storehouse interpretive center. (2018, A. Carver)

The three women got into the routine of paddling in the mornings and setting up camp in early afternoon. They were pleased that all the campsites had picnic tables and a tarp pole for a rain shelter: meals were a highlight of each day.

At the end of their travels, they headed south and checked into a B&B along the way for a pampered final evening together. Exploring Katahdin Woods and Waters would have to wait. Beth was pleased that her friends had enjoyed the trip. The next week she wrote an entry in her lifestyle blog with all the details of their Allagash adventure.<sup>40</sup>

### Wilderness Retreat

Greg had canoed the Allagash a couple of times. Both trips he had enjoyed long days of paddling, laughing with friends, and running Chase Rapids. This time he was looking for something different. He had a new job at a Massachusetts tech company and just needed to get away for a while. Plus, lately he hadn't spent much time with Sarah.

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<sup>40</sup> The blog of a real-life Allagash adventure that inspired this scenario can be found at: <http://sayyes.com/2015/08/maine-canoer-trip-report.html>

Greg knew how to get to the North Maine Woods, but was not sure how to begin a trip at Allagash Lake. He had heard the large lake was the most remote part of the Waterway. It seemed like the perfect spot to spend a quiet few days. Greg went to [exploreallagash.org](http://exploreallagash.org) to get details. In addition to travel directions, he found links for checking advisories from the Bureau of Parks and Lands and other local conditions.

He also found there was an app about the Waterway he could bring along on their trip. He started downloading it, but stopped when he remembered he was trying to avoid screen time. Instead, Greg printed a few pages of “Allagash Explorer,” an online PDF that had entries about the areas where they’d be camping.

Greg and Sarah paid their fees at the “Telos” checkpoint, where the North Maine Woods attendant handed Sarah a Waterway map and guide. As they headed to meet the outfitter who would drive them to Carry Trail, Sarah shared safety tips. Greg was glad of the advice to pull over and completely stop for logging trucks—the first one they met raised dust that made it impossible to see the road.

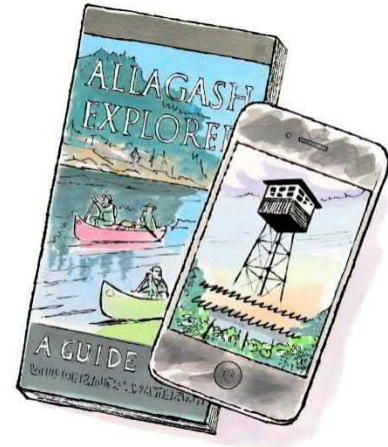


Figure 103. Future “Allagash Explorer” pocket guides. (2018, A. Carver)

After their canoe and gear were on board the outfitter’s rig, the adventure began. On the way, the outfitter told of losing a prize trout to an otter on Allagash Lake some years before. After unloading and confirming the pick-up time, he pulled away. Greg and Sarah were left in silence. Perfect. They carried the canoe and gear to Carry Trail campsite and settled in. Only loons broke the silence.

They paddled among the islands, spied a loon sitting on a nest, went swimming, and enjoyed their time together. In the evening, Greg grabbed the pages he had printed from “Allagash Explorer,” and read about the nearby fire tower. He imagined himself living here for the summer and being the first to spot a fire from Allagash Mountain. The mountain would make a good hike the next day—and, he could try out the replica fire-spotter equipment in the tower, just as fire wardens did years ago.

After what seemed like too short a time, Greg and Sarah were back at the Carry Trail gate awaiting their ride. When Greg returned to work, he told about the campsites where they had stayed and encouraged his friends to download the “Allagash Explorer” app to learn more.



## Ice Fishing Weekend

Bob is an avid snowmobiler. He and his wife Alice used to live in Greenville, and wanted to share the winter Maine Woods with friends. Two other couples agreed to join them for a weekend of ice fishing and touring.



*Figure 104. Winter “photo op” at Tramway. (2018, A. Carver)*

Bob found tons of useful information on [visitmainewoods.org](http://visitmainewoods.org), where he decided on Chamberlain Lake in the Waterway as their fishing spot. He also followed links to other useful information for planning a snowmobile trip and discovered a sporting camp that welcomed winter travelers. He made a reservation for the three couples.

On a Friday in February, they packed up food, gear, and their snow machines and traveled to Greenville. The next day they trailered their machines to Moosehead Lake. From Northeast Carry the group followed local club trails to Chesuncook Village, where they made a final check of their equipment, topped off their fuel, and got updates on trail conditions and area cutting operations. The innkeeper gave them a Waterway guide and map that had winter safety and travel tips.

They rode through Maine’s backcountry on local trails and unplowed logging roads. During one rest stop, the two couples new to the Maine Woods were surprised to discover snow that was armpit deep!

Before long, they arrived at Chamberlain Lake where they chatted with anglers already on the ice. Bob and his group fished, enjoyed the views of Mount Katahdin, and caught enough trout for supper—so they packed up their catch and headed north before it got dark.

Along the eastern shore, Bob noticed a well-traveled trail into the woods; he and Alice decided to explore, and the others followed. They soon saw a large gear and other massive equipment sticking out of the snow. The six of them stopped and swapped ideas about what purpose the machinery might have served. Continuing on, they were amazed to discover two huge steam locomotives sitting side-by-side in the woods. It was picture time!

It was also getting late, so they found their way to the sporting camp and its welcoming warmth. After a great meal of trout, Alice asked their host about the locomotives. He produced a copy of the “Allagash Explorer” and, after a few minutes reading, Alice told the others about the Eagle Lake & West Branch railroad. A lively conversation followed about whether the Allagash is really a “wilderness.” After a good night’s rest, the group traveled the 35 miles they had come, arrived at their vehicles, loaded up, and made the long drive home.

All the next week Bob thought about their excursion. He showed co-workers pictures and posted several on the Allagash Facebook page and on his Instagram account. He was already thinking about planning another trip. However, first he would go to [exploreallagash.org](http://exploreallagash.org) to research those locomotives sitting in the wilderness.

### Youth Group Expedition

Roy was confident he could handle the logistics for a canoe trip with 10 middle-school boys and girls. He had led many backcountry youth trips, but never on the Allagash, and he felt a bit unprepared about general Waterway information.

Luckily, he found [exploreallagash.org](http://exploreallagash.org) where he learned about the special features of the Waterway. He shared some of what he learned with Anne, his co-leader. Anne was busy finalizing the five-day program, however, and did not have time to take a look. Instead, she downloaded the “Allagash Explorer” app to have as backup for answering questions on the river. She was grateful that some of the resources for educators available at [exploreallagash.org](http://exploreallagash.org) tied in with the ideas they planned to cover during the trip.

When launch day came in September, the group put in at Chamberlain Bridge. They made the short paddle to Boy Scout campsite, giving the boys and girls a chance to try-out their paddling skills. They set up camp and cooked dinner in the fading sunlight before turning in for the night.

In the morning they pushed off, heading north on the lake. The wind picked up about 11:00. By noon, there were whitecaps and they pulled onto the western shore. Anne recalled that “wind and weather” was a feature of the “Allagash Explorer” app, so she quickly checked it and led an impromptu discussion about weather. It was still windy so they walked the short distance to Gravel Beach campsite and began gathering firewood.



As the wind died down, the group walked back to the boats and paddled to camp. When dinner was finished, they settled in for the night. Several campers were up late identifying constellations. It was beautiful.

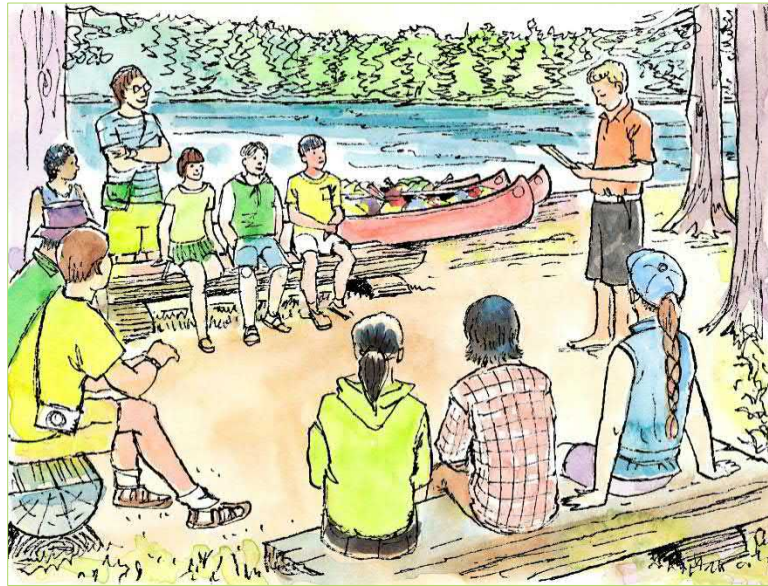


Figure 105. *Sharing lessons learned.* (2018, A. Carver)

They were up early and on the water at first light in order to paddle to Lock Dam campsite before the wind came up again. The group arrived at Lock Dam and had brunch. They found an author was staying at Lock Dam Camp. She invited them to ask questions about her work and about her two-week residency. Anne borrowed a book relating the summer life of the Lock dam keeper, and read a few passages aloud at the campfire that night.

In the morning, they lined canoes down the brook to Eagle Lake and paddled until lunch at Thoreau campsite on Pillsbury Island, where Anne conducted an activity about the meaning of “wildness.” Continuing north, they stopped to see the tramway and then headed to Pump Handle campsite.

Their last day, they launched early for the final push to Churchill Depot. Everyone was tired at the end of the trip, but took away great memories and photos to share with family and friends.<sup>41</sup>

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<sup>41</sup> The factual basis of this scenario is: <http://blog.jackmtn.com/allagash-bushcraft-and-guide-training-canoe-trip-journal/>

### Paddling End-To-End

Two couples—Karen and Joe, and Sally and Bill—left their cars behind and put in on Allagash Stream, upstream of Allagash Lake. It was the start of their longest canoe trip yet. Though experienced paddlers on shorter trips, they wanted to try 10 days on a



*Figure 106. Waterway moose encounter. (2018, A. Carver)*

wilderness river, and the Waterway was one of a few places in the northeastern U.S. where they could. A local outfitter would drive their cars to Allagash Village, 93 miles downstream.

At Allagash Lake it was so quiet, and there was so much to explore, that they decided to stay two nights. They were happy the longer trip allowed the flexibility to make such an impromptu decision. They swam in the clear water, and they bushwacked into a bog where they found beautiful orchids. Karen had been a botany major; she eagerly anticipated more finds in this unfamiliar territory.

Moving on, they paddled down the now larger Allagash Stream, portaged their gear, and ate lunch at Little Allagash Falls. That night, at Lock Dam campsite, they marveled at the audacity and ingenuity of mid-1800s engineers who had built dams redirecting the water from Allagash, Chamberlain, and Telos lakes out of the Allagash drainage and into the Penobscot.

From Eagle Lake they saw a stand of old-growth pines mentioned in the “Allagash Explorer” pocket guide Karen had purchased for the trip, and the two couples went ashore to walk among the large trees. As dusk approached, they paddled into the

marshy mouth of a tributary where Sally and Joe fished while Karen and Bill botanized, sketching and listing their discoveries in a notebook.

They silently floated by a mother and baby moose grazing along the shore early the next morning. Once past, they all agreed they had fully left their hectic lives behind and were now able to simply take in the silence and beauty of the moment. “Decompressing,” they discovered, was a special benefit of the longer trip.

The group nervously prepared for Chase Rapids, but once in the whitewater, found it exhilarating and fun. They floated out into Umsaskis Lake, spying ducks and geese in the marsh. The river current pulled them along and they soon found themselves in Round Pond setting up camp just before a light rain.

By morning, the skies had cleared and they hiked the Round Pond Mountain fire tower trail. Back in their boats, they paddled to a riverside campsite. The next day they portaged around Allagash Falls and swam below the falls, sadly realizing that their trip was drawing to an end. When they paddled into Allagash Village, their cars—and their everyday lives—were waiting.

All four felt they would have enjoyed even more days on the water. Once home, Karen posted online entries in the Waterway’s biodiversity database, including the locations of plants they recorded during the trip. Her records would be analyzed with others entered by visitors to help Waterway managers learn more about the Allagash.<sup>42</sup>

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<sup>42</sup> Cathy Johnson, a longtime Allagash paddler, generously provided this scenario.

## 9. EDUCATION AND LEARNING

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This chapter offers educators, i.e. school teachers, youth program staff, and anyone else involved in facilitating learning, with resources they can use in association with the prominent features of the Allagash Wilderness Waterway. Some learning will take place in classrooms, and some will occur in the Waterway. Overall, the intent is to support an educator's curriculum, while addressing the Waterway's information network goals.

### LEARNING ENVIRONMENTS

Education theorists have long employed a “formal” versus “informal” model to describe ways in which people learn. Schools or training institutions typically provide formal education, where a teacher has the authority to require that students learn a pre-established body of knowledge. Formal environments are structured, with learning objectives, learning times, etc., and they often lead to the award of credits or certification. Informal education has been simply defined as not being “formal.”

Over time, the model has been modified in two ways. First, because the boundary is indistinct between formal and informal environments, theorists added a third component as a bridge: “non-formal.” Second, the emphasis changed from educating to learning. So, now academics favor a conceptual system that has a continuum of learning environments: formal learning ⇔ non-formal ⇔ informal learning.

We have adopted a construct with two components for Waterway planning. One is formal learning, which occurs within a structured framework. Examples include classroom settings, such as primary and secondary schools, but could include any structured program with learning objectives. The other component operates outside of formal learning, which Professor John Falk defines as free-choice learning (Falk & Storksdieck, 2005). Free-choice learning tends to be self-motivated and driven by individual interests, activities, social groups, and surrounding environments. These surroundings could be places such as museums, aquariums, zoos, nature centers, and national parks. It is there that “individuals have significant choice and control over their learning. . . . The terms informal and nonformal are often used synonymously with the term free-choice to describe these settings” (Bourque, Houseal, Welsh, & Wenger, 2014, p. 8).

Generally, Waterway learning takes place in two ways: formally and through free choice. Formal learning is the focus of this part of the Waterway interpretive plan. Before considering the audience, goals, and recommendations for formal education, it is helpful to acknowledge that free-choice learning also has a place in the Waterway.

### Free-Choice Learning

Several institutions have a long history of Allagash trips, which individuals choose freely. The level of choice and control participants have over their learning on these expeditions varies, but there is usually some structure created to accomplish organizational goals, if not learning objectives.

For instance, First Baptist Church of Beverly Massachusetts has conducted an annual Allagash Wilderness Waterway youth trip for more than 40 years, focused on fellowship and community.<sup>43</sup> Kieve Camp for Boys/Wavus Camp for Girls, serving youth from Maine and around the world, started character-building experiential Allagash trips in the late 1950s, which continue. College of the Atlantic has conducted annual community-building Allagash trips since 1974. The Katahdin Area Council of the Boy Scouts of America offers Maine High Adventure, a challenging outdoor program conducted in northern Maine, started as a national program in 1970; the Allagash has been a backcountry destination since the program's early days. Scouting itself is a form of free-choice learning.<sup>44</sup>

The Waterway Jr. Ranger program is a loosely structured learning opportunity. Some individuals deepen their Waterway knowledge by watching the nine-segment online video series produced by BPL. Flexible, non-formal leaning about the Allagash is offered in community settings such as adult education courses. Clearly, education and learning take many forms in the Waterway.

### AUDIENCE

Adolescents in formal learning environments, and the educators who work with them, are the focus of Waterway educational efforts. Young adolescents, ages 10 to 16, are favored as the target audience for a couple of reasons. They are likely candidates for Waterway expeditions, as they respond well when actively participating in their own learning. Targeting adolescent learners also presents the opportunity to modify curricular resources for the more self-directed learning of adults and the more hands-on learning of younger students. An adolescent focus offers a theoretical middle ground.

Children and adolescents process information differently than adults. Consequently, practitioners in formal educational settings utilize a spectrum of principles and methods across a range of target ages to impart knowledge and skills to learners. Consider the

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<sup>43</sup> Participants relate their 2017 experience in a two-part video: <https://youtu.be/5UzzLiyg91U>.

<sup>44</sup> Perhaps scouting organizations would consider collaborating on an Allagash merit badge due to the long association with the Waterway.

difference between teaching in a third-grade classroom and in a university graduate seminar. Among the differences: younger children have little experience to use as a resource and teachers have a prominent role in their learning, whereas adult learners come with more experience and “bits” of information. Adults are generally more self-directed learners. Consequently, educational professionals use two distinct theoretical approaches for formal learning, depending on whether children or adults make up the audience. However, as with learning environments, boundaries between the approaches are fuzzy and a continuum is evident in practice. This plan approaches learning mostly from the traditional perspective associated with children and schools (pedagogy). In reference to the Waterway, the art and science of helping adults learn (andragogy) is relevant in more self-directed learning, such as community adult education environments or in publications and online media.

## PHILOSOPHY AND GOALS

The purpose of managing the Allagash Wilderness Waterway is to “preserve, protect and develop the maximum wilderness character” of the Waterway (BPL, 2012, p. 195). As discussed in preceding chapters of *Storied Lands & Waters*, Waterway management promotes education when it supports this overall purpose. Specifically, chapter 6 proposes the following goal for formal education.

**Formal Education** – Participants in formal education programs that utilize Waterway curriculum resources comprehend the Waterway core message.

Depending on the circumstances of students’ and teachers’ participation, the following visitor-related goals may also apply to Waterway formal education. For instance, through well-designed education programs and activities, students may become adults with a stewardship ethic regarding important natural and heritage resources, including the Waterway.

**Pre-arrival Information** – Visitors arrive in the Waterway prepared for a safe and enjoyable “wilderness” experience, one that will have minimal negative effects on important Waterway resources or other visitors’ experiences.

**Wildness** – Visitors experience feeling solitude in nature with little conflict from other uses and understand the Waterway’s context as a wild and scenic river within the Maine Woods.

**Resource Protection** – Important scenic, natural, and heritage Waterway resources are safeguarded for the future.

**Appreciation of Nature and History** – Visitors appreciate the dynamic history and prominent natural and heritage resources of the Allagash Waterway.



Stewardship Ethic – Visitors form intellectual and emotional connections with the Allagash Wilderness Waterway resulting in volunteer and philanthropic support.

Specific learning objectives are central to the practice of formal education. They are associated with individual learning plans or other local curricula.

### Learning Framework

Some assumptions underlie the philosophical approach to education and learning in the Waterway. Namely, there is value in learning of all kinds; learning is a lifelong endeavor; and an interdisciplinary approach is valuable.

#### **There is value in learning of all kinds**

Whether learning takes place in a formal setting such as a school, a non-formal setting such as a community or cultural centre or an informal setting such as a home, all learning is good, and all learning is valuable.

#### **Learning is a lifelong endeavor**

Learning does not stop when a person leaves school. There are those who never have the opportunity to attend school, but this does not mean they do not learn. . . . Learning occurs throughout one's life span.

#### **An interdisciplinary approach is valuable**

Traditional learning institutions divide learning into subjects. This helps us organize how we obtain knowledge. But it can also create silos. . . . Professionals who work in related disciplines can learn from one another and collaborate in order to learn more about the world in innovative ways (Ainsworth & Eaton, 2010, p. 12).

## STANDARDS AND CURRICULA

Similar to any other culturally rich, natural environment there are abundant topics associated with the Waterway, topics that educators could explore through curricula. The approach for this plan is to concentrate on topics, i.e. storylines, tied to Waterway themes and sub-themes utilizing prominent Allagash features as learning “hooks.”

### Academic Standards

Maine educators are guided by standards that outline what students are expected to know and be able to do in eight subject content areas. They develop local curricula for grades K through 12 in response to those standards, which are issued by the Maine Department of Education. Learning results standards are in transition throughout Maine, particularly in regards STEM—science, technology, engineering, and math—content. Nonetheless, utilization of academic standards offers opportunities to link Waterway storylines with curricula in many classrooms and other formal learning environments.

Maine Learning Results presents guiding principles and standards for the eight content areas. The math and English language arts portions of Maine Learning Results are shared with 45 other states through Common Core standards. Common Core is divided into two categories: mathematics standards and English language arts standards, which are both further divided by grade level and subject. For example, English language arts covers history–social studies in grades 6 to 12 under the literacy subdivision.

For science learning, Maine Department of Education worked with others to develop new shared standards that focus on inquiry and investigation. These Next Generation standards are in use by many Maine schools, though not yet officially adopted by the Department.

### Waterway Curricular Ties

Curriculum does not have a single meaning among educators. Some use the term to describe the subject matter taught to students. Others' definition centers on student activities. Applicable scale also varies: it can refer to what a school district prescribes for groups of learners across schools or what a teacher does in an individual classroom. For the Allagash, curriculum refers to a written plan outlining what we hope students (rather than recreational visitors) will learn during a course of study.

Two examples illustrate how academic standards correlate with Waterway learning. One employs the Next Generation core idea for Earth and space sciences, Earth's Systems (ESS2); the other is the Maine Learning Results social studies standard for History (E.)

The Earth's Systems (ESS2) core idea "encompasses the processes that drive Earth's conditions and its continual evolution (i.e., change over time). It addresses the planet's large-scale structure and composition, describes its individual systems, and explains how they are interrelated. It also focuses on the mechanisms driving Earth's internal motions and on the vital role that water plays in all of the planet's systems and surface processes" (National Research Council, 2009, p. 170). One component of the Earth System core idea is ESS2.C, The Roles of Water in Earth's Surface Processes. Connections to the Waterway's sub-theme Basins of Water are apparent, as well as water acting as a ubiquitous learning "hook." This is only one of many ties between the sciences and Waterway themes and prominent features.

Similarly, there are abundant opportunities to link Waterway themes and features to Maine's history and social studies standards. Under History (E), "students draw on concepts and processes from history to develop historical perspective and understand issues of continuity and change in the community, Maine, the United States, and world." Among the performance standards in the history component E1, Historical Knowledge, Concepts, Themes and Patterns, is the following performance indicator(E1a): "Explain

that history includes the study of the past based on the examination of a variety of primary and secondary sources and how history can help one better understand and make informed decisions about the present and future” (Maine Department of Education, 2007, p. 15). Objects such as surviving Lombard haulers and hauler parts can be “read” as primary source material that can spur learning. Many primary and secondary sources are described in **Part Two** of this document.

Educators create step-by-step outlines to guide their work with students. Typically, these plans contain an educator’s objectives for what the students will accomplish, specific activities, and an inventory of needed materials. The level of details varies depending on the preferences of the educator, the subject being covered, and the needs of the students.

We created sample lesson plans for the Allagash to illustrate how curricula aligned with Maine academic standards intersects with Waterway interpretive themes and sub-themes. Before discussing those plans, remember that schools are not the only learning environment that rely on curricula. For example, Chewonki Foundation uses a leadership curriculum for Allagash trips and other expeditions. (They have been conducting wilderness trips with youth since the 1930s.) The curriculum has three threads, and associated goals: Transformative Growth, Stewardship of the Natural World, and Sustainable Communities (Chewonki Foundation, 2017). Stewardship is an area of obvious convergence with Waterway themes and sub-themes. There are also potential Waterway ties with the other two pursuits, though they are more nuanced. Chewonki Foundation and many similar youth organizations leading Waterway youth expeditions could readily incorporate Waterway messaging into their curricula.

## SAMPLE LESSON PLANS

Eight sample plans suggest how the Waterway can be used for education and learning. They are intended for educators of all kinds to use and adapt in ways that are useful within their individual learning environments. Academic standards and Waterway interpretive themes form the theoretical framework for the plans, which use prominent features of the Waterway as “hooks” for learning. The sample plans are organized following the outline in Table 9.

Below are summaries of the sample plans we created. The full lessons are in an educators’ resource available from Allagash Wilderness Waterway Foundation, [aww.org](http://aww.org), or from [allagash.brucejacobson.com](http://allagash.brucejacobson.com).

Table 9. Waterway Lesson Plan Outline

<u>LESSON TITLE</u>
<p>I. OVERVIEW</p> <ul style="list-style-type: none"> <li>A. Subject/topic.</li> <li>B. Target grade level(s).</li> <li>C. Timeframe.</li> <li>D. Two- to three-sentence narrative.</li> <li>E. Measurable results for students (i.e. learning objectives).</li> <li>F. Applicable academic standards. <ul style="list-style-type: none"> <li>1. Maine Learning Results (Common Core).</li> <li>2. Next Generation Science.</li> </ul> </li> <li>G. Applicable Waterway themes and sub-themes (see chapter 7).</li> <li>H. Materials and supplies needed.</li> <li>I. Prerequisite student knowledge/skills.</li> </ul> <p>II. TEACHING PROCEDURE</p> <ul style="list-style-type: none"> <li>A. Introduction.</li> <li>B. Engagement/Hook.</li> <li>C. Exploration.</li> <li>D. Explanation.</li> <li>E. Elaboration.</li> <li>F. Evaluation/Assessment.</li> </ul> <p>III. ADDITIONAL RESOURCES</p> <ul style="list-style-type: none"> <li>A. Bibliography.</li> <li>B. Related Materials.</li> </ul>

### The Birchbark Canoe

This lesson introduces students to the Wabanaki tradition of building and using birchbark canoes. Through exploration of both the materials and processes of making a canoe, and the routes Wabanaki people have traveled by canoe, students will consider connections across time and between cultures. This lesson plan correlates with interpretive Theme III: People have lived, worked, and traveled in the Maine Woods since ancient times—and, more specifically, the Allagash Travelers sub-theme.

**Subject:** Social Studies – Geography and Wabanaki Studies.      **Grade:** Middle School (6–8).

**Learning Objectives:** The student will gain an understanding of how Wabanaki people make birchbark canoes, and why the birchbark canoe was the ideal means of travel through the area now known as the Allagash Wilderness Waterway. They will also connect the geography of Maine and neighboring Canadian provinces to Wabanaki perspectives on place and landscape, and how the Allagash is part of a much larger, interconnected landscape of waterways.

### Lombards in the Waterway

This Lesson is intended to be completed prior to a trip to the Allagash Waterway. Students are guided through primary and secondary resources that explore the history and use of the Lombard log hauler in the Allagash region. The lesson can be greatly enhanced by visiting Lombards displayed at Patten Lumbermen’s Museum, Ashland Logging Museum, Maine Forest and Logging Museum (Bradley, Maine), or Maine State Museum (Augusta, Maine). Interpretive Theme III: People have lived, worked, and traveled in the Maine Woods since ancient times—and, more specifically, the A Working Forest sub-theme correlate with this lesson.

**Subject:** Social Studies and  
History/Economics.

**Grade:** High School (9–12).

**Learning Objectives:** The student will gain an understanding of the Lombard log hauler and how it changed the history and economic value of the logging industry in the Allagash region and beyond.

### Life in Allagash Waters

This activity allows students to explore the biotic and abiotic components of aquatic ecosystems that are within Allagash Wilderness Waterway. Students will work in pairs or small groups to collect samples from four different aquatic ecosystems. Students will use the data collected at each site to make conclusions about aquatic biodiversity and how changes in the environment affect biodiversity. This activity correlates with interpretive Theme II: Flowing waters sustain wild life throughout the Waterway—and, more specifically, the Life Support sub-theme.

**Subject:** Living Environment/Life Science.

**Grade:** High School (9–12).

**Learning Objectives:** The student will (a) practice and demonstrate proper specimen gathering and documentation procedures; (b) graph and interpret data, and (c) form a conclusion about how environmental conditions affect biodiversity.

### River Stewards: Sharing Stories

This lesson uses the Maliseet story of *Aglebe'm, the Monstrous Frog* to engage students with creative ways to share messages about river stewardship and resource protection. They will compare an example of Wabanaki oral tradition with contemporary Wabanaki messages about stewardship and resource protection, and will then develop their own creative messaging tool to address resource stewardship in the Allagash Wilderness Waterway. Two interpretive themes correlate with this lesson: Theme I: The Waterway is a wild place set aside for all to enjoy and care for, and Theme II: Flowing waters sustain wild life throughout the Waterway.

**Subject:** Social Studies – Geography and Wabanaki Studies.      **Grade:** Middle School (6–8).

**Learning Objectives** – The student will gain an understanding of a variety of ways to communicate messages of stewardship and resource protection, and will have the opportunity to create their own message. This understanding will be informed by Wabanaki history, knowledge, and perspectives.

### A Food Web in Allagash Waters

This activity allows students to explore the interaction of the biotic and abiotic components of aquatic ecosystems that are within Allagash Wilderness Waterway. Students will research several common Allagash species prior to an Allagash trip. While on a Waterway trip, they will observe common mergansers and make conclusions about aquatic and terrestrial ecosystems. This activity correlates with interpretive Theme II: Flowing waters sustain wild life throughout the Waterway—and its Life Support sub-theme: Plants and animals depend on life-giving water flowing in Waterway soils, streams, wetlands, ponds and lakes, and the Allagash River.

**Subject:** Living Environment/Life Science.      **Grade:** Middle School (6–8).

**Learning Objectives:** The student will (a) practice research methods; (b) record observation data; and (c) form a conclusion about energy flow in marine and terrestrial ecosystems.

### Gears, Ratio, Torque, and Speed Along the Allagash

Students will solve multi-step problems involving the power transmission system of the Lombard log hauler during this lesson. They will calculate gear ratio, torque, and gear speed. Students will analyze their data to find the theoretical miles per hour of the Lombard hauler. Finally, the class will discuss how individual parts working together enable such a machine, with a 90 horsepower engine, to pull a load of up to 300 tons. Interpretive Theme I correlates with this lesson and, more specifically, the Working



Forest sub-theme: Timberland investors changed the flow of history—and Allagash waters—by floating harvested logs north to markets and then logs and pulpwood south, relying on the labor of men, draft animals, and machines.

**Subject:** Math and Science.

**Grade:** High School (9–12).

### **Learning Objectives**

The student will (a) calculate gear ratios, torque, gear speed, and theoretical miles per hour for the Lombard log hauler; (b) successfully analyze data to find the theoretical miles per hour of the Lombard hauler; and (c) through class discussion, develop understanding of the power system of the Lombard hauler.

### **Changing Technology**

In this plan, students analyze changing technology in the area now encompassed by the Allagash Wilderness Waterway. After reviewing a provided list of technologies employed throughout history along the Allagash, the students will create a timeline that shows the evolving technology. After creating their timelines, students will choose one resource and explain the effect it had on the people of the time. This lesson correlates with Theme I: People have lived worked and traveled in the Maine Woods since ancient times.

**Subject:** Engineering Design, Science.

**Grade:** Middle School (6–8).

**Learning Objectives:** The student (a) understands the desire for and effect of changes in technology; and (b) explains how advancing technology affects the amount of human energy needed to complete a task.

### **Spheres of the Allagash Wilderness Waterway**

In this lesson, students conduct site evaluations that use water as the primary example of a substance moving between the four major spheres of the Earth: biosphere, atmosphere, hydrosphere, and lithosphere. This lesson is composed of four “mini-lessons” for each sphere, with a different site evaluation for each sphere. The assessment is a comprehensive “Claim–Evidence–Reasoning” statement to link all four spheres together. This lesson correlates with interpretive Theme II: Flowing waters shape the land and sustain wild life throughout the Waterway.

**Subject:** Earth Science.

**Grade:** Middle School (6–8).

**Learning Objectives:** The student will be able to identify and understand how the four major spheres of the Earth’s systems interact within the Allagash Wilderness Waterway.

### Exploring Allagash Watersheds with Maps

Students become familiar with the geography of Allagash watersheds and Waterway features, while gaining map-reading and mapmaking skills. Working in pairs in this hands-on activity, students will be engaged in virtual exploration of the Waterway. Their map sections can ultimately be assembled into a larger map of the Allagash watershed. Interpretive Theme I: The waterway is a wild place set aside for all to enjoy and care for—and Theme II’s Basins of Water sub-theme correlate with this lesson plan.

**Subject:** Social Studies.

**Grade:** Middle School (6–8).

**Learning Objectives:** The student will (a) develop a working definition of the term watershed; (b) accurately label specific locations on a map; (c) understand the geography that makes up the Allagash River watershed.

### RECOMMENDATIONS

The following recommendations for education and learning are offered to Bureau of Parks and Lands and Allagash Wilderness Waterway Foundation for consideration. Each entity will assess the appropriateness of the proposed actions and determine whether to proceed with independent or, in some cases, collaborative implementation.

#### Waterway Expeditions

Maine adolescents experience the Allagash during multi-day canoe trips, principally at the end of summer break and during Aroostook County’s harvest season school break. These all-expenses-paid paddling and camping trips on the watercourse are led by guides that have significant experience leading youth in remote areas of Maine, and are designed to address Waterway interpretive goals. The expedition curriculum incorporates Waterway interpretive themes and sub-themes. The program is carried out through strategic cross-sector partnerships with educators and school administrators, business leaders, and nature-based recreation organizations.

- J.1. PRIORITY – Conduct multi-day Allagash expeditions for adolescents from Maine using curricula that incorporate Waterway interpretive themes I, II, and III, and are consistent with Waterway interpretive goals.

Cost: \$225–300/participant/trip; operations.

Many organizations and agencies have education programs relating to one or more of the Waterway’s interpretive themes. Some of these groups focus on very specific resources and issues, while others have a broader scope. Some, such as boys and girls camps, churches, community recreation programs, scouting groups, universities and colleges, offer multi-day expeditions for youth on the watercourse. In many cases, professional guides work with an organization’s leadership to conduct the trips. As they

begin planning, group leaders are informed of Waterway curricula available for their use, and encouraged to incorporate Waterway themes and sub-themes into their programs for youth.

- J.2. PRIORITY – Reach out to organizations and professional guides offering Allagash youth expeditions to encourage incorporation of Waterway messaging into their curricula.

COST: Operations.

### UMFK Violette Wilderness Camp

University of Maine at Fort Kent maintains the E. H. Violette Wilderness Camp, located about a mile from the watercourse, and “a two hour drive from campus, via the North Maine Woods’ St. Francis gate over good dirt roads.” The facility has bunkrooms, a full kitchen and bathroom, and a large classroom area, all of which conform to ADA standards. University students use the camp year-round for fieldwork in courses related to forestry, aquatics, winter ecology, and wilderness ethics (“Violette wilderness camp,” 2018). Educators conducting formal education in the Waterway utilize the facility, as negotiated with UMaine at Fort Kent.

- J.3. Cooperate with the University of Maine at Fort Kent to make the classroom and other facilities at the E. H. Violette Wilderness Camp (within the One-Mile Zone) available as a formal Waterway learning environment.

COST: Operations; any negotiated per-use costs.

### Curriculum and Professional Development

A team of teacher leaders is developed over a two-year period to design lessons and assist colleagues in learning about the Waterway and how it can enhance learning. To begin, a cohort of eight teachers (grades 5–10) participates in a two-week long summer content immersion at University of Maine RiSE Center, aligned with state and national standards. The eight teachers are selected for their interest, expertise in teaching, and leadership skills. Among other pursuits, the RiSE Center ([umaine.edu/risecenter/](http://umaine.edu/risecenter/)) facilitates community partnerships with schools and school districts, teachers, university faculty, and other organizational partners to improve education and teacher preparation through research-supported practices.

- J.4. Conduct two-week professional development content immersion and start preparing educator leaders, in collaboration with others.

COST: \$36,625–42,120.

A two-day field experience in the Waterway follows the summer content immersion experience. RiSE faculty and professional staff support the educational design of the

Waterway trip for the cohort teachers. Additional University of Maine System (UMS) faculty with expertise in ecology and environmental sciences, forestry, Earth and climate sciences, Maine history, archaeology, and anthropology, and environmental chemistry assist with design.

- J.5. Conduct two-day Waterway trip for teacher cohort (eight teachers) during the first fall, following the summer content immersion.  
Cost: \$18,725–21,535.

Following the content immersion and Waterway visit, during the first academic year, four three-hour meetings among the eight cohort teachers are facilitated by RiSE staff, to conduct leadership preparation, complete lesson and assessment development, discuss pilot outcomes, and refine lessons.

- J.6. Hold four meetings among cohort teachers during the academic year, facilitated by RiSE staff, regarding leadership, lesson and assessment development, and to discuss pilot outcomes and refine lessons related to Waterway interpretive themes (I, II, and III).  
Cost: \$7,700–8,855.

The eight cohort teachers work through the second summer to further develop leadership skills and in-depth knowledge of the Waterway. During this period, lessons are modified after the initial pilot, guided by assessment data and teacher input. For example, teachers visiting the Allagash might collect water and analyze water samples. They would then have their students collect similar samples locally and compare the findings from the Allagash with samples, developing ideas about why specific differences occur. Students around the state could post their data to a common website, enabling further comparisons and awareness of water quality. The Maine STEM Partnership at the RiSE Center reviews lessons through the RiSE Curriculum Modification Review Board and disseminate these lessons through their website, summit, conferences, and professional development to other teachers. Teacher leaders, RiSE faculty, and staff provide professional development for new adopters of the lessons.<sup>45</sup>

- J.7. Conduct summer teacher-in-residence program with four of the original cohort teachers to develop a general template for annual teacher Allagash educational trips and coordinated professional development.  
Cost: \$20,065–23,075.

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<sup>45</sup> This proposal closely follows the models that RiSE Center has used for its introduction of new types of learning in science and mathematics classrooms. It also builds upon RiSE's work with teachers related to the Maine Ice Age Trail and Maine's geology, in collaboration with Professor Emeritus Hal Borns from UMaine's School of Earth and Climate Sciences and the Climate Change Institute.

At the same time, a second cohort of eight teachers begins the content immersion (see above) and a larger group of 20 teachers participates in professional development to enable them to use the lessons developed with their students.

- J.8. Begin summer content immersion with a second cohort of teachers.  
COST: \$36,625–42,120.
- J.9. Work with 20 additional teachers to use lessons related to Waterway interpretive themes I, II, and III developed in their classrooms.  
COST: \$6,900–7,935.
- J.10. Conduct two-day Waterway trip with second cohort of eight teachers, and a teacher leader.  
COST: \$18,725–21,535.

### Disseminate Curriculum Resources

Educators of all kinds have easy access to lesson plans created through professional development activities, Storied Lands & Waters project, and educators themselves.

- J.11. PRIORITY – Dedicate a portion of the “Allagash Explorer” web portal to curriculum resources, including the posting of Waterway lesson plans. Cooperate with other institutions to distribute Waterway curricula to Maine teachers and youth leaders.  
COST: Operations.

### Waterway Education Coordinator

An education coordinator shepherds the nascent Waterway education program by building coalitions with teachers, school administrators, youth leaders, universities and colleges, after-school programs, community education programs, boys and girls camps, environmental education programs, and others. The coordinator manages the distribution of curriculum resources. The work makes it easier for educators to learn about the Waterway, participate in workshops and symposia, and find activities that coincide with their specific curriculum requirements.

- J.12. PRIORITY – Consider establishing a Waterway Education Coordinator position to bring the nascent Waterway education program to life.  
COST: Operations.