

National Park Service  
U.S. Department of the Interior

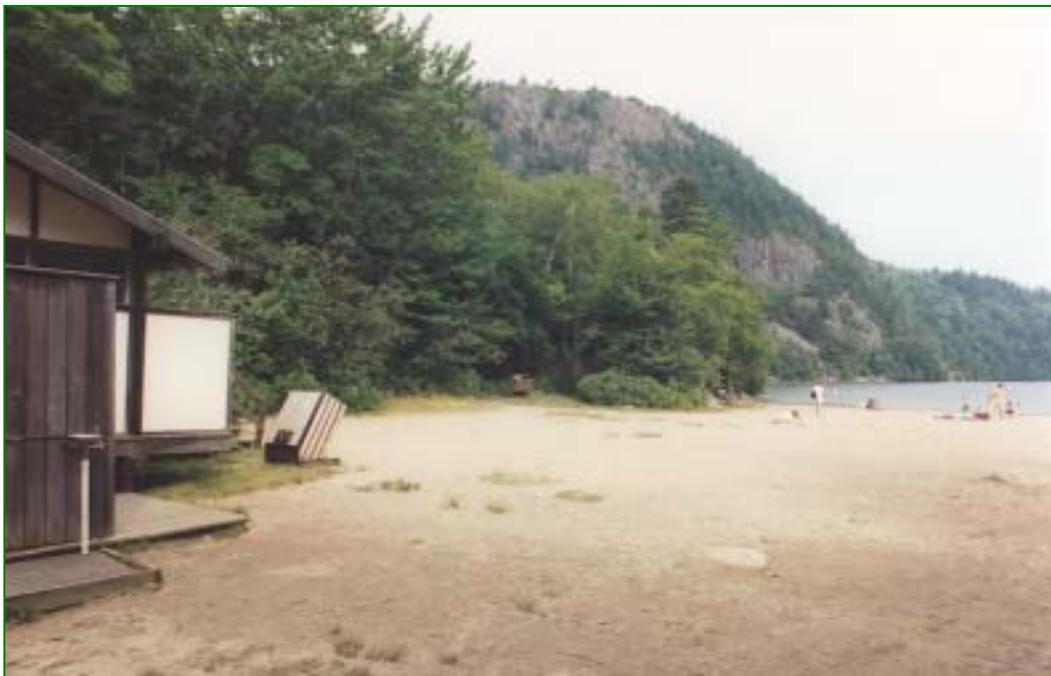
Acadia National Park  
Maine



## Echo Lake Beach Facilities Rehabilitation

### Environmental Assessment

January 13, 2004



**U.S. Department of the Interior  
National Park Service**

**Environmental Assessment  
Proposed Echo Lake Beach Facilities Rehabilitation**

**Acadia National Park  
Bar Harbor, Maine  
January 13, 2004**

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**Proposed Action:**

The National Park Service proposes to rehabilitate the Echo Lake Beach facilities at Acadia National Park near Southwest Harbor, Maine. Project goals include maintaining the site's recreational opportunities, character, and natural resources, improving visitor experiences, improving Park operations, and meeting the requirements of the Americans with Disabilities Act.

The comfort station and changing rooms building, which was removed during the late 1990's, would be replaced with new facilities. A bus stop shelter would be built adjacent to the parking lot. All new facilities, including the path from the parking lot to the beach would meet Americans With Disabilities Act guidelines for universal access. The path would also provide access for maintenance and emergency vehicles. Utilities would be replaced and upgraded, and the septic pump station would be relocated from a wetland area to an upland location. This wetland area would be restored to a functional condition.

This Environmental Assessment presents three alternatives to achieve project goals and assesses the potential adverse and beneficial impacts that would result.

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**Note to Reviewers and Respondents:**

If you wish to comment on this Environmental Assessment, you may mail comments by February 13, 2004, to the name and address below. Please note that names and addresses of people who comment become part of the public record. If you wish for us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, businesses, and individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

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Comments submitted via electronic mail may be addressed to [judy\\_hazen\\_connery@nps.gov](mailto:judy_hazen_connery@nps.gov) (note underscore between names) until February 13, 2004.

Executive Summary .....vi

**1** Introduction: Purpose & Need ..... 1

1.1 Purpose & Need for the Action .....1

1.2 Project Background .....5

1.2.1 History and Significance of ANP ..... 5

1.2.2 Echo Lake Beach ..... 5

1.2.3 Supporting Plans and Studies..... 6

1.3 Planning Issues & Process.....7

1.4 Impact Topics .....8

1.5 Impact Topics Considered but Dismissed from Further Analysis.....8

1.5.1 Cultural Resources ..... 8

1.5.2 Indian Trust Resources ..... 9

1.5.3 Floodplain Resources..... 9

1.5.4 Prime or Unique Farmland..... 10

1.5.5 Geology..... 10

1.5.6 Wild and Scenic Rivers..... 10

1.5.7 Endangered, Threatened, Candidate Species, and Species of Special Concern ..... 10

1.5.8 Marine and Estuarine Resources..... 10

1.5.9 Energy Requirements, Energy Resources, and Conservation Potential ..... 10

1.5.10 Lightscape ..... 11

1.5.11 Environmental Justice ..... 11

1.5.12 Soundscape Management..... 11

1.5.13 Air Quality ..... 11

1.5.14 Socioeconomics ..... 12

**2** ALTERNATIVES..... 13

2.1 Introduction .....13

2.2 Alternative A – No Action .....13

2.3 Alternative B – Complete Rehabilitation (NPS Preferred Alternative) .....13

2.4 Alternative C – Partial Rehabilitation .....22

2.5 Alternatives Considered, but Eliminated from Consideration .....22

2.6 NPS Preferred Alternative.....23

2.7 Environmentally Preferred Alternative .....23

**3** AFFECTED ENVIRONMENT..... 26

3.1 Introduction .....26

3.2 Natural Resources .....26

3.2.1 Wetlands, Lakeshore, and Water Quality ..... 26

3.2.2 Soils..... 28

3.2.3 Natural Communities and Wildlife Habitat ..... 29

3.3 Visitor and Staff Safety .....31

3.4 Visitor Use and Experience .....31

**4** Environmental Consequences ..... 33

4.1 Introduction ..... 33

4.2 Impairment of Park Resources ..... 33

4.3 Methodology for Assessing Impacts ..... 34

4.3.1 Definitions..... 34

4.3.2 Impact Matrix Comparisons ..... 36

4.4 Impact Assessment..... 36

4.4.1 Alternative A – No Action..... 36

4.4.2 Alternative B – Complete Rehabilitation..... 38

4.4.3 Alternative C – Partial Rehabilitation..... 41

4.5 Impact Summary ..... 42

**5** Consultation & Coordination ..... 45

5.1 Introduction ..... 45

5.2 Management and Planning Considerations ..... 45

5.3 Interagency Consultation..... 45

5.4 Compliance..... 46

5.4.1 Federal..... 46

5.4.2 State..... 47

5.4.3 Local ..... 48

5.5 List of Recipients ..... 48

**6** Acronyms, Bibliography & List Of Preparers ..... 51

# Figures

Figure	Description	Page Number
1	Echo Lake Beach Location .....	3
2	Existing Conditions.....	4
3a	Alternative A Proposed Conditions.....	16
3b	Alternative A Proposed Conditions.....	17
4a	Pre-Pump Station Removal.....	18
4b	Pre-Pump Station Removal.....	19
5a	Post-Pump Station Removal.....	20
5b	Post-Pump Station Removal.....	21

# Tables

Table	Description	Page Number
1	Summary of Rehabilitation Alternatives for Echo Lake Beach Facilities .....	24
2	Wetland Functions and Values for Wetlands at Echo Lake Beach .....	27
3	Natural Communities at Echo Lake Beach.....	30
4	Impact Summary Matrix for Echo Lake Beach Facilities Rehabilitation .....	43

# Appendices

Appendix	Description	Page Number
A-1	List of Plant Species Observed at Echo Lake Beach .....	A-1
B-1	Agency Correspondence.....	B-1

# Executive Summary

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The purpose of the proposed project at Echo Lake Beach at Acadia National Park (ANP) is to:

- maintain the site’s recreational opportunities, character, and natural resources;
- improve visitor experiences;
- meet the requirements of the Americans with Disabilities Act (ADA); and
- improve Park operations.

This Environmental Assessment provides and analyzes three alternatives for rehabilitating the Echo Lake Beach facilities. This Environmental Assessment reviews National Park Service (NPS) and ANP policies, the General Management Plan for ANP, and other relevant management plans to assess the consistency of the proposed actions with NPS guidance. It also analyzes the range of beneficial and adverse effects on the environment and has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969.

Three alternatives are presented. Alternative A is the “No Action” alternative required by NEPA. Alternatives B and C present differing rehabilitation proposals that meet the project purpose and are consistent with NPS management guidance. Various impact topics were analyzed to determine the level of potential beneficial and adverse effects that could result from each of the alternatives. These topics included natural communities, wildlife, soils, wetlands and lakeshore, visitor and staff safety, and visitor use and experience.

Alternative A, the No Action alternative, does not meet the basic project purpose of rehabilitating the Echo Lake Beach facilities, but is included as a baseline for comparing the effects of the other alternatives. This alternative avoids some short-term, temporary impacts to visitor use and experience, but does not address the deteriorating conditions of the buildings and utilities and would likely have long-term adverse impacts on visitor use and experience. This alternative does not address issues relating to providing universal access. The former changing station building would not be replaced.

Alternative B, the NPS preferred alternative, meets the basic project purpose of providing the necessary rehabilitation of the Echo Lake Beach facilities to keep the site functioning in the long-term. Universal access to accommodate access by persons with disabilities would be provided to the facilities and beach. The comfort station would be replaced and a new changing station constructed. The pump station and septic system would be moved away from the wetland area and replaced with upgraded utilities. Completing the rehabilitation has long-term benefits for natural resources and visitor experience. Minor, direct wetland impacts would occur from widening the path for universal and emergency vehicle access. Wetland mitigation through the restoration of a former wetland area would be provided.

Very minor adverse impacts related to natural resource elements could result from implementing the preferred alternative. Conversely, numerous benefits, including improved maintenance of the Echo Lake Beach facilities, would result from implementing Alternative B. Adverse impacts could include the temporary closure of the site, preferably during the off-season. Rehabilitation would be scheduled to allow the site to stay open during the busy summer and early fall schedule. Rehabilitation would be expected to last for one year. Beneficial effects include maintaining the facilities and grounds in good working order,

providing universal access, reducing visitor conflicts, and generally improving visitor experience and visitor and staff safety.

Alternative C also meets the basic project purpose and provides universal access, but considers renovating the comfort station, pump station and septic system and rebuilding the changing rooms station. The same benefits and impacts would be realized, except that the on-site wetland restoration would not occur and there might still be some long-term deterioration of the buildings. An alternative mitigation plan would be implemented to compensate for the minor wetland impacts.

The NPS considered three main factors to conclude that Alternative B would be the preferred option. The primary consideration was the ability of the alternative to meet the project purpose, while giving due consideration to minimizing environmental effects, economics, and other technical factors. The second consideration was determining which alternative was the environmentally preferred alternative and provided for the least amount of adverse impacts to natural and cultural resources. Occasionally the NPS preferred alternative is different from the environmentally preferred alternative, as meeting the objectives of the project is the most important consideration. The third consideration examined whether or not any of the alternatives would impair Park resources. The environmental and cultural considerations included detailed assessments of the various impact topics. The impairment determination considered the holistic picture of the alternative and its potential impacts. After careful review and consideration of these issues, the NPS determined that Alternative B best meets the project purpose, has the most beneficial effects and least adverse impacts to environmental and cultural resources, and does not impair Park resources. Therefore, the NPS identified Alternative B as the NPS preferred alternative.

# 1 Introduction: Purpose & Need

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## 1.1 Purpose & Need for the Action

The purpose of the proposed project at Echo Lake Beach at **Acadia National Park (ANP)**<sup>1</sup> is to:

- maintain the site's recreational opportunities, character, and resources;
- improve visitor experiences;
- meet the requirements of the **Americans with Disabilities Act (ADA)**; and
- improve Park operations.

This **Environmental Assessment (EA)** provides documentation and solicits public involvement in the **National Park Service (NPS)** decision making process for the rehabilitation of the Echo Lake Beach facilities located at ANP (Figure 1). This EA describes the need for the project, presents alternatives considered, and analyzes their impacts on the human and natural environment. This EA was prepared in accordance with the **National Environmental Policy Act (NEPA)** as amended, regulations of the **Council on Environmental Quality (CEQ)** (40 CFR 1508. 9), and *National Park Service Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making* (2001a).

The Echo Lake Beach facilities have been in use since the 1930s. The two most recent buildings, the comfort station and the changing station, were built in the 1960s. The changing station was recently removed due to deteriorating conditions. Wastewater is treated in a septic tank and pumped into a drain field above the parking lot. The septic tank and pump station were constructed in a portion of a wetland that was filled specifically for that purpose (Figure 2). The areas around both buildings and the pump house have a high water table, which has led to frost heaving and very poor drainage. The foundations of the buildings are inadequate for these conditions and portions of the building have become structurally unsound as a result. The sewage pump must be replaced due to its poor condition. The path that leads from the parking lot has a grade that is too steep and uneven for universal access. Furthermore, universal access does not extend to the lakeshore.



*Path and comfort station on Echo Lake; note that the building blocks the view of the lake from the path.*

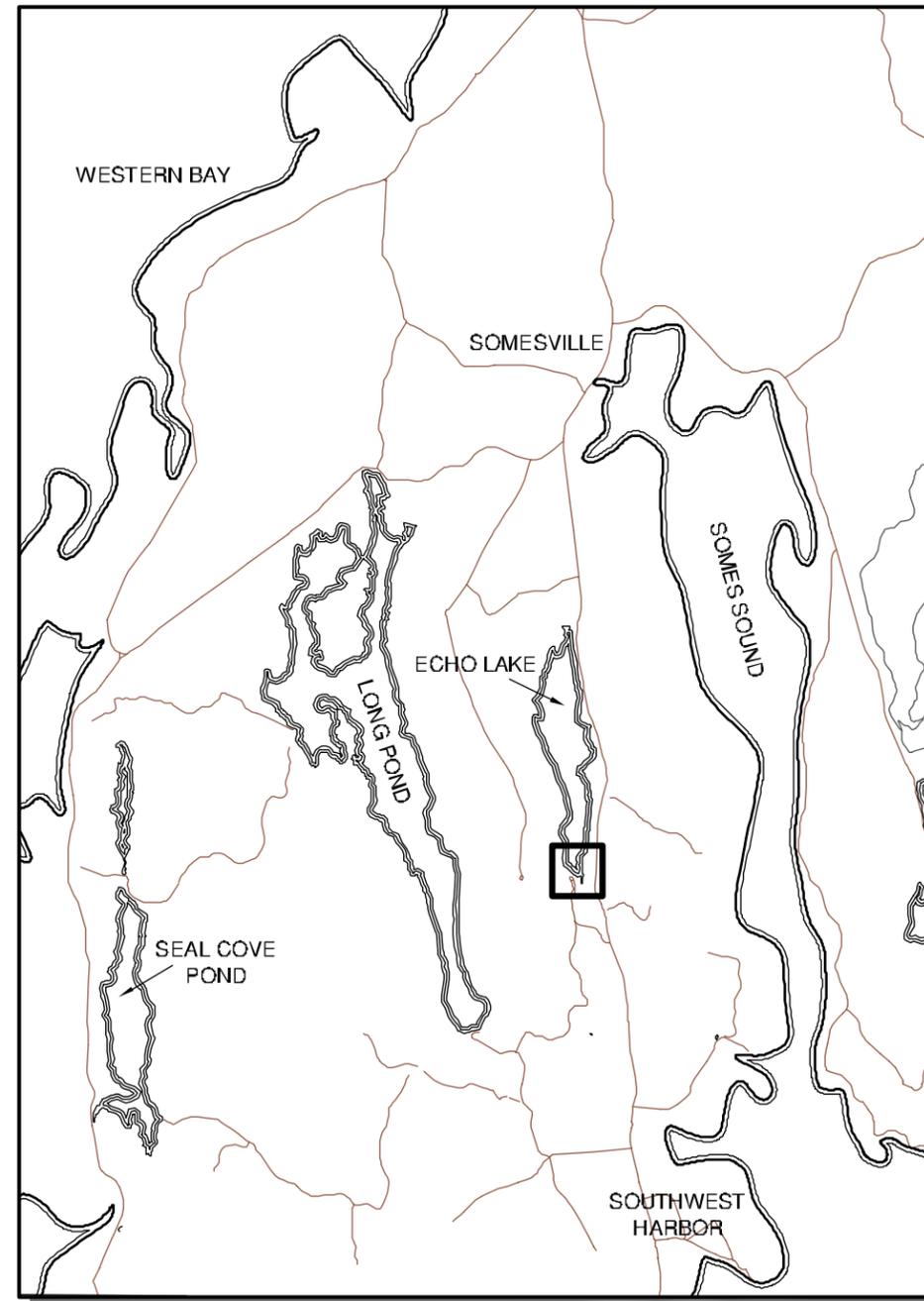
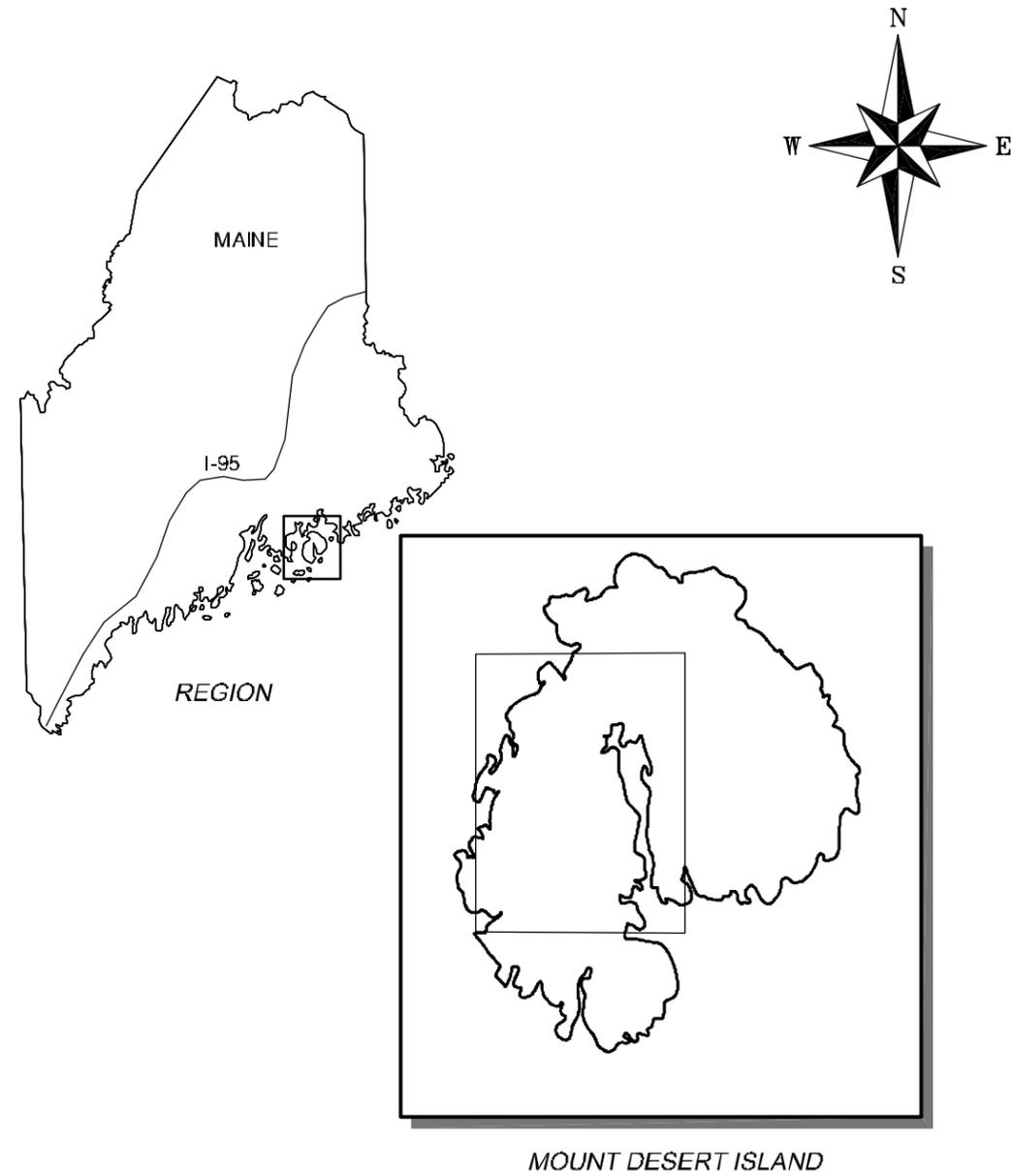
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<sup>1</sup> A complete list of acronyms in **bold** throughout the text is provided in Section 6.

The established comfort station and former changing rooms building obstruct the view of Echo Lake and the adjacent cliffs from the path as visitors approach. The vegetation along the path obstructs the view of the lake from the parking lot. The rehabilitation project would address current and long-term problems; improve visitor experiences; allow for universal access to the buildings, beach, and shoreline; restore a wetland area, and add a bus stop adjacent to the parking lot.



*Unobstructed view of Echo Lake and the adjacent cliffs.*



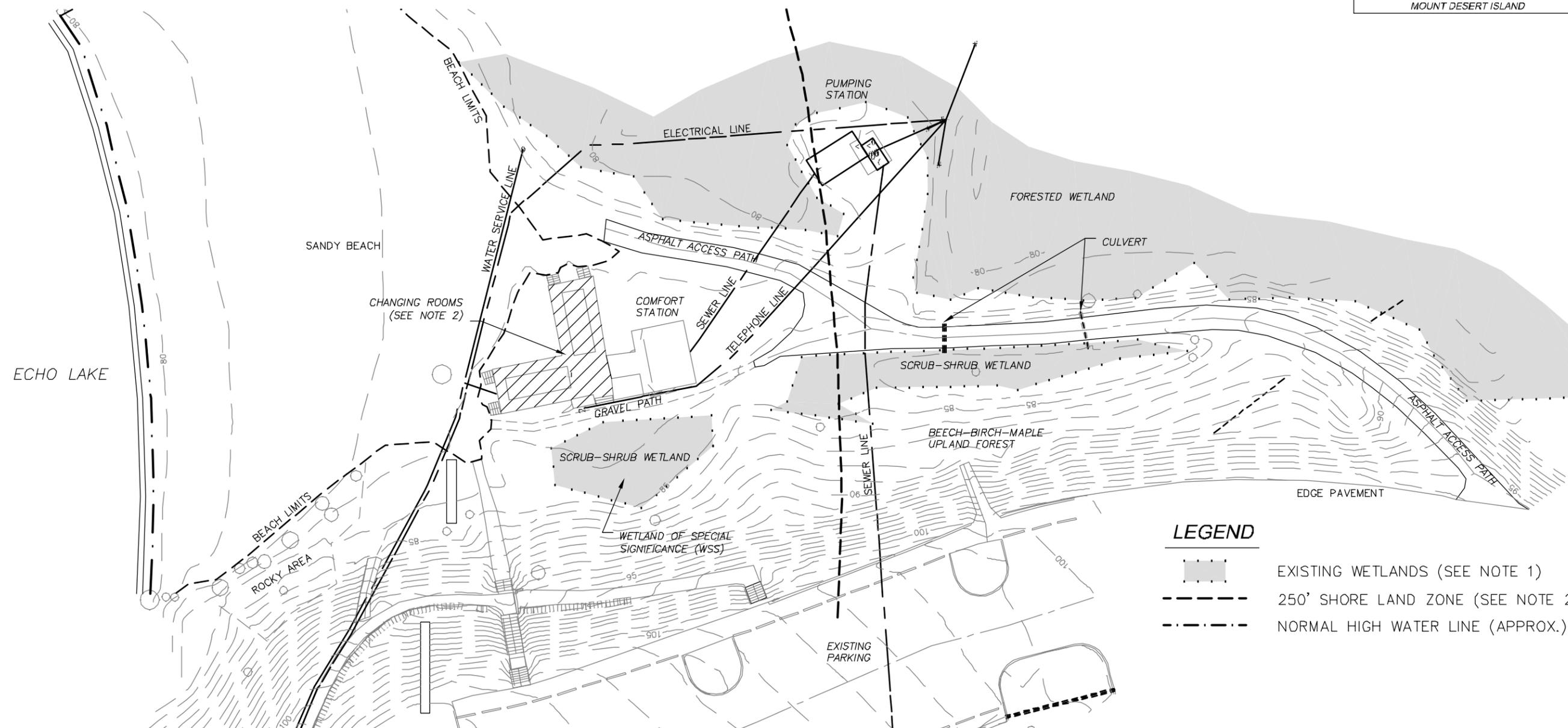
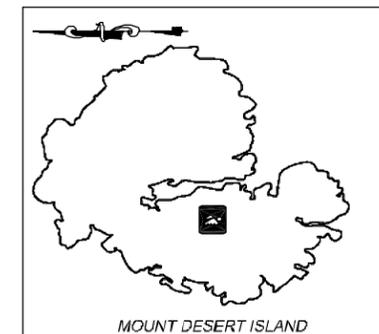
-  PARK LOOP ROAD
-  ROAD
-  SHORELINE
-  LAKE OR POND
-  ECHO LAKE BEACH FACILITIES



*Acadia National Park  
Echo Lake Beach Location  
Figure 1*

ECHO LAKE BEACH LOCATION

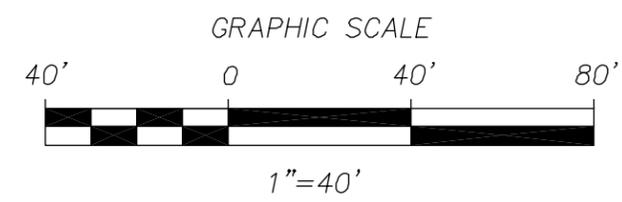
# Acadia National Park Echo Lake Beach Existing Conditions Figure 2



### LEGEND

-  EXISTING WETLANDS (SEE NOTE 1)
-  250' SHORE LAND ZONE (SEE NOTE 2)
-  NORMAL HIGH WATER LINE (APPROX.)

- NOTE(S):
- 1) Existing wetlands identified by Woodlot Alternatives (2002).
  - 2) Wetland areas within 250' of the lake are classified as "Wetlands of Special Significance" under the Natural Resource Protection Act.
  - 3) Changing room building was removed due to deteriorated conditions.
  - 3) Echo Lake Beach topographic base map including all map features, except wetlands, provided by the National Park Service.



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## 1.2 Project Background

### 1.2.1 History and Significance of ANP

Archeological evidence suggests Native Americans occupied **Mount Desert Island (MDI)** at least seasonally for several thousand years prior to the arrival of Europeans. French explorers and missionaries landed on MDI during the early 17<sup>th</sup> century and established the first European settlement in the area. British settlers took control of the area by the mid-18<sup>th</sup> century and the State of Maine remained part of Massachusetts until 1820. MDI became a tourist destination during the mid-19<sup>th</sup> century, as popularized by the paintings and stories of the “rusticators,” artists and writers that glorified the rustic beauty of the island. A group of local citizens, led by Charles W. Eliot and George Dorr, established the Hancock County Trustees of Public Reservations, which subsequently acquired 5,000 acres on MDI and offered the land to the federal government to preserve the natural landscape from growing development interests. In 1916, President Wilson created Sieur de Monts National Monument, which in 1919 became Lafayette National Park, the first National Park east of the Mississippi River. In 1929, the Park’s name was changed to Acadia National Park. The Park currently encompasses approximately 47,000 acres on MDI, Schoodic Peninsula, and surrounding islands.

ANP is located in the mid-coastal region of Maine, approximately 45 miles southeast of Bangor (Figure 1). MDI lies off the mainland and is accessible by a bridge from the Town of Trenton. MDI is roughly divided into two sections being separated by Somes Sound, a narrow bay surrounded by steep mountains. The east side of MDI borders on Frenchman Bay and is directly exposed to the Atlantic Ocean. The Town of Bar Harbor and many of ANP’s attractions are located in this region. The west side of MDI is less developed and includes several small villages. Echo Lake Beach lies along the boundary of the towns of Southwest Harbor and Mount Desert and has portions within both townships. ANP is known for its varied and dramatic scenery, including rugged coastline, cobblestone beaches, offshore islands, granite cliffs, glacial lakes, salt marshes, freshwater wetlands and streams, and evergreen and hardwood forests. ANP is an important vacation destination, as only 6% of the Maine coast is accessible to the public, with one-quarter of that acreage located in ANP (NPS 1992). The Park receives approximately 2.7 million visits annually.

### 1.2.2 Echo Lake Beach

The first significant development of Echo Lake Beach as a recreational area occurred in the 1930s. Between 1933 and 1942 the **Civilian Conservation Corps (CCC)** improved access to the beach and constructed at least three bathhouses or changing room buildings and a comfort station facility around the perimeter of the natural beach. Those structures were of half log construction and designed in the Rustic style, which was the style of choice for most of the buildings constructed in the Park during the period. The historic character of Echo Lake Beach was altered significantly during the 1960s when a large parking lot and other new facilities were added. Most of the original bathhouses were removed and the original comfort station was replaced with the current building. Subsequent changes to the area have resulted in the removal of all of the historic CCC-era resources (NPS, Olmsted Center 1999). The extant buildings were all constructed during the NPS Mission 66 era. All have been deemed ineligible for listing in the **National Register of Historic Places (NRHP)**.

### 1.2.3 Supporting Plans and Studies

#### **Acadia National Park General Management Plan**

ANP's mission is based on NPS legislation and the *Acadia National Park General Management Plan (GMP)* (NPS 1992). "The National Park Service at Acadia National Park protects and preserves outstanding scenic, natural, scientific, and cultural values for present and future generations. These resources include a glaciated coastal and island landscape, biological diversity, clean air and water, and a rich cultural heritage. Acadia National Park also offers opportunities for high-quality non-consumptive recreation, education, and scientific research."

This mission statement was formally adopted in the *Acadia National Park Strategic Management Plan* (NPS 1997a), which identified three primary purposes for the Park:

- To protect and conserve the land and water resources, the scenery, the natural and historic objects, the wildlife and the wild character of the Park;
- To promote and regulate the use of the Park for the benefit and enjoyment of the public in such a manner and by such means as will leave Park resources unimpaired for the enjoyment of future generations; and
- To protect and preserve the scenic, ecological, historical, archeological, and cultural resources of the Acadian archipelago and to limit development of the islands and conserve their natural qualities and traditional resource-based uses.

The GMP articulates a series of specific management goals for the Park. Of particular relevance to this EA are:

- To provide for a variety of high quality, resource-related visitor experiences while ensuring a safe and positive social environment;
- Manage, maintain, and develop services and facilities to adapt to changing visitor patterns and needs, to serve special populations, and to minimize resource impacts; and
- To protect, preserve, and restore, as appropriate, the cultural heritage of ANP, including archeological, historical, curatorial, and cultural landscapes resources.

In addition, the GMP (page 51) suggests developing management strategies for visitor attraction areas that should protect resources and at the same time allow visitors the opportunity to enjoy the Park's natural features. Furthermore, the GMP indicates that the comfort station and changing station buildings at Echo Lake Beach should be replaced.

The *NPS Management Policies, 2001* (2001b) (Chapter 9) provides guidance applicable to the management of sites and facilities within the NPS system. Policies that are addressed by this EA include:

- Providing universal accessibility consistent with preserving Park resources, visitor safety, and high-quality visitor experience; designing, constructing, and operating all buildings and facilities so they are accessible to, and usable by, persons with disabilities to the greatest extent reasonable; ensuring all new and altered buildings are in conformance with the appropriate design standards;
- Limiting construction sites to the smallest feasible area; controlling ground disturbance; and minimizing air, water, soil, and noise pollution; and
- Planting species that are native to the Park or historically appropriate for the period or event; imported soils must be compatible with existing soil and free of undesired seeds and organisms.

### 1.3 Planning Issues & Process

Numerous planning issues were identified during scoping meetings and site reviews. *Design Analysis, Upgrade Utilities and Campgrounds* (NPS 2002) addresses these issues and also documents the condition and rehabilitation needs of the Echo Lake Beach facilities. The following issues were identified:

1. ***Protecting Natural Resources.*** The Echo Lake Beach area contains wetlands, and direct wetland impacts resulting from construction are anticipated. Minor earthwork associated with site rehabilitation could impact adjacent native vegetation or create conditions that favor the spread of exotic and invasive plant species. Erosion of sediments is a potential indirect, adverse impact, even with minor construction projects. Water quality issues include erosion and sedimentation that could enter Echo Lake during the rehabilitation process. Direct impacts to vegetative communities and wildlife habitat could occur and affect wildlife use.
2. ***Rehabilitating Facilities and Improving Park Operations.*** Deteriorating facilities include the comfort station, pump station, septic tank, and path. The changing station was removed during the late 1990s due to deteriorating conditions. The existing facilities do not completely meet the needs of the Park visitors, as evidenced by the absence of a changing station and the deteriorating condition of the other facilities.

3. ***Universal Accessibility.*** The facilities at Echo Lake have limited accessibility to persons with disabilities. The steepness and deteriorating asphalt render the path unusable for universal access and emergency vehicles have difficult access on the existing path. The comfort station does not have the requisite sizing and features to accommodate many disabled persons. Furthermore, the path to the beach does not extend to the shoreline.



***Path looking towards parking lot, note relatively steep slope, which does not permit universal access.***

4. ***Timing of Construction.*** Timing of the project must be managed to minimize inconveniences to visitors and local businesses and to reduce disturbances to wildlife. Construction may be possible in the off-season, i.e., from after Labor Day through early June, but only for some rehabilitation efforts. Short-term safety issues related to the construction include worker safety, following Occupational Safety and Health Administration guidelines, and protecting visitors and employees during construction. The potential for maintaining safe conditions for visitors would be greatly increased through the timing of construction during the off-season.
5. ***Improving Visitor Experience.*** The deteriorating conditions of the facilities, the removal of the changing station, and the blocked scenic view of the lake from the pathway contribute to a reduction in visitor enjoyment and satisfaction of the site. The absence of a changing station creates inconvenience for visitors and forces all this type of use onto two small changing stalls, which are not enough to serve the visitors at peak times. Should the septic system fail, the comfort station would be rendered inoperable, which would necessitate the closure of the entire site. The

current location of the comfort station blocks the scenic view of the lake and adjacent cliffs from the access path. Visitors must walk around the comfort station before they can see the lake and cliffs.

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## 1.4 Impact Topics

Five impact topics were chosen for detailed evaluation based on the CEQ's NEPA regulations and *NPS Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making* (2001a), by assessing the issues raised during project planning meetings, and by observing the potentially affected resources at the project site. The three topics analyzed in this EA include (1) natural resources, including wetlands and the lakeshore, water quality, soils, natural communities and wildlife habitat, and wildlife; (2) visitor and staff safety; and (3) visitor use and experience. Each is described and impacts discussed in Chapters 3.0 and 4.0, respectively. Several topics considered and dismissed from the detailed EA analysis are discussed in Section 1.6.

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## 1.5 Impact Topics Considered but Dismissed from Further Analysis

The following impact topics would not be affected by the proposed rehabilitation activity and were eliminated from further evaluation. They are briefly discussed below, but will not be analyzed in detail in this EA.

### 1.5.1 Cultural Resources

#### *Historic Structures*

A historic structure is defined as any building, structure, or object that is listed or eligible for listing in the NRHP. There were two structures—a comfort station and pump house—within the proposed project limits. Neither meets the criteria for listing in the NRHP. They were constructed in the 1960s as part of the project to upgrade facilities at Echo Lake Beach, with funding provided under the NPS's Mission 66 program. An NRHP Determination of Eligibility report for Mission 66 resources at ANP was prepared and submitted for review by the Maine **State Historic Preservation Officer (SHPO)** in 2002. The SHPO agreed with the Park's determination that the Mission 66 properties are not eligible for listing in the NRHP. Therefore, this topic was dismissed from further analysis.

#### *Archeological Resources*

An archeological survey of the Echo Lake Beach site was conducted in the fall of 2002. No NRHP eligible archeological resources were identified in areas where ground-disturbing activities are proposed. No ground-disturbing activities would be conducted in the project area before the Park obtains concurrence from the SHPO regarding the findings of the archeological investigation as required under Section 106 of the National Historic Preservation Act. If during construction, previously unknown archeological resources were discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed in consultation with the SHPO. Therefore, this topic was dismissed from further analysis.

### ***Cultural Landscapes***

A cultural landscape is a geographic area that includes cultural resources and natural resources associated with a historic event, activity, or person. Cultural resources specialists reviewed the site and facilities during August 2003. The area lacks important historical associations and the rustic design elements that characterize other significant cultural landscapes in ANP. The Echo Lake Beach area is considered ineligible for the National Register because the CCC-era buildings, layout, and landscape features were obliterated during previous rehabilitation work and because the Mission 66-era development, put in place of the CCC-era facilities, was deemed ineligible for the National Register by the Park Cultural Resource Specialist with concurrence by the SHPO. Therefore, this topic was dismissed from further analysis.

### ***Ethnographic Resources***

Ethnographic resources are defined by *NPS Director's Order 28: Cultural Resource Management Guideline* (NPS 1997b) as any "...site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it." Consultation is currently ongoing with Native American tribes regarding proposed projects at the Park. ANP, in partnership with representatives of the federally recognized tribes in Maine, is conducting ethnographic research to identify ethnographic resources and places of religious or cultural importance within the Park. These groups include the Passamaquoddy Tribe – Indian Township; Passamaquoddy Tribe – Pleasant Point; Penobscot Nation; Houlton Band of Maliseet Indians; and Aroostook Band of Micmacs.

Presently, there are no known ethnographic resources at the Echo Lake Beach site. As part of the consultation process, tribes may review the proposed rehabilitation and identify the presence of ethnographic resources. Subsequently, the NPS would provide mitigation measures to address the presence of these resources. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 would be followed. Rehabilitation will not impact any known ethnographic resources. Therefore, this topic was dismissed from further analysis.

#### **1.5.2 Indian Trust Resources**

Secretarial Order 3175 requires that any anticipated impacts to Indian Trust resources from a proposed project or action by Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian Trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes.

The Echo Lake Beach site is not considered an Indian Trust resource, and the proposed action does not conflict with known American Indian interests. Therefore, this topic was dismissed from further analysis.

#### **1.5.3 Floodplain Resources**

The rehabilitation work is not located within areas subject to normal flooding from a 100-year flooding event and the rehabilitation would not affect floodplain functions or values. There are no impacts proposed from the rehabilitation within the 100-year floodplain. Therefore, floodplain resources were dismissed as an impact topic.

#### 1.5.4 Prime or Unique Farmland

Prime farmland is defined as soil that produces general crops such as common foods, forage, fiber, and oil seed. Unique farmland is defined as soil that produces specialty crops such as fruits, vegetables, and nuts. There are 12 soil types in the Hancock Country area that support prime farmland as defined by the Natural Resource Conservation Service (1998) and none of those soil types are found at Echo Lake Beach. The project area consists of Monadnock–Herman Complex and Wonsqueak and Bucksport muck soils that are on moderate to steep slopes and within wetlands. These soils are not prime farmland. Therefore, prime or unique farmland was dismissed as an impact topic.

#### 1.5.5 Geology

This project will not affect the geological resources of the Park. Aggregate and stone will be acquired from state approved quarries. The project will not involve the excavation or removal of geologic features or subsurface components. Therefore, geological resources were dismissed as an impact topic.

#### 1.5.6 Wild and Scenic Rivers

There are no federal wild and/or scenic rivers located within the Echo Lake Beach area. Therefore, wild and scenic rivers was dismissed as an impact topic.

#### 1.5.7 Endangered, Threatened, Candidate Species, and Species of Special Concern

There have not been any reports or sightings of any federally or state listed species at Echo Lake Beach based on discussions with Park staff or information published on the Park's website (NPS 2003), except one pair of peregrine falcons (*Falco peregrinus*) used adjacent cliffs for nesting. Breeding peregrine falcons are listed as endangered by the State of Maine. The last documented nesting by this species was during 1997. Under either of the rehabilitation alternatives, construction would begin in the fall and would avoid the peregrine falcon nesting season. Activities that might disturb peregrines, such as using heavy equipment, would be completed prior to any nesting activity the following spring. Monitoring the cliffs for the presence of nesting peregrines would begin in March. The rehabilitation will not adversely impact this important recreational species, as there would not be any impacts to their habitat and water quality. Occurrences of other listed species are not expected in or around the rehabilitation areas. No adverse impacts to federal or state listed species would be expected; therefore, this impact topic was dismissed from the analysis.

#### 1.5.8 Marine and Estuarine Resources

There are no marine or estuarine resources at Echo Lake and, therefore, assessment of these resources is not needed for the proposed project.

#### 1.5.9 Energy Requirements, Energy Resources, and Conservation Potential

ANP strives to incorporate the principles of sustainable design and development into all facilities and park operations. The facilities at the Echo Lake Beach site use a minimal amount of electrical resources, which are limited to the comfort station and associated utilities. Neither building would be heated. Therefore, energy requirements are minimal. The site does not provide any energy resources. The minimal amount of electrical resources used and the efficient use of lighting maximizes energy conservation to the most practical extent. The rehabilitation would not have an affect on energy requirements, energy resources, and energy conservation potential and is therefore dismissed from further analysis.

### 1.5.10 Lightscape

In accordance with *NPS Management Policies, 2001* (2001b), the NPS strives to preserve natural ambient lightscapes, which are resources and values that exist in the absence of human caused light. ANP strives to limit the use of artificial outdoor lighting to that which is necessary for basic safety requirements and to ensure that all outdoor lighting is shielded to the maximum extent possible so as to keep light on the intended subject and out of the night sky. ANP does not propose any changes or additions to the existing lightscape conditions. Therefore, lightscape was dismissed as an impact topic.

### 1.5.11 Environmental Justice

According to the **U.S. Environmental Protection Agency (USEPA)**, environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the adverse environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Presidential Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The proposed action would not have health or environmental effects on minorities or low-income populations or communities as defined in the USEPA Draft Environmental Justice Guidance (USEPA 1996). Therefore, environmental justice was dismissed as an impact topic.

### 1.5.12 Soundscape Management

In accordance with *NPS Management Policies, 2001* (2001b) and *NPS Director's Order 47: Sound Preservation and Noise Management* (2001c), an important part of the NPS mission is preservation of natural soundscapes associated with Parks. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in Park units, together with the physical capacity for transmitting natural sounds. The frequencies, magnitudes, and durations of human-caused sound considered acceptable varies among NPS units, as well as potentially throughout each Park unit, being generally greater in developed areas and less in undeveloped areas.

Given that the Echo Lake Beach has been established for human use and is generally occupied by Park visitors, some level of human generated noise is expected. These levels are generally unobtrusive and do not generate adverse effects on wildlife and visitor enjoyment of Echo Lake Beach. Hauling material, operating equipment, and other construction activities could result in dissonant, human-caused sounds. Any dissonant sounds associated with construction, however, would be temporary and negligible. Given that construction will be during the off-season, impacts are not expected and this topic was dismissed from analysis.

### 1.5.13 Air Quality

The Clean Air Act of 1973, as amended, and associated NPS policies require the NPS to protect air quality in Parks. ANP is downwind from large urban and industrial areas in states to the south and west. Periodically, high concentrations of air pollutants blow into the Park from these areas. ANP is classified as a Class I area per the Clean Air Act of 1973, which provides the highest level of air-quality protection.

Summer ozone levels occasionally exceed federal health standards, and the effects of atmospheric depositions are a major concern at the Park. The primary local source of air pollution is tailpipe emissions from vehicles entering, exiting, and idling in the parking lot. The MDI public transit system, the Island Explorer, was created in part to reduce vehicle emissions by encouraging visitors to leave their cars where they are staying and use the low-emission propane buses to explore the Park. Part of this project would provide a bus stop for riders to Echo Lake Beach. There will be no increase in the emission levels as the parking lot capacity will not change. Emission levels during construction will be minimal and temporary. Therefore, air quality was dismissed as an impact topic.

#### 1.5.14 Socioeconomics

ANP has a significant positive influence on the local economy, with regional and statewide contributions. The quality of the visitor experience has contributed to the Park's status as a tourist destination that attracts out-of-state visitors to the area and to Maine in general. It also serves as a vacation destination for Maine residents. Visitors to ANP have a large fiscal impact on the surrounding communities. The proposed rehabilitation would neither change local and regional land use nor impact local businesses or other agencies. Echo Lake Beach is removed from the main portion of the Park. The site does not attract people to the Park, in of itself, and does not generate a specific need for lodging, food, entertainment, or other related goods and services. Implementing the rehabilitation could provide a negligible beneficial impact to local economies, i.e., minimal increases in employment opportunities for the construction workforce and revenues for local businesses and government generated from construction activities and workers. Any increase, however, would be temporary, lasting only as long as the construction. Therefore, socioeconomics was dismissed as an impact topic.

# 2 ALTERNATIVES

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## 2.1 Introduction

Deterioration of structures, degradation of natural resources, and lack of handicap accessibility jeopardizes the intended purpose of the Echo Lake Beach site as described in the ANP Mission Statement. Regardless of rehabilitation techniques and materials used, the rehabilitation must minimize environmental impacts.

This EA considers several alternatives for the proposed Echo Lake Beach facilities rehabilitation, including:

- Alternative A – No Action
- Alternative B – Complete Rehabilitation
- Alternative C – Partial Rehabilitation



*Walkway looking towards Echo Lake, wetlands on the left would be impacted to accommodate the expanded path.*

---

## 2.2 Alternative A – No Action

This alternative would retain the Echo Lake Beach facilities in the current condition and would not proceed with any rehabilitation measures. Figure 2 provides an overview of the existing facilities, wetlands, and other site features. No substantive changes would be made to the facilities other than basic routine maintenance. The changing station would not be replaced and the deteriorating conditions within the comfort station would continue. The bus stop would not be constructed. Although it does not meet any of the project goals, NEPA requires that the No Action alternative be assessed as part of this EA to provide a baseline upon which to compare the effects of the other alternatives.

---

## 2.3 Alternative B – Complete Rehabilitation (NPS Preferred Alternative)

Alternative B would include a complete rehabilitation of the Echo Lake Beach facilities (Figures 3a and 3b). Rehabilitation activities are categorized into several groups: replacing the comfort and changing stations and constructing a bus stop shelter, providing universal access to the facilities and beach, and providing mitigation through restoring a wetland area or other option. Work would be scheduled to occur mostly in the fall, winter, and spring to minimize adverse effects on visitors and wildlife. Table 1 provides details for the rehabilitation alternative.

### *Facilities*

A new comfort station would be built within a portion of the uplands. A new changing station with a lifeguard storage facility would be built near the new comfort station. The existing plumbing and electrical systems would be replaced for both facilities. The existing lift station and septic tank would be replaced and these new facilities would be located closer to the new buildings. The path would be re-graded and paved to accommodate access by persons with disabilities. New culverts would be installed under the rehabilitated path. The terminus of the path would have a turnaround area for maintenance and emergency vehicles. A bus stop would be created adjacent to the parking lot to accommodate the Island Explorer public transit system.

### *Accessibility*

The path leading from the parking area to the comfort station and changing station buildings would be re-graded and paved to meet ADA accessibility guidelines of a maximum 5% grade and a 10-foot width. This activity would require grading along the path and adjacent upland and wetland areas. These modifications would allow maintenance and emergency vehicles access to the buildings and beach. A path would be installed from the changing station to the beach and lake to provide access into the water. This portion of the path would not be paved, but rather would be made of removable materials such as wooden planks buried at ground level.



***Pump station, constructed on fill, is surrounded by a shrub and herbaceous wetland.***

### *Mitigation Measures*

Mitigation measures will be employed to avoid and minimize adverse impacts to the natural and human environment. Mitigation measures focus on two central issues: protecting natural resources and compensating for disturbances; and minimizing adverse impacts and inconvenience to visitors.

**Best Management Practices (BMPs)** will be employed to avoid and minimize soil loss and runoff. *Director's Order 77-1 Wetland Protection* (NPS 1998) provides a list of BMPs and conditions that will be employed to avoid and minimize impacts to wetlands and water resources



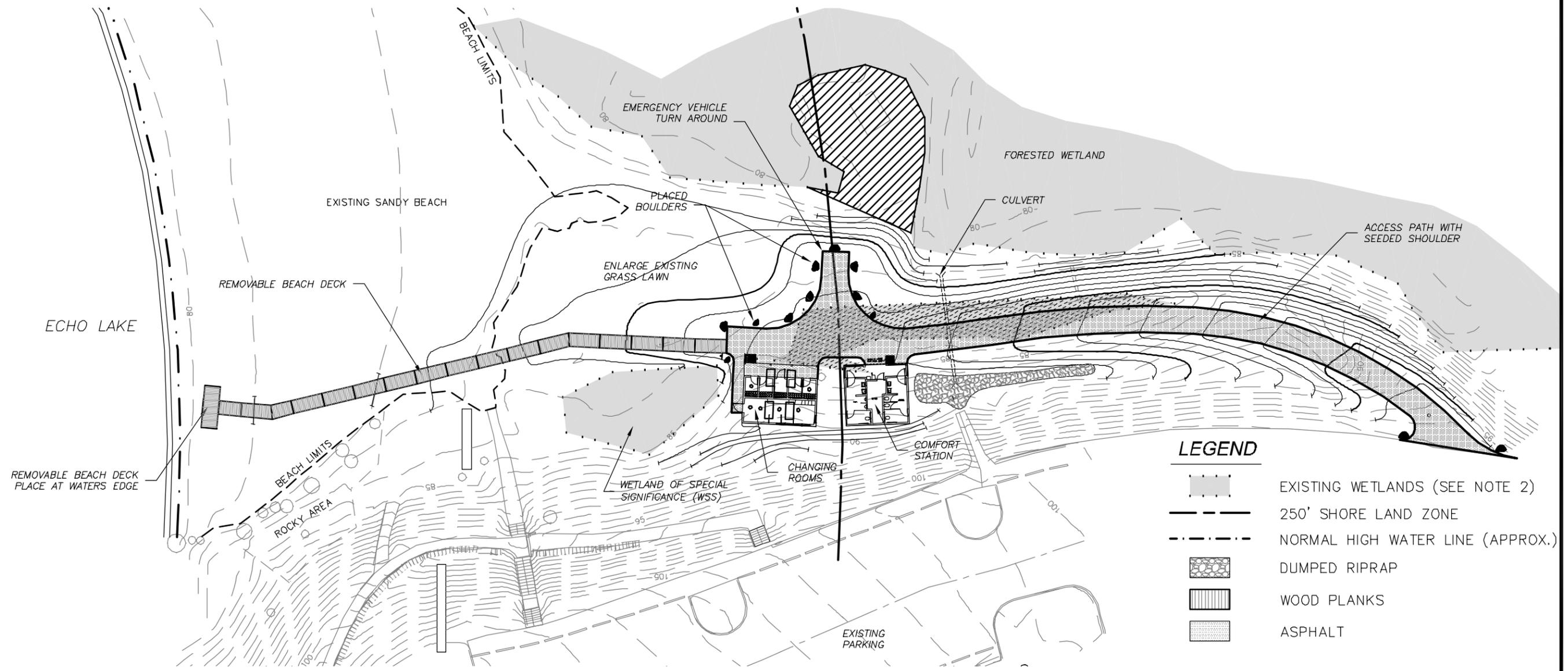
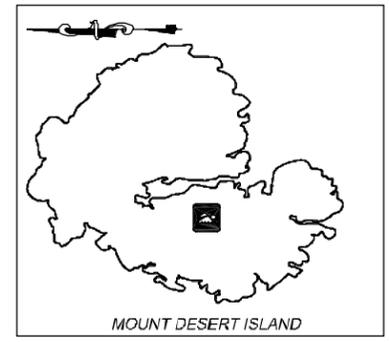
***Wetland vegetation adjacent to pump station.***

through the use of sediment and erosion control devices and other measures. These devices and practices include silt fences, sedimentation basins, spraying water to reduce air-borne dust, demarcating the limits of construction, covering soil piles, and keeping stockpiles outside of vegetated areas and away from wetlands and streams. The fill material will be inspected for weed seeds prior to installation. The re-graded areas will be inspected for invasive species for three years after construction. Any such species found will be removed by hand digging.

The existing lift station and septic tank are located on a small fill area within a wetland, east of the comfort station and path (Figure 4a and 4b). The fill would be removed and the wetland restored to a functional condition (Figure 5a and 5b). This effort would provide mitigation for any wetland impacts resulting from the rehabilitation of the path.

Scheduling the rehabilitation actions within the off-season, when visitor use is at its lowest, would minimize disturbance and inconvenience to visitors. This construction schedule would allow for continued visitor use of the beach during the peak July-August season. Off-season scheduling would minimize visitors' exposure to the noise, dust, and fumes associated with the construction. Some construction may be completed during the winter, further reducing the potential adverse impacts that could occur. Visitors would be made aware of the rehabilitation work and the purpose for it, which would reduce the impact intensity. Appropriate education and signage would help prevent surprise and frustration among visitors and may induce more cooperation and understanding.

# Acadia National Park Echo Lake Beach Alternative B Proposed Conditions Figure 3A



### LEGEND

-  EXISTING WETLANDS (SEE NOTE 2)
-  250' SHORE LAND ZONE
-  NORMAL HIGH WATER LINE (APPROX.)
-  DUMPED RIPRAP
-  WOOD PLANKS
-  ASPHALT

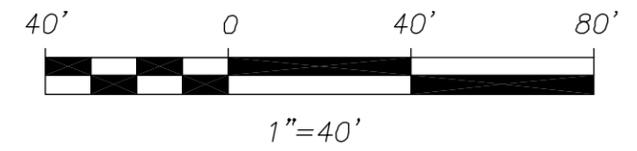
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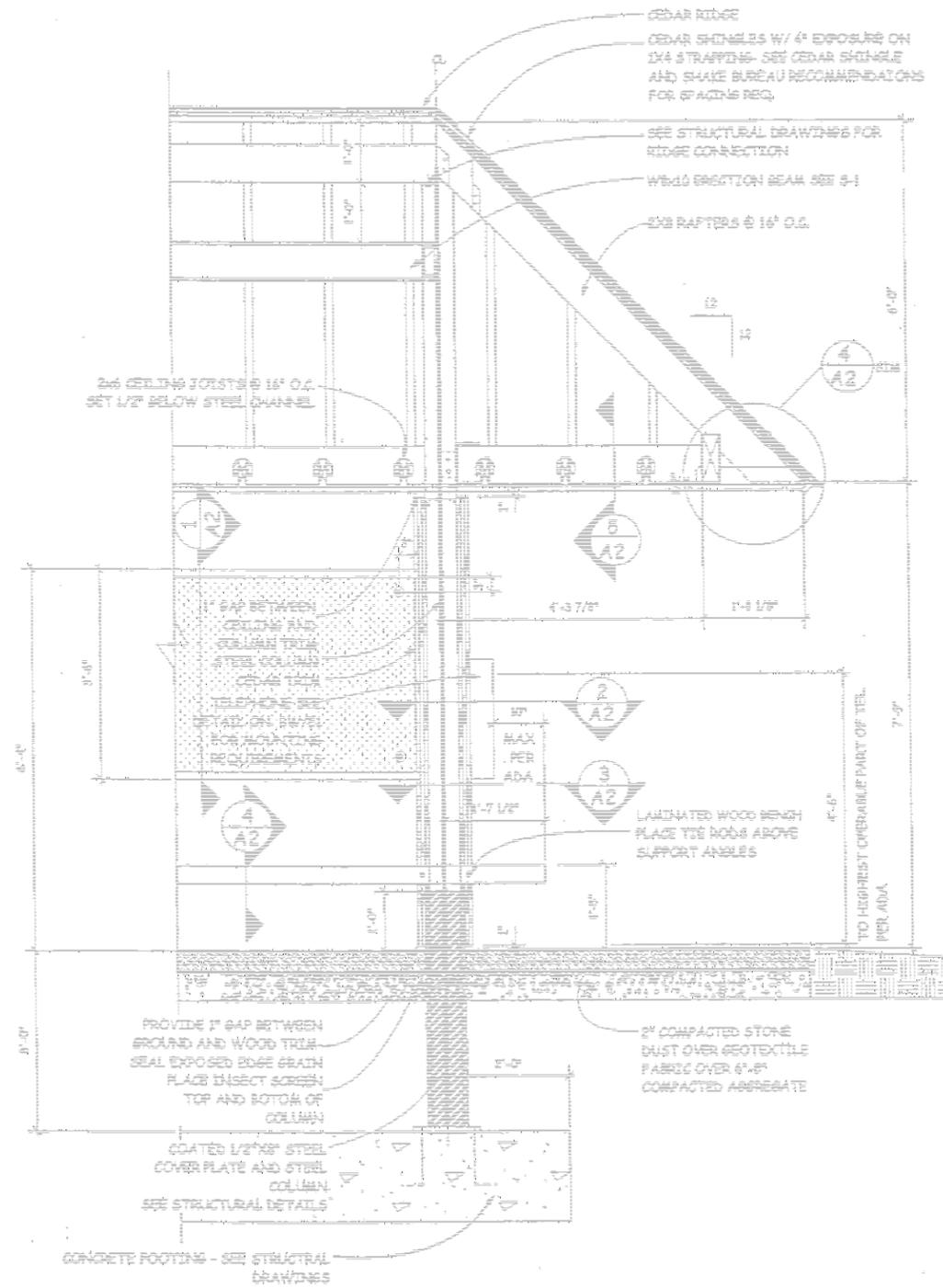
- 1) All area calculations are approximate.
- 2) Existing wetlands identified by Woodlot Alternatives (2002).
- 3) Refer to Figure 3B for bus stop details. The location of the bus stop has yet to be determined but will be adjacent to the parking lot.
- 4) Echo Lake Beach existing and proposed features, except existing wetlands and wetland restoration area, provided by the National Park Service.

### MITIGATION

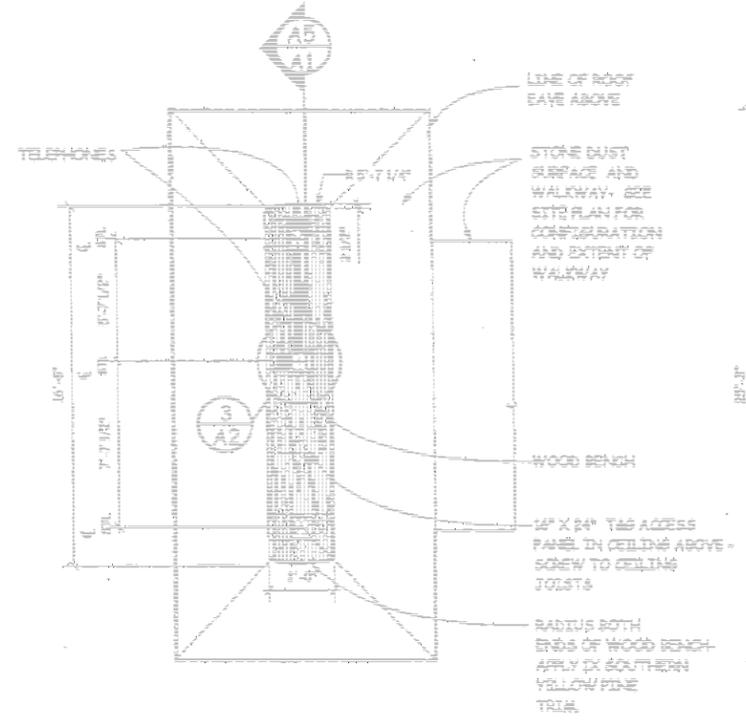
-  WETLAND RESTORATION (2,142 S.F.)
-  WETLAND IMPACT (1,810 S.F.)  
(A SMALL PORTION (370 S.F.) IS CONSIDERED WSS)

### GRAPHIC SCALE

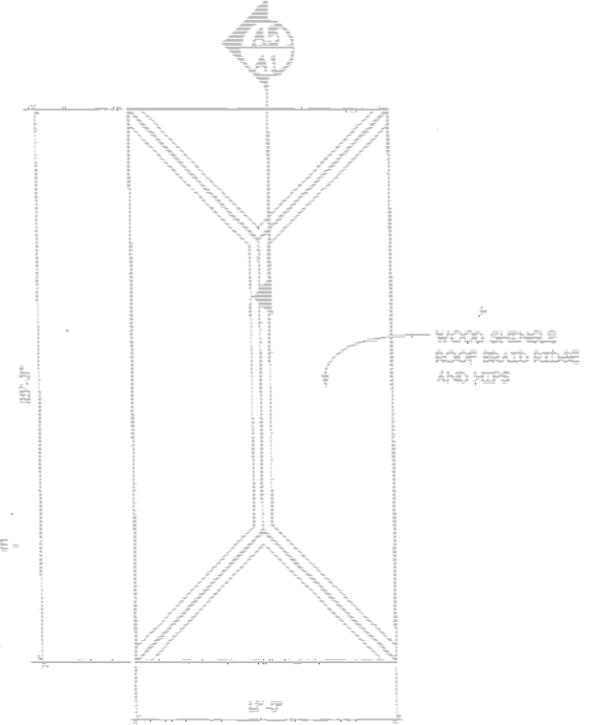




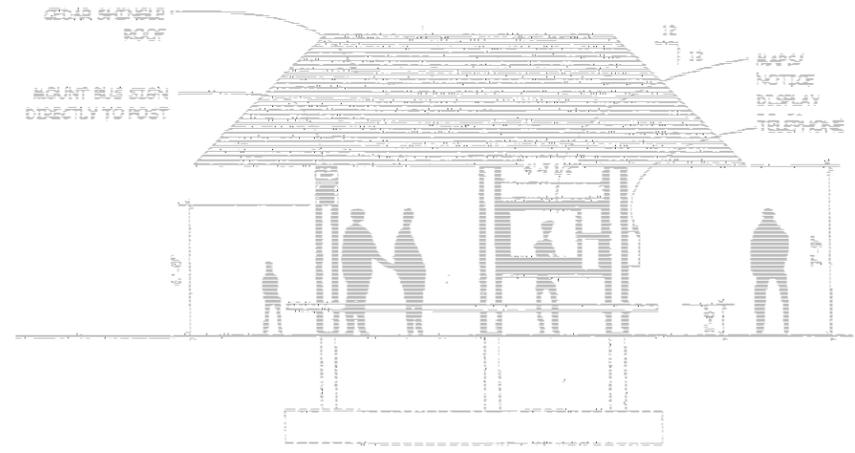
5 SECTION  
A1 SCALE @



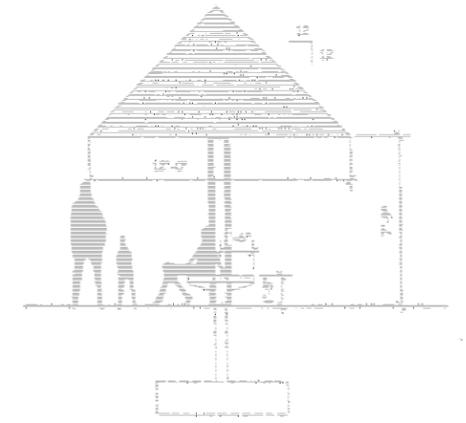
1 FLOOR PLAN  
A1 SCALE @



2 ROOF PLAN  
A1 SCALE @



3 EAST ELEVATION  
A1 SCALE @

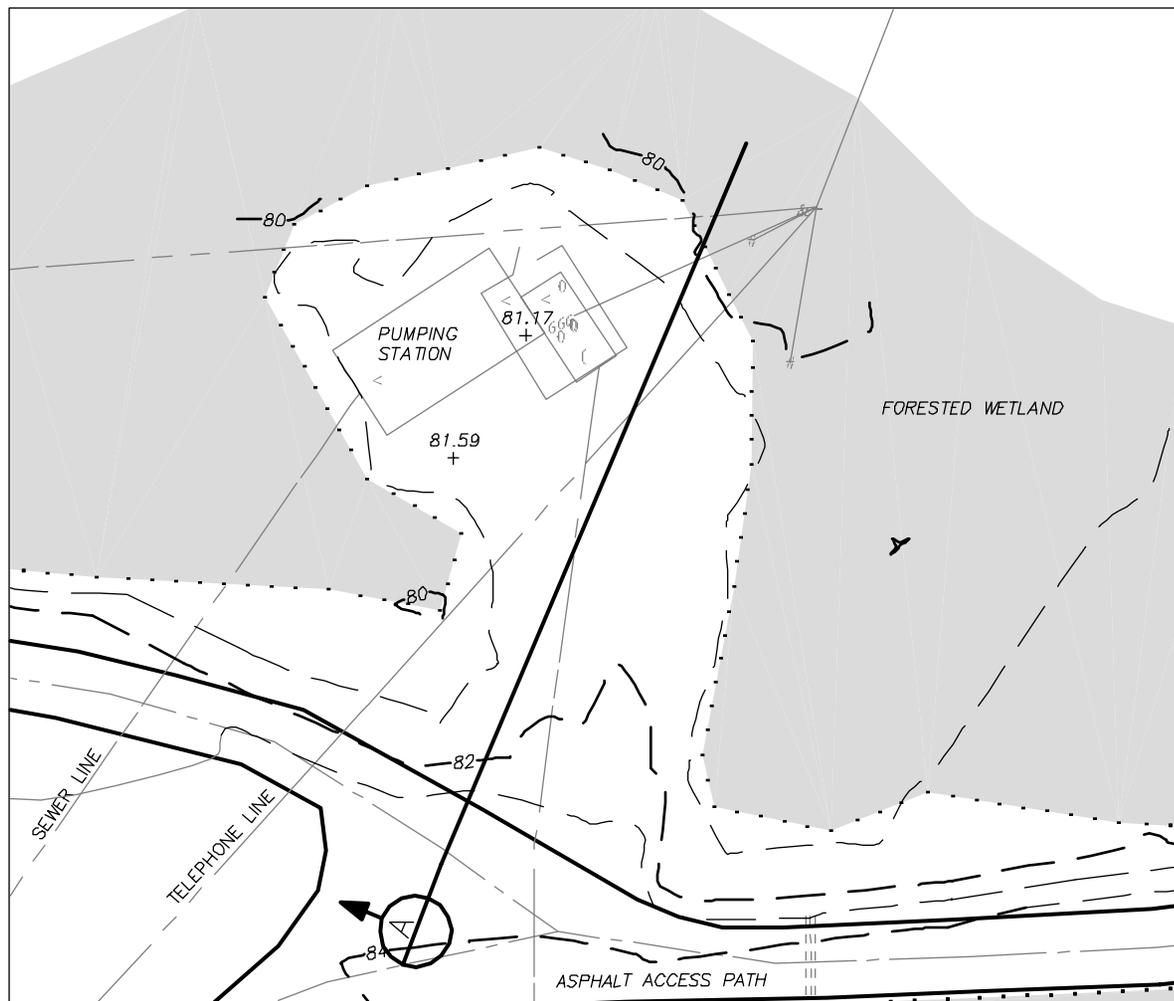


4 SOUTH ELEVATION  
A1 SCALE @



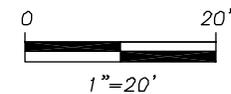
Echo Lake Beach  
Bus Stop  
Figure 3B

A/E FIRM RINE 808 CALVANO SAR HARBOR, WAINE	DESIGNED BY RCA	BUS SHELT NO. BW A1	TITLE OF SHEET BUS SHELTER PLANS/ELEV. & SECTIONS ACADIA NATIONAL PARK	DRAWING NO. 123 60373 A
SUBCONTRACTORS COLON ASSOCIATES SAR HARBOR, WAINE	ENGINEER CJH	TECH. REVIEW DATE 11-02-2000		PLOT NO. 229 OF 3
	LINSEYER ASSOCIATES, INC. NORTH-EAST HARBOR, WAINE			
	LINSEYER ASSOCIATES, INC. SAR HARBOR, WAINE			



**LEGEND**

-  EXISTING WETLANDS (SEE NOTE 1)
-  EXISTING TOPOGRAPHY (SEE NOTE 2)

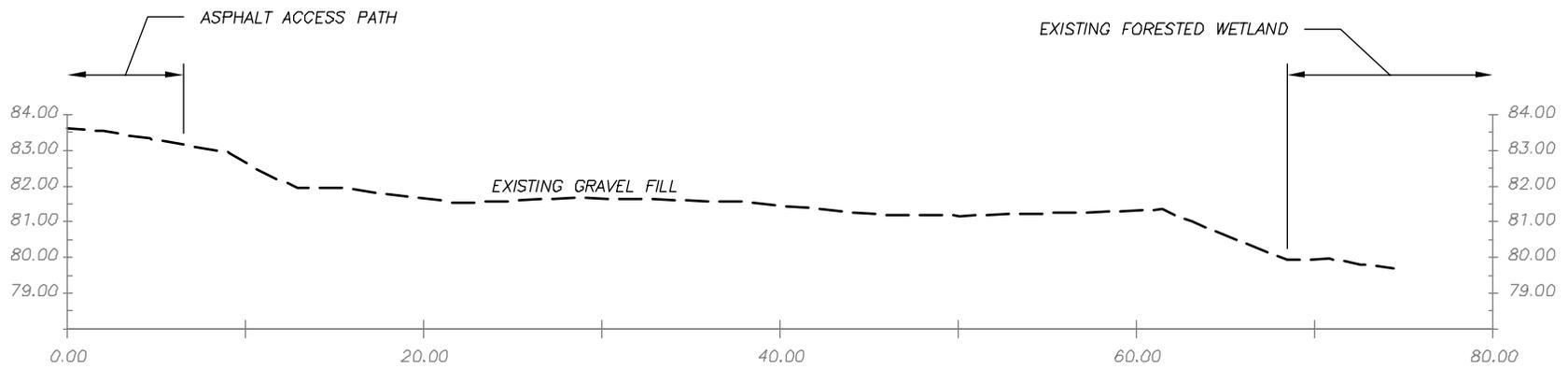


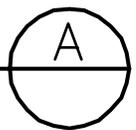
NOTE(S):

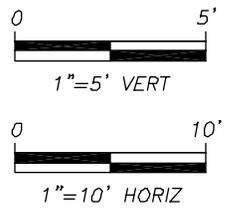
- 1) Existing wetlands identified by Woodlot Alternatives (2002).
- 2) Existing topography as shown was collected by Woodlot Alternatives and merged into existing topographic basemap provided by the National Park Service.

**Acadia National Park**  
**Echo Lake Beach**  
**Pre-Pump Station Removal**  
**Figure 4A**



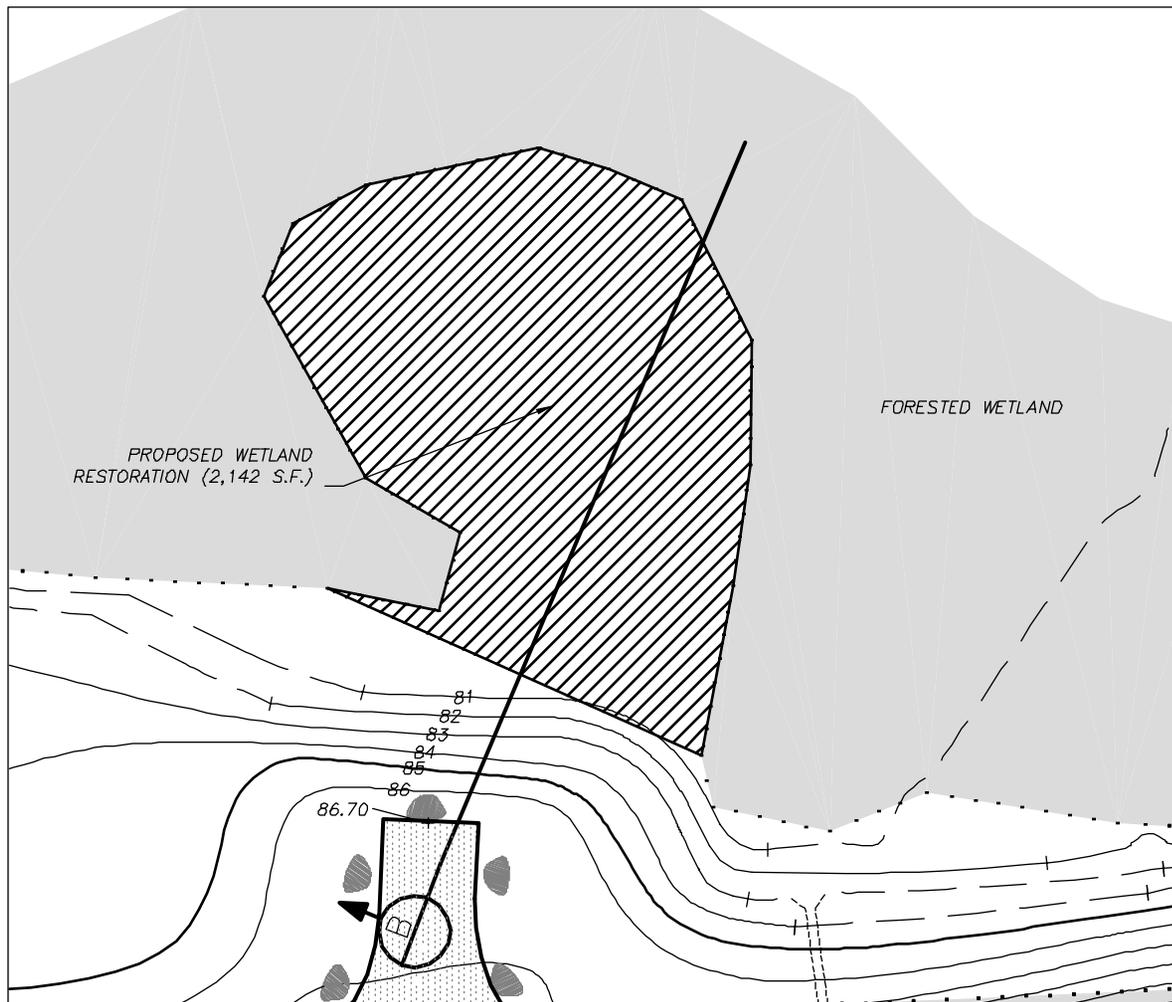


SECTION 

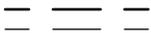


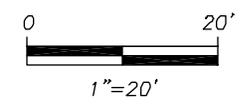
Acadia National Park  
 Echo Lake Beach  
 Pre-Pump Station Removal  
 Figure 4B





**LEGEND**

-  EXISTING WETLANDS (SEE NOTE 1)
-  EXISTING TOPOGRAPHY (SEE NOTE 2)
-  PROPOSED TOPOGRAPHY

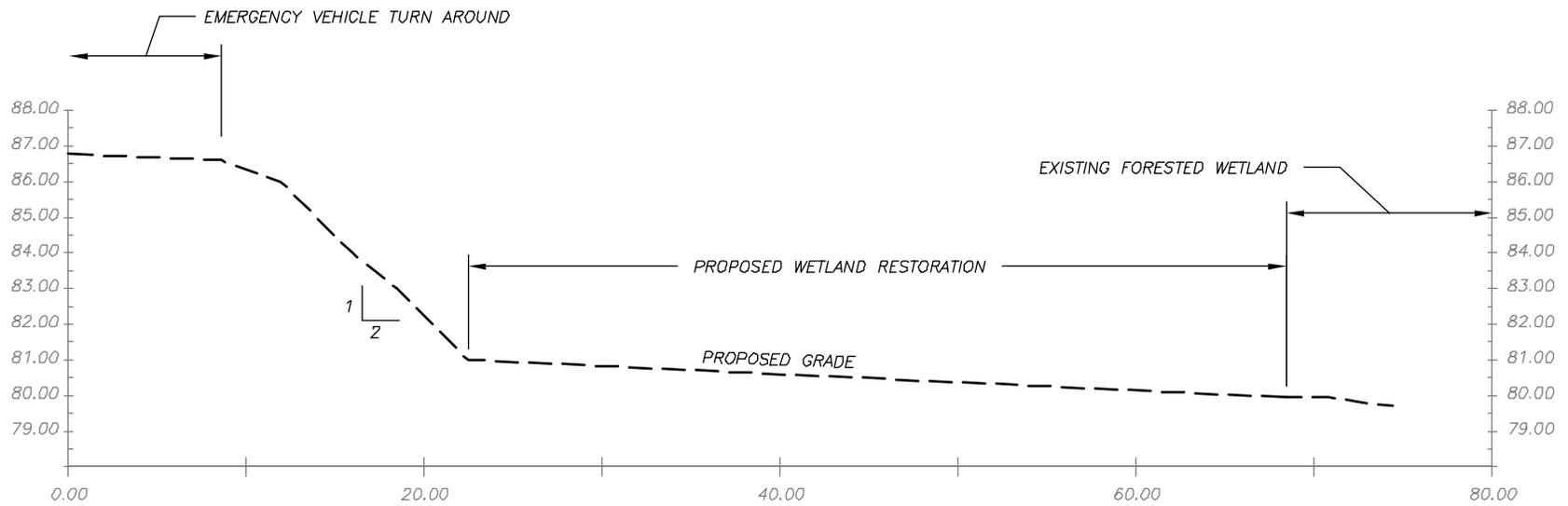


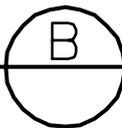
**NOTE(S):**

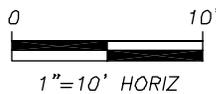
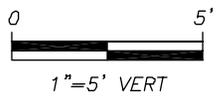
- 1) Existing wetlands identified by Woodlot Alternatives (2002).
- 2) Existing topography as shown was collected by Woodlot Alternatives and merged into existing topographic basemap provided by the National Park Service.

**Acadia National Park  
Echo Lake Beach  
Post-Pump Station Removal  
Figure 5A**





SECTION 



*Acadia National Park*  
*Echo Lake Beach*  
*Post-Pump Station Removal*  
*Figure 5B*



## 2.4 Alternative C – Partial Rehabilitation

The Partial Rehabilitation alternative provides less rigorous rehabilitation activities as detailed in the text below and in Table 1. Rehabilitation activities are categorized into the same groups as the previous alternative: facilities, accessibility, and wetland mitigation.

### *Facilities*

Structural components of the comfort station would be replaced and repaired as necessary. For example, beams and joists would be replaced or shored-up to provide structural support. Decking boards and other rotten or broken components would be repaired. The basic components of the building would remain, including the plumbing and electrical systems. A new changing rooms/lifeguard storage facility would be constructed.

The lift station and septic tank would remain in place, and the electrical and plumbing systems would continue to be used. The lift station pumps would be replaced with new pumps of a similar capacity.

The drainage culverts under the path would be replaced as in Alternative B.

A bus stop would be constructed to serve the MDI public transit system.

### *Accessibility*

The access path would be rehabilitated to meet ADA universal accessibility guidelines in the same manner as for Alternative B, but would not extend to the lakeshore and into the water as proposed for Alternative B. A vehicle court/turnaround area would also be constructed.

### *Mitigation Measures*

Mitigation measures, including BMPs, the same as those proposed for Alternative B will be employed to minimize adverse impacts to wetlands and other natural resources. Minor wetland impacts that would result from the path rehabilitation would need to be mitigated through some compensatory system, either on-site or off-site. An on-site wetland enhancement project would provide the preferred mitigation, if such work were needed. Other mitigation options away from Echo Lake Beach, but within the same watershed, would be considered if on-site mitigation project were not established. Scheduling to avoid and minimize impacts to visitors would be employed in the same manner as Alternative B.

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## 2.5 Alternatives Considered, but Eliminated from Consideration

Other alternatives were initially considered, but each was ultimately rejected as not fully meeting the basic project purpose. NPS staff considered such options during internal meetings and at a design charette during 1997. Moving the comfort station and changing station to the parking lot area was considered, but was rejected due to space limitations and because it was felt that separating facilities from the beach would be inconvenient to visitors, especially families with young children. Rebuilding the changing station in its current location and rebuilding the changing station in its former location was considered. This option

would not reduce upland and wetland impacts and would continue to obstruct the view of the lake and cliffs. Repaving the path was considered, but the path would still not meet ADA guidelines due to its relatively steep slope. Constructing a new path at a different location that would provide universal access was considered, but would have created more impacts to vegetative communities.

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## 2.6 NPS Preferred Alternative

Alternative B, Full Rehabilitation, is the NPS preferred alternative because it meets the basic project purpose while avoiding and minimizing adverse impacts to the human environment. Full rehabilitation would eliminate short-term and long-term structural and aesthetic deterioration, allow universal access to the site, restore a wetland area, and improve the visitor experience. The rehabilitation eliminates potential structural safety hazards and deficiencies in the buildings. This rehabilitation work would be technically feasible and appropriately funded.

Alternative A, No Action, would not meet the basic project purposes, because no rehabilitation of the Echo Lake Beach facilities would occur. The structural deterioration of buildings might require the site to eventually be closed to ensure visitor and staff safety. While short-term adverse impacts generated by the rehabilitation may be eliminated by the No Action alternative, long-term adverse impacts to natural and cultural resources and the visitor experience would likely occur.

Alternative C, Partial Rehabilitation, could meet the basic project purpose. Bringing the site into compliance with ADA guidelines is an important part of the project purpose. Attempting to replace and repair structural components of the buildings would likely be difficult and would be more expensive than replacing the buildings. Furthermore, this option does not address poor drainage around the foundations of each building, which is the main source of the deterioration.

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## 2.7 Environmentally Preferred Alternative

The Environmentally Preferred Alternative is defined by the CEQ as “the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act [Section 101 (b)].” This section states that the Environmentally Preferred Alternative should:

- “Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
- Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life’s amenities.
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”

In accordance with the analysis of impacts of each alternative, Alternative B has been identified as the Environmentally Preferred Alternative. Alternative B meets the project purpose by rehabilitating the site and improving the visitor experience, while maintaining cultural resources and preventing environmental degradation. The rehabilitation effort has been designed to avoid and minimize adverse impacts to cultural and natural resources and to the visitor experience at the Park. The rehabilitation process for the Echo Lake Beach facilities is being planned by Park staff to avoid, minimize, and mitigate, adverse impacts. The potential adverse impacts are short-term and temporary in nature and all can be controlled and minimized. There are no permanent, long-term, adverse environmental effects that would result from the rehabilitation. The primary environmental benefit is the restoration of the filled wetland.

**Table 1 Summary of Rehabilitation Alternatives for the Echo Lake Beach Facilities.**

<b>Goals (in bold) and Issues</b>	<b>Alternative A No Action</b>	<b>Alternative B Full Rehabilitation (NPS Preferred Alternative)</b>	<b>Alternative C Partial Rehabilitation</b>
<b>Goal 1. Maintain the site’s recreational opportunities, character, and natural resources.</b>			
Comfort station is structurally unsound.	Comfort station would remain as is, and may eventually need to be closed.	The comfort station would be removed and replaced with a new facility. New plumbing and electrical systems would be installed.	Structural components would be repaired, but plumbing and electrical systems would be retained.
Changing rooms and lifeguard storage building was structurally unsound and removed.	Changing rooms and lifeguard storage building would not be rebuilt.	The changing rooms and lifeguard storage building would be replaced with a new facility. New plumbing and electrical systems would be installed.	New changing rooms and storage building with all new utilities would be constructed at the same location as the former building.
Wetland restoration.	Wetland would remain as is.	The filled wetland where the pump station is currently located would be restored.	Wetland restoration on-site would not occur. Other mitigation options, either on-site or off-site, would be pursued.
Avoidance and other mitigation options.	Mitigation and avoidance options would not be needed.	BMPs would be implemented that avoid and mitigate impacts. These elements include erosion control and scheduling to complete the construction during the off-season. Implementing these practices would avoid impacts to wildlife and minimize the potential for exotic plant infestations.	Same as Alternative B.
<b>Goal 2. Improve visitor facilities.</b>			
Improve the location and condition of the facilities and improve the vista across the lake.	Facilities along the lake would remain the same.	New facilities would be constructed in different locations opening the view towards to lake and cliffs.	The comfort station would remain in its current location and the changing rooms building reconstructed in its former location.

**Table 1 Summary of Rehabilitation Alternatives for the Echo Lake Beach Facilities.**

<b>Goals (in bold) and Issues</b>	<b>Alternative A No Action</b>	<b>Alternative B Full Rehabilitation (NPS Preferred Alternative)</b>	<b>Alternative C Partial Rehabilitation</b>
<b>Goal 3. Meet the requirements of the Americans with Disabilities Act (ADA).</b>			
Provide an accessible path for all persons with impaired mobility.	No change to paths and access to the site.	The area would be re-graded to a 5% slope and expanded to a 10-foot width to meet ADA accessibility guidelines, allowing entry to the site and buildings. The path would be extended into the water.	Same as Alternative B, except that the path would terminate at the facilities and would not be extended into the water.
<b>Goal 4. Improve Park Operations</b>			
Improve the lift station and septic tank capabilities.	The lift station and septic tank would remain as is.	The lift station and septic tank would be removed and new facilities would be constructed in an area adjacent to the new comfort station.	The lift station pumps would be replaced, but both the lift station and septic tank would remain at the current locations.
Improve drainage.	No modifications to the site's drainage system. The culvert that provides drainage would remain.	Fill for the re-graded path would be graded to provide excellent drainage and riprap would be placed at appropriate locations to improve drainage from the parking lot. The culverts would be replaced with new 12-inch diameter pipes.	Same as Alternative B.
Improve emergency and maintenance vehicle access.	No modifications would be made to the path.	The re-graded path and turn-around area would provide improved access for emergency and maintenance vehicles.	Same as Alternative B.
Provide sheltered bus stop.	Modifications to the parking lot would not be made.	A bus stop would be added adjacent to the parking lot.	Same as Alternative B.
Cost Estimates.	\$0	\$715,301	\$574,236

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# 3 AFFECTED ENVIRONMENT

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## 3.1 Introduction

This chapter describes the existing environmental conditions in and immediately adjacent to Echo Lake Beach. Project biologists completed the wetland delineation and a thorough review of the Echo Lake Beach area during the fall of 2002. Biologists completed an inventory of wetlands and water resources, documented the vegetative communities, noted wetland functions and values, obtained Global Positioning System locations on the wetlands and streams, conducted searches for rare plants and wildlife, and made wildlife observations. Background research was completed by reviewing existing information and by meeting with knowledgeable NPS staff relative to visitor use and experience.

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## 3.2 Natural Resources

### 3.2.1 Wetlands, Lakeshore, and Water Quality

Wetlands and lakeshore areas associated with Echo Lake Beach have been given an alphanumeric code that follows the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin *et al.* 1979). The area surrounding Echo Lake Beach contains large wetlands and drainages. Figure 2 provides a map of the wetlands and lakeshore.

Some wetlands onsite have specific regulatory designations. Wetlands within 250-feet of the lakeshore are considered Wetlands of Special Significance through the Natural Resources Protection Act as enforced by the **Maine Department of Environmental Protection (MDEP)**. Therefore, the small shrub wetland and portions of the forested wetland connected to Echo Lake are classified as Wetlands of Special Significance. The small shrub wetland does not necessarily provide significant wetland functions and values, but rather derives this designation from its proximity to Echo Lake. The forested connected wetland does provide some significant functions and values as discussed below.

#### *Wetland Functions and Values Assessment*

A wetland functions and values assessment was completed for those wetlands on the site. Wetland functions and values were assessed using *The Highway Methodology Workbook Supplement: Wetland Function and Value, A Descriptive Approach* (ACOE 1999). The purpose of this evaluation is to provide a rating of the relative value of each wetland system that can be used to assess the severity of proposed wetland impacts. This method bases function and value determinations on the presence or absence of specific criteria for each of the 13 wetland functions and values. The criteria are assessed through direct field observation during on-site wetland

determinations and during office review of existing resource maps and databases. Table 2 summarizes the functions and values provided by the wetlands and the associated lakeshore.

<b>Table 2 Wetland Functions and Values for Wetlands at Echo Lake Beach</b>				
<b>Function/Value</b>	<b>Two Small Forested and Scrub-Shrub Wetlands</b>	<b>Forested Wetland Connected to the Lake</b>	<b>Lakeshore</b>	<b>Comments</b>
Groundwater recharge/discharge	-	+	+	The main influence on hydrology for the wetlands is Echo Lake.
Floodflow alteration	+	+	+	These wetlands are adjoined to Echo Lake and may function in floodwater retention.
Fish and shellfish habitat	-	-	+	No fish or shellfish habitat exists in the wetlands. The lakeshore should provide some habitat for aquatic species.
Sediment/toxicant/pathogen retention	+	-	-	The wetlands are located below the parking area and receive runoff from this area. The lake probably does not.
Nutrient removal, retention, and transformation	+	+	-	The wetlands contain deep organic sediments.
Production export	+	+	-	The wetlands contain flowering plants and dense vegetation. Wildlife food sources are found here.
Sediment/shoreline stabilization	-	+	+	The lakeshore and bordering wetland provide these values.
Wildlife habitat	+	P	P	Wetlands and lakeshore provide habitat for a variety of species.
Recreation	-	+	P	Echo Lake provides recreation, but the wetlands contribute very little to recreational opportunities.
Education/scientific value	-	-	-	The wetlands are not unique and probably do not provide much scientific value.
Uniqueness/heritage	-	+	+	The wetlands and lakeshore are not unique. The lake contributes to the heritage of the Park.
Visual quality/aesthetics	-	+	+	The wetlands and lake are visible from scenic locations and offer wildlife viewing opportunities.
Endangered species habitat	-	-	+	No rare or endangered species are known or expected to occur in the wetlands. The lake and nearby areas provide some opportunities for state listed species, including peregrine falcons.

P = principal function/value  
 + = function/value occurs in the wetland or stream  
 - = function/value does not occur in the wetland or stream

The wetlands provide some stormwater management value, wildlife and food web benefits, scenic value, and minor cultural values (Table 2). Run-off water from the parking lot and adjacent uplands is collected and retained for natural treatment in the alder dominated swale adjacent to the path. After the water collects in the swale, it drains through a culvert underneath the path into the larger forested wetland system. The water has been treated at this point and contributes to the hydrology of the wetland. The natural treatment process prevents untreated water from entering the lake directly from the parking lot.

The connection of the upland, wetland, and lake habitats provides a level of ecological diversity, nutrient cycling, and high quality wildlife habitat. The forested wetland connected to Echo Lake has a deep organic soil that has a high level of primary productivity. The production of a healthy vegetative community, insects, and other invertebrate food sources contributes to the productivity of the lake.

The lakeshore, with its beach and clear, cold water, provides an important recreational opportunity for many ANP visitors. The surrounding ridges and cliffs add dramatic and picturesque features to the surrounding landscape creating a very high quality aesthetic experience.

Some potential exists for use by state listed species, including peregrine falcons. The wetlands and lakeshore contributions to the food-chain likely benefits these species indirectly. Brook trout (*Salvelinus fontinalis*) are known to occur in the lake and nearby streams. Brook trout are an important recreational species and their presence indicates good quality habitat.

### ***Water Quality***

ANP maintains a weekly, summer, water quality monitoring program at Echo Lake Beach, specifically monitoring for E. coli bacteria in the swimming area (B. Breen pers. comm.). Annual, summer monitoring of general water chemistry parameters is also completed by Park staff. Bacterial measurements at the beach have been well below state and USEPA guidelines for human health. General water chemistry parameters have also been favorable and have not exceeded state and federal guidelines.

### **3.2.2 Soils**

Soils within ANP are generally derived from and are locally underlain by glacial till. Bedrock typically occurs on peaks and crests of ridges on the steeper hillsides. Many of the steepest hillsides have highly erodible soils with evidence of past avalanches and scarring. Muck soils dominate the lowlands along the wetlands where more level terrain allows the appropriate conditions for developing these soils. The remaining soils are generally well drained to excessively well drained, supporting numerous intermittent streams that drain the upper slopes. Soil descriptions are based on the Natural Resource Conservation Service (1998) soil survey of Hancock County, Maine.

Echo Lake Beach is on Monadnock–Herman Complex while the adjacent wetland is Wonsqueak and Bucksport mucks. The Monadnock-Herman Complex soil is generally well to excessively well drained and found on undulating, rolling, and steep hillsides. It is often found along lakes and within valleys, with an abundance of stones and boulders present. Development potential on this soil type is very limited and most areas are within woodland cover-types. Wonsqueak and Bucksport mucks are found in the depressions along the edges of lakes and ponds. These are very

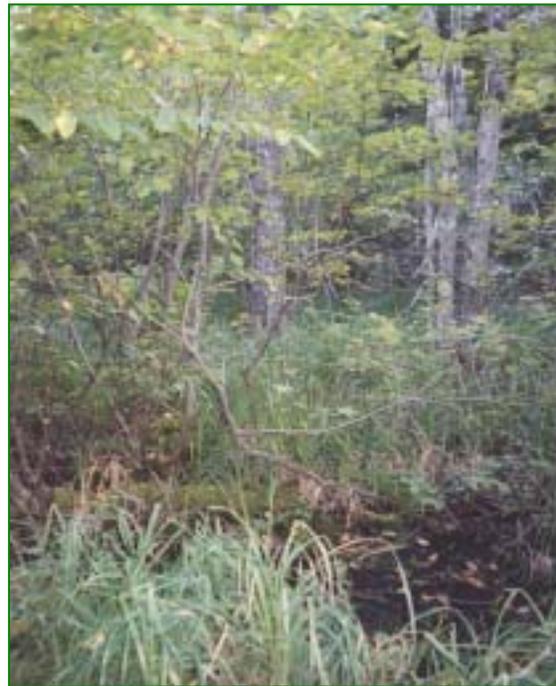
poorly draining soils with the seasonal high water table ranging from 12-inches above to 6-inches below the surface. They are high in organic content and acidic.

Sand was likely imported to fill the natural uplands and wetlands to create the beach. It is also possible that some areas were re-graded or excavated prior to filling with beach sand.

### 3.2.3 Natural Communities and Wildlife Habitat

Table 3 provides a brief description of the natural communities, wetlands, and lakeshore that occur at Echo Lake Beach. The natural community designations used here are based on descriptions presented in the *Natural Landscapes of Maine: A Classification of Vegetated Natural Communities and Ecosystems* (Gawler 2001). Using this classification system, a natural community is defined as “an assemblage of interacting plants and animals and their common environment recurring across the landscape, in which the effects of human intervention are minimal.” Dominant species observed in the communities at this site were used to classify each system and were included with the natural community designation to appropriately describe each area. Appendix A gives a list of all plant species at Echo Lake Beach, with their common and scientific names.

The Echo Lake Beach area contains an upland community; wetland areas; the lake shoreline, including the beach and open water; and developed areas. The existing access path to the comfort station and beach area starts from the parking lot and is relatively steep in some areas. A beech-birch-maple forest community is located along the western margin of the path, extending from the path to the parking lot. This is a mixed-age community generally of small to medium sized trees; although one large, 12 – 18 inches in diameter, American beech was observed in this area. This forested area screens the parking lot from the beach. As the path descends to the comfort station, a narrow drainage swale begins between the path and upland community. This drainage swale is primarily an alder shrub thicket and extends down the path and past the comfort station to the north. The eastern edge of the path consists of a steep slope descending down to a red maple swamp and alder shrub thicket community to the east. This large wetland area extends past the access path to the south and connects to Echo Lake to the north. The existing pump station is located on a small filled inclusion to the west of the comfort station and path. The area around the pump is mowed and thus connected to the access path.



***Forested wetland that is contiguous to Echo Lake.***

**Table 3 Natural Communities at Echo Lake Beach**

Community	Dominant Species
<b>Upland Community</b>	
Beech-Birch-Maple Forest	Canopy consists of small to medium sized American beech ( <i>Fagus grandifolia</i> ), red maple ( <i>Acer rubrum</i> ), yellow birch ( <i>Betula alleghaniensis</i> ), and white birch ( <i>Betula papyrifera</i> ). Common shrubs and saplings include witch-hazel ( <i>Hamamelis virginiana</i> ), American beech, and hobblebush ( <i>Viburnum lantanoides</i> ). Herbs are sparse and consisted primarily of big-leaved aster ( <i>Aster macrophyllus</i> ) and Christmas fern ( <i>Polystichum acrostichoides</i> ).
<b>Wetland Community</b>	
Red Maple-Sensitive Fern Swamp (PFO1E)	The forested canopy is dominated by red maple and yellow birch, with an occasional eastern hemlock ( <i>Tsuga canadensis</i> ). Shrubs consist of winterberry ( <i>Ilex verticillata</i> ), speckled alder ( <i>Alnus incana</i> ), and meadowsweet ( <i>Spiraea alba</i> var. <i>latifolia</i> ). Common herbaceous species include bluejoint ( <i>Calamagrostis canadensis</i> ), sensitive fern ( <i>Onoclea sensibilis</i> ), and various sedges ( <i>Carex spp.</i> ). This community occurs as part of the forested wetland connected to Echo Lake.
Alder Shrub Thicket (PSS1E)	This shrub area is dominated by speckled alder mixed with red maple, winterberry, and sweet gale ( <i>Myrica gale</i> ). The herbaceous layer is dominated by bluejoint, with some sedge species. This community occurs as the drainage swale and as part of the forested wetland connected to Echo Lake.

### 3.2.3 Wildlife

Wildlife potentially affected by the rehabilitation would be very limited. The scrub/shrub wetlands provide limited breeding habitat for amphibians due to a lack of vernal pool type habitat. The larger shrub wetland connected to Echo Lake and the lakeshore could provide some breeding habitat for common frog species and possibly some amphibians. Brook trout have been documented in a nearby stream and in the lake, but it is unlikely that they use the shrub wetlands on site. Peregrine falcons have been documented using the nearby cliffs as breeding habitat, but would not be expected to use the forested uplands and wetlands on the site. The last documented peregrine nesting occurred during 1997 (Personal communication Bruce Connery). The lakeshore could provide some habitat for both species, but human activity probably limits use of this habitat. Common and migrating passerines, common small and medium sized mammals, black ducks (*Anas rubripes*), and white-tailed deer (*Odocoileus virginianus*) use the site. Raccoons (*Procyon lotor*) and striped skunks (*Mephitis mephitis*) are common in the area; both are attracted to human food and can carry rabies.

### 3.3 Visitor and Staff Safety

Maintaining safe conditions is a priority at the Echo Lake beach facilities. Short-term safety issues include construction worker safety, following Occupational Safety and Health Administration guidelines, and protecting visitors and employees during construction. Long-term concerns include maintaining the structural integrity of the buildings, updating utility systems, providing emergency vehicle access and managing traffic. Since the largest user groups are families with small children and organized groups (child-care facilities), special care must be taken to ensure visitor safety.

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### 3.4 Visitor Use and Experience

#### *Visitor Characteristics*

Visitors to Echo Lake Beach represent a diversity of user groups from all regions of the county and from outside the country, including families, organizational groups, day visitors, and bus tour groups. Visitors to Echo Lake Beach include all age groups, although families with young children and organized groups from child-care facilities make up a large portion of users.

#### *Visitor Use*

Echo Lake Beach is the only freshwater beach in the Park where lifeguards and restrooms are provided. It is also the only freshwater beach served by the Island Explorer bus, which services the area from late June through mid October. Because freshwater lakes and ponds on MDI are generally warmer than ocean waters in the summer, they are favored places to swim, and Echo Lake Beach is heavily used from late June through August. Warm water, a gentle sloping sand beach, the availability of visitor facilities, adequate parking, and the spectacular scenery at Echo Lake contribute to the beach's popularity. Visitors to the site enjoy swimming, sunbathing, picnicking, and relaxing. The site provides access to hiking trails and gravel roads. It does not have a boat launch, but one is located nearby at Ike's Point. The area is closed during the winter, and use during winter, spring, and fall is relatively low.

Use of the site by persons with disabilities is limited because the facilities are not accessible. Visitors must climb a set of stairs to use the comfort station. The path leading from the parking lot to the comfort station is too steep and uneven for safe access by persons with disabilities.



*Visitors at the Echo Lake Beach; open space in center is the location of the former changing station.*

### *Visitor Experience*

No visitor surveys have been completed to determine the satisfaction or experiences of visitors who use the facilities at Echo Lake Beach (C.D. Jacobi pers. comm.). However, 50 of the 400 Park visitor survey questionnaires measuring overall visitor satisfaction are distributed there each year, so the results include users of Echo Lake Beach. Based on these responses in 2003, visitors were 100% satisfied with the quality of facilities, services, and recreational opportunities at ANP (Jacobi 2003). Furthermore, 97% of these respondents indicated that outdoor recreation was either very good or good, on a five-point scale from very poor to very good. The aesthetic and recreational qualities of the site are significant and directly contribute to the enjoyment of the site. Therefore, Echo Lake Beach is often a Park destination site for many visitors.

# 4 Environmental Consequences

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## 4.1 Introduction

The environmental consequences of each alternative were assessed for each impact topic. The assessment addressed direct, indirect, and cumulative effects, and was performed to assist in the decision-making process and to determine if any of the alternatives would impair Park resources.

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## 4.2 Impairment of Park Resources

The *NPS Management Policies, 2001* (2001b) requires analysis of potential effects to determine whether or not actions would impair Park resources. The fundamental purpose of the National Park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve Park resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting Park resources and values. However, the laws do give the NPS the management discretion to allow impacts to Park resources and values when necessary and appropriate to fulfill the purposes of a Park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS the management discretion to allow certain impacts within the Park, that discretion is limited by the statutory requirement that the NPS must leave Park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of Park resources or values. An impact to any Park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the Park;
- key to the natural or cultural integrity of the Park; or
- identified as a goal in the Park's GMP or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the Park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the Park. A determination on impairment is made in the *Environmental Consequences* section for natural resources (natural communities and wildlife habitat, wildlife, soils, wetlands and lakeshore, and water quality). An assessment of impairment is not made for visitor and staff safety, and visitor use and experience.

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## 4.3 Methodology for Assessing Impacts

### 4.3.1 Definitions

#### *Type of Impact*

Impacts are categorized in two different and contrasting types: adverse and beneficial. Adverse effects or impacts are considered contrary to the goals, objectives, management policies, and practices of the NPS and the public interest or welfare. These impacts are of a kind likely to be damaging, harmful, or unfavorable to the various impact topics. Beneficial effects or impacts are considered to promote favorable conditions for the impact topics.

#### *Levels of Intensity*

Levels of intensity refers to severity of the impact, whether it is negligible or major, or somewhere in between. The gradient of this grading system can be general or very detailed, but ultimately the assumptions and subjectivity of the system affect its sensitivity. A simple and subjective rating system is used in this EA, which includes a rating scale of “no effect, negligible, minor, moderate, and major effects.” The authors of this EA based the rating system score on professional opinion and review. The context or setting of the action and resulting impact was considered as part of the impact assessment. For example, consideration was given as to whether or not an action affects any natural resource parameters. The definition of “no effect” would be the same for each of the general impact topics, natural resources (water quality, streams, wetlands, soils, rare plants, wildlife, and natural communities), and visitor use and experience (including recreational resources). No effect would mean that no measurable effects could be recorded or surmised. Each of these gradient levels are further defined below.

- For natural resource impacts, including soils, wetlands, lakeshore, water quality, vegetation, and wildlife:
  - *Negligible*: Impacts would be barely detectable, measurable, or observable.
  - *Minor*: Impacts would be detectable, but not expected to have an overall effect on the natural community. Impacts generally affect less than one-half acre of the resource or would not be expected to be outside the natural range of variability for that resource.
  - *Moderate*: Impacts would be clearly detectable, but could have short-term appreciable effects on the local ecology. Impacts may affect up to one-acre of the resource, but would not threaten the continued existence of that resource.
  - *Major*: Long-term or permanent, highly noticeable effects on individual species, community ecology, or natural processes. Impacts may affect over one-acre of resource area or may affect the continued existence of that resource.
  
- For visitor use and experience impacts:
  - *Negligible*: Impacts would be barely detectable, hence visitors would not be aware of any effects of the rehabilitation. There would be no noticeable change in visitor use and experience or in any defined indicators of visitor satisfaction or behavior.

- *Minor:* Visitors would be aware of effects, but this would not appreciably limit or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable.
  - *Moderate:* Few critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be altered. The visitor would be aware of the effects associated with implementation of the alternative and visitor satisfaction would begin to either decline or increase as a result of the effect.
  - *Major:* Multiple critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be greatly reduced or increased. The visitor would be aware of the effects associated with implementing the alternative and visitor satisfaction would markedly decline or increase.
- For safety impacts:
    - *Negligible:* Impacts would be barely detectable, measurable, or perceptible.
    - *Minor:* Effects would be limited to a small number of visitors and could be avoided or minimized through planning.
    - *Moderate:* Compromised safety conditions, resulting in permanently increased accident rates, would still exist despite implementing all minimization and mitigation efforts.
    - *Major:* Significant compromised safety conditions that would warrant the closing of the facilities and possibly the entire site for a long-term period or permanently.

### ***Duration***

Duration describes how long an impact would be expected to last. In this EA, impacts are described as either being short-term or long-term. Short-term is an impact that would last no more than two years. Long-term would be an impact that would last for more than two years.

### ***Context***

Context is the setting within which an impact is analyzed, such as the affected region or locality and the affected interests. In this EA, the intensity of impacts is evaluated within a local context, primarily considering effects on MDI and the immediate vicinity. The intensity of effects on cumulative impacts is evaluated in a regional context and considers effects further in time and effects from other projects.

### ***Direct and Indirect Impacts***

Direct impacts include effects on the resource actually caused by the proposed action, generally at the immediate site of the action and at the time of the action. Direct impacts can extend into the future and are often permanent, but can be temporary. A direct effect is an effect that is caused by an action and occurs at the same time and place. An example of a direct impact would be the filling of a portion of a stream, which immediately causes habitat loss at that location.

Indirect impacts generally occur as a result of a “side-effect” of a direct impact, but occur later in time or further in distance than the action. An indirect impact could result from silt flowing downstream, creating turbid conditions, and adversely affecting water quality.

### ***Cumulative Impacts***

The CEQ regulations, which implement the NEPA (42 USC 4321 *et seq.*), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts are considered for all alternatives and focus on a regional area well beyond the project boundary.

Cumulative impacts were determined by combining the impacts of each alternative with other past, present, and reasonably foreseeable future actions within ANP and the vicinity. These impacts are assessed on a regional basis. These projects include rehabilitating the Park entrance station, visitor facilities at Sand Beach, Seawall and Blackwoods Campgrounds, Duck Brook Road, Carriage Road bridges, and the Bear Brook picnic area, and replacing the sewer line in the Town of Southwest Harbor, as well as numerous small construction projects.

#### **4.3.2 Impact Matrix Comparisons**

Comparisons of potential adverse and beneficial impacts are made between the No Action and both rehabilitation alternatives to determine the relative impacts of each and to help determine which alternative is the most environmentally preferable and which should be the preferred alternative. This type of comparison is important to the decision making process.

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## **4.4 Impact Assessment**

### **4.4.1 Alternative A – No Action**

#### ***Overview***

Alternative A, No Action, would not rehabilitate or upgrade visitor facilities at Echo Lake Beach. The facilities would continue to deteriorate, functional and aesthetic qualities would continue to decline, and the visitor experience would be adversely impacted. It is possible that deteriorations would become significant and if conditions become unsafe, the facilities would be closed to the public. This action does not meet the basic project purpose of rehabilitating the Echo Lake Beach facilities. Therefore, Alternative A does not meet the basic project purpose. This alternative is provided as a baseline for assessing the effects of the other alternatives. A summary matrix of impacts for each of the three alternatives is provided in Table 4.

#### ***Natural Resource – Wetlands, Lakeshore, Water Quality, and Soils***

*Direct and Indirect Impacts:* These three topics were analyzed together, because the interactions of the effects of erosion often lead to impacts on wetlands and the lakeshore characteristics, water quality, and soils. Furthermore, filling and excavating wetlands can have an adverse effect. Generally, erosion and uncontrolled runoff does not occur on-site and wetland impacts are not proposed by this alternative. The septic system would eventually fail, despite short-term maintenance and lead to minor water quality impacts within the lakeshore. Therefore, Alternative A would not generate any short-term direct or indirect adverse impacts to the natural resource

parameters of wetland areas and soils. Minor long-term, adverse, indirect impacts would likely occur to water quality and the lakeshore. Beneficial effects are not expected.

*Cumulative Impacts:* The effects on wetlands, lakeshore, water quality, and soils were considered in combination with the effects from other projects in the watershed over time. Alternative A could result in minor, adverse, impacts to water quality that could contribute to negligible regional impacts. The combined effects of the No Action alternative and other ANP and private projects could have negligible, minor, cumulative impacts on lakeshore habitat and water quality within the region. Cumulative impacts on wetlands and soils would not occur.

*Summary:* Direct and cumulative impacts to wetlands, the lakeshore, water quality, and soils are not expected. Minor indirect, long-term, adverse, impacts to water quality and the lakeshore could occur and cumulative impacts to these resources would be negligible. There are no ongoing impacts such as erosion and the No Action alternative does not propose wetland impacts. Implementing Alternative A would not impair Park wetlands, lakeshores, water quality, or soils.

### ***Natural Resources – Natural Communities and Wildlife Habitat, and Wildlife***

*Direct and Indirect Impacts:* Vegetation and wildlife were analyzed together, since the interactions of the effects of vegetation loss influences the quality of the remaining wildlife habitat. Alternative A would not adversely affect vegetation and wildlife habitat values on-site. Beneficial effects would also not occur.

*Cumulative Impacts:* Neither adverse nor beneficial cumulative impacts would occur to vegetative communities and wildlife, as there are no ongoing or anticipated impacts. This alternative would not contribute to cumulative impacts, since impacts are not expected at the Echo Lake Beach site as a result of the No Action alternative.

*Summary:* Direct, indirect, and cumulative impacts are not expected from this alternative. Beneficial effects are not anticipated, as no work would be completed. Implementing Alternative A would not impair Park vegetative communities and wildlife.

### ***Visitor and Staff Safety***

*Direct and Indirect Impacts:* Alternative A does not implement any rehabilitation activities and, therefore, short-term adverse effects on safety are not expected. Echo Lake Beach structures and paths would continue to deteriorate, potentially posing minor safety risks in the future. The continued high water table and frost heaves would eventually compromise the structural integrity of buildings and thus the safety of those using the buildings. This would be considered a minor, long-term impact. Beneficial effects would not occur, since no rehabilitation is proposed.

*Cumulative impacts:* This alternative contributes negligible effects to cumulative impacts on safety in the region when considering safety hazards that would occur through this alternative and other safety concerns from NPS and private projects in the vicinity. All individual NPS projects must maintain safe conditions, thus other projects in the area when added to this one probably do not generate cumulative impacts.

*Summary:* Minor, long-term, direct adverse impacts to visitor safety could occur due to deteriorating conditions of Echo Lake Beach structures. Safety hazards would be limited to the deteriorating structures and would pose negligible cumulative impacts.

### *Visitor Use and Experience*

*Direct and Indirect Impacts:* Alternative A would have moderate adverse impacts on visitor use and experience at Echo Lake Beach. The aesthetic and structural conditions of the Echo Lake Beach facilities would continue to deteriorate. Deteriorating conditions would eventually result in the closure of the comfort station, and would adversely impact visitor use and experience in the long-term. The absence of a changing station is an “ongoing” moderate adverse impact. While, implementing Alternative A would avoid short-term adverse effects of construction, there would not be any of the beneficial effects associated with the rehabilitation.

*Cumulative Impacts:* The adverse impacts to visitor use and experience that would occur through this alternative, combined with other adverse impacts from NPS projects in the vicinity, suggests moderate cumulative impacts could occur. Other NPS projects, such as rehabilitating Blackwoods and Seawall Campgrounds, would have minor short-term adverse effects on visitor use, but when combined, moderate impacts could result.

*Summary:* Adverse impacts to visitor use would be of moderate intensity and long-term duration. Visitor experience would likely decline over time with impacts becoming more severe. Cumulative impacts of not rehabilitating facilities at Echo Lake Beach (i.e., No Action alternative) could result in declining visitor experience. Implementing rehabilitation projects in other areas of the Park, but taking no action at Echo Lake Beach could change visitor use patterns because visitors would avoid Echo Lake Beach and go to other Park attractions.

#### 4.4.2 Alternative B – Complete Rehabilitation

##### *Natural Resources – Wetlands, Lakeshore, Water Quality, and Soils*

*Direct and Indirect Impacts:* Long-term, minor adverse impacts to wetlands, negligible impacts to the lakeshore and water quality, and short-term negligible soil disturbance would occur during the rehabilitation process. A small area (1,810 square-feet) of low value wetlands would be filled creating a direct impact (Figure 3A). Negligible impacts could occur to the lakeshore from the nearby upland construction. There is a small possibility that construction could create conditions conducive to the spread of invasive species. These impacts would be localized and temporary, with impacts ending after the rehabilitation is completed, except for the wetland fill, which would be permanent. Erosion would be avoided and minimized through the use of BMPs. BMPs for erosion and turbidity controls would include, but not necessarily be limited to, proper culvert sizing and placement, stabilizing soils using erosion control matting and mulch until the area is re-vegetated, and placing catch basins and barriers to prevent soil loss.

Long-term, minor beneficial effects would occur by restoring the filled wetland area that supports the pump station. This would improve the wetland habitat associated with Echo Lake that lies east of the visitor facilities. The wetland restoration area is part of a larger wetland complex that provides higher quality habitat and functions than the wetlands being impacted.

*Cumulative Impacts:* Minor, adverse long-term impacts to the wetland community would occur from the wetland fill impacts. The combined effects of temporary erosion during rehabilitation projects should produce minor adverse impacts to wetlands, the lakeshore, soils, and water quality within the watershed when considered with other projects, as listed above, in the vicinity. Most other projects in the region do not influence or connect to the streams in the vicinity of the Echo Lake Beach site. Any adverse impacts from other projects are expected to be negligible and generally of short-term duration, especially by implementing BMPs. Implementing the

minimization and mitigation practices will reduce the potential for short-term erosion to negligible levels. Cumulative benefits would be long-term, local, and negligible. Improving wetland habitat contributes to the local ecosystem. The wetland restoration is a very small area; thus, benefits would not go beyond the local watershed.

*Summary:* A small loss of low value wetland area and soil during the rehabilitation process could have minor and negligible effects, respectively. These direct adverse impacts would be temporary and local and cumulative impacts would likely be minor. These impacts would be short-term and likely will be remedied soon after construction is complete. Restoration of the filled wetland would improve local wetland functions and values over the long-term. There would not be any impairment of wetlands, lakeshore, water quality, and soils at the Park, as a result of implementing Alternative B.

### ***Natural Resources – Natural Communities and Wildlife Habitat, and Wildlife***

*Direct and Indirect Impacts:* Long-term, minor impacts would occur to upland areas that are cleared and graded for the path and buildings. Upland trees and vegetation would be removed opening up the vista from the parking lot to the lake. Most of the trees that would be removed are sapling and pole sized. This loss of upland and wetland habitat would have a negligible impact on common and local wildlife species. Approximately 11,250 square-feet (0.258-acre) of uplands would be re-graded for the entry path, comfort station and changing buildings, turn-around area, and stormwater areas. Replanting disturbed upland areas with native species and restoring a wetland area would mitigate these impacts. Existing vegetation would be protected through careful planning and protecting any natural areas. Maintaining and improving the vegetation would also contribute to wildlife habitat. Minor earthwork could impact adjacent native vegetation or could create conditions that favor the spread of exotic and invasive species, but BMPs will be employed to avoid these impacts as much as possible. Restoring the filled wetland to a high value wetland area will provide long-term, minor beneficial effects on vegetation and wildlife. Implementing this alternative should not enhance conditions that would favor nuisance wildlife. Brook trout habitat in the vicinity would not be adversely affected and human access to this habitat would not be improved. Construction would be scheduled outside of the nesting season to avoid potential impacts to peregrine falcons that could nest in the area.

*Cumulative Impacts:* Minor, long-term cumulative impacts to vegetation would occur from the loss of wetland and upland vegetation. Negligible, long-term cumulative benefits to wildlife would occur, as restoring the filled wetland area and replanting upland areas would improve wildlife habitat. Considering impacts created by other projects in the vicinity, cumulative impacts should be negligible. Implementing the rehabilitation in a fashion consistent with the Park's management plan and policies protects and enhances natural resources, thus minor beneficial impacts should occur within the region.

*Summary:* Adverse, long-term, minor direct and cumulative impacts would occur from the clearing and development of upland and wetland areas. Restoring the filled wetland area would benefit wildlife habitat in and adjacent to Echo Lake in the long-term. Minor cumulative benefits could occur to wildlife habitat. There would be no impairment of Park natural communities, wildlife habitat or wildlife values, from implementing this Alternative.

### ***Visitor and Staff Safety***

*Direct and Indirect Impacts:* Implementing Alternative B could have short-term, negligible direct, adverse, impacts on visitor and staff safety due to the presence of construction equipment and materials at Echo Lake Beach and in the immediate area. Signage and the temporary closing of the area would be used to help maintain safe conditions. Repairing and maintaining the integrity of the buildings, path, and utilities and providing access for emergency vehicles would provide minor long-term benefits.

*Cumulative Impacts:* The direct and indirect adverse impacts on safety are negligible and temporary and are not expected to extend beyond Echo Lake Beach. When combined with other projects, there would be minor, long-term cumulative benefits by improving safety conditions at various Park sites.

*Summary:* There would be negligible, short-term adverse impacts to safety from implementing Alternative B. Visitor and staff safety would be improved in the long-term by rehabilitating deteriorating structures and conditions. Minor cumulative benefits would occur when combined with other rehabilitation projects in the Park.

### ***Visitor Use and Experience***

*Direct and Indirect Impacts:* Alternative B would provide moderate, long-term, beneficial impacts to visitor experience by improving the conditions of the comfort station, providing a changing station, and for allowing universal accessibility. Construction activities would cause negligible to minor direct adverse impacts on visitor use and experience through the temporary closure of Echo Lake Beach and its facilities. Impacts would be local and short-term, with conditions improving once construction is complete. Much of the rehabilitation work would involve the use of hand tools and manual labor. Heavy machinery would be used when rehabilitating the path, drainage system and utilities, and moving construction materials. These construction activities may create some minor short-term and local emissions, dust, and increased noise level. The timing of the rehabilitation would be managed to minimize inconveniences to visitors by completing the work in the fall, winter, and spring.

*Cumulative Impacts:* Other rehabilitation projects within the Park require temporary closure of facilities. When these closures are combined with the temporary closure of Echo Lake Beach, there would be minor, adverse, short-term cumulative impacts. However, keeping most of the closures to the off-season periods will minimize these adverse cumulative effects. These adverse impacts would be greatly out-weighted by the moderate, long-term cumulative benefits that would result from rehabilitating many of the Park's visitor facilities.

*Summary:* Moderate, long-term benefits would result through improvements to the facilities. Short-term negligible to minor impacts would be expected from temporary closure of Echo Lake Beach facilities. Cumulative benefits would be short-term and moderate.

#### 4.4.3 Alternative C – Partial Rehabilitation

##### *Natural Resources – Wetlands, Lakeshore, Water Quality, and Soils*

*Direct and Indirect Impacts:* Impacts are expected to be similar to Alternative B. Direct impacts to the small shrub wetlands would be 1,810 square-feet. There is a somewhat smaller probability that erosion would occur since the current buildings would remain and no new areas would be impacted. Beneficial effects would be similar, given that an appropriate mitigation project can be implemented. A wetland restoration or enhancement site would need to be located near the Echo Lake Beach site. Given the abundance of altered, natural areas finding a site should not be difficult. The ecological benefits from this mitigation site would likely have some similarities to the restoration proposed in Alternative B. Therefore, beneficial effects should be comparable. BMP's would be implemented in a manner similar to Alternative B to avoid and minimize impacts to these resources.

*Cumulative Impacts:* Impacts are expected to be similar to Alternative B, essentially minor, long-term, adverse impacts. Beneficial effects would be very similar to Alternative B and would be considered minor, presuming that an appropriate mitigation project could be implemented.

*Summary:* Adverse and beneficial impacts to wetland, lakeshore, and soil resources are expected to be similar to Alternative B. Implementing Alternative C would not impair wetlands, lakeshore, water quality, and soils in the Park.

##### *Natural Resources – Natural Communities and Wildlife Habitat, and Wildlife*

*Direct and Indirect Impacts:* As with Alternative B there would be long-term, local, minor adverse impacts to upland vegetative communities created by clearing and grading the upland ridge for the expanded path. Somewhat smaller impacts to the uplands would be expected, as less re-grading would be needed since the changing rooms building would be constructed in its former location. Impacts to uplands would be approximately 9,650 square-feet (0.221-acre). Long-term, minor wetland impacts would be similar to Alternative B. This small loss of upland habitat would have negligible adverse effects on local and migratory birds and other local wildlife species, such as white-tailed deer. Beneficial effects from replanting upland areas and wetland mitigation would be similar to Alternative B, because a suitable mitigation project would be implemented to compensate for the lost wetland functions.

*Cumulative Impacts:* There would be minor cumulative adverse impacts to upland communities. Negligible, long-term, adverse effects to wildlife would be expected. The loss of habitat from other projects in the vicinity is very small and generally distant from the Echo Lake Beach site. The low value of the upland and wetland communities that would be impacted further reinforces the estimate that impacts to wildlife would be negligible.

*Summary:* Adverse direct and cumulative effects to upland and wetland communities would be negligible and minor, respectively. Replanting and mitigation would be implemented to offset adverse impacts to these resources and to provide minor ecological benefits. Alternative C would not impair vegetative communities or wildlife resources in the Park.

### ***Visitor and Staff Safety***

*Direct and Indirect Impacts:* Implementing Alternative C would have similar effects as Alternative B.

*Cumulative Impacts:* Implementing Alternative C would have similar effects as Alternative B.

*Summary:* Implementing Alternative C would have similar effects as Alternative B.

### ***Visitor Use and Experience***

*Direct and Indirect Impacts:* Implementing Alternative C would have similar adverse impacts and beneficial effects as Alternative B.

*Cumulative Impacts:* Implementing Alternative C would have similar cumulative adverse impacts and beneficial effects as Alternative B.

*Summary:* Implementing Alternative C would have similar direct, indirect, and cumulative effects as Alternative B.

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## **4.5 Impact Summary**

Table 4 provides a matrix of adverse and beneficial impacts for each of the alternatives.

Comparing these impacts strongly suggests that Alternative A, No Action, would have moderate, long-term, adverse impacts to visitor use and experience at the Echo Lake Beach site. Without rehabilitation, facilities might eventually be closed and visitor use interrupted.

Alternative B, Complete Rehabilitation, would have slightly more adverse impacts to upland vegetation than Alternative C, Partial Rehabilitation. Constructing new buildings as proposed for Alternative B would require clearing and grading new areas, resulting in a negligibly higher potential for erosion and upland community impacts. Both alternatives would impact 1,810 square-feet of low value wetlands. Alternative B has higher beneficial effects, by restoring a former wetland, (2,142 square-feet) area to a functional condition and by improving the aesthetic values by improving the vista towards the lake. The wetland restoration plan proposed as part of Alternative B has a very high probability of success and would provide high value wetland functions and values. Furthermore, the rehabilitation of the septic system, as proposed for Alternative B, could prevent future water quality impacts.

None of the three alternatives would impair Park resources. The rehabilitation of Park resources would be completed in an environmentally sound manner and with careful planning will avoid and minimize adverse impacts. Moderate, long-term, benefits would result from the rehabilitation.

Table 4. Impact Summary Matrix for the Echo Lake Beach Facilities Rehabilitation			
	Alternative A	Alternative B	Alternative C
Impact Category	Impact, duration, intensity rating, and context	Impact, duration, intensity rating, and context	Impact, duration, intensity rating, and context
<b>Natural Resources:</b>			
<b>Wetlands, Lakeshore, Water Quality, and Soils</b>	<p><b>Adverse:</b> Indirect, minor long-term effects from septic system failure to the lakeshore and water quality. Other direct impacts not expected. Cumulative impacts would be negligible.</p> <p><b>Beneficial:</b> No effect.</p> <p><b><u>Net minor adverse impact.</u></b></p>	<p><b>Adverse:</b> Long-term, minor direct impacts (1,810 sq ft) to on-site wetlands and short-term negligible soil disturbance. Cumulative impacts would be minor and long-term.</p> <p><b>Beneficial:</b> Long-term, minor effects from wetland restoration (2,142 sq ft). Cumulative effects would be negligible, local, and long-term.</p> <p><b><u>Net negligible beneficial effects.</u></b></p>	<p><b>Adverse:</b> Similar to Alternative B, except there is somewhat less potential for soil erosion.</p> <p><b>Beneficial:</b> Similar to Alternative B, presuming an appropriate mitigation plan can be provided.</p> <p><b><u>Net negligible beneficial effects.</u></b></p>
<b>Natural Communities and Wildlife Habitat, and Wildlife</b>	<p><b>Adverse:</b> No effects.</p> <p><b>Beneficial:</b> No effects.</p> <p><b><u>Net no effects.</u></b></p>	<p><b>Adverse:</b> Long-term, minor direct impacts to wetland and upland vegetation (11,250 sq ft). Cumulative impacts would be minor and long-term.</p> <p><b>Beneficial:</b> Long-term, minor effects from wetland restoration. Cumulative effects would be negligible and long-term.</p> <p><b><u>Net no effects.</u></b></p>	<p><b>Adverse:</b> Impacts to upland vegetation would be negligible (9,650 sq ft). Impacts to wetlands would be similar to Alternative B.</p> <p><b>Beneficial:</b> Similar to Alternative B, presuming an appropriate mitigation plan can be provided, and that some replanting is completed in the uplands.</p> <p><b><u>Net no effects.</u></b></p>
<b>Visitor and Staff Safety</b>	<p><b>Adverse:</b> Structural deficiencies could lead to long-term, minor safety concerns and condemnation of the buildings at the site. Cumulative impacts would be negligible.</p> <p><b>Beneficial:</b> No effect.</p> <p><b><u>Net minor adverse effects.</u></b></p>	<p><b>Adverse:</b> Short-term, direct, negligible concerns on-site during construction. Cumulative impacts would be temporary and negligible.</p> <p><b>Beneficial:</b> Long-term, minor effects on-site. Cumulative effects would be minor and long-term.</p> <p><b><u>Net minor beneficial effects.</u></b></p>	<p><b>Adverse:</b> Similar to Alternative B.</p> <p><b>Beneficial:</b> Similar to Alternative B.</p> <p><b><u>Net minor beneficial effects.</u></b></p>

Table 4. Impact Summary Matrix for the Echo Lake Beach Facilities Rehabilitation

	Alternative A	Alternative B	Alternative C
Impact Category	Impact, duration, intensity rating, and context	Impact, duration, intensity rating, and context	Impact, duration, intensity rating, and context
<b>Visitor Use and Experience</b>	<p><b>Adverse:</b> Possible closure of the buildings would create long-term, moderate, direct and indirect impacts at the site. Cumulative impacts would be moderate.</p> <p><b>Beneficial:</b> Negligible short-term benefits could occur by avoiding construction.</p> <p><b><u>Net moderate adverse effect.</u></b></p>	<p><b>Adverse:</b> Short-term, negligible to minor, direct impacts to visitors on-site. Cumulative impacts would be minor and short-term.</p> <p><b>Beneficial:</b> Long-term, moderate, direct effects for on-site visitors. Cumulative effects would be moderate and long-term.</p> <p><b><u>Net moderate beneficial effects.</u></b></p>	<p><b>Adverse:</b> Similar to Alternative B.</p> <p><b>Beneficial:</b> Similar to Alternative B.</p> <p><b><u>Net minor beneficial effects.</u></b></p>

# 5 Consultation & Coordination

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## 5.1 Introduction

NEPA requires federal agencies preparing EAs to consult with stakeholders, including the general public and appropriate federal, state, and local regulatory agencies, early in the planning process to identify issues and concerns. This EA considers federal, state, and local agencies that may have some regulatory jurisdiction over the rehabilitation activities that are proposed and provides a discussion of regulatory permitting that must be completed before the proposed rehabilitation can begin. Numerous agencies were consulted to facilitate permitting and to inform them of the project. Steps taken towards meeting these compliance goals thus far are documented below. Permits that may be required are discussed below, organized by regulatory authority. Public input is being sought by issuing this EA for a 30-day public review and commenting period.

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## 5.2 Management and Planning Considerations

A planning charette was held between ANP staff, NPS Denver Service Center staff, and local architects, landscape architects, and other professionals during March 1997 to guide future planning decisions, including capacity, accessibility, transportation, facilities locations and site development concepts. Topics discussed at the workshop included modernizing the facilities, repairing structural deficiencies, providing universal access, correcting drainage problems, and generally improving visitor experiences and Park operations at Echo Lake Beach.

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## 5.3 Interagency Consultation

Federal, state, and local agencies that have jurisdiction over the project area were contacted to determine permitting and other compliance requirements. Copies of this EA were provided to each agency and other individuals listed in Section 5.5. The following agencies are requested to provide a determination of permitting requirements under their respective jurisdiction.

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Maine Department of Environmental Protection
- Maine Department of Inland Fisheries and Wildlife
- Maine State Historic Preservation Commission
- Coastal Program, Maine State Planning Office
- Town of Southwest Harbor
- Town of Mount Desert

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## 5.4 Compliance

### 5.4.1 Federal

#### *Clean Water Act of 1972*

The purpose of the Clean Water Act is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” As part of this legislation, the **U.S. Army Corps of Engineers (ACOE)** regulates fill impacts to “Waters of the United States,” including wetlands, which could potentially degrade Waters of the U.S. The wetlands delineated within the site along the path and Echo Lake would be considered jurisdictional wetlands and other Waters of the U.S. by the ACOE; therefore, any permanent or temporary fill impacts or other activities that alter the wetlands would require permitting through either the Programmatic or Individual permitting processes.

Based on the ACOE regulations for the State of Maine, a Category I Programmatic General Permit will be required for the project due to the extent and location of wetland impacts. While a formal submittal is not required, a copy of the Tier 1 application made to the MDEP will be copied to the ACOE for their review.

#### *Endangered Species Act of 1973, as Amended (16 USC 1531 et seq.)*

The **U.S. Fish and Wildlife Service (USFWS)** regulates the taking and incidental taking of wildlife and plant species listed as endangered and threatened as per the Federal Register. Section 7 of the Endangered Species Act requires that federal agencies consult with the USFWS on any action that may affect a listed species. The USFWS was consulted through correspondence to biologists in the Old Town field office (Appendix B) and will be provided a copy of this report. Correspondence from the USFWS indicates that based on information available to them, no federally listed species are known to occur on the site. It is possible that transient bald eagles (*Haliaeetus leucocephalus*) could flyover the site, but they are not expected to nest in the immediate vicinity. There does not appear to be any suitable habitat of federally listed species and none have been observed in the vicinity of the site so it is unlikely that the rehabilitation will impact any federally listed species.

#### *National Historic Preservation Act of 1966 as amended (16 USC 470 et seq.)*

Sections 106 and 110 of the National Historic Preservation Act, as amended (36 CFR 800), requires federal agencies to consider the affects of projects they fund, permit, or license on historic properties that are listed or eligible for listing in the NRHP. Compliance with these Sections requires agencies to initiate consultation during the project’s early planning stages with appropriate parties, including the pertinent SHPO and/or Tribal Historic Preservation Officer(s); identify historic properties within the project’s area of potential effect; and determine what impact, if any, the project will have on those resources. If the agency, in consultation with the other consulting parties, determines that the project has the potential to have an adverse impact on historic properties, further consultation must occur to seek ways to avoid, minimize, or mitigate the effects. Consultation and compliance under Sections 106 and 110 will be completed prior to any ground disturbing work.

### ***Coastal Zone Management Act of 1972***

The Consistency Determination through the Maine State Planning Office, Coastal Program under the Coastal Zone Management Act, Section 307 (c) and 15 CFR Part 930, sub-part C, will be obtained after documentation is provided that the project has complied with all core laws of the Maine Coastal Program. This determination is made to ensure compliance with the Coastal Zone Management Act and to ensure that coastal resources would not be adversely affected by the project. Rehabilitation work will not begin until the Maine Coastal Program has issued a concurrence that the project is consistent, to the maximum extent practicable, with the enforceable policies of the Coastal Zone Management Act.

### ***Executive Order 11990***

The rehabilitation actions will be implemented and managed to comply with *Director's Order 77-1, Wetland Protection* (NPS 1998), especially the BMPs and conditions listed in Appendix A of that document. Furthermore, the wetland impacts meet the Excepted Actions criteria outlined in Section 4.2 (A)(1)(a) and (f) exempting the need to prepare a Statement of Findings. Woodlot Alternatives, Inc. consulted with Mr. Joel Wagner (NPS-Water Resources Division) in regard to the exception criteria and conditions. Excepted actions under paragraph (a) allows for the construction of foot trails for access to wetland areas, while paragraph (f) allows for minor (0.1-acre) impacts to existing facilities that are being renovated for changes in construction codes and safety (i.e., universal access). Lastly, the wetland restoration meets the excepted action criteria outline in Section 4.2 (A)(1)(e) which allows for wetland restoration activities to re-establish ecological processes as they were prior to disturbance.

## **5.4.2 State**

### ***Natural Resources Protection Act (38 MRSA Section 480)***

The MDEP implements this legislation, which protects wetland and water resources from impacts and alterations and protects water quality from degradation. The MDEP was contacted (Appendix B) and a site review was completed to determine a permitting course for the proposed rehabilitation. The project would require a Tier 1 permit pursuant to the Natural Resources Protection Act based on informal discussions with Mr. James Beyer of the MDEP, Bangor field office (Appendix B). Rehabilitation work would not begin until all necessary permits have been obtained.

### ***State Endangered Species Act***

The State of Maine Endangered Species Act protects state listed endangered and threatened species. Mr. Scott Lindsay of the Maine Department of Inland Fisheries and Wildlife was contacted to determine if any significant wildlife or fisheries habitat exists in the project area (Appendix B). Mr. Lindsay indicated that habitat for state-listed endangered and threatened species and other significant wildlife habitat does not occur at Echo Lake Beach. Peregrine falcons were documented to nest on the adjacent cliffs, but the last known nesting occurred during 1997. The site will be monitored each spring for the presence of peregrine falcons. If peregrine nesting behavior is observed, Maine Department of Inland Fisheries and Wildlife biologists will be consulted to ensure that all rehabilitation activities comply with the state Endangered Species Act.

### ***Mandatory Shoreline Zoning Act***

The Maine Mandatory Shoreline Zoning Act (Title 38 MRSA Sections 435-449) applies to all lands within 250 feet of lakes, ponds, rivers, tidal areas, and freshwater wetlands and at least 75 feet from the portions of streams that are downstream of two intermittent or perennial confluences. These regulations are implemented at the local level through the Town of Southwest Harbor and the Town of Mount Desert. Lands within 250 feet of Echo Lake are considered Natural Resource Protection Zones and activities within this area would be reviewed by both local government agencies to ensure that the project is consistent with the Mandatory Shoreline Zoning Act.

#### **5.4.3 Local**

Echo Lake Beach is located in the Towns of Southwest Harbor and Mount Desert. The Code Enforcement Officer for each town was contacted and permitting to meet the requirements of the Mandatory Shoreland Zoning Act, as discussed above, would be required. Other local building ordinances do not apply to federal properties.

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## **5.5 List of Recipients**

This EA is available for public review and comment until the closure of the 30-day public review and commenting period, expected to close on February 13, 2004. As indicated below, it has been distributed to a number of interested individuals, agencies, and organizations, including those agencies referenced in Section 5.1 of this EA. This EA is available on the Internet at <http://www.nps.gov/acad/management.htm> and is being made available in local libraries for the review period.

### ***State, Federal, and Local Agencies***

James Beyer, Maine Department of Environmental Protection  
Todd Burrowes, Maine Coastal Program  
Jay Clement, U.S. Army Corps of Engineers  
Mark McCollough, U.S. Fish and Wildlife Service  
Tom Schaeffer, Maine Department of Inland Fisheries and Wildlife  
Earle Shettleworth, Jr., Maine Historic Preservation Commission  
Louis Sidell, Maine Floodplain Management Program  
Michael MacDonald, Town Manager, Town of Mount Desert  
Kenneth Minier, Town Manager, Town of Southwest Harbor  
Stephen Wilson, Code Enforcement Officer, Town of Southwest Harbor  
Brent Hamor, Code Enforcement Officer, Town of Mount Desert

### ***Community Organizations and Interested Individuals***

Appalachian Mountain Club  
ANP Advisory Commission, Steve Katona  
Barbara S. Arter  
Bar Harbor Chamber of Commerce  
Camp Beach Cliff  
Downeast Area Regional Tourism <sup>c</sup>/<sub>o</sub>, Risteen Masters

Downeast Transportation  
Friends of Acadia  
Harbor House Community Service Center  
Maine Chapter of the Sierra Club  
Mount Desert Chamber of Commerce  
National Parks & Conservation Association  
Southwest Harbor Chamber of Commerce

***Federally Recognized Tribes in Maine***

Aroostook Band of Micmacs, Bernard Jerome  
Aroostook Band of Micmacs, William Phillips, Chief  
Houlton Band of Maliseet Indians, Brenda Commander, Chief  
Houlton Band of Maliseet Indians, Sharri Venno  
Passamaquoddy Tribe-Indian Township, Robert Newell, Governor  
Passamaquoddy Tribe-Pleasant Point, Melvin Francis, Governor  
Penobscot Nation, Barry Dana, Chief  
Penobscot Nation, Bonnie Newsom  
Passamaquoddy Tribal Historic Preservation Office, Donald Soctomah

***Libraries***

Bangor Public Library  
Bass Harbor Library  
Ellsworth Public Library  
Jesup Memorial Library (Bar Harbor)  
Northeast Harbor Library  
Seal Harbor Library  
Somesville Public Library  
Southwest Harbor Public Library  
Thorndike Library (College of the Atlantic)

***Press Releases were submitted to the following:***

Appalachian Mountain Club  
Associated Press  
Bangor Daily News  
Bar Harbor Times  
Castine Patriot  
Dobbs Production  
Downeast Coastal Press  
Ellsworth American  
Ellsworth Weekly  
Island Advantage  
Maine Coast Reporter  
Maine House of Representatives  
Mount Desert Islander  
Maine Publicity Bureau  
U.S. Senator  
U.S. Representative  
WABI Television Station  
WERU Radio Station  
WKSQ Radio Station

WLBZ Television Station  
WQCB-FM Radio Station  
WVIL- TV  
WWFX Radio Station

# 6 Acronyms, Bibliography & List Of Preparers

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## Acronyms

ACOE	U.S. Army Corps of Engineers
ADA	Americans with Disabilities Act
ANP	Acadia National Park
BMPs	Best Management Practices
CCC	Civilian Conservation Corps
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
GMP	General Management Plan, Acadia National Park
MDEP	Maine Department of Environmental Protection
MDI	Mount Desert Island
NEPA	National Environmental Policy Act of 1969
NPS	National Park Service
NRHP	National Register of Historic Places
SHPO	State Historic Preservation Officer
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

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- Natural Resource Conservation Service, U.S. Department of Agriculture. 1998. Soil Survey, Hancock County. Bangor, ME

USEPA (U.S. Environmental Protection Agency). 1996. Draft Environmental Justice Guidance. Washington, D.C.

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## List of Preparers

Woodlot Alternatives, Inc., Environmental Consultants, 30 Park Drive, Topsham, ME 04086. Mark W. Christopher, Senior Project Manager; Steven K. Pelletier, Principal; Karol Worden, Project Manager; Chris Werner, Project Biologist; Michael Johnson, Project Biologist; Donna Watson, Administrative Assistant; Fred DiBello, Senior Project Scientist; Kurt Howard, GIS Specialist.

Public Archeology Laboratory, Inc. Steven Olausen, Senior Architectural Historian.

Acadia National Park. Judith Hazen Connery, Biologist and NEPA Compliance; James Vekasi, Chief of Maintenance; Clay Gilley, Park Engineer; Sheridan Steele, Park Superintendent; Len Bobinchock, Deputy Park Superintendent; Lee Terzis, Cultural Resource Program Manager.

National Park Service, Denver Service Center. Richard Crane, Project Manager

National Park Service, Northeast Regional Office. David Clark, Senior Environmental Compliance Specialist.

# Appendix A

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## List of Plant Species Observed at Echo Lake Beach

Table A-1 List of Plant Species Observed at Echo Lake Beach

Scientific Name	Common Name	Native/Exotic	Wetland/Upland
<i>Abies balsamea</i>	Balsam fir	N	U
<i>Acer pensylvanicum</i>	Striped maple	N	U
<i>Acer rubrum</i>	Red maple	N	W/U
<i>Acer saccharum</i>	Sugar maple	N	U
<i>Alnus incana</i>	Speckled alder	N	W
<i>Aralia nudicaulis</i>	Wild sarsaparilla	N	U
<i>Aster macrophyllus</i>	Big-leaved aster	N	U
<i>Betula alleghaniensis</i>	Yellow birch	N	W/U
<i>Betula papyrifera</i>	White birch	N	U
<i>Betula populifolia</i>	Gray birch	N	W/U
<i>Bidens frondosa</i>	Devil's beggar ticks	N	W
<i>Calamagrostis canadensis</i>	Bluejoint	N	W/U
<i>Carex</i> sp.	a sedge	N	NA
<i>Carex gynandra</i>	Nodding sedge	N	W
<i>Carex scoparia</i>	Pointed broom sedge	N	W
<i>Carex stipata</i>	Awl-fruited sedge	N	W
<i>Carex stricta</i>	Tussock sedge	N	W
<i>Chamaedaphne calyculata</i>	Leatherleaf	N	W
<i>Dennstaedtia punctilobula</i>	Hay-scented fern	N	U
<i>Doellingeria umbellata</i>	Flat-topped white aster	N	W
<i>Dryopteris cristata</i>	Crested wood fern	N	W
<i>Epigaea repens</i>	Mayflower	N	NL
<i>Equisetum sylvaticum</i>	Woodland horsetail	N	U
<i>Euthamia graminifolia</i>	Grass-leaved goldenrod	N	W/U
<i>Fagus grandifolia</i>	American beech	N	U
<i>Fraxinus pennsylvanica</i>	Green ash	N	W/U
<i>Glyceria canadensis</i>	Rattlesnake grass	N	W
<i>Glyceria striata</i>	Fowl mannagrass	N	W
<i>Hamamelis virginiana</i>	Witch-hazel	N	U
<i>Impatiens capensis</i>	Orange touch-me-not	N	W
<i>Juncus effusus</i>	Soft rush	N	W
<i>Juncus cf. militaris</i>	Bayonet rush	N	W
<i>Juncus tenuis</i>	Path rush	N	U
<i>Ilex verticillata</i>	Winterberry	N	W
<i>Lysimachia terrestris</i>	Swamp candles	N	W
<i>Lycopodium obscurum</i>	Ground-pine	N	U
<i>Lycopus uniflorus</i>	Northern water-horehound	N	W
<i>Maianthemum canadense</i>	Canada mayflower	N	U
<i>Myrica gale</i>	Sweet gale	N	W
<i>Nemopanthus mucronatus</i>	Mountain holly	N	W
<i>Oclemena x blakei</i>	Bog aster/whorled aster cross	N	NA
<i>Onoclea sensibilis</i>	Sensitive fern	N	U
<i>Osmunda cinnamomea</i>	Cinnamon fern	N	U
<i>Osmunda regalis</i>	Royal fern	N	W/U
<i>Persicaria sagittata</i>	Arrow-leaved tearthumb	N	W
<i>Picea rubens</i>	Red spruce	N	U

Table A-1 List of Plant Species Observed at Echo Lake Beach

Scientific Name	Common Name	Native/Exotic	Wetland/Upland
<i>Polystichum acrostichoides</i>	Christmas fern	N	U
<i>Potamogeton</i> sp.	a pondweed	NA	W
<i>Pteridium aquilinum</i>	Bracken fern	N	U
<i>Salix bebbiana</i>	Long-beaked willow	N	W
<i>Salix cf. discolor</i>	Pussy willow	N	W
<i>Salix lucida</i>	Shining willow	N	W
<i>Solidago rugosa</i>	Rough-stemmed goldenrod	N	U
<i>Spiraea alba</i>	Meadowsweet	N	W
<i>Symphyotrichum novi-belgii</i>	New York aster	N	W
<i>Thelypteris palustris</i>	Marsh fern	N	W
<i>Thuja occidentalis</i>	Northern white-cedar	N	U
<i>Trientalis borealis</i>	Starflower	N	U
<i>Tsuga canadensis</i>	Eastern hemlock	N	U
<i>Uvularia sessilifolia</i>	Wild-oats	N	U
<i>Vaccinium angustifolium</i>	Common lowbush blueberry	N	U
<i>Vaccinium corymbosum</i>	Highbush blueberry	N	U
<i>Viburnum lantanoides</i>	Hobblebush	N	U

# Appendix B

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## Agency Correspondence

From: Schaeffer, Thomas [Thomas.Schaeffer@maine.gov]  
Sent: Friday, December 12, 2003 10:03 AM  
To: 'mchristopher@woodlotalt.com'  
Subject: FW: Request for information

Mark,

See Charlie Todd's comments below regarding status of Beech Cliff peregrines.

If I can be of further assistance, let me know.

Tom

-----Original Message-----

From: Todd, Charlie  
Sent: Thursday, December 11, 2003 9:12 PM  
To: Schaeffer, Thomas  
Subject: RE: Request for information

Peregrines that once nested at Beech Mtn. cliffs overlooking the Echo Lake beach now reside ~ 2 miles away at Valley Cove (Somes Sound) at St. Sauveur Mtn. Since there are still birds in the territory, resumed use of Beech Cliffs is quite plausible and must be evaluated year-to-year. Check with Acadia NP or MDIFW E/T Species Group next spring for updates. -- Charlie

-----Original Message-----

From: Schaeffer, Thomas  
Sent: Thursday, December 11, 2003 2:09 PM  
To: Todd, Charlie  
Subject: FW: Request for information

Charlie ... can you briefly update me on the status of peregrines on the beech cliff site?

-----Original Message-----

From: Mark Christopher [mailto:mchristopher@woodlotalt.com]  
Sent: Wednesday, December 10, 2003 9:37 AM  
To: thomas.schaeffer@state.me.us  
Subject: Request for information

Tom: I just wanted to follow up on the request for information on any known locations or information on state listed species we sent for Echo Lake at

Acadia National Park. We know that peregrines have nested near the beach, but their last nest was in 1997. I've attached the location figure for the project. Otherwise if you need anything else please let me know.

Thanks

Mark

Mark W. Christopher      Phone:(207) 729-1199  
Senior Project Manager      Fax: (207) 729-2715  
Woodlot Alternatives, Inc.      Email: mchristopher@woodlotalt.com  
30 Park Drive      Web: www.woodlotalt.com  
Topsham, ME 04086



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
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1168 Main Street  
Old Town, ME 04468-2023  
(207) 827-5938

December 9, 2003

Mark W. Christopher  
Senior Project Manager  
Woodlot Alternatives, Inc.  
30 Park Drive  
Topsham, ME 04086

Dear Mr. Christopher:

Thank you for your letter requesting information or recommendations from the U.S. Fish and Wildlife Service. This form provides the Service's response pursuant to Section 7 of the Endangered Species Act (ESA), as amended (16 U.S.C. 1531-1543), and the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667d).

**Project Name/Location/County:** Echo Lake Beach, Acadia National Park

**Date of Receipt of Incoming Letter:** November 14, 2003 **Log Number:** 04-036

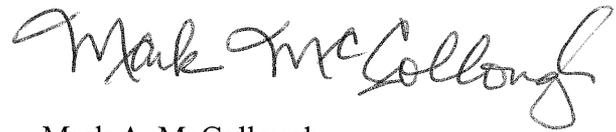
Based on the information currently available to us, no federally-listed species under the jurisdiction of the Service are known to occur in the project area, with the exception of occasional, transient bald eagles (*Haliaeetus leucocephalus*). Accordingly, no further action is required under Section 7 of the ESA, unless: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by the identified action.

The peregrine falcon (*Falco peregrinus*), a Federal species of concern (which, until recently was listed as a federally-threatened species) regularly nests on Beech Cliffs adjacent to the Echo Lake recreational area. At this time, the peregrine falcon is afforded no protection under the Federal ESA. However, we strongly encourage you to consider this species in your project planning. The peregrine falcon is listed as endangered by Maine Inland Fisheries and Wildlife, and as such, is protected from taking. We encourage you to contact MDIFW's Endangered Species Group (Beth Swartz, Natural Heritage Data Manager, Maine Inland Fisheries and Wildlife, 650 State St., Bangor, ME 04401 Phone: 207 941-4476) for more information.

A list of federally-listed species in Maine is enclosed for your information. Please contact the Maine Department of Inland Fisheries and Wildlife and Maine Natural Areas Program for an up to date account of state-listed species in the project area.

If you have any questions, please call me at (207) 827-5938.

Sincerely,

A handwritten signature in black ink that reads "Mark A. McCollough". The signature is written in a cursive style with a large, sweeping initial "M".

Mark A. McCollough,  
Endangered Species Biologist

Enclosure



MAINE HISTORIC PRESERVATION COMMISSION  
55 CAPITOL STREET  
65 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333

ANGUS S. KING, JR.  
GOVERNOR

EARLE G. SHETTLEWORTH, JR.  
DIRECTOR

December 5, 2003

Mark W. Christopher, M.S.  
Senior Project Manager  
Woodlot Alternatives, Inc.  
30 Park Drive  
Topsham, ME 04086

Project: MHPC #2548-03 - Echo Lake Beach, various improvements; Acadia N.P.  
Location: Bar Harbor, ME

Dear Mr. Christopher:

We received your request for review on November 14, 2003. Due to the project location on National Park Service land, pursuant to Section 106 of the National Historic Preservation Act of 1966, we are awaiting a finding of effect from the National Park Service prior to issuing a formal comment.

Please contact Mike Johnson of my staff if we can be of further assistance in this matter.

Sincerely,



Earle G. Shettleworth, Jr.  
State Historic Preservation Officer

EGS/mj

Memorandum of Telephone Conversation Between Mr. Joel Wagner of the National Park Service, Water Resources Division 303-969-2955 and Mr. Mark W. Christopher of Woodlot Alternatives, Inc. (729-1199)

**Date:** November 21, 2003

**Topic:** Acadia National Park, Echo Lake Beach Rehabilitation, Environmental Assessment

**Summary:** Joel and I discussed the excepted action criteria outline in the Procedural Manual of Directors Order 77-1. After describing the work needed for the wetland impacts he suggested that I look at Excepted Action criteria 4.2(A)(1)(a) and the BMPs and Conditions outlined in Appendix 2 of that document for me to determine if the work qualifies as excepted from preparing a Statement of Findings. After reviewing that document I believe that the criteria in paragraphs a, e, and f all apply to the project.

Memorandum of Telephone Conversation Between Mr. Bob Breen of Acadia National Park, 288-8722 and Mr. Mark W. Christopher of Woodlot Alternatives, Inc. (729-1199)

**Date:** November 20, 2003

**Topic:** Acadia National Park, Echo Lake Beach Rehabilitation, Environmental Assessment

**Summary:** Bob and I discussed the water quality sampling at Echo Lake. Bob indicated that weekly, summertime sampling for e coil bacteria is completed at the beach for human health reasons. All results have been well below state and EPA guidelines. Other annual sampling is completed in the central portion of the lake to test general water chemistry. These results have also been favorable. There are other sources of pollution around the lake, beyond the Park facilities. The AMC maintains a summer campground east of the beach, the Harbor house day camp, and some private residences.



STATE OF MAINE  
DEPARTMENT OF CONSERVATION  
157 HOSPITAL STREET  
93 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0093

JOHN ELIAS BALDACCI  
GOVERNOR

PATRICK K. MCGOWAN  
COMMISSIONER

November 13, 2003

Mark W. Christopher  
Senior Project Manager  
Woodlot Alternatives, Inc.  
30 Park Drive  
Topsham, ME 04086

Re: Rare and exemplary botanical features, Echo Lake Beach, Acadia National Park.

Dear Mr. Christopher:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request of November 10, 2003 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in the Town of Mount Desert, Acadia National Park, Maine. Rare and unique botanical features include the habitat of rare, threatened or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as



well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

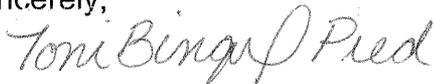
This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$75.00 for our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,



Toni Bingel Pied  
GIS Specialist/Assistant Ecologist  
93 State House Station  
Augusta, ME 04333-0093  
207-287-8044  
toni.bingel@maine.gov

Enclosures

# Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed Echo Lake Beach Rehabilitation, Acadia National Park.

Scientific Name Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status	Federal Legal Status	Habitat Description
CALAMAGROSTIS STRICTA SSP INEXPANSA NEW ENGLAND NORTHERN REED GRASS	1992	S1	G5T5	E		Damp woods and shaded cliffs.
CARDAMINE LONGII LONG'S BITTER-CRESS	1890	S2	G3	T		Tidal estuary.
CAREX ADUSTA SWARTHY SEDGE	1899	S2	G5	E		Dry, open places.
CAREX BUSHII BUSH'S SEDGE	1898	SX	G4	PE		Meadows (chiefly calcareous), fields, prairies, and open woods
CAREX SILICEA SEA-BEACH SEDGE	1928	S3	G5	SC		Maritime sands and rocks.
CAREX WIEGANDII WIEGAND SEDGE	1987	S3	G3	SC		Boggy or peaty soils.
CLETHRA ALNIFOLIA SWEET PEPPER-BUSH	1898	S2	G5	SC		Swamps and moist woods.
CYPRIPEDIUM REGINAE SHOWY LADY'S-SLIPPER	1891	S3	G4	T		Circumneutral peatlands (often at edges) or sunlit openings of mossy woods.

# Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed Echo Lake Beach Rehabilitation, Acadia National Park.

Scientific Name Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status	Federal Legal Status	Habitat Description
HUPERZIA APPALACHIANA APPALACHIAN FIR-CLUBMOSS	1992	S2	G4G5	SC		Damp or mossy rocks, barrens, cold woods, or bare mountains
HUPERZIA SELAGO ALPINE CLUBMOSS	0	S1	G5	T		Damp or mossy rocks, barrens, cold woods or bare mountains.
ISOETES ACADIENSIS ACADIAN QUILLWORT	1995	S1	G2G3	T		Submersed in ponds or lakes, less often in rivers, rooted in gravel, sand, or mud, rarely amphibious
MARITIME SPRUCE - FIR FOREST MARITIME SPRUCE - FIR FOREST	1996	S4	G4G5			Forests of exposed maritime locations. Soils often have a thick organic mat over a thin mineral layer. Cool temperatures and frequent fogs create comparatively mesic conditions. Variants include patches dominated by fir, heart-leaved paper birch, and mou
MINUARTIA GROENLANDICA MOUNTAIN SANDWORT	1992	S3	G5	SC		Granitic ledges and gravel.
ORYZOPSIS CANADENSIS CANADA MOUNTAIN-RICEGRASS	1897	S2	G5	SC		Dry, sandy, rocky woods
PARIETARIA PENNSYLVANICA PENNSYLVANIA PELLITORY	1899	SX	G5	PE		Rocky or shaded ground
POTAMOGETON CONFERVOIDES ALGA-LIKE PONDWEED	1999	S3	G4	SC		Acidic cold waters.

# Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed Echo Lake Beach Rehabilitation, Acadia National Park.

Scientific Name Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status	Federal Legal Status	Habitat Description
PRENANTHES NANA DWARF RATTLESNAKE ROOT	1953	S1	G5	E		Rocky or mossy exposed places in alpine areas.
PROSERPINACA PECTINATA COMB-LEAVED MERMAID-WEED	1937	S1	G5	SC		Sandy bogs of the coastal plain
RED PINE WOODLAND RED PINE WOODLAND	1996	S3	G3G5			Semi-open woodland on esker slopes, rocky soils or rock outcrops, mostly in northern and eastern Maine. Soils are nutrient-poor, excessively well-drained, and often contain evidence of fire.
RED SPRUCE - MIXED CONIFER WOODLAND SPRUCE - PINE WOODLAND	1996	S4	G3G5			Mid to upper slopes and lower summits (elevation up to about 600 meters) on bare rock or very thin soil over rock; common on xeric summits. Substrate acidic and nutrient-poor.
SPRUCE - NORTHERN HARDWOODS FOREST SPRUCE - NORTHERN HARDWOODS FOREST	1996	S4				Flat to rolling terrain and some low mountain slopes, mostly in central, western and northern Maine. Soils are acidic and moderately well-drained, but not strongly xeric. Includes several variants.
STREAMSHORE ECOSYSTEM STREAMSHORE ECOSYSTEM	1996	S4				Communities bordering and directly influenced by the open-water portion of a stream. Most are palustrine because streams are too small to exert much of an effect on terrestrial areas.
SUAEDA CALCEOLIFORMIS AMERICAN SEA-BLITE	1892	S1	G5	T		Rocky or gravelly saltmarshes and sea-strands.
UTRICULARIA RESUPINATA SMALL PURPLE BLADDERWORT	1921	S2	G4	E		Pond, lake, and river shores and margins.

# Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed Echo Lake Beach Rehabilitation, Acadia National Park.

Scientific Name Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status	Federal Legal Status	Habitat Description
VACCINIUM BOREALE ALPINE BLUEBERRY	2001	S2	G4	T		Alpine meadows and exposed, rocky sites.
ZANNICHELLIA PALUSTRIS HORNED PONDWEED	1995	S2	G5	SC		Fresh, brackish or alkaline waters, and stream edges.

## STATE RARITY RANKS

- S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- S2** Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- S3** Rare in Maine (on the order of 20-100 occurrences).
- S4** Apparently secure in Maine.
- S5** Demonstrably secure in Maine.
- SH** Occurred historically in Maine, and could be rediscovered; not known to have been extirpated.
- SU** Possibly in peril in Maine, but status uncertain; need more information.
- SX** Apparently extirpated in Maine (historically occurring species for which habitat no longer exists in Maine).

**Note:** **State Ranks** determined by the Maine Natural Areas Program.

## GLOBAL RARITY RANKS

- G1** Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- G2** Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- G3** Globally rare (on the order of 20-100 occurrences).
- G4** Apparently secure globally.
- G5** Demonstrably secure globally.

**Note:** **Global Ranks** are determined by The Nature Conservancy.  
T indicates subspecies rank, Q indicates questionable rank, HYB indicates hybrid species.

## STATE LEGAL STATUS

**Note:** State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's endangered and threatened plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

- E** ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future, or federally listed as Endangered.
- T** THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.
- SC** SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
- PE** POSSIBLY EXTIRPATED; Not known to currently exist in Maine; not field-verified (or documented) in Maine over the past 20 years.

## FEDERAL STATUS

- LE** Listed as Endangered at the national level.
- LT** Listed as Threatened at the national level.

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Please note that species names follow Flora of Maine: A Manual for Identification of Native and Naturalized Vascular Plants of Maine, Arthur Haines and Thomas F. Vining, 1998, V.F. Thomas Co., P.O. Box 281, Bar Harbor, Maine 04069-0281.

Where entries appear as binomials, all representatives (subspecies and varieties) of the species are rare in Maine; where names appear as trinomials, only that particular variety or subspecies is rare in Maine, not the species as a whole.

Visit our web site for more information on rare, threatened and endangered species!  
<http://www.state.me.us/doc/nrimc/mnap/factsheets/mnapfact.htm>

Memorandum of Telephone Conversation Between Mr. Brent Hamor  
the Town of Mount Desert Code Enforcement Officer (276-5731) and  
Mr. Mark W. Christopher of Woodlot Alternatives, Inc. (729-1199)

**Date:** October 31, 2003

**Topic:** Acadia National Park, Echo Lake Beach, Environmental Assessment

**Summary:** I discussed the proposed project with Mr. Hamor and described the proposed work and that the Town boundary appeared to divided the project area. I noted that the lake and part of the beach were on the Town of Mount Desert side and that part of the Beach and building sites were on the Town of Southwest Harbor side. I indicated that some of the work was within 250-feet of the shoreline and asked if any permits would be required relative to Shoreland Zoning or Resource Protection Zoning requirements.

He indicated that there were not any permits relative to shoreland zoning that were required. If the buildings fall in the Town of Mount Desert's jurisdiction then a building permit would be required. It is my understanding that according to Judy Hazen Connery, that local building codes don't apply and that federal codes are used instead.

Memorandum of Telephone Conversation Between Mr. Bruce Connery of Acadia National Park, 288-8726 and Mr. Mark W. Christopher of Woodlot Alternatives, Inc. (729-1199)

**Date:** October 27, 2003

**Topic:** Acadia National Park, Echo Lake Beach Rehabilitation, Environmental Assessment

**Summary:** Bruce and I discussed the presence of peregrine falcons and brook trout in the vicinity of Echo Lake. The last known peregrine nesting on the beach cliff was in 1997 with the male trying to establish a nest during the spring of 1998. The closest nesting pair is found at Valley Cove on Somes Sound. These birds forage in a number of different areas including Echo Lake. The project should not impact this species, especially with the construction scheduled for the off-season (fall 1994, likely).

We discussed the presence of brook trout in the lake and stream. The trout congregate in a pool within the stream that flows under the access road to the beach. They are known to spawn in this area from late October to January. This road is generally closed by mid-November limiting access and potential poaching. The Park would need to deal with any potential poaching from an operational standpoint. There is the potential for a dump truck to spill fill material into the stream during construction, albeit very unlikely. Fall is probably a somewhat better time to complete the work, given the drier conditions that expected during the spring. Overall there are not any real concerns. The rehabilitation work should not affect brook trout.

From: Judy\_Hazen\_Connery@nps.gov  
Sent: Wednesday, October 08, 2003 12:42 PM  
To: mchristopher@woodlotalt.com; Jim\_Vekasi@nps.gov;  
Richard\_Crane@nps.gov  
Subject: RE: Echo Lake Beach revision

FYI, see Jim's response below.  
J.

-----  
Judith Hazen Connery  
Natural Resource Specialist  
Acadia National Park  
P.O. Box 177  
Bar Harbor, ME 04609  
207-288-8721 (voice)  
207-288-8709 (fax)

----- Forwarded by Judy Hazen Connery/ACAD/NPS on 10/08/2003 12:40 PM -----

"Beyer, Jim R"  
<Jim.R.Beyer@maine.gov> To: "'Judy\_Hazen\_Connery@nps.gov'"  
<Judy\_Hazen\_Connery@nps.gov>  
cc:  
10/08/2003 11:47 AM Subject: RE: Echo Lake Beach revision  
AM AST

Judy, from the looks of the new plan there will be very little impact to wetlands of special significance. I do not have a figure, but it seems as though you could get this permitted using a Tier 1 application.

-----Original Message-----

From: Judy\_Hazen\_Connery@nps.gov [mailto:Judy\_Hazen\_Connery@nps.gov]  
Sent: Wednesday, October 08, 2003 11:26 AM  
To: Kristie\_Franzmann@nps.gov  
Cc: Dave\_Reeser@nps.gov; Jim\_Vekasi@nps.gov; Richard\_Crane@nps.gov;  
mchristopher@woodlotalt.com; Deb\_Wade@nps.gov; David\_Manski@nps.gov;  
Kevin\_Cochary@nps.gov; Shirley\_Beccue@nps.gov; jim.r.beyer@state.me.us;  
John\_T\_Kelly@nps.gov  
Subject: Re: Echo Lake Beach revision

Hi Kristie,

Wow, that was quick! Thanks!

I have sent your revision around to other park staff members for comment, and either Jim or I will forward any comments we get ASAP.

The revision looks good to me. It certainly goes a long way toward further protecting the wetland. Even if we can't avoid disturbing a portion of the wetland of special significance by grading, it should satisfy State regulator's concerns that we are making reasonable efforts to protect natural resources and comply with the Maine Natural Resources Protection Act.

I am not sure what works best for the turnaround--either a T or a circle. In an effort to reduce runoff into the wetland from impervious surfaces, I would lean toward whichever designs reduces asphalt. Can you advise me of what the difference in area of impervious surface would be between the circle (as revised) and a T-shaped turnaround? I suspect that the difference will be minimal, but am just curious.

Also, did you get the word that we won't be adding picnic tables and fire grates?

I wondered if there had been any discussion about adding a park interpretive structure (a small information kiosk similar to what is at other facilities) to either the area down by the beach or up along the parking lot where the bus stop eventually will go, or both. Seems like a good place to get out some park information and resource protection messages, and now might be the time to decide what and where.

Thanks for all your good work and willingness to make changes to protect resources.

All the best,  
Judy

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Judith Hazen Connery  
Natural Resource Specialist  
Acadia National Park  
P.O. Box 177  
Bar Harbor, ME 04609  
207-288-8721 (voice)  
207-288-8709 (fax)

Kristie Franzmann

To: Jim  
Vekasi/ACAD/NPS@NPS, Judy Hazen  
10/07/2003 03:37 Connery/ACAD/NPS@NPS

PM MDT cc: Richard  
Crane/DENVER/NPS@NPS, Dave  
Reeser/DENVER/NPS@NPS

Subject: Echo Lake Beach  
revision

The proposed modification of the Echo Lake Beach site is attached. The grading along the path to the beach will need to be modified from what was originally proposed to avoid impacts to the wetlands while still maintaining accessibility and the riprap and culvert to the south of the comfort station will need to be modified, also.

Please review and forward your comments.

Thanks!  
Kristie  
303-969-2284

(See attached file: Pdfd000.pdf)

**From:** Mark Christopher [mchristopher@woodlotalt.com]  
**Sent:** Wednesday, October 08, 2003 11:11 AM  
**To:** Judy Hazen Connery (E-mail); Richard Crane (E-mail); Jim\_Vekasi (E-mail)  
**Cc:** Steve Pelletier (E-mail)  
**Subject:** Meeting Summary

The following provides a brief summary of the site visit held on October 7, 2003.

Attending were Judy Hazen Connery and Jim Vekasi of the NPS, Steve Wilson, CEO of Southwest Harbor, Jim Beyers and John Cullen of the MDEP, and myself.

Topics of discussion included Natural Resources Protection Act (NRPA) permitting, DEP jurisdiction especially relative to Wetlands of Special Significance (WSS), the site plan, mitigation options, and local Shoreland Zoning.

Judy gave an overview of the project and discussed the need and goals of the rehabilitation work including ADA compliance, improving the vista, improving Park operations, and protecting natural resources. Judy also discussed some project specifics regarding minimizing and avoiding impacts. Some decisions relating to construction details and materials have not been determined, yet.

DEP concluded that both of the small wetlands would be jurisdictional and subject to NRPA permitting rules. The small wetland closest to the lake would be a WSS. Impacts to that wetland would put the project into an Individual NRPA permit, which includes mitigation, alternatives analysis and avoidance and minimization, essentially justifying the impact. If the impact to the WSS were avoided the remaining impacts would be subject to an NRPA exemption. Shifting the buildings was discussed as appears to have some validity, but remains to be seen if it can work. Jim Beyers indicated that he felt the work would be permissible, even if the mitigation doesn't meet the NRPA ratios exactly, by looking at functions and values lost verses replaced.

We reviewed the stream inlet at the stream confluence with the lake. wetlands within 25-feet of the stream's edge would be WSS. All proposed work is landward of this area. The 75-foot (Permit By Rule) setback would apply from the stream, great pond, or significant wildlife habitat (the other listed wetlands not found on-site. My interpretation is that setback would apply from either the stream edge or the herbaceous wetland along the stream and go 75-feet landward. It would not apply 75-feet landward from the edge of the forested wetland. The bottom line is that the work appears to be outside of this setback zone.

Steve indicated that he did not see any shoreland zoning issues. He was going to approach the planning board for confirmation that the work was in compliance with CZM regulations. Judy offered to

attend and make a brief presentation to the planning board at their next meeting on Thursday Oct 16. It would take the planning board 2-3 weeks to review the project and determine that it is consistent with CZM.

Please let me know if you have any questions, if I've left something out, or have misrepresented any of the discussions we had yesterday.

Mark W. Christopher	Phone: (207) 729-1199
Senior Project Manager	Fax: (207) 729-2715
Woodlot Alternatives, Inc.	Email: <a href="mailto:mchristopher@woodlotalt.com">mchristopher@woodlotalt.com</a>
30 Park Drive	Web: <a href="http://www.woodlotalt.com">www.woodlotalt.com</a>
Topsham, ME 04086	



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

January 2004

United States Department of the Interior – National Park Service