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Laying the Groundwork for a Trail at Breton Preserve with Androscoggin Land Trust

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Laying the Groundwork for a Trail at Breton Preserve with Androscoggin Land Trust

In Partnership with Joshua Nadine and Dana Little, board members of the Androscoggin Land
Trust

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EXECUTIVE SUMMARY

Public access to the coastal, mountainous and historic hotspots is one of the reasons Maine's population is increasing. These natural areas are threatened by land turnover and human development, forcing government funded conservation programs, local land trusts, and nationwide privately held conservation groups to take action. Throughout cities in Maine, there is a push for more public outdoor areas providing further recreational opportunities to facilitate holistic and educated relationships with the land. For these reasons, the Androscoggin Land Trust (ALT) has identified a need for a multi-use trail along the Androscoggin River at the Breton Preserve in Lisbon, Maine. To accomplish this goal, the ALT is hoping to apply for grant funding from the Recreational Trail Program (RTP). In this report, we include a proposed trail route in the form of a GIS map, a budget spreadsheet with infrastructure and construction costs, answers to grant application questions regarding the importance and feasibility of the trail route, and research on the indigenous, colonial and land ownership history of the property

In order to propose a trail, four trail determinants were established to meet ALT's goals: the desired trail aspects, points of interest, identifying route based on paths of least resistance, and indicating infrastructure required based on the paths chosen. Based on these determinants, two potential trail routes were proposed: the optimal route that portrays a greater variety of ecological features on the property, and the secondary route that is shorter in length and follows existing logging roads. While we propose the primary trail to the ALT, the secondary option would be more cost efficient. Both options include an ADA accessible portion of the trail with access to the Androscoggin River. We created a virtual Story Map of both route options, including a map tour of the infrastructure and points of interest along with a portion of our historical research meant for the Informational Kiosk at the entrance of the trail. The intention for the Story Map is to help promote the trail, help visualize both route options and provide a virtual experience of the property. The budget spreadsheet, containing the costs of infrastructure, construction, design, and labor, emphasizes the cost differences between the two proposed trails based on the length, additional infrastructure and construction.

With the GIS maps, budget spreadsheet, application questions, and research for the kiosk provided, we hope to position the Androscoggin Land Trust with the framework to apply for RTP grant funding.

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INTRODUCTION

Maine is known for its plentiful outdoor recreational opportunities and public access to a wide variety of natural areas such as coastal islands, beautiful mountains, and historic landmarks. While famous for being a “vacationland”, many Maine natural areas have become threatened over time by the risk of human development. As land continues to get turned over between owners, there is a higher risk for residential, commercial, and industrial development. According to the US Department of Agriculture, 6,000 acres of land is lost to development per day (USDA, 2020). One effective way to mitigate this threat is conservation, legally ensuring that there will be no future development on protected parcels of land. Other than protecting land from being developed, land conservation has many positive effects such as maintaining land ecology and increasing public access to outdoor recreation. Conserving land helps to maintain high levels of biodiversity in natural areas. Biodiversity is an integral part of healthy ecosystems and can often serve as a proxy for the productivity of ecosystems. Humans rely on productive ecosystems for things like assuring high water quality, crop pollination, soil productivity, and food security (Shaw, 2018). For agricultural systems and the surrounding land, maintaining biodiversity can act as a buffer to potential issues such as crop disease or soil degradation (Shaw, 2018). Additionally, land conservation is a key aspect of climate change mitigation strategies. The destruction of ecosystems around the world is responsible for up to one fifth of all greenhouse gas emissions (Siljander, 2018). Preventing destruction and allowing ecosystems to sequester and store carbon will help to mitigate the detrimental impacts of climate change. Conserving land is also crucial to educate and connect people about the natural world, and to incorporate more interconnected and holistic indigenous attitudes towards land. The combination of these positive conservation effects are the reason that many organizations are pushing to conserve land today. Organizations doing this work include government funded conservation programs, local land trusts, and nationwide privately held conservation groups. While recreational access isn’t always the primary goal of these organizations, it can be a great gateway to engage the public about the importance of land conservation.

While many areas in Maine have robust access to outdoor areas, some towns and cities that have an industrial history are pushing for more public outdoor areas. Among these places is Lisbon, Maine located just 15 minutes away from the cities of Lewiston and Auburn in

Androscoggin County. Lisbon has many natural wonders, including the Androscoggin river, and a number of public access properties, yet the local communities in Lisbon, Lewiston, and Auburn are hoping to increase outdoor recreational access for a wide variety of reasons. In 2019, the town of Lisbon included increasing access to outdoor opportunities by developing recreational areas in new neighborhoods, encouraging private landowners to allow public recreational access, and creating new access points to the Androscoggin River as primary goals for the coming year (Lisbon Planning Board, 2019).

Local land trusts, such as the Androscoggin Land Trust (ALT), have been working to achieve similar goals of conserving natural resources and working to increase outdoor recreational access. The Androscoggin Land Trust has been conserving land in the Androscoggin watershed since the mid 1980s. The organization was founded by local residents who understood the value in conserving land to maintain public access while protecting the land. The ALT follows similar goals today, as they continue to conserve land and expand public access to the outdoors. Within the 5,000 acres of land that they conserve today, there are a wide variety of ecosystems such as wetlands and dense hardwood forest, and wildlife such as deer and birds. These areas also offer many recreational opportunities, such as fishing, canoeing, and hiking. Given the demand for access to natural places and the clear need to conserve land, the ALT is working to expand their recreational opportunities.

Among the ALT properties is the Katherine Breton Preserve which was donated to the Land Trust in 2007. The 102 acre property is in Lisbon, Maine and has over 2,000 feet of Androscoggin River frontage (Kruszewski, 2013). Katherine Breton, an avid wildlife enthusiast and nature lover, gave her land in Lisbon to the ALT in order for the property to be conserved and protected. She specifically stated that the land must be protected from motorized vehicle use and any residential, commercial or industrial development. Katherine Breton's vision of the property was for all waterfowl and wildlife to be protected, specifically from hunters (Kruszewski, 2013). There are two large fields covering roughly 18 acres of land that is leased out to a local farmer, Rick Belanger, and this land is farmed throughout the Maine farming season (Burnett, 2020). The land also hosts many different ecosystems including small streams, river frontage, old and new growth forests, and large fields.

The Androscoggin Land Trust was kindly gifted this land from Katherine Breton and it has been actively conserved and monitored to respect her wishes. At the moment, there is no

public access to the land, but the ALT is hoping to gain state funding to create a trail system that enables the local communities to utilize the land. Their vision for the trail entails as little ecological disturbance as possible, while allowing for various forms of outdoor activities. If recreational opportunities are made available on the property, the three main aspects of ALT's mission will be achieved at the Katherine Breton Memorial Preserve: conservation of critical land in the Androscoggin River watershed, recreational access, and agricultural opportunities. In order to assist ALT with the vision they have, our aim is to lay the framework for a trail at Breton Preserve to provide public access for recreational and educational opportunities for local residents who are walking distance from the property, residents of Androscoggin County, and all visitors of Central Maine, all while respecting broader conservation goals.

To achieve this aim, we have two objectives:

Objective 1: Suggest a potential trail route to the Androscoggin Land Trust (ALT) that highlights the unique features of the property such as the Androscoggin River and the variety of ecosystems that makes up the Breton Preserve.

Objective 2: Position the ALT to apply for trail funding, in the form of Maine's Recreational Trail Program (RTP) grant by identifying the infrastructure required and potential legal issues while following Maine preservation and conservation guidelines.

METHODOLOGY

We proposed the following phases to achieve the aim and objects listed above. The four phases included are separated by the different aspects necessary to lay the framework for the Androscoggin Land Trust to apply for the Recreational Trail Program Grant. When meeting and contacting professors, other ALT board members, and within our group, all documents and notes were included in a Google Drive folder. We created the flowchart below (Figure 1) to show our general process of completing our deliverables by listing the steps taken in each phase. The phases are listed in order but the steps themselves are not in order, but happened simultaneously.

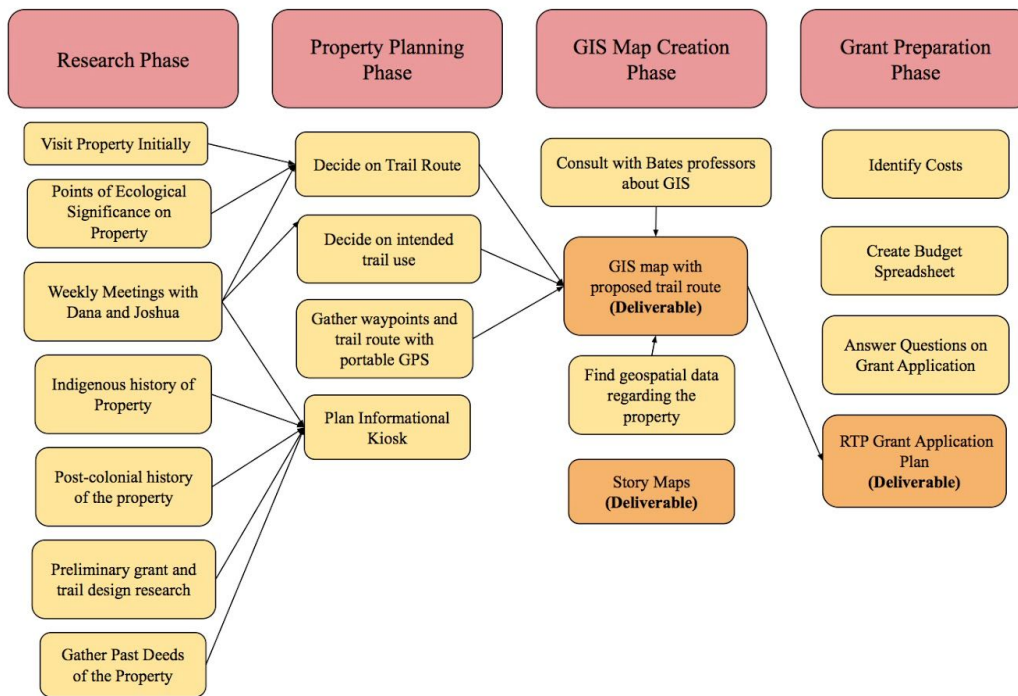


Figure 1: Diagram outlining specific components that factor into each phase. Red boxes indicate each phase while yellow boxes indicate specifics within each phase. Orange boxes indicate deliverables. The figure should be read first left to right.

Research Phase: *Goal: Collect information about the property and the surrounding areas to include in the Informational Kiosk that influences the Property Planning Phase.*

In the preliminary phase of our project, we initially met with Dana Little and Joshua Nagine, on zoom and at the property, who helped us familiarize ourselves with the Androscoggin

Land Trust and visualize the project at hand. In concurrence with the hands-on aspect of the project, research regarding the historical land use was collected to include on the Informational Kiosk located at the entry point of the trail. The research on proper trail design, and the Recreational Trail Program grant was collected to compile a list of deliverables we provided to the Androscoggin Land Trust specifically for the RTP grant application. Below are the specific categories that we researched.

- 1. Indigeneous History:** The Androscoggin Land Trust connected us with Joseph Hall, a Bates College Professor, who supplied us with multiple research materials regarding the Indigenous history of the land. We also used the Bates College library resource page, directed to us by the Social Science Librarian Chirstine Murray, to provide insight on the cultural importance of specific pieces of land to the Wabanaki people.
- 2. Post - Colonial History:** Cristine Murray at Bates College provided us with relevant articles pertaining to the history of Lisbon, Lewiston, and Auburn as well. We supplemented those resources with articles focusing on the historical use of the Androscoggin River.
- 3. Deed Research:** We met with Jim Pross and Attorney Skelton over zoom for assistance on tracing back deeds to discover the previous owners to the property before Katherine Breton.
- 4. Trail Design and Recreational Trail Program (RTP) Grant Guidelines:** We reviewed the RTP grant checklist with Dana and Joshua to specify the aspects of the application our project will cover. Additionally, we used the Bates College library to find sources with guides to trail design to improve our knowledge on the topic before designing the trail for ALT.

Property Planning Phase: *Goal: Decide the route of the trail based on agreed upon recreational goals using the produced trail determinants.*

Prior to any property planning, we produced a visual representing the four main trail design determinants that were influencing our decisions. Within the four determinants, more specific factors were listed to help visualize our thought process (Figure 2). Throughout this

phase, we followed Katherine Benton's goals of conserving and protecting the property. During our initial visit to the property with Dana, Joshua, and Patrick Smith (tenant at the property: 260 Ferry Road), we walked the probable route of the trail and discussed potential areas for infrastructure (bridges, viewpoints, signage, etc) and possibilities for implementing portions of the trail for people with mobility constraints. Similarly, we contacted Travis Sparks, a certified Maine naturalist on the board of ALT, and scheduled a time with him to walk the property. He provided us with insight about the important ecological aspects of the land and other information about the plants and wildlife. This provided us with the necessary framework to identify the primary areas on the property that we wanted to highlight with the trail. After working through the remaining trail determinants (Figure 2) we decided on a final trail route and got the go ahead from Joshua and Dana. During our third and final trip to the property, we gathered waypoints using a portable GPS provided to us by Camille Parrish (professor at Bates College) for the points of interest and exact trail route to later transport onto GIS. Additionally, Dana Little contacted Rick Belanger, the owner of the 18 acres of farmland on the property, about building a fence to allow protection for his crops because the route of the suggested trail loops around the two fields of crops.

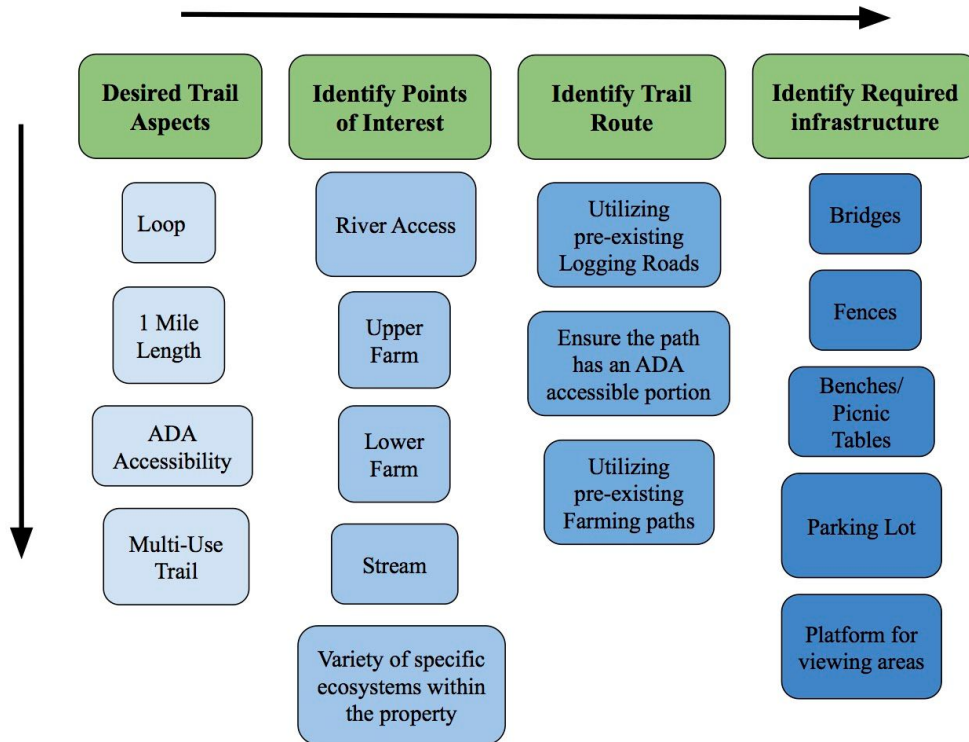


Figure 2: Diagram outlining the different factors that we took into account when determining the trail route. Green boxes indicate the category of determinants and blue boxes indicate specifics within each category. The figure should be read left to right and then top to bottom.

GIS Map Creation Phase: *Goal: Create a GIS map with the proposed trail to produce the first deliverable and use it to display on StoryMaps. This includes points of interest that are discussed in the research and property planning phase.*

All three group members have had previous experience with GIS, but we consulted with Camille Parrish (professor at Bates College) and Francis Eanes (professor at Bates College) for specifics on the creation of the map and assistance in finding the geospatial data regarding the property. We used existing maps to outline the route of the trail for the base of the GIS map. The waypoints collected and the geospatial layers used were transferred into the GIS program and used to specify the points of interest on the map. The map includes a legend explaining the variety of symbols used for the points of interest, a north arrow, a scale, and a locator map. Then, using our GIS map, we transported the layers onto StoryMaps to provide a more visually detailed version of our data to the Androscoggin Land Trust. The StoryMaps went in depth on ecology,

specific highlights of the property, history on Katherine Breton, as well as a virtual walkthrough of the trail.

Grant Preparation Phase: *Goal: Position the Androscoggin Land Trust (ALT) to easily apply for the Recreational Trail Program (RTP) grant.*

We used the grant application guidelines and checklist to prepare the sections of the application Dana and Joshua asked us to focus on. These sections included: A GIS map, a budget spreadsheet, and answers to questions on the grant application. Using a sample of the Garcelon Bog RTP Budget and a variety of construction organizations, we produced a budget spreadsheet to keep track of infrastructure, construction, design and labor cost estimates for the proposed trail. Additionally, we created a google document providing answers to a majority of the questions listed on the grant application. This is the second deliverable asked of us by the ALT. The three sections of the grant application, along with the other data collected throughout the entirety of our project, was given to the Androscoggin Land Trust to use when moving forward with this project.

Final Presentation Phase: *The date for the final presentation is October 14th, 2020 at 10:30 am.*

After the completion of this project, all final documents were given to the Muskie Archives at Bates College. Additional information about the Breton Preserve Trail may be available at the Androscoggin Land Trust website. We presented our findings to ALT board members.

RESULTS

All of the work we did this semester resulted in positioning the ALT with material to apply for funding from the Recreational Trail Program grant in the following year. The three components of the grant application that we focused on are a GIS map of the potential trail route, a budget spreadsheet identifying costs of the trail, and lastly answers to a number of questions on the grant application. Additionally, we created a StoryMap to serve as a simplistic portrayal of the interesting aspects of the Breton Preserve and key points of our proposed trail.

Using the methods layed out in the property planning and GIS Map Creation Phases, we produced multiple maps to present to the Androscoggin Land Trust. Initially, we supplied our community partners, Joshua and Dana, with a general overview of our trail route (Appendix 1). We concluded that this trail route effectively showcased the points of interest on the property. The route follows many pre existing farming and logging roads, with the hopes of a minimized production cost. After confirming that this route would be acceptable and feasible, we began to decide which portions of the trail could be ADA accessible, a desired trail aspect from our community partners. We concluded that the western portion of the route could serve as an out and back ADA accessible trail (Appendix 2). We chose to select this portion as the ADA accessible segment because it is relatively flat, and covers the majority of our established points of interest. The ADA trail primarily follows pre existing farming roads which means that the land will be sturdy and able to accommodate a wheelchair. We also decided to make an “Option B” trail, which we determined to be more cost efficient (Map 1). This trail deviates from our primary trail, by following a logging road, minimizing the cost of cost of construction. It also includes one less bridge than the primary option trail, reducing the cost even more. However, we suggest our original trail route primarily, as we believe it more effectively portrays the ecologically significant portions of the property.

Trail Map for the Breton Preserve

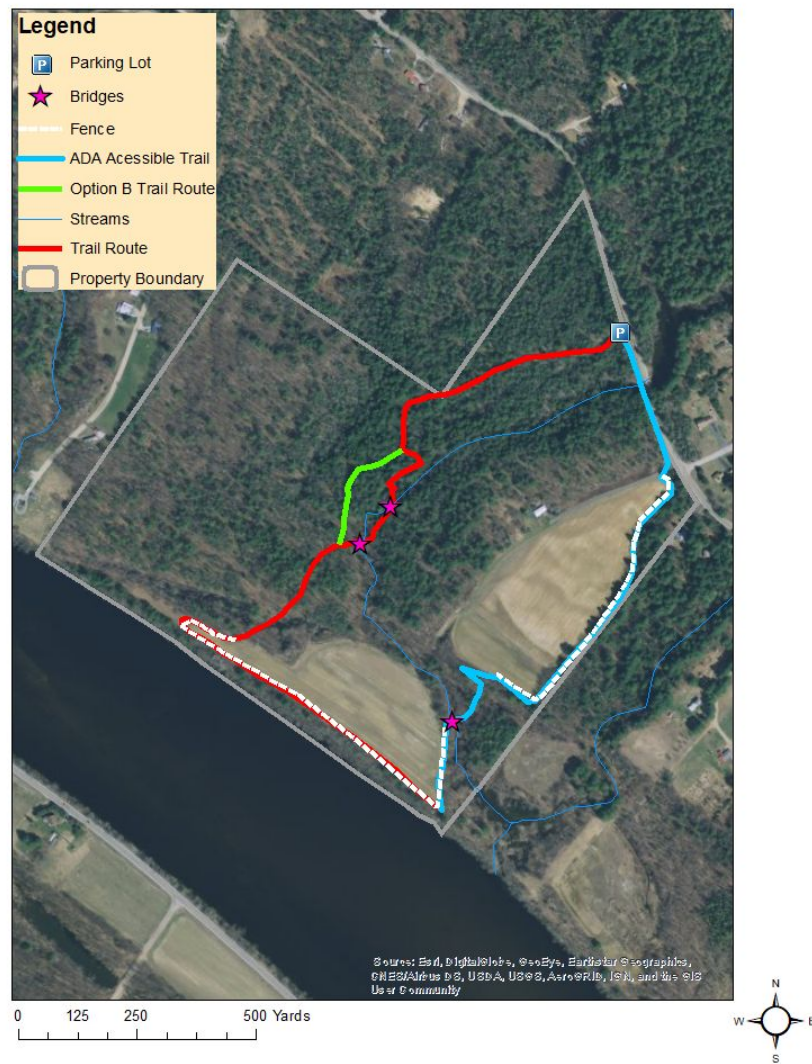


Map 1: Map indicating trail route option A and B and the ADA portion of the trail.

After determining the specific trail route options, we incorporated the information we put together in the trail determinants: identify required infrastructure section of the Property planning phase. The required infrastructure include: a parking lot/picnic area, multiple bridges (number dependent on the different trail options), fencing, an informational kiosk, and benches along the river. The specific locations of the infrastructure are indicated in Map 2. The parking lot and picnic area would be at the beginning of the trail. One of the bridges would need to be ADA accessible while the remaining ones can be much narrower. The fencing would act as a barrier between people using the trail and the farm fields. The informational kiosk would be located at

the picnic area and include a memorial to Katherine Breton as well as the historical significance of the Androscoggin River in the area, and a history of the property ownership. The detailed historical components are found in Appendix 3. Lastly, there would be benches at the main river viewpoint which is at the southwestern corner of the property.

Trail Map for the Breton Preserve



Map 2: Map indicating the locations of the required infrastructure.

The information recorded from the trail determinants of the property planning phase and the grant preparation phase was used to produce a budget spreadsheet that indicates cost estimates for the required construction, design, and labor needed as well as costs for the infrastructure necessary to construct the trail. Infrastructure cost estimates were found from a

variety of sources, while the construction, design and labor cost estimates were based on the sample budget spreadsheet provided from the Garcelon Bog RTP grant application. When visiting the property, estimated measurements were taken at bridge locations with the hope to provide more accurate cost estimates. We also took waypoints on a GPS when walking the route at each location of infrastructure and portrayed this on a GIS map (Map 2). Similarly, using the measure tool on GIS, the length of where the farm fields meet the trail was calculated for costs of the fences. The spreadsheet includes total cost estimates for both trail route options. The estimated total cost for Option A is \$166,000. The major costs associated with this route include 3 total bridges, a high construction cost due to the use of less pre-existing roads, and the 7-8 car parking lot. Option B, the more cost efficient route, has a total estimated cost of \$140,000 and the major costs associated with this route are the 2 bridges, the construction even after using pre-existing roads almost in entirety, and the 7-8 car parking lot. A complete breakdown of all specific components of the budget and potential costs of Option A are in Appendix 4 and Appendix 5 for Option B.

The next portion of the RTP grant application form are questions regarding the feasibility and future impacts of the trail. The questions ask a wide variety of details about how/why the trail will be built, who will use the trail, and other specific considerations pertaining to the impact of the trail. Joshua provided us with a sample grant application for a project at Garcelon Bog that helped to guide our answers. We answered a total of 14 short answer questions which can be found in Appendix 6. Our intention was to give our ideas about the questions but recognize that they will most likely need to be altered once more details about the trail are worked out.

The last result of this project is the StoryMap tour of Breton Preserve (Appendix 7). On one side of the viewer's screen is satellite imagery with the trail route and the property boundary on top. The first part of the StoryMap gives a property tour with photos and information about the most interesting points of the property on the other side of the viewer's screen next to the satellite imagery. The photos are pinned to a specific location on the map, so even people who have never visited the property can get an understanding and appreciation for the Breton Preserve. The next portion of the StoryMap walks views through the different aspects of the specific trail routes. Included in this portion are things like photos of the stream where the

different bridges would need to go. The StoryMap should be used to orient ALT board members to the property and project, as well as a tool to decide between trail route option A and B.

RECOMMENDATIONS FOR NEXT STEPS

To further the creation of the trail that we did alongside Joshua and Dana this past semester, the next step is to get a trail design expert on the property to look into the feasibility of building the trail where we suggested. Jedediah Talbot at OBP (Off the Beaten Path) Trailworks LLC is one potential way to go. After getting a comprehensive understanding of the exact location of the trail, a more detailed budget can be calculated entailing exact measurements, infrastructure, construction, and design costs. Attending a regional grant workshop, ordering a RTP sign for the property, completing the environmental assessment checklist and requesting clearance letters from the Maine Historic Preservation Commission, Maine Natural Areas Program and Bureau of Resource Management are the next steps for the Recreational Trail Program grant application, along with updating the budget spreadsheet, the GIS map, and the answers to the questions provided in this report. To help choose between the two potential trail routes, the StoryMaps can be used for a more virtual exploration of the property. In the future, the StoryMap can help promote the trail to people in the surrounding communities as well as provide some initial information about the natural history of the land in relation to the Androscoggin River.

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APPENDICES

Appendix 1: Initial Map of Trail Route

Trail Map for the Breton Preserve



Appendix 2: Map of Trail Route including a distinction for the ADA portion

Trail Map for the Breton Preserve



Appendix 3: Historical Significance of the Breton Preserve

Breton Preserve is located in Androscoggin, Maine which was once home to the Wabanaki People. The Wabanaki people lived all throughout New England and surrounding area such as New York and Southeastern Canada. The name Wabanaki translates to “Dawn Land,” as the Northeast receives the first light at sunrise (Anlobak, 3). Oftentimes the people of what is known today as Vermont, New Hampshire, and Maine were referred to as Abenakis. The area is thought to have been inhabited for around 12,000 years, when the glacial tundra that covered much of North America began to thaw (Joe Hall). While there is some archeological evidence suggesting that the land has been inhabited for millennia, the acidic soils of New England have made it difficult for Archeologists to understand the exact ancient history of the Wabanaki people (Alnobak, 4). However, there is an archeology site located in Auburn, Maine, that is the oldest archeological site in Maine. In the early 1900s, a farmer and amateur archaeologist from Auburn named WC Penny found remnants of clam and oyster shells as well as other bone and pottery artifacts where the Auburn-Lewiston Airport is today. There have also been several other archaeological findings in the area such as hand tools and spear points (Alnobak, 2003).

While there is not a vast amount of information regarding the indigenous history of the land immediately surrounding the Breton Preserve, it is well known that the Abenaki people utilized the Androscoggin river, which flows adjacent to the Breton Preserve. Prior to the European establishment of Lewiston and Auburn, there was a village named Amitgonpontook, which is roughly located where Bonney Park is today (Joe Hall). The name Amitgonpontook means “a place to dry fish,” as it is likely that the Abenaki people would catch fish in the Androscoggin river (Joe Hall). Other than fishing, the Abenaki people of Amitgonpontook grew crops for subsistence (Alnobak, 2003). The summer months provided fruitful agricultural opportunities, as the local inhabitants planted crops such as corn, beans, and squash. This was a popular area to grow crops, for the Androscoggin river supplied its shores with fertile soil containing silt and minerals deposited by floods (Joe Hall).

The introduction of European forces in North America was detrimental to the Wabanaki people. Many areas, such as southern New England, were first to be settled by colonizers, yet the major rivers and villages in Maine began to be explored as the colonizers moved further north. The Androscoggin river was the last of the three largest rivers in Maine to be extensively explored. The Kennebec and Penobscot rivers supply travelers with an easy gateway inland, as the first impassable falls are far upriver. The Androscoggin, on the other hand, has a large waterfall in Brunswick, which delayed European settlers from exploring the region. It is most likely that the first non native people to visit the area surrounding the village of Amitgonpontook were militia or people looking for mast timber for the King's Navy in the early 1600s (Alnobak, 2003). Quickly following the first interaction between Abenaki and Colonists, a series of wars broke out. The European forces brought many issues to the area, such as existing political feuds. As the Colonizers began to take more land, the French wanted to stop them by becoming allies with the Abenaki people. The first war was extremely destructive for the Abenaki people, and many people were forced to flee their villages in search of less populated areas. By 1690, the warfare reached present day Androscoggin County when Major Benjamin Church led 200 troops up the Androscoggin River to the village of Amitgonpontook. Benjamin Church and his troops killed many of the native people living there and took others hostage. The European people ravaged the Amitgonpontook stockade located at the intersection of the Little Androscoggin River and the Greater Androscoggin River, known today as Laurel Hill (Alnobak, 2003).

From this moment forward, the European forces overpowered the Abenaki people and took their land. The land of the Breton Preserve was likely used by the village people of Amitgonpontook and surrounding Abenaki People for many different reasons. Some of these reasons likely include agriculture, fishing in the river, and using the banks to travel up and down the river. The introduction of European Settlers to Androscoggin County resulted in the partial loss of the local indigenous population, knowledge, and practices (Alnobak, 2003).

After the violent introduction of European settlers to the Androscoggin River Valley, the colonizers began to take advantage of the rich and fertile soils by building an economy around farming (Bennett, 2007). Early white settlers also sustained themselves by catching salmon and sturgeon from the river (Bennett, 2007). In the winter months, farmers would harvest ice from the river to preserve their food during the summer, as well as selling ice chunks to neighboring communities (Bennett, 2007). In addition to the fertile soils that the Androscoggin River provides, as mentioned above, the river also contains lots of waterfalls and rapids in comparison to other major rivers in Maine. These dynamic features provide great manufacturing opportunities. In 1809 the Little family built some of the first mills along the Androscoggin River. The first mills were designed for saw, gist, and fulling. Later, in 1850, Benjamin Bates provided the Little family along with other local entrepreneurs with capital to develop textile mills along the river in Lewiston and Lisbon. Irish immigrants, and soon after, French Canadian immigrants played a key role in the labor of the mills. Similarly, at a more local level to Breton Preserve, Worumbo Mill was established in 1864, harnessing the power of Lisbon Falls to manufacture wool textiles (Cannally, 1973). In 1896 a terrible fire burned the mill down, and after being rebuilt, was burned down again and never re-established in 1987. At this point, the mills are no longer in use and the standing historic buildings are either residential or contain small businesses.

The heavy industrial use of the Androscoggin River in the area led to multiple environmental issues, one of which being that the waters of the Androscoggin became incredibly polluted. At the peak of pollution, the toxins were a human health issue for people living or working by the river. The pollution also caused the oxygen in the water to be depleted which caused millions of fish to die (“Cleaning Up the Androscoggin River”, 2020). Inspiring the Clean Water Act in 1972, the polluted Androscoggin River has come a long way. However, there is still work to be done, and organizations like the Natural Resource Council of Maine are currently advocating for stricter regulations around what can be dumped in the river. (“Cleaning Up the Androscoggin River”, 2020).

Chain of Title:

1. To Androscoggin Land Trust from Katherine Breton on February 12, 2007: Book 7053, Page 273
 - a. Katherine Breton to Gary Ryder et al for southerly boundary of premises on November 21, 1982: Book 1700, Page 237
 - b. 2 parcels of land: 260 and 270 Ferry Road
2. To Katherine Breton from Telesfore Breton on December 2, 1966: Book 981, Page 237
3. To Telesfore Breton from Edmund Breton on February 11, 1938: Book 563, Page 308

- a. 3 or more parcels of land with any buildings thereon situate in Lisbon Factory Village in said Town on the Northerly and Southerly sides of the Ferry Road
4. To Edmund Breton from Joseph Mercier on November 15, 1915: Book 240, Page 111
5. To Joseph Mercier from Thomas Obie on March 22, 1913: Book 247, Page 231
6. To Thomas Obie and Joseph Mericer from Frank Obie on November 15, 1911: Book 240, Page 111
7. To Frank Obie from James Smith on October 4, 1909: Book 229, Page 396
8. To James Smith from Lewis N. Pike on May 6, 1899: Book 182, Page 166
9. To Lewis N Pike from Emogene Gussey on November 1, 1895 : Book 167, Pages 24-26
10. To Emogene Hussey to Mary and Wood on January 3, 1889: Book 135, Page 359-360

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Appendix 4: Budget Spreadsheet for Trail Route Option A

Option A:							
Infrastructure	Bridges	Picnic Tables (2-3)	Viewing Points	Kiosk	Boardwalk	Fences	Parking Lot (gravel)
	15 x 4 foot: \$6000	\$1100 each	10 x 6 foot deck: \$3900 (ADA)	42" W x 32" H of signage plus roof: \$2,400	50 x 2 foot: \$1000	Upper Field (3,086 ft): \$9,000 for a ranch style/split rail fence Lower Field (3,116 ft): \$9,000 for a ranch style/split rail fence	8 cars: \$5,000
	15 x 4 foot: \$6000						
	15 x 6 foot: \$9000 (ADA)						
Design	LPW Engineering: \$8000 OBP Trailworks, LLC: \$800						
Construction	Trail building Contractor: \$90,000						
Labor:	Volunteer: \$5,200 LPW Staff: \$8,500						
Other	RTP Grant Budget: \$50,000 Cap						
	Total w/out Construction costs: \$76,000						
	Total w Construction costs: \$166,000						

Appendix 5: Budget Spreadsheet for Trail Route Option B

Option B:							
Infrastructure	Bridges	Picnic Tables (2-3)	Viewing Points	Kiosk	Boardwalk	Fences	Parking Lot (gravel)
	15 x 4 foot: \$6000	\$1100 each	10 x 6 foot deck: \$3900 (ADA)	42" W x 32" H of signage plus roof: \$2,400	50 x 2 foot: \$1000	Upper Field (3,086 ft): \$9,000 for a ranch style/split rail fence Lower Field (3,116 ft): \$9,000 for a ranch style/split rail fence	8 cars: \$5,000
	15 x 6 foot: \$9000 (ADA)						
Design	LPW Engineering: \$8000 OBP Trailworks, LLC: \$800						
Construction	Trail building Contractor: \$70,000						
Labor:	Volunteer: \$5,200 LPW Staff: \$8,500						
Other	RTP Grant Budget: \$50,000 Cap						
	Total w/out Construction costs: \$70,000						
	Total w Construction costs: \$140,000						

Appendix 6: Answers to RTP Grant Questions

1. Does this trail link to any parts of other trail(s) making a larger interconnected system for compatible use?
 - a. The trail will have two separate starting points making a larger interconnected system for compatible use and a greater experience. One start point for the trail has an open, picnic area and is where the informational kiosk is located. This area will be ADA accessible and will continue into the property to eventually connect to the other starting point. The second start point will be on the far end of the property behind the initial farm field that leads into an ADA accessible trail all the way up to the main Androscoggin River view point. The creation of the two starting points will provide anyone (ADA included) to enjoy the river and have access to the main aspects of the property. The secondary starting point will go all the way to the main viewing point, around the upper field along the river. The ADA accessible route will go back to that secondary starting point, while other visitors will be able to cross the stream and continue to the first starting point. Both points can be easily accessed from the parking lot. In addition, the connections will provide all the surrounding neighborhoods a faster and more aesthetically pleasing walk along more than 2,000 feet of Androscoggin River.
 - b. The proposed trail does not link to any preexisting trail systems. However, there is a trail nearby which could be linked to in the future. The nearby trails are on Mountford Road.
2. What features make this trail suitable for these uses (Single Use: Hiking/Walking, Additional Uses: skateboarding/rollerblading, bicycling, snowshoeing)?
 - a. The addition of this mile long trail will help bring together the surrounding communities, which do not have many recreational spaces currently. The location of Breton Preserve is across the street from a neighborhood, providing them direct access to enjoy the area. An easily accessible parking lot (or area to park) will welcome visitors who live farther away to have the ability to use the trail for these purposes as well. The flatter profile to the topography and wider trails will make a large portion of the trail ADA accessible. The width of the path itself will have to be wide enough for wheelchairs so this will also ensure space for the use of bicycles. In terms of resting points for users, there will be benches, picnic tables, and viewing points throughout the trail. The goal is to encourage these recreational activities at this ecological hotspot.
3. Why is this project needed?
 - a. This project is needed to improve the health/fitness and mobility of the residents of Lisbon and provide a secondary recreational area other than Beaver Park (337 acre family park) to the area. This specific project also provides a natural history component involving the Wabanaki people and information about the past uses of

the Androscoggin River, which runs at the edge of Breton Preserve. While Beaver Park is closer to downtown Lisbon, Breton Preserve allows residents in smaller neighborhoods closer to the river, as well as people wishing to have direct access to the river an opportunity to exercise and enjoy the variety of ecosystems on the property. Lisbon is in need of another recreational trail to specifically help connect people and help educate them further while making use of the Androscoggin River. This project at Breton Preserve will help enhance the wellness, livability and overall mental health of the community.

4. What process did you follow to identify this project as a priority?
 - a. The town of Lisbon has identified increasing access to recreational opportunities as a priority moving forward (Lisbon Planning Board, 2019). Lisbon community members pride themselves on the town's outdoor parks, like Beaver Park (Lisbon Planning Board, 2019). Outdoor recreational opportunities are a staple of Lisbon, and a trail at Breton Preserve would be a terrific addition. The recreational and educational opportunity that building a trail on Breton Preserve holds would greatly add to our mission at Androscoggin Land Trust.
5. How close is this project to potential users?
 - a. Using google maps it was determined that there are around 100 households within 1 mile from the trailhead. Additionally there are a total of around 67,000 people living in Lewiston, Auburn, Lisbon, and Durham which are all within a 15 minute drive from the trailhead.
6. What will compel people to visit/use your trail?
 - a. The trail system will provide access to this ecological corridor for the immediate neighborhoods. This is anticipated by the exposure and excitement to this new trail system and its unique features will spread quickly through neighborhood conversations and social media. The proposed trail will serve as a shortcut directly to the Androscoggin River and is far enough from downtown to allow the opportunity to escape the more densely populated environments and enjoy the number of aspects the trail has to offer. For example, the stream throughout, the viewpoint decks, picnic areas, aesthetic farm fields, interpretive trailside signs, signs of wildlife, various birds and birdhouses speckled throughout the trail system. Trail users will also undoubtedly notice the quiet tranquility as they encounter all of these features.
7. Who designed or will design your project?
 - a. The person who designed this proposed project is Jedediah Talbot. Mr. Talbot, initially contacted for input, was hired shortly thereafter to complete the trail design. Jedediah Talbot is a member of the Professional Trail Builders Association. He has over two decades of experience with trail planning, maintenance, and construction. Mr. Talbot owns OBP (Off the Beaton Path) Trailworks LLC. He is trail education focused and shares his expertise all over

New England and has traveled to California, Patgonia and Alaska to provide input. More information can be obtained on his company website at <https://www.obptrailworks.com/>

8. How will the trail be accessible (ADA/ABA Compliant) or follow universal design guidelines?
 - a. The trail is designed to have an out and back ADA compliant portion. This section of the trail showcases many of the main points of interest on the Breton Preserve. These points include both agricultural fields and a view of the Androscoggin River.
 - b. The proposed trail also includes two picnic/viewing areas. One of these areas will be at the beginning of the trail, near the parking lot. The other picnic area will be at the end of the ADA accessible trail, overlooking the Androscoggin River.
9. How is the trail designed to ensure longevity and sustainability?
 - a. The proposed trail will be constructed using crushed gravel for the ADA portion of the trail. The parking lot will also be compact gravel. Both picnic areas will have constructed wooden platforms and picnic tables. The non ADA accessible portion of the trail will have compacted soil. All bridges and platforms will be created using pressure treated wood.
10. Who will manage the construction process?
 - a. The construction process will be primarily managed by the Androscoggin Land Trust. The designer, Jedediah Talbot and the Professional Trail Builders Association will also be involved in the construction.
11. Which best management practices will be followed during the construction process?
 - a. Best Management Practices used in construction will conform to the Maine Department of Environmental Protection guidance for BMPS for sediment and erosion control. Erosion control mix berms will be utilized adjacent to soil disturbance activities. Design of the trails will include appropriately place trail routes to minimize soil disturbance and provide a long lasting, stable surface.
12. Who will build the trail? (staff, volunteers, conservation corps, contractors, etc)
 - a. Local contractors familiar with trail building will construct the trail at Breton Preserve. Additionally, Androscoggin Land Trust volunteers will put in hours of trail work. All efforts will follow the design build of Mr. Jedediah Talbot of OBP Trailworks.
13. Describe how this trail will be managed and promoted after completion.
 - a. After the trail is completed, it will be managed by the Androscoggin Land Trust. One ALT member will be responsible for the stewardship of property by visiting the property annually and making sure the trail is in good shape and the property is not being misused in any way. The trail will be promoted on the ALT website and ALT social media. Additionally, the Stanton Bird Club, a birding club based out of neighboring city Lewiston, may hold birding events at Breton Preserve.

14. How will you define success?

- a. The trail at Breton Preserve will be considered a success if people in the surrounding community use it for walking, running, biking, wildlife viewing, and other similar activities.

Appendix 7: Preview of StoryMap and Link

Link to view StoryMaps → <https://arcg.is/1Wilf4>

