



Plant Gathering for Traditional Purposes Environmental Assessment

April 2024



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Executive Summary

The National Park Service (NPS), in coordination with the five federally recognized tribes of Maine, propose to enter into agreements for the gathering of plants and plant parts at Acadia National Park (ACAD). This proposal is pursuant to 36 C.F.R. § 2.6, *Gathering of Certain Plants or Plant Parts by Federally Recognized Tribes for Traditional Purposes*.

This Environmental Assessment (EA) presents background information, outlines the proposed action, describes current conditions and NPS management actions (the “No Action” alternative), and analyzes an action alternative for the traditional gathering of sweetgrass on ACAD fee lands.

This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (40 C.F.R § 1500-1508.9), and the NPS Director's *Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2011) and its accompanying NPS NEPA Handbook (NPS 2015).

Note to Reviewers and Respondents:

Participation by the public is important to the success of this project. The NPS is seeking public review and comments on the proposal. If you wish to comment on this EA you may mail comments within 30 days to the address below or you may post them electronically to the document website (<https://parkplanning.nps.gov/ACADplantgathering>).

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask in your comment to withhold your personal identifying information from public view, the NPS cannot guarantee that it will be able to do so.

Superintendent
Acadia National Park
Attn: Sweetgrass Gathering EA Comments
P.O. Box 177
Bar Harbor, ME 04609

ON THE COVER

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1 Purpose and Need

1.1 Introduction

Many Native American tribes have traditional associations with lands that pre-date the establishment of NPS units. These associations often include customary activities rooted in the traditions and history of the tribes, which are important to the tribes' distinct cultures. Some traditional activities include gathering plants and plant parts for ceremonial use, traditional cultural practices, or sustenance.

The August 2016 NPS rule, *Gathering of Certain Plants or Plant Parts by Federally Recognized Indian Tribes for Traditional Purposes* (36 C.F.R. § 2.6) defines requirements for traditional plant gathering in NPS units. The rule prohibits removal or disturbance of plants or plant parts, except when the NPS has fully analyzed an established management framework for federally recognized tribes to gather certain plants or plant parts. The rule explicitly prohibits all plant gathering unless specifically authorized by federal statute, treaty rights, existing regulation, or the terms and conditions of an agreement and permit issued under this rule.

The rule stipulates that tribes must formally request an agreement for gathering plants and plant materials. The request must contain three elements:

- An explanation of the tribe's traditional association and how it pre-dates the establishment of the park;
- An explanation of the traditional purposes to which the gathering activity will relate; and
- A description of the gathering activity the tribe wants to conduct.

The five federally recognized Indian Tribes affiliated with ACAD are the Passamaquoddy Tribes at Indian Township and at Pleasant Point, the Penobscot Nation, Mi'kmaq Nation, and Houlton Band of Maliseet Indians (hereafter collectively referred to as Wabanaki). Wabanaki history and associations with the lands now within ACAD predate the park's creation and are well documented.

"Native Americans gathered sweetgrass from the marshy areas in Pretty Marsh, and other areas, with which to weave baskets for their own use and, in the late nineteenth and early twentieth century, to sell to local folk and summer visitors. Josephine (Gray) Doe [b. c.1900] remembers three Indian families who came to the meadow behind her house [between Round Pond and Squid Cove] when she was a child..." (Prins 2007)

Beginning in 2015, ACAD consulted with the Wabanaki to learn about plants of cultural significance. Sweetgrass (*Hierochloa odorata* syn. *Anthoxanthum nitens*) was identified as a plant of cultural significance. Sweetgrass gathering is a culturally connected practice taught over generations from Ancestor to Elders to Children. In a simple harvest or gathering lesson, generations of Indigenous knowledge is passed down through oral tradition (Anderson 2023).

The Passamaquoddy Tribe, Mi'kmaq Nation, Penobscot Nation and Houlton Band of Maliseet Indians sent ACAD letters requesting to enter into agreements with NPS to conduct traditional gathering of sweetgrass. These requests include sufficient information to meet the NPS rule requirements. The rule requires that an EA analyze the activities outlined in any agreement to determine the anticipated

impacts of traditional gathering activities on park resources. This EA analyzes impacts of the proposed activities.



Figure 1. Wabanaki ready to provide canoeing, guiding, and hunting services along the shoreline of Bar Harbor, 1881 (Prins 2007).

1.2 Purpose and Need for Action

The NPS is proposing to develop and enter into agreements for the gathering of sweetgrass within ACAD by enrolled members of the five federally recognized tribes of Maine per 36 C.F.R. § 2.6, *Gathering of Certain Plants or Plant Parts by Federally Recognized Indian Tribes for Traditional Purposes*.

This project is needed because the Wabanaki have a traditional association with the lands and waters currently designated as ACAD. Entering into government-to-government agreements would further co-stewardship, protect park resources, incorporate Indigenous knowledge into decision-making, and maintain and expand collaborative tribal relationships.

1.3 Relationship to Other Plans and Policies

Current plans and policies related to management of park resources are consistent with the activities outlined in this document, including:

- **NPS Organic Act of 1916 (16 USC 1):** *“The service thus established shall promote and regulate the use of the Federal areas, known as national parks, monuments, and reservations... by such means and measures as conform to the fundamental purpose of the said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.”* The Act was reaffirmed in 1970 in 16 USC 1a-1 “General Authorities Act,” which added specific guidance, particularly regarding leaving park resources unimpaired.
- **Secretary’s Order 3403 Joint Secretarial Order on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters:** The Secretary’s Order directs agencies to increase opportunities for Tribes to participate in traditional stewardship of present-day federal lands and waters. This includes the integration of Indigenous Knowledge and sustainability practices into federal management and operations, subject to the interest of each Tribal Nation.
- **301 Department Manual 7 Departmental Responsibilities for Consideration and Inclusion of Indigenous Knowledge in Departmental Action and Scientific Research (2023):** *“This chapter establishes Department of Interior policies, responsibilities, and procedures to respect, and equitably promote the inclusion of, Indigenous Knowledge in the Department’s decision making, resource management program implementation, policy development, scientific research, and other actions.”*
- **NPS Policy Memorandum 22-03 Fulfilling the National Park Service Trust Responsibility to Indian Tribes, Alaska Natives, and Native Hawaiians in Stewardship of Federal Lands and Water:** *“Beyond its legal responsibilities, the NPS shares with Indian Tribes, Alaska Natives, and the Native Hawaiian Community the philosophy of making management decisions today that result in protection of park resources and values for generations into the future. In support of this, the NPS will incorporate the expertise of Indian Tribes, Alaska Natives, and the Native Hawaiian Community into planning and resource management activities including through the use of Indigenous knowledge.”*
- **NPS Management Policies (2006):**
 - **5.3.5.3.2 – Sacred Sites:** *“The National Park Service acknowledges that American Indian tribes, including Native Alaskans, treat specific places containing certain natural and cultural resources as sacred places having established religious meaning and as locales of private ceremonial activities. Consistent with Executive Order 13007 (Indian Sacred Sites), the Service will, to the extent practicable, accommodate access to and ceremonial use of Indian sacred sites by religious practitioners from recognized American Indian tribes and Alaska Natives, and avoid adversely affecting the physical integrity of such sacred sites.”*
 - **8.5 – Use by American Indians and Other Traditionally Associated Groups:** *“The National Park Service will develop and implement its programs in a manner that reflects knowledge of and respect for the cultures of American Indian tribes or groups with demonstrated ancestral ties to particular resources in parks.”*
 - **8.8 – Collecting Natural Products:** *“The collection of natural products for personal use or consumption is governed by NPS general regulations contained in 36 CFR 2.1 and 36 CFR Part 13. A superintendent may designate certain fruits, berries, nuts, or unoccupied seashells that can be gathered by hand for personal use or consumption upon a written determination by*

the superintendent that such an activity will not adversely affect park wildlife or the reproductive potential of a plant species or otherwise adversely affect park resources.”

- **36 C.F.R. § 2.1 Preservation of natural, cultural, and archeological resources (c)(1):** *“The superintendent may designate certain fruits, berries, nuts, or unoccupied seashells which may be gathered by hand for personal use or consumption upon a written determination that the gathering or consumption will not adversely affect park wildlife, there productive potential of a plant species, or otherwise adversely affect park resources.”*
- **Superintendent’s Compendium (ACAD 2023)** cites 36 C.F.R. §§ 2.1(c)(1), (c)(2) and states: *“The following fruits, nuts, berries or unoccupied seashells may be gathered by hand for personal use or consumption, in accordance with the noted quantity restrictions and collections sites:*
 - *Possession quantities for fruits and berries (excluding apples) are limited to one dry half gallon per person per day.*
 - *Possession quantity for apples is limited to ten dry gallons per person per day.*
 - *Possession quantities for unshelled nuts are limited to one half gallon per person per day.*
 - *Removing fruits, nuts and berries shall not damage the remainder of the plant.*
 - *Possession of unoccupied seashells is limited to one pint per person per day.**The following are prohibited:*
 - *Shell collecting at St. Croix Island IHS.*
 - *Shell collecting from historic and prehistoric sites or shell middens, which are protected by the Archeological Resource Protection Act of 1979, 16 U.S.C. § 470 (ee).*
 - *Taking conifer cones, fungi (mushrooms), lichens and "fiddle-head" ferns or other plant material.”*

1.4 Impact Topics

The NPS identified the proposed action’s environmental issues and used this information to identify impact topics. The table below lists the proposed action’s impact topics and whether the EA dismissed or retained them for further analysis. The NPS dismissed some impact topics from detailed analysis because they:

- do not have environmental impacts central to the proposal or of critical importance, and/or
- do not require a detailed analysis of environmental impacts to make a reasoned choice between alternatives.

Table 1. Impact Topics

Impact Topics	Retain	Dismiss	Rationale for Dismissal
Nonnative Species <ul style="list-style-type: none"> • <i>Agrostis stolonifera</i> • <i>Elymus repens</i> • <i>Phleum pratense</i> • <i>Vicia caracca</i> • <i>Typha angustifolia</i> • <i>Suaeda</i> sp • <i>Solanum dulcamara</i> • <i>Rosa rugosa</i> 		X	Eight invasive species have been identified in the project area (Mittelhauser 2016). The traditional methods of harvesting sweetgrass could spread invasive plant species in a manner on scale with or lower than park visitors, waterfowl hunters, clambers, and wormers. One of the most aggressive saltmarsh invaders, <i>Phragmites (Phragmites australis)</i> , is not present, and gatherers would help monitor for new invasions. Annual consultation would include information about common weeds and how to prevent their spread. Therefore, the

			proposed action would have negligible impact on the spread of nonnative species and is dismissed.
Rare Vegetation		X	Moonwort (<i>Botrychium lunaria</i> L.) is a rare plant that has been known to occur in coastal areas and could be associated with shell deposits. Existing botanical surveys of areas where sweetgrass occurs has not indicated the presence of moonwort in ACAD (Mittelhauser 2016). Therefore, the NPS dismissed the issue from further analysis.
Sweetgrass	X		N/A
Visitor Use and Experience		X	The traditional gathering of sweetgrass would not 1) preclude visitors from using the areas and 2) impact existing visitor use because of its relatively small scale. Therefore, the NPS dismissed visitor use from further analysis.
Archeological Resources		X	The ACAD archeological overview and assessment concludes no known sites are located where sweetgrass occurs. Additionally, access to gathering and traditional hand-pulling of individual leaves with shallow roots would cause negligible ground disturbance. Gatherers would notify ACAD in the unlikely event that they inadvertently discover any previously undocumented cultural resources. Therefore, the NPS dismissed this topic from further analysis.
Ethnographic Resources	X		N/A
Wetlands		X	The NPS measures wetland health utilizing a multimeric indicator that monitors the status and trends in vegetation, hydrology, soil, and water quality. Neither alternative would impact indicators of wetland health because the impact of past human manipulations of the wetland on the indicators far exceeds those of the alternatives. Therefore, the NPS dismissed this topic from further analysis because the impacts are not potentially significant, and an analysis is not necessary to make a decision between the alternatives.
Special Status Species or their Habitat	X		N/A



Figure 2. Park Map of Mount Desert Island

2 Alternatives

2.1 Alternative A – No Action Alternative

Under the no action alternative (alternative A), NPS would not allow the five federally recognized tribes of Maine to gather plants and plant parts for Native American traditional purposes. This no action alternative would be a continuation of the existing management conditions, limiting gathering to fruit, berries, nuts, and unoccupied shells as specified in the Superintendent's Compendium (www.nps.gov/acad/learn/management/sc.htm), per 36 C.F.R. §§ 2.1(c)(1), (c)(2).

2.2 Alternative B – Proposed Action and NPS Preferred Alternative

Under the preferred alternative (alternative B), the five federally recognized tribes of Maine would enter into individual agreements with NPS to gather sweetgrass in ACAD for traditional purposes per 36 CFR 2.6. Gathering activities would take place under terms specified in each government-to-government agreement between the Tribal Nation and NPS. Each Wabanaki Nation would administer sweetgrass gathering by members through a permitting system outlined in the agreement. The NPS and Tribes

would review, amend, and renew these agreements every five years. Required contents of an agreement can be found in Appendix A.

Traditional Wabanaki knowledge, cultural practices, and the gatherer's relationship with sweetgrass would inform harvesting. Gathering of sweetgrass would occur in the growing season, June through September, in areas within the fee boundary of ACAD. The gathering of sweetgrass would occur by hand pulling leaves of grass, which allows for regeneration and regrowth the following years through the rhizomes. Gatherers would rotate harvest sites to vary gathering locations. The quantity of sweetgrass harvested would vary based on environmental conditions and gatherer activities and would range from 450 grams to 2700 grams per gatherer per season.

The NPS and the Tribes would co-develop a yearly post-harvest monitoring plan. Monitoring would be a collaborative process and would include identification of any observed effects to individual plants or plant communities. Co-stewardship of the areas where sweetgrass occurs would include incorporating indigenous decision-making in resource management while supporting traditional practices. Harvest monitoring meetings as part of co-stewardship would provide opportunities to exchange information in the interests of both NPS and Tribal concerns in the marsh.

The NPS and Wabanaki gatherers would have an annual site assessment and orientation to discuss conditions. This would include identifying sensitive habitat or the location of invasive plant species. Topics of discussion would include safe access, health and abundance of sweetgrass, and reviewing conditions of the agreements. NPS and the tribes would develop an informational pamphlet discussing how gatherers can address the inadvertent discovery of archeological resources, identification of wetland birds and invasive plant species, and NPS contact information in the event of questions or concerns by the gatherers.

2.2.1 Mitigations

The agreements between NPS and the five federally recognized tribes would include the following mitigations and stipulations in its terms and conditions.

Health and Safety

- Permitted gatherers would obtain parking passes from ACAD's designated point of contact. Vehicles would park safely on the road shoulder or designated pullouts.
- Gatherers would access harvesting locations by foot from the parking areas. ACAD staff would provide orientation to safely access locations.

Special Status Species

- Potential impacts to all Maine listed or tracked species of conservation concern would be re-assessed if any change in listing status occurs and during the five-year agreement renewals to ensure that gathering activities are not impacting species listed after the completion of this EA.
- The NPS would provide participants an orientation and/or otherwise advise them about sensitive species and their habitats to ensure those species and habitats can be avoided.

Cultural Resources

- Wabanaki gatherers would use traditional techniques to gather plants by hand. No mechanized equipment would be used to gather plants or plant parts.

- If gatherers discover previously undocumented cultural resources during plant gathering activities, gatherers would stop collecting and notify ACAD.

Invasive Species

- Annual site meeting would include information about known and relevant invasive plants and how to prevent their spread.

Visitor Use and Experience

- ACAD Public Affairs Officer, Visitor Experience and Education staff, and Visitor and Resource Protection staff would be briefed about the activities and given training to provide informed responses to any public inquiries about observed harvest activities.
- The NPS would assist in informing the public of the Plant Gathering Rule and activities, based on the Cultural Protocol (Anderson 2023) co-created for this purpose.

Ethnographic Resources

- Gathering is for traditional use; therefore, ACAD prohibits the sale or commercial use of plants or plant parts within the park.
- Gathering of plants or plant parts by non-tribal members is prohibited.

Sweetgrass

- Tribal government would report the number of gathering permits issued to tribal members to the NPS annually.
- Gatherers and NPS staff would meet annually at select sites to jointly conduct site assessments and review the health and abundance of sweetgrass.

2.2.2 Temporary Closures

The ACAD superintendent would retain the authority to temporarily close certain areas of the park to collection, restrict collection, or reduce authorized collection amounts if unforeseen circumstances arise that could impact resources, park management objectives, or the safety of gatherers (e.g., natural disaster, fire, or drought).

Per the NPS Plant Gathering Rule (36 C.F.R. § 2.6): “...the Superintendent may close park areas, or portions thereof, to the traditional gathering and removal of plants or plant products for any of the following reasons: (i) Maintenance of public health and safety; (ii) Protection of environmental or scenic values; (iii) Protection of natural or cultural resources; (iv) Aid to scientific research; (v) Implementation of management plans; or (vi) Avoidance of conflict among visitor use activities.”

Additionally, “Closed areas may not be reopened to traditional gathering and removal until the reasons for the closure have been resolved,” and “...Except in emergency situations, the Superintendent will provide public notice of any closure under this section in accordance with § 1.7 of this chapter. The Superintendent will also provide written notice of the closure directly to any tribe that has an agreement to gather and remove plants or plant parts from the closed area.”

3 Affected Environment and Environmental Impacts

3.1 Introduction

The affected environment discussion describes current conditions and trends for each resource that could be impacted by the alternatives. That discussion also describes other actions that may contribute to the cumulative impacts on the same resource. The environmental impacts discussion describes potential effects to each resource from implementing the alternatives.

3.2 Methodology for Analyzing NEPA Impacts

This EA describes both adverse and beneficial effects in terms of direct, indirect, and cumulative impacts for each resource carried forward for analysis (40 C.F.R. § 1502.16). The duration of impacts is measured in short-term impacts, those that occur during sweetgrass harvesting, and long-term impacts occurring over multiple generations of gatherers. The analysis describes and incorporates measures to mitigate adverse impacts.

The method used to assess impacts varies depending on the resource considered but is generally based on review of pertinent literature and park studies, information provided by subject matter experts which includes traditional ecological knowledge shared by consulting Tribal Nations, and the experience and understanding of park staff.

The Council on Environmental Quality (CEQ) requires the affected environment to include a description of reasonably foreseeable environmental trends and planned actions (scenarios) in the project area (40 C.F.R. § 1502.15). Cumulative impacts, as defined by the 2022 CEQ regulation revision “are effects on the environment that result from incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions” (40 C.F.R. § 1508.1(g)(3)).

3.3 Sweetgrass

3.3.1 Affected Environment

Sweetgrass, a culturally significant species, is a perennial grass that grows along shorelines in Maine. The flat leaves of sweetgrass can grow a half a meter or longer in a growing season. The base of the leaf is just below the soil surface. The grass spreads through long rhizomes growing horizontally under the surface of the soil, creating dense patches of grass. Like most grasses, disturbance stimulates compensatory growth. Harvesting the leaves of sweetgrass increases its growth rate.

For Wabanaki, sweetgrass is considered a relative and the plant’s strength and vitality has been integral to Wabanaki culture for generations. The Wabanaki use sweetgrass in a variety of ways, including for basketry and ceremony. Sweetgrass harvesting is a unique cultural practice that the Wabanaki developed and refined over hundreds of years. There is a reciprocal relationship between the gatherers and sweetgrass that involves tending the plant as it is harvested and what is received by the gatherers as it is used (Anderson 2023).

ACAD has approximately 133 acres that contain the habitat where sweetgrass could grow (Figure 3). According to a vegetation survey of those wetlands, sweetgrass abundance can be characterized as “occasional.” Meaning the species is scattered throughout the survey area with typically 15%-50% cover within grid cells surveyed (Mittelhauser 2016).

ECO_SYSTEM	COUNT	SUM_Acres	Percent
Cultural Vegetation	58	309.4487449	0.82%
No Data	2	2.309116765	0.01%
Small Island with Vegetation	9	2.372784597	0.01%
Laurentian-Acadian Acidic Swamp (CES201.574)	35	175.3426138	0.46%
Laurentian-Acadian Acidic Basin Fen (CES201.583)	87	541.7420491	1.43%
Laurentian-Acadian Acidic Cliff and Talus (CES201.569)	12	26.3725611	0.07%
Tidal Zone	74	231.8202429	0.61%
Non-vegetated Water	24	138.3339907	0.37%
Acadian Coastal Salt Marsh (CES201.578) AND/OR Acadian Estuary Marsh (CES201.579)	25	132.7276247	0.35%
Laurentian-Acadian Wet Meadow-Shrub Swamp and Marsh (CES201.577)	162	513.9241452	1.36%
Laurentian-Acadian Alkaline Fen (CES201.585)	52	171.2343831	0.45%
Boreal Aspen-Birch Forest (CES103.020)	109	2884.318688	7.63%
Laurentian-Acadian Northern Hardwoods Forest (CES201.564)	40	762.24091	2.02%
Land Use	130	510.5974622	1.35%
Acadian-North Atlantic Rocky Coast (CES201.573)	64	294.1191523	0.78%
Laurentian-Acadian White Pine-Red Pine Forest (CES201.719)	94	1834.532514	4.85%
Laurentian-Acadian Wet Meadow-Shrub Swamp and Marsh (CES201.577) AND/OR Laurentian-Acadian Acidic Basin Fen (CES201.583)	27	122.4130763	0.32%
Laurentian-Acadian Acidic Swamp (CES201.574) AND/OR Eastern Boreal Semi-Treed Bog (CES201.581)	119	753.1268301	1.99%
Laurentian-Acadian Acidic Rocky Outcrop (CES201.571)	737	8514.971617	22.53%
Laurentian-Acadian Pine-Hemlock-Hardwood Forest (CES201.563)	134	2170.724042	5.74%
Acadian Lowland Spruce-Fir-Hardwood Forest (CES201.565)	497	17599.72217	46.57%
Acadian Maritime Bog (CES201.580)	5	97.0687851	0.26%
Total		37789.4635	100.00%

Figure 3. GIS analysis of 1997 ACAD vegetation layer.

Trends – Phragmites (*Phragmites australis*) (Common reed) is an invasive plant expanding rapidly into saltmarshes and thus replacing meadows of wetland grasses that once dominated tidal marshes (Saltonstall 2005). This shift from short grass-dominated marshes to monocultures of Phragmites changes the type of habitat and function of the wetland. Broad-leaved pepperweed (*Lepidium latifolium*) is another invasive plant species not currently present in ACAD but is found in the coastal marshes of southern New England. It pulls salt from deep within the soil of saltmarshes, depositing it on the surface, altering plant species composition and overall diversity.

Cumulative Scenario – The following reasonably foreseeable future actions would impact sweetgrass in the project area.

- Wetland Restoration – Saltmarshes within the park have been modified for agricultural use since the 1700s. Compounded by changes in climate and sea level, these wetland systems have degraded over time, leading to saltmarsh plant dieback and peat loss. ACAD is planning to restore surface hydrology by remediating ditches and embankments, and re-establishing native saltmarsh vegetation.
- Land Acquisition – Public Law 99-420 established ACAD’s permanent boundary. It also authorized the acquisition of lands within the permanent boundary, known as acquisition parcels, for protection and conservation of lands and waters. Since 2014, ACAD acquired 66 acres of wetland within its permanent boundary. There are approximately 50 additional acres of acquisition parcels within ACAD’s permanent boundary that include habitat where sweetgrass may occur or provide access to habitat where sweetgrass may occur.

3.3.2 Impacts of Alternative A – No Action Alternative

Under the no action alternative, NPS would not allow the Wabanaki to harvest sweetgrass in ACAD. A study of traditional sweetgrass gathering demonstrated that stem density increased with harvesting compared to baseline. On average, each sample plot had a stem density of 312.733 to start. After the first year of harvest, the plots averaged 422.226 stems, and the second year, 416.166 stems (Greenlaw 2024). The no action alternative would preclude Wabanaki gatherers from using traditional harvesting techniques to increase the amount of sweetgrass. The NPS would not enter into co-stewardship agreements with the group thereby missing out on the opportunity to incorporate indigenous

knowledge into resource management where the science has shown that this knowledge can improve the health of the marsh ecosystem. Therefore, the no action alternative would have long-term adverse impacts on sweetgrass because its abundance would not increase from traditional gathering.

Trends – Under the no action alternative, ACAD would continue to use the method of early detection and rapid response for invasive plant management. Due to the limited staffing capacity of the park’s plant management team, ACAD would not monitor these areas on an annual basis, potentially increasing the opportunity for invasive plants such as *Phragmites* and broad-leaved pepperweed to become established and spread. Without the presence of the gatherers on the saltmarshes to help identify new invasions, sweetgrass habitat could be transformed into monocultures of invasive plants.

Cumulative Analysis – Remediating past agricultural manipulations of wetlands would help restore hydrology, improve soils, and promote native plant cover. Active revegetation of the saltmarsh would include sweetgrass and other native species. Additionally, acquiring land with sweetgrass habitat would increase habitat under park management for protection and potential future restoration, while potentially allowing for marsh migration. Restoration of wetlands together, with protection of the habitat would have long-term benefits to sweetgrass habitat. However, sweetgrass stem count would not increase further without Wabanaki traditional gathering practices included in these restoration efforts.

3.3.3 Impacts of Alternative B – Preferred Alternative

Under the preferred alternative, NPS would provide Wabanaki tribal governments authority to issue harvesting permits in ACAD. Wabanaki harvesters would make decisions about gathering, based on traditional indigenous knowledge. This includes sweetgrass health, harvest location, harvest amount, environmental health, and community harvest patterns (Greenlaw 2024).

“You never over-pick or over-harvest... just take a little bit for the season.” Gabe Paul (Penobscot) (Anderson 2023)

A study of traditional Wabanaki sweetgrass gathering in ACAD demonstrated a 48.49% increase in sweetgrass stem density after two consecutive years of harvesting (Greenlaw 2024). The preferred alternative sets the range of annual collection of sweetgrass to between 450 grams and 2,700 grams per gatherer per season, based on results from the study.

“Oftentimes, the way you harvest has to do with future harvest. You want to take stuff that’s already well established to give the smaller stuff time to reestablish. So, thinking about maintaining a plot is a lot about how you harvest in the first place.” Gabe Frey (Greenlaw 2024)

During the study, gatherers expressed their knowledge of sweetgrass through adaptive picking styles, location selection, site rotation, harvest quality and quantity, and harvest timing. Gatherers stated that harvesting is good for sweetgrass because it promotes sweetgrass to grow back in denser clumps (Greenlaw 2024). The act of harvesting increases soil aeration, reduces soil compaction, and allows water and nutrients to the roots system, thus improving the overall health of sweetgrass. This alternative would result in long-term, direct beneficial impacts to sweetgrass because gathering increases the plant’s abundance.

Trends – Phragmites and broad-leaved pepperweed are invasive plants that can threaten the integrity of wetlands but are currently not present in ACAD. As part of post-harvest monitoring within the gathering agreements, NPS would ask Wabanaki to report observations of these plant species to increase early detection and rapid response. Therefore, early detection of invasive plants would increase under the preferred alternative, having a long-term beneficial impact to sweetgrass.

Cumulative Analysis – Impacts from past, present, and reasonably foreseeable actions would have long-term beneficial impacts on sweetgrass. Remediating agricultural manipulations of wetlands would help restore hydrology and return natural conditions to areas where sweetgrass occurs. Additionally, acquiring land with sweetgrass habitat would expand locations under park management for future restoration and gathering. Traditional Wabanaki gathering would increase the stem density within areas where sweetgrass is present or restored. Therefore, cumulative impacts of harvesting when added to saltmarsh restoration would have long-term, direct beneficial impacts on sweetgrass by increasing its abundance.

3.4 Ethnographic Resources

3.4.1 Affected Environment

The NPS defines ethnographic resources as “objects and places, including sites, structures, landscapes, and natural resources, with traditional cultural meaning and value to associated people” (NPS 2006). Access to plant materials and the landscape from which they grow is central to the proposed action. ACAD is located within traditional Wabanaki homelands.

Prior to the development of ACAD, Wabanaki would camp along the shoreline and canoe into saltmarshes where they would gather sweetgrass. *Asticou’s Island Domain: Wabanaki Peoples at Mount Desert Island 1500-2000: ACAD Ethnographic Overview and Assessment Volume 1* captures many firsthand accounts of Wabanaki who lived on or traveled to the island to gather sweetgrass along the shoreline in the summer months (Prins 2007). Therefore, access to coastal saltmarshes for the gathering of sweetgrass has important traditional cultural meaning and value to the Wabanaki.

“Wabanakis sought campsites that gave them access to water and ideally to other resources as well. This is evident in various descriptions, including those concerning the Indian encampment situated next to the Parker’s home at Clark Point in Southwest Harbor. The earliest written record of this encampment, told by Eunice Deering and included in Adelma Somes Joy’s Reminiscences, reaches back to 1847. That year, recalled Deering, “came a tribe of Indians from Old Town, some fifteen or twenty, and camped on the salt water shore opposite Parkers.” In a later reminiscence, Jesse Parker noted that the Penobscot families who summered there gathered sweetgrass “from the marshes at Bass Harbor. . . . [and] also cut some ash wood for use in making the wooden baskets.” A similar account provided by Nellie Thornton mentioned that the “right” to cut ash, as well as to gather sweetgrass, was “vouchsafed by the owners of the land as it was an unwritten law that Indians could have an occasional tree to use in their work from the land that, not so long before, had belonged entirely to them.”” (Prins 2007)

Trends – Readings from the Bar Harbor tide gauge show that the local sea level relative to the shoreline has risen 8 inches since 1950. Data from a 2022 interagency report on sea level rise scenarios suggest Bar Harbor could see an additional foot of water by 2050 and three feet by 2100 (Sweet 2022). As sea level increases, the location of ACAD’s saltmarshes would shift inland onto adjacent low-lying lands. Typically, these adjacent areas are freshwater wetlands transition to saltmarsh. However, in some cases

there are potential barriers to saltmarsh migration. According to a joint study between the USGS and NPS, ACAD has ten potential barriers to saltmarsh mitigation (Nielsen 2013). Due to these barriers, sea level rise would eventually inundate these associated saltmarshes and they would disappear from the landscape. In other cases, saltmarshes without barriers would migrate outside the park's boundary onto private property.

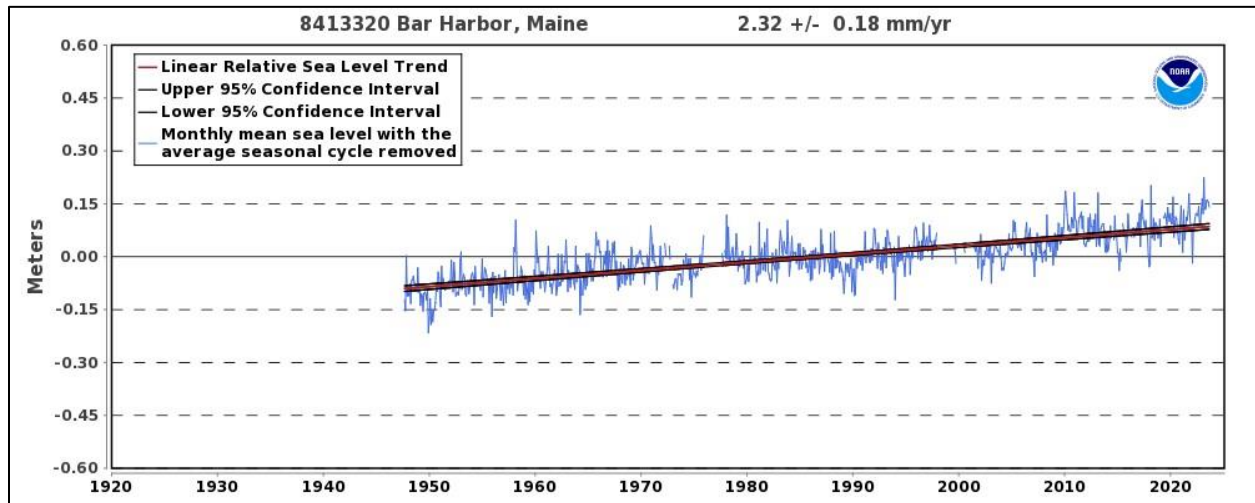


Figure 4. Relative Sea Level Trend Bar Harbor, ME. NOAA Center for Operational Products and Services

Cumulative Scenario – The following reasonably foreseeable future action would impact ethnographic resources in the project area.

- **Land Acquisition** – Public Law 99-420 established ACAD's permanent boundary. It also authorized the acquisition of lands within the permanent boundary, known as acquisition parcels, for protection and conservation of lands and waters. Since 2014, ACAD acquired 66 acres of wetland within its permanent boundary. There are approximately 50 additional acres of acquisition parcels within ACAD's permanent boundary that include habitat where sweetgrass may occur or provide access to habitat where sweetgrass may occur.

3.4.2 Impacts of Alternative A – No Action Alternative

Under the no action alternative, NPS would not allow Wabanaki to gather sweetgrass for traditional purposes. Gathering is a key component of Wabanaki cultural identity, but this has not occurred within the coastal saltmarshes of ACAD since the park acquired those lands. Impacts to ethnographic resources under the no action alternative would span generations and would persist as long as the Wabanaki are not allowed to access these areas for the traditional gathering of sweetgrass. Therefore, this alternative would result in direct, long-term adverse impacts to ethnographic resources.

Trends – Under the no action alternative, NPS would not allow Wabanaki access to the coastal saltmarshes of ACAD for the traditional gathering of sweetgrass. As sea level increases, the saltmarshes that provide habitat for sweetgrass would shift, diminish, and/or become completely inundated. This would provide the Wabanaki with even less access to sweetgrass on top of not allowing them to gather sweetgrass in ACAD under the no action alternative, resulting in long-term adverse impacts to ethnographic resources.

Cumulative Analysis – Impacts from past, present, and reasonably foreseeable actions would have both long-term beneficial and long-term adverse impacts to ethnographic resources. Currently, Wabanaki are denied access to traditional sweetgrass gathering by the NPS on park land, and by development and owners of private property. Under the no action alternative, NPS' acquisition of lands would protect sweetgrass habitat from development. However, Wabanaki would still not be allowed to gather sweetgrass on the lands for traditional purposes. The impact of the NPS protecting the sweetgrass habitat, when combined with continued denied access to the gathering of sweetgrass would have long-term, adverse impacts to ethnographic resources.



Figure 5. Basketmaker Christine Nicholas (b.1912), gathers sweetgrass along Maine coast in 1950. (Prins 2007)

3.4.3 Impacts of Alternative B – Preferred Alternative

The preferred alternative would allow for development of government-to government agreements and provide a mechanism for traditional gathering of sweetgrass by Wabanaki on ACAD lands. Exercising this traditional practice would connect them to ethnographic resources in ACAD for generations. The action would result in direct, long-term beneficial impacts to ethnographic resources.

Trends – Under the preferred alternative, Wabanaki would have access to ACAD for gathering sweetgrass. The continued increase in sea level would shift, diminish, and/or remove habitat where sweetgrass can grow. Some areas where sweetgrass is currently located within ACAD could shift outside the park's boundary in a three-foot sea level rise scenario. Gathering in these areas would occur in the short-term before private property restrictions could limit access. Additionally, areas that have barriers to saltmarsh mitigation would have gathering in the short-term prior to full saltwater inundation.

Cumulative Analysis – Impacts from past, present, and reasonably foreseeable projects would have long-term beneficial impacts to ethnographic resources. The acquisition of lands where sweetgrass may occur would improve access for Wabanaki gatherers.

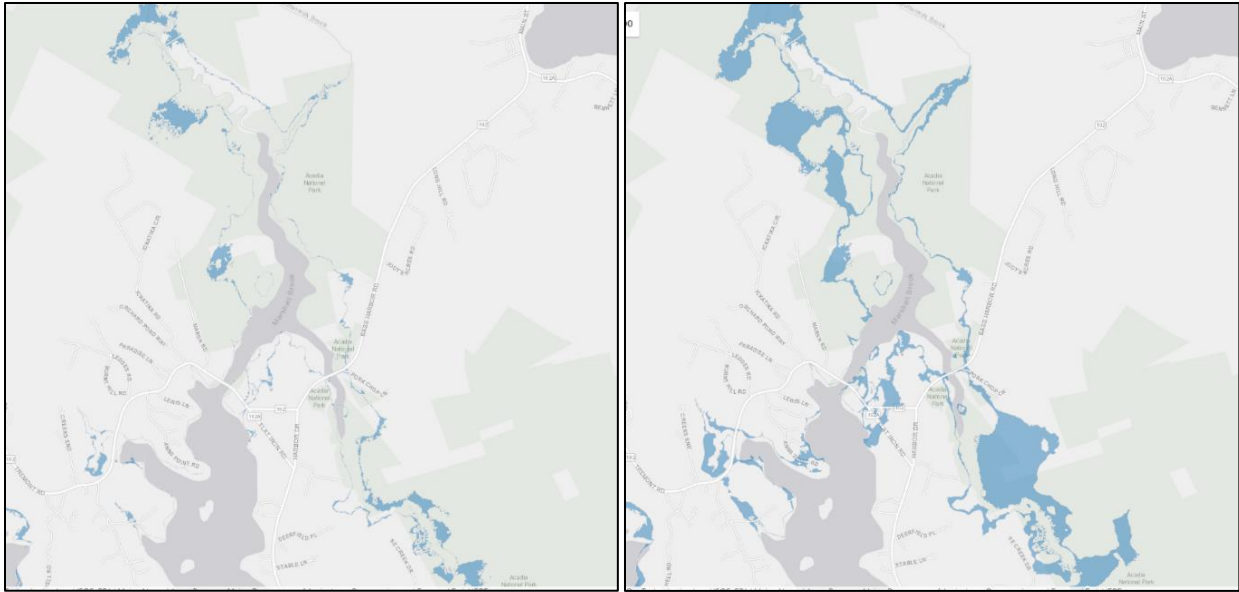


Figure 6. MaineNAP – Potential Tidal Marsh Migration 1ft Sea Level Rise compared to 3ft Sea Level Rise near Bass Harbor.

3.5 Special Status Species or their Habitat

3.5.1 Affected Environment

The U.S. Fish and Wildlife Service identified three federally threatened, endangered, or candidate species that have the potential to be affected by activities within the project area. Sweetgrass gathering would not occur within any critical habitats.

Sweetgrass gathering would have no effect on the endangered Northern Long-eared Bat (*Myotis septentrionalis*) because the activity does not remove potential roost trees or create a disturbance that would affect behavior. The project would also have no effect on the endangered Atlantic salmon (*Salmo salar*) because they are not present within the 43 streams sampled within ACAD (Havird 2011).

The monarch butterfly (*Danaus plexippus*) is a candidate species. During the breeding season they lay their eggs on their obligate milkweed host plant. Common milkweed (*Asclepias syriaca*) is not present in areas where sweetgrass occurs; therefore, there is no effect on the monarch butterfly.

Least bittern (*Ixobrychus exilis*) is a Maine state listed endangered species. Maine is the northern edge of their breeding range, typically occurring mid-May through June (Poole 2020). Surveys have discovered only three least bittern nests in Maine, one being in ACAD. A 2001 survey found a nest with two eggs in a freshwater wetland dominated by cattails (*Typha sp.*) and sweet gale (*Myrica gale*) 120 meters away from an estuary (Wilson 2011). The nest's surrounding vegetation was not collocated with sweetgrass, therefore there is no effect on breeding Least bittern.

Nelson's sparrow (*Ammodramus nelsoni*) and the saltmarsh sparrow (*Ammodramus caudacutuc*) are Maine state species of concern known to forage and nest in and adjacent to areas where sweetgrass occurs. Nelson's sparrow nests in clumps of dense grass just above the high tide mark. The saltmarsh sparrow establishes their nest after the spring tide, providing enough time for the young to fledge

before the following spring tide. Both species are known to primarily nest from June through mid-July in Maine (Shriver 2010, Greenlaw 2018.)

Trends – Population trends in avian tidal wetland specialist species are a good metric for overall ecosystem health. These populations have decreased by 2.4% year-on-year from 1998 through 2012. In New England, the saltmarsh sparrow population has decreased by 12% year-on-year (Correll 2015). The decrease in populations is linked to habitat degradation from past agricultural manipulations of saltmarshes. The ditches and fill have reduced the diversity of habitat on the landscape needed by these specialized species. Nest flooding caused by sea level rise has been contributing to an increased rate of nest failure. However, most nest losses are due to flooding from storm surge and usually intense rain events that occur during the nesting season (Hartley 2020).

Cumulative Scenario – The following reasonably foreseeable future actions would impact special status species or their habitat in the project area.

- **Wetland Restoration** – Saltmarshes within the park have been modified for agricultural use since the 1700s. Compounded by changes in climate and sea level, these wetland systems have degraded over time, leading to saltmarsh plant dieback and peat loss. ACAD is planning to restore surface hydrology by remediating ditches and embankments, and re-establishing native saltmarsh vegetation.
- **Land Acquisition** – Public Law 99-420 established ACAD's permanent boundary. It also authorized the acquisition of lands within the permanent boundary, known as acquisition parcels, for protection and conservation of lands and waters. Since 2014, ACAD acquired 66 acres of wetland within its permanent boundary. There are approximately 50 additional acres of acquisition parcels within ACAD's permanent boundary that include habitat where sweetgrass may occur or provide access to habitat where sweetgrass may occur.

3.5.2 Impacts of Alternative A – No Action Alternative

Under the no action alternative, there would be no change in the human use of special species habitat within ACAD. NPS would not allow Wabanaki sweetgrass gatherers to harvest. The primary factor for the success of tidal wetland breeding species would continue to be impacts from storm-surge and sea level rise.

Trends – Under the no action alternative, habitat deterioration from past agricultural changes to wetlands and sea level rise would continue to threaten populations of saltmarsh-specialized avian species.

Cumulative Analysis – Current and future NPS management would continue to restore wetland habitat, which would in turn benefit avian tidal wetland specialist species in the long-term. Acquiring land with wetlands would further increase the amount of habitat restored.

3.5.3 Impacts of Alternative B – Preferred Alternative

Under the preferred alternative, NPS would allow Wabanaki gatherers to harvest sweetgrass under plant gathering agreements. Gathering activities and access to sweetgrass could take place in or near areas with specialized nesting habitat. The NPS and gatherers would meet prior to harvest to discuss concerns about sensitive nesting habitat and other resource concerns.

A 2001 survey did not observe any saltmarsh sparrows. However, the same survey did observe nine pairs of Nelson's sparrows nesting in *Spartina sp.* meadows (Wilson 2009), which are locations adjacent to where harvesting may occur. Human activity in the area may disturb nesting birds and could cause the adults to abandon nests. During annual site assessment and orientation, NPS staff would advise the gatherers of known Nelson's sparrow nests locations so that they could avoid those areas during the nesting season (Figure 7). Due to avoidance and, rotation of harvest sites by gatherers during the growing season, sweetgrass gathering would have negligible impact on nesting species.

Trends - In the preferred alternative, the primary threat to Nelson's sparrow and saltmarsh sparrow would continue to be habitat loss through sea level rise and past human manipulation of hydrology from historic land use activities. Annual site assessments would identify historic nesting locations and provide recommendations for avoidance by gatherers.

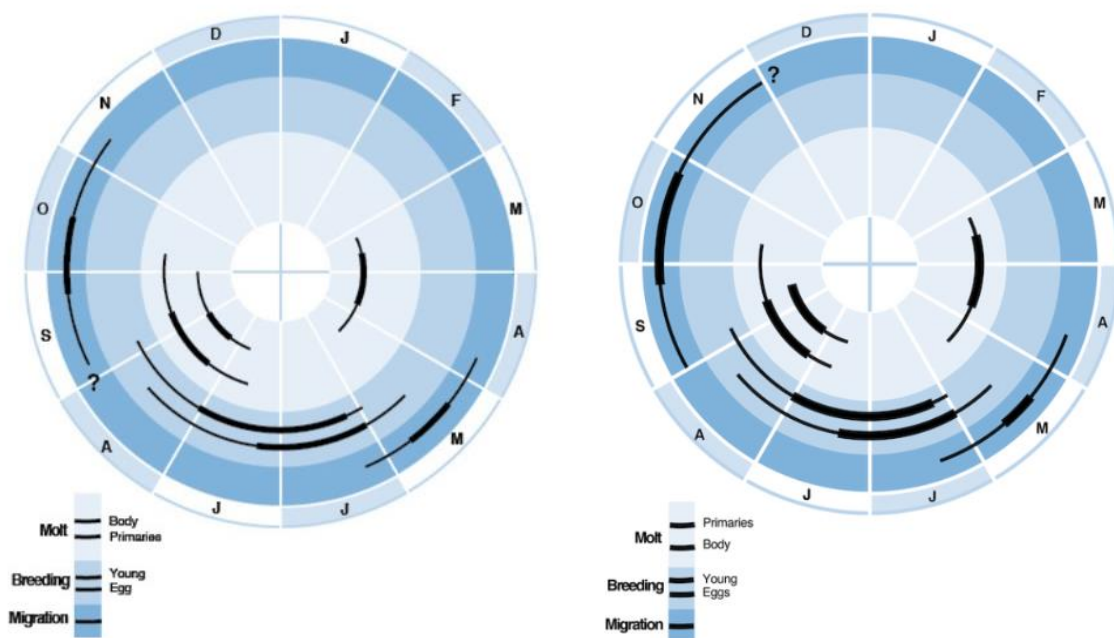


Figure 7. Annual cycle for breeding, migration, and molt in Maine for Nelson's sparrow (Shriver 2010) and saltmarsh sparrow (Greenlaw 2018).

Cumulative Analysis – Monitoring for species in advance of harvesting and avoiding known nest sites would mitigate potential impacts to avian tidal nesting species by sweetgrass gathering. NPS and Tribes would develop a protocol for response in the unlikely event that gatherers encounter ground nesting birds. However, the main strategy would be avoidance of known nesting sites identified during pre-harvest monitoring. Current and future NPS management would continue to restore wetland health, which would in turn benefit tidal wetland specialist species. Acquiring wetlands would further increase the amount of habitat restored. The negligible adverse impacts described above on special status species from the presence of gatherers, when combined with wetland restoration would result in long-term beneficial impacts overall.

4 Consultation and Coordination

This section summarizes the consultation, coordination, and public involvement that occurred during the preparation of this EA.

4.1 Tribal Consultation

The following table outlines major steps in consultation with Tribal Nations concerning the gathering of sweetgrass with ACAD.

Table 2. Consultation Timeline

Date	Action
2015	Initiated nation-to-nation consultation with Maliseet, Mi'kmaq, Passamaquoddy, and Penobscot tribes by explaining the proposed rule change in detail.
	Identified key issues and opportunities related to plant gathering at ACAD from both tribal and park perspectives.
2016	Plant gathering regulation is finalized.
	Meeting at Penobscot to discuss the regulation.
	Suzanne Greenlaw and Michelle Baumflek (PI) begin facilitated discussions with sweetgrass gatherers.
2017	Handout developed: "Tribal Leaders Guide to the National Park Service Plant Gathering Regulation". This is a four-page, step-by-step guide to the process of getting to a plant gathering agreement.
2018	Botanical fieldwork ongoing. Meeting with gatherers in the marsh to collect plot data.
	Harvest effects: Monitoring for sweetgrass regeneration found substantial differences in stem density and blade length between harvester-identified plot locations and botanist-identified plot locations. Gatherer-harvested plots show meaningful positive response to harvesting.
	Workshop for sweetgrass gatherers to meet and discuss the project.
2019	PI Field work and transcribing of gatherer interviews.
	2nd workshop held at Schoodic Institute, which presented both qualitative and quantitative research results.
	Trip to Isle au Haut with gatherers to reconnect with the island.
2020	3rd workshop for gatherers held online and facilitated by Suzanne and Michelle. Project findings were shared. Planning to reach out to tribal governments.
2021	Online formal consultation with Tribal Historic Preservation Officers (THPOs). Presentation of the project to date. Cultural Protocols presentation by Jane Anderson. Discussion of the White House Office of Science Technology and Environmental Policy memo on inclusion of Traditional Ecological Knowledge in federal decision-making, which included the ACAD-Wabanaki project as an example.
	4th workshop. THPOs from all four tribes are in attendance for the online meeting.
	Sweetgrass Gathering Cultural Protocols under development.
2022	Online meeting with gatherers and 2 THPOs present. Formal consultation. Discussion of cultural protocol and gatherer concerns. Discussion of tribal letters required from tribal government.
	In addition to cultural protocols, a film under development would provide important context, background, and substance with an emphasis on Indigenous Stewardship and the ongoing

	significance of traditional ecological knowledge practices. Audience for the film includes NPS Staff, visitors, and the larger non-Native public. To be determined how and to what extent the film would be shared outside of the group.
	5th in-person workshop at Schoodic Institute. Personnel from NER Tribal Liaison and Anthropology program present. One THPO in attendance.
	Formal consultation with ACAD and THPOs. Discussion focused on building the cultural protocols – around protecting access and intellectual property, the Federal consultation process towards permitting and the EA, and a discussion on permitting.
	Sample Gathering Request letter shared with all THPOs.
2023	Formal consultation online with four THPOs. Discussion of the Protocols, education recommendations, and stipulations in the upcoming EA.
	Formal consultation online with four THPOs. Discussion of the upcoming EA and permitting/agreements.
	Formal consultation online with four THPOs. Invited guests from Eastern Band of Cherokee to discuss their process for gathering, permitting, and monitoring at Great Smoky Mountains National Park.
	Formal consultation. Updates from four THPOs concerning request letters. Planning for September meeting with gatherers at Schoodic Institute.
	Letter received from Passamaquoddy signed by both Chiefs at Indian Township and Pleasant Point. Online meeting with one THPO present. Sharing the Cultural Protocols with gatherers. Discussion of the film. Planning for Schoodic Institute meeting.
	6th in-person workshop at Schoodic Institute with Gatherers. One THPO in attendance. ACAD Superintendent and NER Tribal Liaison and Anthropology staff present. Sweetgrass Gathering Protocols shared with the advisory group. Cultural Protocol and Film discussion. Written report in development on Wabanaki Sweetgrass Knowledge. Next steps towards the plant gathering agreements.
2024	Letter received from Mi'kmaq Nation. Letters pending from the Penobscot Nation and the Houlton Band of Maliseet Indians.

4.2 Agency Consultation

Table 3. Agency Consultation

Law, Statute, or Authority	Regulated Resource	Agency
Section 401 and 404 of the Clean Water Act, EO 11190 and EO 11198	Wetlands and streams	U.S. Army Corps of Engineers
Section 7 of the Endangered Species Act	Federally listed threatened and endangered species	U.S. Fish and Wildlife Service
Section 106 of the National Historic Preservation Act	Cultural resources	Maine Historic Preservation Office

4.3 Public Comment

ACAD collected public comments on the proposed gathering of plants by federally recognized tribes from December 18, 2023, through January 17, 2024. NPS received and reviewed thirty-one comments on the preliminary proposed action.

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Appendix A: Contents of Plant Gathering Agreement

Per the requirements of 36 C.F.R. § 2.6, following completion of the EA and signing of the FONSI, ACADs superintendent will consult with the five federally recognized Tribes to develop plant gathering agreements.

An agreement to gather and remove plants or plant parts must contain the following:

- (i) The name of the Indian tribe authorized to gather and remove plants and plant parts;
- (ii) The basis for the tribe's eligibility under [paragraphs \(c\)\(1\)\(i\)](#) and [\(ii\)](#) of this section to enter into the agreement;
- (iii) A description of the system to be used to administer traditional gathering and removal, including a clear means of identifying the enrolled tribal members who, under the permit, are designated by the Indian tribe to gather and remove;
- (iv) A means for the tribal government to keep the NPS regularly informed of which enrolled tribal members are designated by the tribe to gather and remove;
- (v) A description of the specific plants or plant parts that may be gathered and removed.
- (vi) Specification of the size and quantity of the plants or plant parts that may be gathered and removed;
- (vii) Identification of the times and locations at which the plants or plant parts may be gathered and removed;
- (viii) A statement that plants or plant parts may be gathered only by traditional gathering methods, *i.e.*, only by hand or hand tools;
- (ix) A statement that the sale or commercial use of natural products (including plants or plant parts gathered under the agreement) is prohibited in the park area under [§ 2.1\(c\)\(3\)\(v\)](#);
- (x) Protocols for monitoring traditional gathering and removal activities and thresholds above which NPS and tribal management intervention will occur;
- (xi) A requirement that the NPS and the tribe engage in periodic reviews of the status of traditional gathering activities under the agreement through consultation;
- (xii) Operating protocols and additional remedies for non-compliance with the terms of the agreement beyond those provided in this section, including mitigation, restoration, and remediation;
- (xiii) A requirement that a permit issued under the agreement identify the tribal members who are designated by the tribe to gather plants or plant parts under the permit;
- (xiv) A list of key officials; and
- (xv) Any additional terms or conditions that the parties may agree upon.

(2) Agreements will be implemented through a permit issued in accordance with [§ 1.6 of this chapter](#). Activities allowed by a permit must fall within the scope of activities agreed upon in the agreement.

Following completion of plant gathering agreements with each Tribe, the superintendent may issue permits to each Tribe.