National Park Service
U.S. Department of the Interior

Glacier Bay National Park and Preserve Alaska



## Backcountry and Wilderness Management Plan

A VISION FOR WILDERNESS STEWARDSHIP, A DIVERSITY OF BACKCOUNTRY VISITOR EXPERIENCES, AND AN ENDURING COMMITMENT TO TLINGIT HOMELAND VALUES

**ENVIRONMENTAL ASSESSMENT** 

FINDING OF NO SIGNIFICANT IMPACT

June 2023



### Haa Aani

Aagáa áwé k'idéin gaxtulatéen haa tl'átgi ka haa kusteeyí haa ítx yaa has na.ádi aa has du jeeyís So that too, we may protect our land and our culture for those yet to come ~ Traditional Tlingit Prayer This page intentionally blank.

### **Managing for Wilderness Stewardship**

#### Letter from the Superintendent

Dear Friends,

The National Park Service is pleased to share refined management frameworks for 2.7 million acres of designated Wilderness lands and waters in Glacier Bay National Park, including a long-term management vision, goals and objectives, zoning, and desired conditions.



This document builds from past successful strategies in the Glacier Bay National Park and Preserve General Management Plan (1984), recognizing that few places across the national wilderness preservation system can match the wilderness character of the Glacier Bay Wilderness today.

The plan also provides new adaptive tools for current and future park managers to continue to preserve exceptional backcountry and wilderness visitor experiences, resources, and values into the future. It also recognizes and honors the rich cultural tapestry of indigenous use and occupation in the wilderness and supports the enduring connection between the Tlingit and their Homeland.

Thanks to all who contributed to this vision during the planning process, including:

- visitor surveys (2017 and 2018),
- two 60-day outreach periods (2020 and 2021), and
- two 30-day document review periods (2022 and 2023).

This final plan incorporates changes based on your feedback and concerns. Please stay in touch during implementation to track our wilderness stewardship efforts and to follow our progress and continue to provide input as we further refine tiered actions.

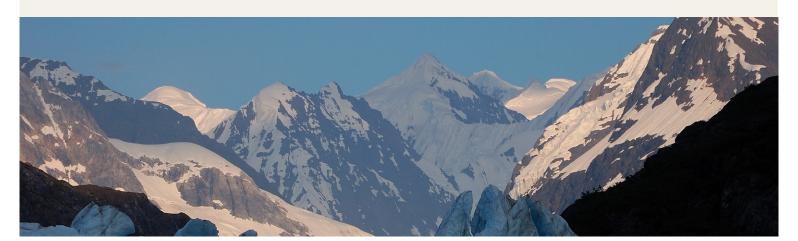
- Subscribe to planning update e-mails at glba\_public\_comments@nps.gov.
- Visit us online at go.nps.gov/GLBA\_BWMP.

Thank you for your commitment to Glacier Bay Wilderness and its core values.

Philip Hooge, Superintendent

Thilips Though

Glacier Bay National Park and Preserve



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### **Glacier Bay National Park**

# Part I – Backcountry and Wilderness Management Plan

**June 2023** 

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Figure 1. Glacier Bay National Park covers 3.2 million acres of rugged mountains, dynamic glaciers, temperate rainforest, wild coastlines and deep sheltered fjords. It is a Biosphere Reserve and part of a 25-million-acre World Heritage Site—one of the world's largest international protected areas. From sea to summit, Glacier Bay offers limitless opportunities for adventure and inspiration.

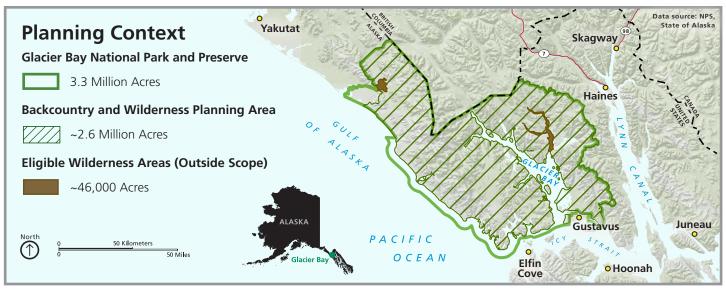
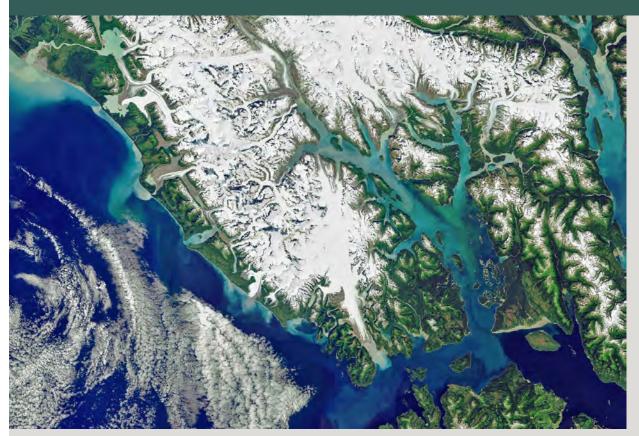


Figure 2. The park backcountry encompasses 2.7 million acres with the highest conservation protection our country affords: designated Wilderness. In a remote Alaskan setting, backcountry access is by water and air, except a few road-accessible land connections proximate to Gustavus and Bartlett Cove, the only developed area in Glacier Bay National Park where visitor services are available. This wilderness encompasses a Tlingit Homeland originally peopled with the ancestors of tribal members now largely living nearby in Hoonah and Yakutat. Other communities with gateway connections to the backcountry include Elfin Cove, Excursion Inlet, Haines, Skagway, and Juneau as a regional hub where visitors can make connections to the rest of Alaska, the lower 48 US states, and beyond.

Recognizing and honoring the rich cultural tapestry of Indigenous use and occupation in designated Wilderness, and supporting the enduring connection between the Tlingit and their Homeland, this plan highlights Indigenous Homeland values embraced by Glacier Bay's original people and advances agency-wide conversations about diverse cultural perspectives and values. Toward this end, we collaborated with Tlingit elders and speakers to incorporate, as appropriate, Tlingit language to encourage readers to consider the concepts presented here through the world view of those who consider Glacier Bay National Park Homeland.



Top left: Satellite of Glacier Bay, Icy Strait, and the Gulf of Alaska

Bottom: Huna Tlingit, past and present, in Homeland

Bottom left:
Seal hunting
encampment;
Middle: Youth
drumming;
Right:
Mountain goat
fur gathering
for Tlingit
traditional
robe weaving







Figure 3. The traditional territory of the Huna Tlingit encompasses all the lands and waters of Glacier Bay National Park, and the Yakutat Tlingit clans have strong ties to the Dry Bay Preserve and much of the northern Outer Coast. The images above show some of the ways the Tlingit evolved with and adapted to the dynamic and changing Glacier Bay landscape—just as they, in turn, shaped the natural resources and ecosystems. Today, Glacier Bay National Park designated Wilderness encompasses *Tlingit Aaní* (Homeland) and protects traditional lifeways and a living cultural landscape that physically and spiritually sustains past, present, and future generations.

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#### CHAPTER 1: INTRODUCTION

## WHAT IS IN THIS DOCUMENT – DAA SÁYÁ YÁ ATÓOWU YÁ X'ÚX'? (WHAT IS IN THIS BOOK/PLAN?)

This backcountry and wilderness management plan (the plan) sets the framework for the National Park Service to manage the 2,770,000 acres of designated Wilderness lands and waters in Glacier Bay National Park (the park)1. For the purposes of this plan, the term "backcountry" refers to the designated Wilderness lands and waters within Glacier Bay National Park. The park consists of other nonwilderness waters that some consider part of the park's backcountry; however, those waters are addressed in a marine management plan. This plan supplements the 1984 General Management Plan with refinements that largely focus on the following goals:

- Meet all requirements of the 1964 Wilderness Act, as implemented by the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) and current law and policy, balanced with the park's enabling proclamation objectives of science and tidewater glacier access. Together, these mandates preserve the Glacier Bay Wilderness relatively unaffected by modern impacts for people to experience its remote wildness, serving as a place of hope, discovery, and connection to America's natural and cultural heritage—even for those who never set foot in the wilderness.
- Serve as a collaborative vision for providing visitor opportunities and managing
  visitor use in the wilderness, applying the updated Interagency Visitor Use
  Management Framework to protect resources and connect visitors to fundamental
  park experiences and values consistent with the NPS mission, the 1916 NPS Organic
  Act, and ANILCA. The vision also clarifies where business partners have an important
  role in enabling wilderness-dependent experiences and conversely, where self-guided
  opportunities are more appropriate based on Wilderness Act extent necessary
  determinations.
- Recognize and honor the rich cultural tapestry of indigenous use and occupation in the wilderness and support the enduring connection between the Tlingit and their Homeland. The plan highlights indigenous Homeland values embraced by Glacier Bay's original people and advances agencywide conversations about diverse cultural perspectives and values. Toward this end, park staff collaborated with Tlingit elders and speakers to incorporate, as appropriate, Tlingit language to encourage readers to consider concepts presented here through the world view of those who consider Glacier Bay National Park Homeland.

1

<sup>1.</sup> Alaska National Interest Lands Conservation Act, Title VII, Sec. 701(3).

The plan is organized into four chapters:

- Chapter 1: Introduction. This chapter describes the need for the plan, the plan organization, and the relationships to other plans and relevant policies.
- Chapter 2: General Management Direction. This chapter outlines the general management direction for the wilderness, including a long-term management vision, goals and objectives, zoning, and desired conditions for wilderness lands and waters.
- Chapter 3: Management Strategies and Actions. This chapter identifies management strategies and actions to achieve and maintain goals and objectives for wilderness management.
- Chapter 4: Wilderness Character Monitoring. This chapter describes wilderness character monitoring that will support the implementation of the plan and the protection of wilderness character.

# PLANNING FOR THE GLACIER BAY BACKCOUNTRY AND WILDERNESS – DAAT YOO TUWATÁN ÁT HAA L'ÉELK'W HÁS AANÍ (*PLANNING FOR OUR GRANDPARENTS' LAND*)

This plan provides long-term, comprehensive management guidance for protecting wilderness character, stewarding natural and cultural resources, and managing visitor use within park areas designated as wilderness. The plan applies guidance from the Interagency Visitor Use Management Council (<a href="https://visitorusemanagment.nps.gov/">https://visitorusemanagment.nps.gov/</a>), the Keeping It Wild 2 framework (<a href="https://fs.usda.gov/rm/pubs/rmrs\_gtr340.pdf">https://fs.usda.gov/rm/pubs/rmrs\_gtr340.pdf</a>) for protecting wilderness character consistently across the national wilderness preservation system, and the NPS dynamic portfolio of tiering management plans that serve as internal agency tools to accomplish the following:

- Articulate strategies for the public enjoyment of national parks to ensure resources are protected and unimpaired for future generations.
- Set desired visitor experiences based on a unit's unique qualities and the values that merited its national designation.
- Guide agency decision-making, activities, and investment priorities with transparency and accountability to the American public.

This plan will guide management for the approximately 2.7 million acres of designated Wilderness (see map, figure 2) included within Glacier Bay National Park. The National Park Service is charged with managing these wilderness lands and waters to preserve, maintain, and restore their wilderness character as samples of a truly wild America, preserved for people and specific public purposes (see the following text boxes).

Few places across the national wilderness preservation system can match the wilderness character of the Glacier Bay Wilderness today, as described in a recent wilderness character assessment (NPS 2023a). The Glacier Bay designated Wilderness is one of the largest areas in the national wilderness preservation system, encompassing substantial marine waters and

virtually all the unit's terrestrial lands. This wilderness also includes 53,000 acres of marine wilderness waters that are managed under proprietary NPS jurisdiction as an ecologically and globally important sanctuary for many species, including threatened species, such as a Mexican distinct population segment of humpback whales and Western Steller sea lions.

#### What is Wilderness Character?

Wilderness character is defined as the combination of biophysical, experiential, and symbolic ideals that distinguishes wilderness from other lands.

- NATURAL QUALITY: Ecological systems that are substantially free from the effects of modern civilization.
- **UNTRAMMELED QUALITY**: Essentially unhindered and free from the intentional actions of modern human control or manipulation.
- **UNDEVELOPED QUALITY**: Retaining its primeval character and influence and is essentially without permanent improvement or modern human occupation.
- **SOLITUDE OR PRIMITIVE AND UNCONFINED RECREATION**: The state of being alone or remote from habitations or the sights and sounds of other people; the experience of being in an unfrequented or secluded place.
- OTHER FEATURES OF VALUE: This attribute reflects the wilderness character of a specific wilderness area and captures important elements not covered in the other four qualities of wilderness character, such as cultural or paleontological resources. These attributes are not required of or found in every wilderness and are based on the last clause of section 2(c) of the Wilderness Act, which states that a wilderness "may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."
- Glacier Bay also protects a unique type of wilderness, **MARINE WILDERNESS**. This quality of wilderness character recognizes protected waters as a globally important sanctuary for many marine species, including humpback whales.
- Glacier Bay wilderness also serves as a LIVING LABORATORY, where natural forces and processes predominate
  and applied research contributes to global scientific knowledge and effective resource management.



Figure 4. The Tangible Qualities of Wilderness Character in Glacier Bay National Park

#### The Public Purposes of Wilderness

Pursuant to the Wilderness Act, Section 4(b), wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, education, conservation, and historical use.

- The RECREATION purpose of wilderness encourages us to get out and explore on our own to find solitude or with others to enjoy shared experiences.
- The SCENIC purpose of wilderness invites us to enjoy the spectacular views showcased in wilderness.
- The SCIENTIFIC purpose reinforces the role of science in wilderness stewardship. For over a century, Glacier Bay has been considered a living laboratory, contributing to global scientific knowledge and effective resource management through applied research.
- The EDUCATIONAL purpose affirms that wilderness can be a place of learning and exploration for people of all ages.
- The CONSERVATION purpose promotes the continued protection of wilderness as places of significant ecological and cultural importance for "the earth and its community of life."
- The HISTORICAL purpose of wilderness connects us with the people, communities, and Indigenous cultures that have historical and current relationships with places we now know as NPS wilderness. For the Tlingit, Glacier Bay is Homeland, a place that physically and spiritually sustains past, present, and future generations.

























Figure 5. The Public Purposes of Wilderness

Other characteristics unique to this wilderness are described in a Glacier Bay Wilderness character narrative (NPS n.d.), including notably as a living laboratory for ongoing scientific inquiry and marine wilderness waters and submerged lands under NPS jurisdiction with a unique conservation status (as confirmed in 2005 by a Supreme Court ruling).

The Glacier Bay Wilderness is also Homeland for Tlingit clans, principally living today in nearby Hoonah and Yakutat. By managing the backcountry to preserve wilderness character and what is unique and special about the wilderness, the National Park Service sustains values and opportunities that are rapidly disappearing elsewhere in today's world, offering a place of hope and inspiration.

## PLANNING PROCESS, WÁA SÁ ÁT WOONEIYÍN YÁAT, AA SHUKWÁT? (HOW DID WE COMPLETE THE PLAN?)

A National Park Service team was formed in late 2019 to initiate planning (see appendix I). Initiation of government-to-government consultation with federally recognized tribes also began at this early stage and will continue during implementation, recognizing wilderness as a unique cultural landscape that informed, and is integral to, the culture and identity of the Huna and Yakutat Tlingit.

The planning team's first step was to articulate a vision of what the National Park Service was hoping to achieve and the specific management objectives to define "what success would look like." These were released in a newsletter for a 60-day public comment period (February 2020), along with broad questions to solicit public input. A second 60-day public comment period (November 2020) asked for public input on strategies to best achieve desired future conditions.

The planning team then prepared a draft plan and supporting appendixes that were released to the public for 30-day review (July 2022), supported by a story map. After incorporating changes based on public feedback, a revised plan (presented in part I) was then released for a 30-day review (February 2023), along with an environmental assessment (presented in part II). The National Park Service considered and responded to all substantive comments received and made changes and corrections where appropriate. A signed decision document (finding of no significant impact) is presented in part III of this document that includes amendments or modifications to the selected action based on feedback. These modifications are incorporated into the final plan (part I).

#### WHAT WE HEARD – ÁT WUTUWA.Á<u>X</u> (*WE HEARD THIS*)

Input from the public and tribes helped to shape this plan since its initiation in 2019. Key issues brought forward during this input included a desire to retain Glacier Bay's exceptional wilderness and backcountry visitor experiences, resources, and values for the future; the significance of the place for different people; and the importance of the National Park Service evolving and optimizing future management, including to recognize and honor the rich cultural tapestry of indigenous use and occupation in the backcountry and support the enduring connection between the Tlingit and their Homeland. We also heard varied

perspectives that highlight the significance and deeper meaning of the Glacier Bay Wilderness for people, including the following:

- For those seeking an immersive wilderness experience, the Glacier Bay Wilderness is one of the most undeveloped natural places on the planet.
- For those seeking adventure, its remoteness and the requirement for self-reliance are valued parts of the experience—as are escaping crowds and public land overuse.
- For those seeking a range of outdoor experiences, the wilderness supports public use and enjoyment.
- For those seeking hope in a changing world, Glacier Bay's wilderness is a place where humans exercise humility and restraint and, by doing so, preserve a precious portal to American's wild past for generations yet unborn.
- For the Tlingit, it is Homeland—Tlingit Aaní—a place that physically and spiritually sustains past, present, and future generations.
- For those conducting research, wilderness is an unfragmented living laboratory where natural forces and processes predominate to inspire discovery and support deeper human understandings.

#### PURPOSE FOR THE PLAN - DAAT GÁA SÁ X'ÚX' (WHAT IS THE BOOK/PLAN FOR?)

The need for the plan is to outline strategies that respond to increasing and changing visitor demands and provide broad guidance for terrestrial and marine wilderness areas. The purpose of the plan is to provide for the protection of natural and cultural resources and values, wilderness character, and high-quality visitor experiences within wilderness.

Through the refinement of desired conditions, zoning, and the development of management strategies, the plan provides further guidance on cultural and natural resource issues as well as visitor use management challenges. The plan also provides a shared vision for the wilderness that is responsive to evolving visitor interests, recreational use patterns, collaboration with tribes, and a growing understanding of issues because of research, inventory, and monitoring.

The plan will provide management guidance for the following planning needs:

• Preserve wilderness character. Glacier Bay National Park's wilderness management guidelines are outdated and are inadequate for the park to monitor and manage impacts to wilderness character. Although backcountry camping permits are required for Glacier Bay, the park does not require backcountry camping permits in locations such as Dundas Bay, which has experienced increasing use. The park does not conduct routine backcountry and wilderness patrols or regular monitoring of backcountry and wilderness locations for visitor impact; rather, current patrols and monitoring assess regulation violations, which may have an impact on the park's resources. As a result, each new wilderness activity is managed reactively on a case-by-

- case basis without holistic guidance or the ability to analyze cumulative impacts to wilderness character. Guidance is needed to proactively preserve wilderness character considering the potential for increasing and changing visitor uses.
- Provide visitor access to tidewater glaciers. Core to Glacier Bay's enabling proclamation is visitor access to tidewater glaciers. Tidewater glaciers, although not unique to Glacier Bay, are a defining feature of the landscape and a significant draw for park visitors. Increasing visitation to tidewater glacial areas creates challenges for maintaining and improving visitor experience and resource conditions in these popular areas. The dynamic nature of the glacial environment also provides challenges as the accessibility of tidewater glaciers changes with the tides, the weather, and other longer-term factors like glacial retreat. Specific guidance on preserving wilderness character, in addition to providing high-quality visitor experience, is needed for tidewater glacier areas.
- Provide guidance for commercial service providers to collaboratively achieve park desired conditions and goals. As current contracts are written, commercial tour operators lack clear boundaries and expectations for use, lack guidelines specific to the wilderness, and do not consistently address wilderness character, homeland values, or resource protection in business practices. The park does not have a standardized format for reviewing commercial use of the backcountry and wilderness lands. Opportunities exist for commercial tour operators to offer additional customized tour options that would change the timing, duration, and location of day use activities. Some of these practices could decrease the commercial tour operator's ability to schedule tours to minimize encounters with other groups, impacting visitor opportunities for solitude. This issue could present challenges to customers of the service providers and other visitors through potential increased crowding at key locations. Guidance is needed to provide clarity for commercial service providers.
- Address conflicting use and expectations in heavily used areas. In the dynamic Glacier Bay landscape, there are a shrinking number of high demand visitor attractions as tidewater glaciers melt and glacial recession and vegetation succession limits opportunities for wildlife viewing and hiking in certain areas. Visitation is further limited to a narrow band of marine shoreline by geography and physical conditions including steep terrain, dense vegetation, and few beaches. Visitors ranging from backcountry campers to tour vessel passengers are increasingly recreating in the same areas, and multiple user groups in heavily used areas may result in conflicts of expectations, experiences, and impacts to wilderness character. Scheduling limitations and changes in visitor use patterns have resulted in increasingly concentrated use at popular destinations, whereas historically, these groups would have spread their use over a larger area in a longer time frame. Visitors are more prone to be within sight and sound of other visitors, affecting soundscapes and viewscapes and reducing opportunities to experience natural sounds and solitude. Guidance is needed to provide high-quality visitor experiences while preserving wilderness character in these high-use areas.

- Incorporate Tlingit Homeland values in wilderness management. The wilderness character of Glacier Bay National Park is defined, in part, by the sustained connection between past, present, and future generations of Tlingit and the lands and waters they call Homeland. Tlingit interactions with Homeland have shaped the ecology of the area for countless generations through simple acts such as harvesting berries, salmon, and gull eggs and through more complex metaphysical and spiritual processes as well. In the distant past, a young girl called down a faraway glacier, forever altering the Glacier Bay landscape, and even today, glaciers calve, icebergs slide gently away, and turbulent waters settle when the Huna Tlingit proffer food and tobacco to the spirits of living and nonliving beings. While Wilderness Act language has sometimes been interpreted to preclude Homeland concepts, the original intent of the act was not to deny indigenous inhabitation and use of wilderness areas, or the ecological role indigenous people played in landscapes. Management strategies for park wilderness must incorporate Tlingit perceptions of a landscape that has supported humans since time immemorial. The park has collected archeological data and considerable ethnographic information in partnership with tribal entities, but the park must continue to increase its understanding of Tlingit relationships to Homeland and incorporate that understanding in managing Homeland. Importantly, the park must also clearly articulate Homeland values for backcountry visitors. Facilitating access to, and meaningful engagement with, Homeland in partnership with Hoonah Indian Association and Yakutat Tlingit Tribe is essential to ensuring that the park's wilderness remains a living, whole community.
- Define desired conditions for resources and visitor experiences within and on areas adjacent to marine wilderness areas. Glacier Bay protects 53,000 acres of designated marine wilderness. Protecting marine wilderness presents unique challenges and opportunities given the considerable connectedness of marine ecosystems, the importance of the ocean's most productive and biologically diverse areas to commercial interests, and climate change. With increasing visitation, changes to visitation patterns and activities and the desire to access those designated marine wilderness areas and adjacent areas, there is a need to address and define desired conditions for resources and visitor experiences within and adjacent to marine wilderness.
- Protect wildlife and sensitive shoreline areas. In addition to camping, Glacier Bay's shoreline is an increasingly popular destination for day use activities, such as hiking. Commercial use in these shoreline areas has more than tripled in the past few years (from 2016 to 2021, excluding 2020 due to the COVID-19 pandemic). Increasing visitor use may result in impacts to resources (wildlife, habitat, and cultural) in areas sensitive to disturbance. For example, along biologically rich shoreline areas that are essential to animals' foraging and nesting, the sights and sounds of human activity can both displace wildlife and reduce wildlife viewing opportunities for visitors (Sytsma et al. 2022). Social trails have been created in heavily used areas, causing impacts to park resources and the visitor experience. Higher levels of visitor use may also increase vandalism and looting of sensitive cultural sites. For example, cultural resources have been affected by looting in Dundas Bay and clearing to access artifacts in Excursion

Inlet. Cultural resources newly discovered and accessible to visitors because of isostatic rebound need to be evaluated for protection. This plan will provide management guidance to address these impacts.

• Understand intact, complex terrestrial and marine ecosystems. Glacier Bay National Park and Preserve's enabling proclamation identifies "scientific inquiry" as a primary park purpose. As climate change and other stressors impact wilderness resources, Glacier Bay's legacy of research (with records dating to 1891) and contiguous wilderness lands make it an ideal living laboratory to study natural processes and the human potential to affect them, including impacts from anthropogenic climate change. At the same time, it is important to ensure that the benefit of research investigations outweigh negative impacts to other wilderness values. The park provides a place where dynamic glacial systems, successional landscapes, and the interplay between the terrestrial and marine systems can be studied. Guidance is needed to continue research and other administrative access in a manner that does not impact resources.

This plan accomplishes the following primary planning needs:

- Prepares refined management guidance, including the development of management strategies, to preserve and enhance wilderness character in designated Wilderness areas.
- Establishes desired conditions for visitor use that are consistent with resource protection. Desired conditions provide visitors with the opportunity to inform expectations related to access, availability of services, and potential for crowding at heavily used locations.
- Identifies best practices for managing visitor use to protect resources and promote high-quality visitor experiences while meeting legal requirements.
- Identifies appropriate commercial services through an extent necessary determination process.
- Establishes guidance on how to integrate indigenous world views in managing Glacier Bay Wilderness lands and waters.
- Reevaluates the general management plan benign neglect management strategy for
  historic structures with a direct association to Tlingit Homeland values in light of
  updates to cultural resource management guidance and practices that encourage their
  consideration as ethnographic resources.

A series of studies were conducted between 2004 and 2018 on myriad relevant topics, including wilderness, wildlife, visitor use, cultural landscapes, acoustic resources, and vessels. These studies and subsequent reports provide insights into visitor experiences of the park and park resource conditions. These studies shall continue to inform strategies the park can implement to address the emerging issues in the wilderness. Please see the references

section for these studies, which can be viewed through the NPS DataStore, associated hyperlinks, or upon request to the park.

The management strategies identified in this plan will be accomplished over time. They will be adjusted as needed during the implementation phase. Individual actions directed by this plan will be evaluated for compliance with federal regulations when projects are ready for implementation.

### Planning History and Context – Wáa Sá Woonei? (How Did We Do It?), Adax Yéi Jiwtuwanéi Át (Things We Worked on Before)

This document is part of the park's planning portfolio and fulfills a park planning priority for resource preservation and visitor use management in the backcountry and wilderness of the park. A park planning portfolio is the collection of planning documents that guides decision making and satisfies law and policy. Glacier Bay's planning portfolio creates a logical, trackable guide for park management actions.

The National Parks and Recreation Act of 1978 (54 USC 100502) requires the preparation and timely revision of general management plans for each unit of the national park system. At a minimum, each park must have a plan or series of plans that address the four following statutory requirements identified in 54 USC 100502:

- 1. measures for the preservation of the area's resources;
- indications of types and general intensities of development (including visitor circulation and transportation patterns, systems, and modes) associated with public enjoyment and use of the area, including general locations, timing of implementation, and anticipated costs;
- 3. identification of an implementation commitment for visitor carrying capacities for all areas of the unit; and
- 4. indications of potential modifications to the external boundaries of the unit and the reasons, therefore.

The park's 1984 General Management Plan also incorporated plan requirements and consideration factors listed at section 1301(b) and (c) of ANILCA.

Glacier Bay's existing general management planning documents continue to provide relevant guidance and are listed below. These plans may be supplemented through the development of additional planning documents.

#### Associated park plans:

- General management plan (1984)
- Vessel quotas and operating requirements environmental impact statement (2003)
- Harvest of Glaucous-Winged Gull Eggs by Huna Tlingit in Glacier Bay National Park: Final Legislative Environment Impact Statement (2010)

- Foundation statement (2010)
- Frontcountry management plan (2019)
- Marine management plan (2023)

This plan is consistent with the general guidance of the existing documents listed above and described in more detail in appendix G. The proposed visitor use guidance and extent necessary determination for commercial services in wilderness further refines the overall management objectives and zoning for the park as outlined in the 1984 General Management Plan. When completed, this backcountry and wilderness management plan will be the definitive guide for day-to-day park wilderness management in the portfolio. This document will also be supplemented by the Keeping It Wild 2 framework "Building Blocks for Integrating Wilderness Character," which describe the fundamental information needed to effectively integrate wilderness character into park planning, management, and monitoring.

Together, these plans are components of the park's planning portfolio and help the park to meet the general management plan statutory requirements of 54 USC 100502. The following section describes some of the legislative actions related to this planning effort. Additional related studies and administrative commitments are found in appendix G.

#### **Legislative Context**

Management in Glacier Bay National Park is directed by federal mandates, including the Organic Act of 1916, the enabling proclamation (1925), the Wilderness Act (1964), ANILCA (1980), NPS Management Policies (2006), and other legislative actions listed on the following page, with a summary of the legislative commitments tied to management of the wilderness detailed in appendix G. Additional information on ANILCA and wilderness in Alaska can be found at <a href="https://nps.gov/subjects/aknatureandscience/anilcawilderness.htm">https://nps.gov/subjects/aknatureandscience/anilcawilderness.htm</a>.

#### Associated legislation:

- National Park Service Organic Act (1916)
- Presidential Proclamation 1733 (1925)
- Presidential Proclamation 2330 (1939)
- Presidential Proclamation 3089 (1955)
- Presidential Proclamation 4618 (1978)
- Wilderness Act (1964)
- National Historic Protection Act (1966)
- National Environmental Policy Act (1970)
- American Indian Religious Freedom Act (1978)
- Archaeological Resource Protection Act (1979)

- Alaska National Interest Lands Conservation Act (1980)
- Native American Graves Protection and Repatriation Act (1990)
- Huna Tlingit Traditional Gull Egg Use Act Public Law (PL) 113-142 (2014)

#### Associated policy:

- NPS Management Policies, 6.3
- NPS Director's Order 41: Wilderness Stewardship

#### **Management Context**

Access to wilderness. The wilderness areas in Glacier Bay National Park are unique in that the nearly 1,200 miles of shoreline and associated waterways along the wilderness boundary provide a high level of access along the coast to wilderness areas. The goal of the zoning and actions in this plan is to provide a range of experiences across the wilderness areas of the park.

Commercial services and concessions. Commercial services available in the park are managed under two types of authorities: commercial use authorizations and concession contracts. Currently, 15 to 20 operators use commercial use authorizations, providing 12 different service types (e.g., air taxi, hiking, mountaineering), and 41 concessioners operate under concession contracts, providing 10 different service types (e.g., lodging, tour vessels, charter vessels, cruise ships). While most of these users operate in the wilderness, some provide commercial visitor services limited to the Frontcountry Zone or Glacier Bay Zone. Most visitors experience the park using one or more of these commercial operators.

The park facilitates a backcountry kayak drop-off service through a contract with a concessioner. The concessioner operates lodging services in the frontcountry zone, food and beverage services, operates the day boat that provides visitors the opportunity to access tidewater glaciers, and provides camper and/or kayaker drop-off services. By managing the drop-off locations and schedules, the park disperses campers to reduce impacts and enhance wilderness experiences. A balance in management of day boat uses for kayak drop offs versus wilderness viewing is an ongoing challenge (NPS 2017).

Guided fishing in Glacier Bay National Park has been limited primarily to marine waters, with a few authorized exceptions for freshwater guided fishing by historic operators under specific time- and area-limited conditions. The park also has commercial use authorizations for air taxi services.

In addition, the park manages tour and charter vessel use through concessioner contracts. Depending on the service type, these operators may be authorized to provide different types of activities.

For more information on the extent to which these commercial services may be allowed, refer to the extent necessary determination (appendix B).

Collaborative fish and wildlife management. The National Park Service has the authority to protect fish and wildlife populations from impairment, has statutory direction to ensure the conservation of natural and healthy populations of fish and wildlife, and to address threats to park resources or values (under the Organic Act, ANILCA, and certain federal jurisdiction authorities over lands and waters secured pre-Alaska statehood and pre-ANILCA). The joint master memorandum of understanding with the State of Alaska recognizes that the National Park Service has a responsibility to conserve fish and wildlife resources, and the State of Alaska has the management authority to protect healthy, unimpaired populations to provide for the sustained yield of fish and wildlife populations across all Alaskan lands for the benefit of all Alaskans (ADFG and USFWS 1982). At the same time, many federal and state agencies are cooperative partners with complementary responsibilities and management roles applicable to conservation, human safety, or visitor experience concerns related to fish and wildlife.

The State of Alaska has the primary responsibility to manage fish and resident wildlife within the state. If park staff or outside agencies notice a change in fish and wildlife populations, which may be the result of human pressures that can be managed at the park level (e.g., overfishing in certain areas of the park, fishing gear impact concerns, reported wildlife incidents), the park will consult with cooperative partners, including the State of Alaska, on this issue to determine needed corrective actions through a science-informed and regulatory decision-making approach to take corrective action. Park actions will generally follow the management action progressions listed below using transparent processes (public press releases, proposals to the State of Alaska, park compendium, Code of Federal Regulations, and public comment opportunities).

The National Park Service is also committed to fostering cooperative relationships to manage fish and wildlife populations, including data sharing, research, incident management, protective measures or emergency closure protocols (such as through the State of Alaska Board of Fisheries process to change sport fishing regulations), memorandum of understanding, and a joint fisheries management plan. The memorandum of understanding with the State of Alaska, signed in 1982, recognizes that the state and the National Park Service share a mutual concern for fish and wildlife resources and their habitats and a desire to develop a cooperative relationship (ADFG and USFWS 1982).

The park will also strengthen the role of federally recognized tribal governments representing the Huna and Yakutat clans. In collaborating on indigenous stewardship approaches to fish and wildlife management, these actions will be for the benefit of all fish and wildlife populations.

Government-to-government consultation. The park has identified the groups traditionally associated with park locations and has developed strong relationships with most traditionally associated groups, including three federally recognized tribal governments, one nonfederally recognized tribe, and three Alaska Native Claims Settlement Act of 1971 regional and village corporations. The park formally consults with federally recognized tribal governments at least once annually but informally consults with these entities much more frequently. Park staff located in indigenous communities assist in enhancing communication and building relationships with tribal governments.

In 1995, the park signed a memorandum of understanding with Hoonah Indian Association, the federally recognized tribal government representing the Huna clans. This agreement has been reauthorized every five years. Additionally, the park and Hoonah Indian Association have collaborated for many years through cooperative agreements focused on Journey to Homeland events and the development and operation of the Huna Tribal House.

In 2002, the park along with Wrangell-St. Elias National Park and Preserve, signed a memorandum of understanding with Yakutat Tlingit Tribe, the federally recognized tribal government of the Yakutat clans. This document outlines NPS's commitment to partner with Yakutat Tlingit Tribe on matters associated with Yakutat Tlingit Homeland in the Dry Bay Preserve and sections of the Outer Coast as well as lands within Wrangell-St. Elias. The park has also partnered with Yakutat Tlingit Tribe through cooperative agreements for many years to implement Journey to <u>Gunaaxoo K</u>wáan Homeland programs.

Research permitting. Opportunities to study unique natural phenomena in the park are defined by the enabling legislation, fundamental to which is research on glacial behavior and the newly uncovered landscape and subsequent biological communities that develop in the wake of glacial recession. Research projects continue to be supported by the park. Research activities follow Wilderness Act and subsequent policy. Since 2010, the park's science-in-wilderness interdisciplinary team has evaluated all research proposals (internal and external) using the science in wilderness framework (USFS 2010) to consider and mitigate impacts to wilderness character and conduct necessary minimum requirement analyses procedures.

Aviation. Much of the wilderness that is not accessible by watercraft is almost exclusively accessed by aircraft. Under federal law, the Alaska National Interest Land Conservation Act authorizes fixed-wing aircraft landings and takeoffs in Alaskan designated Wilderness areas. Forms of access prohibited under section (4)c of the Wilderness Act include helicopter and rotary-wing aircraft landings, takeoffs, and dropping off or picking up material and supplies. Under park-specific restrictions, floatplane landings and transiting in Glacier Bay (including designated Wilderness) is managed seasonally to offer a range of visitor experiences, including recreational opportunities in nonmotorized settings. The park further requires that fixed-wing aircraft fly above a minimum altitude of at least 500 feet to protect wildlife and visitor experiences.

Also, while the National Park Service does not manage airspace, the Federal Aviation Authority guidance for "Noise-Sensitive Areas" (USDOT 2004) applies to overflights, requiring pilots to stay 2,000 feet above ground level. Further, recognizing that aircraft noise is a concern for terrestrial and marine wildlife, migratory birds, and the preservation of the wilderness character, the National Park Service will also work with the Federal Aviation Authority to address overflight management concerns, including any impacts to resources as well as wilderness experience. Section 1110(a) of ANILCA specifically authorizes the secretary of the interior to issue "reasonable regulations" to protect the "natural and other values" of the affected area. This section also authorizes the secretary to close an area otherwise open to these types of motorized vehicles for such "special access" if, after notice and a hearing in the vicinity of the affected area, the secretary finds that such use would be "detrimental to the resource values of the unit or area."

## SCOPE OF THE PLAN – HAA LÉELK'W HÁS AANÍ JEEYÍS ÁYÁ YÁ X'ÚX' (THIS PLAN IS ABOUT OUR GRANDPARENTS' LAND)

This plan will guide wilderness management specific to the approximately 2.7 million acres of designated Wilderness lands and waters in Glacier Bay National Park (see map, figure 2).

Glacier Bay designated Wilderness boundaries and acreages reflect congressional intent as specified in the original maps and language. Thus, while shoreline mean high tide boundaries are subject to isostatic rebound and require periodic cartographic boundary adjustments, internal boundaries subject to glacial retreat or surges and wilderness waters with point-to-point boundaries retain fidelity to the original maps, recognizing that advances and retreat are part of the Glacier Bay history.

#### Areas Outside the Scope of This Plan

- Inholdings
- The Glacier Bay Preserve (this area is addressed under another plan)
- Alsek River visitor activities (this activity is addressed under another plan, acknowledging that rafting management decisions require an international treaty). At the same time, this plan offers broad designated Wilderness stewardship guidance, and where possible, addresses the relationships between wilderness and nonwilderness areas of the park, acknowledging their interconnected relationship.
- Park lands and waters previously described as eligible wilderness designation are managed by the National Park Service to preserve their eligibility status by avoiding nonconforming or incompatible uses until formal designations are considered by Congress. At the same time, this plan acknowledges the interconnected relationship of the park's designated Wilderness and eligible wilderness areas and offers a stewardship model that could be applied following any status change. This and future planning documents will not transition any lands or waters from eligible to designated wilderness, as that requires an act of Congress.
- Vessel activities in park waters (these activities are addressed in park regulations, vessel quotas and operating requirements, commercial contracts and permits, and the marine management plan). At the same time, this plan acknowledges the interconnected relationship of the park's designated Wilderness areas and the importance of holistic park management with respect to
  - vessel use in nonwilderness waters that adversely affects wilderness character in designated Wilderness
  - Glacier Bay social science indicators that visitor experiences of "wildness" do not require setting foot in designated Wilderness (Furr et al. 2021; Swanson and Vande Kamp 2011)

- Nonwilderness park lands acquired after ANILCA that either do not fall within designated Wilderness boundary envelopes (as specified in section 5(a) of the Wilderness Act and section 701 of ANILCA) or that were acquired with covenants or characteristics incompatible with wilderness designation. This includes Chookanhéení/Berg Bay lands (previously allotment 03-110, A-001770, acquired in 2020 through a cooperative effort), managed by the National Park Service, with rights held by the Hoonah Indian Association through a deeded easement for cultural uses.
- Terrestrial sites near sea level with a marine nexus (addressed in the 2023 marine management plan) where installations predate the designation of park wilderness and have a 1980 ANILCA allowance for "reasonable access to and operation and maintenance" under section 1310, "Navigation Aids and Other Facilities." These sites include US Coast Guard permitted installations and activities that support maritime aids to navigation and provide a national distress and response system.
- The frontcountry portion of the park surrounding Bartlett Cove (this area is addressed in the 2019 frontcountry management plan)

#### PLAN BACKGROUND AND CONTEXT - SHKALNEEK (THE STORY)

#### The Park – Haa Léelk'w Hás Aaní (Our Grandparents' Land)

Glacier Bay National Park encompasses more than 3.2 million acres of rugged mountains, dynamic glaciers, temperate rainforests, coastlines, and fjords in remote southeast Alaska. Originally established as a national monument by presidential proclamation in 1925, the land became a national park with new land additions and designated Wilderness, in 1980 under the Alaska National Interest Land Conservation Act. The park has always been a place of dynamic change.

Since 1986, Glacier Bay National Park and Preserve has been part of the Glacier Bay-Admiralty Island Biosphere region, one of the largest biosphere regions in the world representing an outstanding example of the marine and terrestrial ecosystems of the Sitkan Biogeographic Province of North America. In 1992, Glacier Bay National Park and Preserve joined with Wrangell-St. Elias National Park and Preserve in the United States and the Tatshenshini-Alsek Provincial Park and Kluane National Park in Canada to form a 25-million-acre United Nations Educational, Scientific and Cultural Organization world heritage site, one of the largest protected wilderness areas on the planet outside Greenland and the Antarctic.

The total terrestrial area of Glacier Bay National Park is approximately 2.7 million acres and consists primarily of mountains carved by glaciers with narrow beaches along the coast. The six distinct mountain ranges in Glacier Bay National Park include the Fairweather Range, the Saint Elias Mountains, the Takhinsha Mountains, the Beartrack Mountains, and portions of the Alsek Range and Chilkat Range. Glacier Bay National Park is considered to have significant glacial coverage, and according to Loso et al. (2014), satellite imagery showed that glacial ice covered 2,055 square miles (5,323 square kilometers) of Glacier Bay National Park in 2010, an estimated 40% of the total park area.

The marine areas of Glacier Bay National Park are composed of Glacier Bay in the center of the park, Icy Strait, Cross Sound, and Excursion Inlet along the southern border of the park and the Gulf of Alaska along the western boundary (see maps, figures 1 and 2). Glacier Bay is approximately 62 miles (100 kilometers) in length, with widths varying from 9 miles (15 kilometers) at mid-bay to 2.5–5 miles (4–8 kilometers) in the lower and upper portions.

The park lies within the ancestral Homelands of two Tlingit tribes, the Huna and Yakutat Tlingit, who sustained themselves for many generations from the area's abundant resources. Although exact settlement dates are difficult to determine, archeological evidence and oral history document a long-term, sustained relationship between the Tlingit and both the marine and terrestrial systems of Glacier Bay, Icy Strait, and the park's Outer Coast. According to the Tlingit, the park has been peopled from time immemorial; this human presence has shaped, and been shaped by, the landscape and ecological systems of the area. In particular, the marine and terrestrial ecosystems that developed in Glacier Bay following glacial retreat in the late 1700s evolved with ongoing human interaction until the late 20th century. The relationship between the park's land and waters and the ancestral and living Tlingit is integral to the park's intact ecosystem.

#### The Glacier Bay Wilderness - Kawayéil' Aan (Quiet, Peaceful Land)

The Glacier Bay designated Wilderness is one of the largest areas in the national wilderness preservation system (2.7 million acres) and include most of the land in the park above the mean high tide line and around 53,000 acres of marine wilderness. The National Park Service has jurisdiction over all marine waters (both water column and submerged land) within Glacier Bay National Park, as confirmed in 2005 by a Supreme Court ruling (*Alaska v. United States*, 545 US 75, 125 S. Ct. at 2153). These wild waters and lands provide premium opportunities for recreation, exploration, and adventure in glacially influenced marine, terrestrial, and freshwater ecosystems.

You can read more about the wilderness character qualities of the Glacier Bay Wilderness on the park website (<a href="https://nps.gov/glba">https://nps.gov/glba</a>).

## Parkwide Visitor Demographics and Experiences – Aadóo Sáwé Hás Wé Sh Tuwáa Kasyéiyi? (Who Are the Visitors/Tourists?)

America's national parks are among our nation's greatest treasures, managed for the enduring benefit and legacy of present and future generations. A gem among these national treasures, Glacier Bay National Park offers a sample of truly wild America, an awe-inspiring place to experience nature on its own terms in a dynamic landscape, where ancient Tlingit heritage blends with living cultural traditions.

Glacier Bay delivers powerful natural and cultural experiences every day. Annual park visitation is about 672,000 visitors (NPS 2019a). Most of these visitors are cruise ship passengers aboard vessels who do not disembark in Glacier Bay (626,000 passengers) (NPS 2019a). Around 30,000 visitors visit Bartlett Cove annually, or the park frontcountry, where services and developed facilities in 7,120 acres of terrestrial nonwilderness support higher concentrations of visitors and serve as an entry point for exploration of wilderness areas. (NPS visitor use data, 2017).

On average, park visitors travel more than 3,000 miles from home to visit the park from around the world (20%), across the country (80%), within the state (>5%), or nearby areas (2%) (RSG 2016). Overall park visitor expenditures and contributions total \$168 million in economic output, benefit 400 different companies, support an estimated 2,090 jobs, provide \$58.8 million in labor income, and add \$94.5 million in total contributions to the national gross domestic product (NPS 2019b).

#### The Backcountry and Wilderness Visitor

Annually, an average of 6,000 backcountry visitors (2009–2019 average) (NPS 2009–2019) participate in some form of camping or are aboard small vessels (private and charter) that may offer shore landings. These visitor numbers have been stable for many decades, due in part to a variety of limiting conditions (e.g., remoteness, expense, required equipment and skill, limited prime season transportation, guiding, rental options, and NPS-regulated marine vessel quotas to protect park wildlife and other resources while providing a range of recreational opportunities to park visitors). At the same time, notable fluctuations do occur—for example, 1991 saw a high of 9,657 campers and boaters, while 2021 saw a low of 989 due to COVID-19 visitor travel disruptions (NPS 1991–2021).

Approximately 16,500 annual tour vessel passengers (NPS 2019a) experience the park primarily on sleep-aboard tour vessels holding between 100 and 150 passengers. Since 2010, tour vessels engaging in off-vessel activities, including shore excursions and small boat tours, have significantly increased, intensifying and creating new on-shore impacts, both to the natural environment and to the experience of overnight backcountry visitors or visitors arriving by private or charter boat. The number of tour vessel passengers visiting park wilderness increased from 1,246 people in 2016 to 3,634 people in 2021 (NPS 2023c).

Visitor survey data was collected in 2017 and 2018 to characterize the park backcountry experience for this planning effort. Sampling primarily targeted visitors engaged in independent recreation (often in designated Wilderness) but also captured data from visitors on targeted classes of motorized marine vessels outside of wilderness (Furr et al. 2021).

Overall, visitors surveyed in 2017–2018 had a median age of between 50 and 59 years old and were 91.5% white. More than 85% of visitors had at least a four-year college degree, and more than 50% of visitors had an annual household income of more than \$100,000 (Furr et al. 2021). Additional visitation characteristics are as follows:

- Independent backcountry users include nonmotorized use (primarily sea kayaking, few backpacking) and motorized use (private vessels).
- Independent kayakers and private boaters reported doing substantial planning for their trips, and 75% reported knowing where they planned to camp or anchor (Furr et al. 2021).
- Some visitors use commercial services to access the wilderness, including 36% of visitors who reported using a guide while visiting Glacier Bay, and 26% said they rented equipment on their trip to Glacier Bay (Furr et al. 2021).

• Visitors reported viewing wildlife, experiencing wilderness, solitude, having an adventure, and experiencing glaciers as their top purposes for visiting (Furr et al. 2021).

Specific to the wilderness visitor experience (excluding the Alsek River, covered in a separate plan), social science characterizes the range of Glacier Bay Wilderness experiences as a once-in-a-lifetime trip by people seeking Alaska wilderness experiences of solitude, natural sound, and renewal through connection to nature, along with adventure, learning, and experiencing glaciers. Whether as day visitors, who spend on average 10 hours, or overnight visitors, who spend an average of five days in the park, research shows that most visitors rapidly develop a strong place attachment to Glacier Bay—meaning the "place" provides the best opportunities for a certain activity or experience (Manning 2011)—and few leave disappointed. In openresponse questions, wilderness visitors commented that wildlife, learning, and experiencing glaciers added the most to the experience. "Poor weather" rated as the top negative experience (14%) and 43% of visitors responded that "nothing" detracted from their experience (Furr et al. 2021).

Most park visitors experience the wilderness from the outside looking in, viewing designated Wilderness from the deck of a boat within approximately 537,000 acres of park nonwilderness waters. These visitors experience the park seasonally via cruise ships, tour and charter vessels, and day boat tours between Bartlett Cove and upper Glacier Bay. Surrounded by the wilderness landscape, many people develop a deep connection to the wilderness's scenic, cultural, and natural resources and conservation values, even without setting foot on shore.

Some visitors enjoy the more intimate wilderness experience of traveling Glacier Bay's scenic shorelines. Unlike much of the vast wilderness where natural barriers make access difficult, this wilderness boundary is uniquely accessible by water for Glacier Bay's customary mix of motorized and nonmotorized users (tour and charter vessel, private motorboat/sailboat, floatplane, day boat camper drop-off service, and sea kayak). This accessibility supports a range of wilderness experiences, including opportunities for engaging in wildlife viewing, sightseeing, natural and cultural interpretation, sea kayaking, angling, camping, beach walking, and hiking. This accessibility also enables experiences of tidewater glaciers and hiking to accessible glaciers, that, while increasingly limited due to glacial recession, is an opportunity central to the formation of Glacier Bay as a national monument in 1925.

Some visitors get a taste of wilderness, entering terrestrial wilderness from originating trails or shorelines in Bartlett Cove. These frontcountry-proximate wilderness experiences are more readily available to Bartlett Cove visitors who may choose to stay closer to the frontcountry or may not otherwise be able to access a more extended or immersive experience because of physical conditions or the lack of time, equipment, or backcountry skill. Wilderness access originating from the community of nearby Gustavus (including Bartlett Lake/Towers Trail and Falls Creek) affords visitors (who have ground transportation available) and residents more rugged hiking and routes into untracked wilderness.

Other visitors travel farther into the wilderness to be fully immersed in wilderness lands and waters, a trip that requires serious preparation, skill, equipment, and place-specific

knowledge, given Glacier Bay's dynamic and remote environment. These visitors often look to the National Park Service and commercial partners for last supplies and trip support as they launch their trip through the Beardslee Islands tidal cut at the northeast end of Bartlett Cove, less than a mile from the most fully developed area of the frontcountry. Water access through the tidal cut opens and closes with the tides (getting shallower each year due to isostatic rebound), creating a natural gateway to marine wilderness and the largest area of the park with seasonal nonmotorized restrictions.

# Wilderness Day Use and Access – Aadéi Áwé Yaa Ntookoox Haa Léelk'w Hás Aaní (Traveling by Foot in Our Grandparents' Land) and Yaakw Yik Yaadéi Yaa Has Nakoox Haa Léelk'w Hás Aaní (Traveling by Boat in Our Grandparents' Land)

Wilderness day use and access at Glacier Bay typically occur either through viewing the wilderness from a cruise ship traveling on nonwilderness waters, hiking into wilderness from the frontcountry near Gustavus and Bartlett Cove, or with the aid of private or commercial vessels.

Day users aboard cruise ships and other vessels experience the wilderness from a distance. Although this experience aboard a cruise ship often involves thousands of other passengers, many individuals confirm that a profound experience of its "wildness" without ever setting foot in Glacier Bay's designated Wilderness.

The marine wilderness surrounding the Beardslee Islands is also accessible by marine vessel for both day and overnight use. Many visitors venture deeper into the Glacier Bay Wilderness for day use, but this is typically done using commercial or private vessels that drop off visitors at designated locations. Most day use beyond areas proximal to the frontcountry occurs near tidewater glaciers or other glaciers and glacial features that tend to be easier to hike to within a couple of hours. This type of day use access is facilitated by commercial or private vessels. In addition to tour, charter, and private vessels, cruise ships also provide day use access to nonwilderness waters adjacent to the wilderness of Glacier Bay.

Day use at Glacier Bay occurs in or proximal to the frontcountry of the park or is aided by commercial services through vessel drop offs near the Glacier Bay Wilderness. Although visitors do access the backcountry and wilderness by aircraft, these tend to be longer, overnight excursions. For those visitors who access wilderness contiguous to the frontcountry for the day, access occurs from the Bartlett Cove area, typically along the Bartlett River Trail or the route to Point Gustavus. Visitors also access the wilderness from Gustavus, including through the Towers Trail to Bartlett Lake.

## Scientific Research in the Park – Yaa Ntusakwéin Yá Haa Léelk'w Hás Aaní (We Are Beginning to Learn about Our Grandparents' Land)

In its 1925 enabling proclamation, a fundamental purpose for protecting Glacier Bay was its value to future generations as a living laboratory for humanity to gain scientific knowledge based on the area's "unique opportunities for the scientific study of glacial behavior and of resulting movements and development of flora and fauna and relics of ancient interglacial forests."

Today, having hosted more than a century of research resulting in countless important contributions to science, Glacier Bay is considered a globally important reserve for learning about nature and helping the National Park Service and other management agencies wisely manage protected areas the world over. Moreover, Glacier Bay's terrestrial and marine wilderness ecosystems offer unique scientific perspectives on intact natural systems and planetary trends, including those that may change due to human influences (e.g., accelerated glacier recession, ocean acidification, wildlife abundance and health).

### Access to Tidewater Glaciers and Hiking Accessible Glaciers – Sít' Niyaadéi (*Traveling to the Glacier*)

Also central to the formation of Glacier Bay as a national monument in 1925 was the presence and ability to access and enjoy "Tidewater glaciers of the first rank in a magnificent setting of lofty peaks, and more accessible to ordinary travel." The desire by visitors to see and enjoy tidewater glaciers remains just as relevant today—even though their extent has dramatically changed over the past century.

Because of this fundamental park purpose, access to tidewater glaciers and hiking-accessible glaciers in designated Wilderness justifies greater allowances for visitor experiences within sight and sound of other parties. Specifically, this access includes areas where safe marine vessel approaches and anchorages enable easy shore visitor access comparable to 1890s steam cruiser beach landings. For the purposes of this plan, this access is interpreted more broadly to include Glacier Bay's customary mix of motorized and nonmotorized marine visitor access modes (tour and charter vessels, private motorboats, sailboats, sea kayaks and other human powered vessels).

#### Tlingit Homeland – Haa Aaní (Our Homeland)

Tribal members travel to Homeland independently and in large groups for ceremonies or other activities or events. Independent tribal visitation typically involves small groups traveling by small vessel to harvest resources, primarily sockeye salmon (gaat), black chitons (shaaw, marine mollusks), and various berries (tléik'w). In recent years, most large tribal group gatherings in the park are those cooperatively sponsored by the National Park Service, the Hoonah Indian Association, or Hoonah City Schools. These "Journey to Homeland" events have included catamaran trips to the glacier face to perform ceremonies, group harvesting trips to Dundas Bay or Bartlett Cove, educational trips to selected sites, youth kayak or backpacking trips throughout the park, and gull egg (k'wát) harvesting trips.

Importantly, tribal visitation to Homeland is not limited to physical visitation. In Tlingit culture, an individual or group of individuals are symbolically transported to a sacred place when a place name is uttered or when a story, song, or dance related to a place is performed. When clan-owned regalia (at.óowu) depicting sacred places or events that occurred in a sacred place are brought out at ceremonies, they also evoke visitation. Thus, virtual visitation to Homeland is frequent. These intangible visits are frequent and of great spiritual significance.

Tlingit ancestors (haa shagóon), whose spirits remain in Homeland, are not visitors but rather residents of the Glacier Bay Wilderness. Their presence in Homeland is recognized

and honored on every trip to Homeland. For the Tlingit, a return to Homeland is an opportunity to be in the presence of those who have gone before and to engage with the landscape in the same way that ancestors engaged. Disrespectful behavior (ligaas) in Homeland by both tribal members and other visitors offends those ancestral spirits whose role is to maintain Tlingit presence in and to steward Homeland.

# The Wilderness Act and Indigenous Concepts of Homeland – Has Tu Áani Áwé <u>Ka</u> Uhan Tsú (*The Land Belongs to Them* [All the Sentient Beings] and We Belong to It Also)

Wilderness as defined in the Wilderness Act of 1964 is an area "where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain" and which "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable." The act's language has often been narrowly interpreted, leading to criticism that it fails to recognize indigenous use and occupation of many wilderness areas and the valuable ecological role that traditional indigenous communities played through ongoing interactions with lands and waters. However, this narrow interpretation was not the original intent of the act. Subsequent legislation, ANILCA, and agency-specific policy and regulations have clarified the act's intention and the necessity of acknowledging past human habitation and use, as well as current indigenous use, of wilderness areas throughout the nation.

Importantly, indigenous perspectives about traditional Homeland have much in common with the aspirations of the Wilderness Act. Both embrace the interrelatedness of humans and the larger community of life; the need for humility, respect, and restraint in relating to the natural world; the need to think forward to future generations (Haa yatx'í jeeyis áyá; for our children); and the value of meaningful personal connection to place.

At Glacier Bay National Park, park managers recognize that the continued relationship of the Tlingit with their Homeland is as much a part of its wilderness character as the glaciers, the bears, and the opportunity for an unconstrained experience. Management strategies for Glacier Bay's wilderness will consider that the landscape has supported humans since time immemorial and will facilitate ongoing physical and spiritual connections between traditional people, their ancestors, and their Homeland to ensure that the Glacier Bay Wilderness remains a living community. This plan advances the park's commitment to honoring Tlingit Homeland concepts, as presented in the following text, enhancing relationships between the agency and traditional people, and collaborating on cultural and natural stewardship of the Glacier Bay Wilderness.

# Haa Léelk'w Hás Xus.eetí Aadéi Yaa Ntoo.át Walking in the Footsteps of Our Grandparents



Carved and painted footprints traverse the length of the *Yaa Naa Néx Kootéeyaa* (the Healing Totem Pole) in Bartlett Cove. They travel symbolically through time, past carved images of abundant resources and

traditional long houses, across the advancing glacier's face, and cling to the edges of elder's tears. Reaching the carefully crafted depiction of *Xunaa Shuká Hít*, Huna Ancestors' House, at the very top of the 20-foot pole, the footprints metaphorically circle back and around, just as the Tlingit themselves continue to retrace ancestral paths in Glacier Bay Homeland.



Since time immemorial—time before memory—Tlingit clans have embraced and been embraced by Glacier Bay Homeland. They did not simply occupy or settle or inhabit the land, they shaped and, in turn, were shaped by the dynamic forces of an environment that surged and retreated, evolved and adapted, grew and senesced. Their ancestors effected ecological change in myriad ways—through the simple acts of harvesting berries and seal, crafting clan houses from nearby trees, and excavating rocky shorelines to facilitate canoe landings. But even the very substance of Glacier Bay Homeland—its shape and depth—was sculpted by acts of human courage—and human frailty. In the ancestral past, a young Tlingit girl called down a far distant glacier, forever erasing the braided river channels of *L'éiwshaa Shakee Aan* (Sand Hill Mountain Land, near Bartlett Cove). A clans' human sacrifice halted the glacier's advance at **Sdakweix Lutú** (Point Adolphus) just before the advancing ice choked off the clans' sole connection to the productive waters of the Outer Coast. In a far distant village, young men's disrespect manifested an avalanche and a subsequent tsunami in Ltu.áa (Lituya Bay), and shamanic powers caused the greatest of mountains, *Tsalxaan* (Mount Fairweather), to tremble and split. Even today, glaciers calve, icebergs slide gently away, and turbulent waters settle when the Huna Tlingit proffer food and tobacco to the spirits of living and nonliving beings. The Tlingit relationship to land and sea is such that a single intentional act—or a moment of disrespect—can direct geological events and the resulting cascade of forever-altered ecological processes. *Tlingit* Aaní, Homeland, is not free from human control, but rather in an intimate and balanced relationship with it.

Maintaining this delicate balance requires ongoing, respectful interaction. Elders say, "a káx yan tudél wé tl'átgi ka at wudikeen áani aat ka éil"—we are stewards of the land, the air, and the sea. As vital components of the web of life, humans must fully participate in the seasonal rounds of gathering and harvesting to maintain balance. Failure to do so creates instability in the natural order, trammeling the earth, the air, and the sea. Community members, especially clan and house leaders, are caretakers, adél kuyawdzitaak, of the resources within their territory.

Just as the host of any gathering must properly honor his guest through respectful interaction if he wishes them to return, so must a caretaker host and honor the salmon, the seal, the deer upon which the community depends. Tlingit caretakers are unsettled and shamed when the gifts of the land and sea are not accepted and shared. Repercussions are sure to ensue; salmon left unharvested may refuse to return in future years and sea otters left unchecked may deplete the foods necessary to feed families. Tlingit protocol demands that proffered gifts be received and reciprocated in an unending cycle of giving and receiving. To receive from the land is to nurture it.

And to walk on the land is to connect with all those who have walked before you. Young people say, "Haa léek'w hás x'us.eetí aadéi yaa ntoo.át," we are walking—stepping again—in the footsteps of our ancestors. Figuratively, each Tlingit does so by embracing long-held traditions and protocols, but literally, living Tlingit walk in their grandparents' footsteps through repeated reenactments of the same journey, the same carefully ordered round of harvesting and celebrating in the same familial places. It is honorable to hold, and be guided by, deep ancestral knowledge of the land and sea. For the Tlingit, connection with the land is not focused on self-fulfillment or acquisition of new knowledge but rather on paying homage in a carefully proscribed manner to those who guided you there. The land is alive with ancestors. Their presence is longed for, sought after, and deeply experienced on every journey home. They are ritually fed—offered dry fish, seaweed, salmon, and seal oil—whenever one ventures in Homeland. Open to their presence, a fisherman is guided—and rewarded—by his father's wisdom, a woman harvesting spruce roots at Tléikw Aaní (Berry Land, Dundas Bay) sings with her recently departed auntie, and a young girl is imperceptibly drawn to her ancestral village site on the shores of Lituya Bay. Accompanied by ancestors who speak and sing and respond, the Tlingit travel the same paths over and over again, warmed by the presence of unseen others.

Ancestral footsteps traverse much of *Tlingit Aaní*, including rocky shorelines, river valleys, mountaintops, and the vast expanses of ice covering the majority of the Huna territory. While Tlingit life now largely centers around productive shoreline habitats, it wasn't always so. Many clans recount "Under the Ice" stories, which document intrepid ancestral migrations across and under sheets of glacial ice to find—and settle—richer stretches of coastal shoreline. Rock cairns dotting the highest peaks in Homeland attest to explorations far above tree line, perhaps undertaken during the dangerous flood times that elders speak quietly of. Storytellers remember and share the epic journeys of *Kaakeix'wtí*, a *Xákwnoowúkeidi* man who travelled the Outer Coast alone, eventually crossing the Brady Icefield carrying newly discovered copper treasures to

his kin at *L'éiwshaa Shakee Aan*. And clans fleeing the rapidly advancing glacier in *S'é Shuyee* (Area at the End of the Glacial Silt, pre-little Ice Age Glacier Bay) dispersed throughout Icy Strait, finding solace in new settlement sites in *Kuyeik' Le'aan* (Peaceful Village Excursion Inlet), *Káax'noowú* (Grouse Fort, Homeshore), and *Xóots Geiyí* (Brown Bear Village; Port Frederick). These wanderings attest to the Tlingit's ability and willingness to explore new territory in search of safer village sites and more plentiful resources. They journeyed not in pursuit of personal enlightenment or recreation but rather out of necessity—to sustain their clan.



The Tlingit were able to explore new places not because distant shorelines or thickly wooded hillsides were untouched but rather because they were filled with kin. Fully inhabited, *Tlingit Aani* is alive with the spirits of animate and inanimate beings—plants and animals, rocks and ice. *Has tu áani áwé ka uhan tsú*, the land belongs to them [all the sentient beings] and we, as humans, belong to it also. Place names reflect this status; geographical locations are claimed by the resources, the sentient beings, that populate the area: *K'aach' X'aayi*, is "the point that belongs to the seaweed," *K'wát' Aani*, is "the land that belongs to the gull eggs," and *Yáxwch'i Aani*, is the "stretch of Outer Coast ruled by the sea otters."

Even the farthest reaches of the Fairweather Range are inhabited and claimed as *Yéik Yi Aaní*, "land belonging to the spirits." One never experiences solitude in *Tlingit Aaní* but rather is surrounded by the presence of familial others. Berry pickers speak to their kin, the bears, asking for protection and mercy. Killer whales receive songs from clan brethren and in return, shepherd a vessel safely home. Black-legged kittiwakes are regaled by their sisters, the *T'akdeintaan* Clan women, and reciprocate by crying out the names of those passing *Gaanaxaa* (Boussole Head). Icebergs near Margerie Glacier respectfully addressed as *Chookanshaa* (*Chookaneidí* Clan women) change course to safely slip around approaching vessels. Animate and inanimate beings are sibs—as familial to a Tlingit as a human brother or sister.

To say that a place is "claimed" by a Tlingit clan as territory belies the essence of the relationship between people and place. True, the borders of clan territories are limned on maps of Glacier Bay today, but the myriad place names that cover the land may better represent the Tlingit bond with Homeland. They describe more than just location—they convey the rich tapestry of harvesting areas, sacred places, and the scenes of geological and historic events that comprises the Tlingit world. Clan owned crests depicting these





named places, and the stories and songs associated with them, document tragic and triumphant events in a particular clan's history. The connection to Homeland and the beings it holds is so powerful that simply evoking a place name, singing a traditional song, or displaying clan regalia transports those present to Homeland. The *Wooshkeetan* Clan travel symbolically to Fort of the Young Woman in Seclusion, in Excursion Inlet when the *Wéitadi Noow* button robe is held aloft at a clan gathering in Hoonah. The treasured Mt. Fairweather Woman's Hat, *Shaatukwáan Shaawu Shakee.át* draws the *T'akdeintaan* to *Tsalxaan* at a clan leader's *ku.éex'* (memorial service). Though physically distant, they are ritually emplaced in sacred ancestral locations in Homeland, through words and songs and treasured regalia.

The Tlingit language, rich in metaphor and deep in meaning holds no words that embody western concepts of wilderness, a place largely free of modern human influence, a place substantially unchanged by human works, a place where solitude reigns. The Tlingit know that every human action has the power to mold the land and affect the spirits of animate and inanimate beings. For them, the land has meaning only as a place of intricate, balanced, and ongoing connection between those long past, those alive today, and those yet to come. The Glacier Bay wilderness—the land, and air and sea—is ordered and sustained by those who co-created it.



Toowú sigóo áyá Has du een yéi haa teeyí T'akdeintaani yátx'i A kaanáx wutu.aadí

Yeisú a <u>x</u>oox' áyá Haa shagóon aaní Aadéi satoo á<u>x</u> ji Haa dach<u>x</u>áni yání We are happy

When we are with our ancestors Children of the T'akdeintaan As we walk through the land

They are still there
On our ancestors' land
We can hear
Our grandchildren's voices there

Glacier Bay Song, Written in Homeland by Journey to Homeland students and culture bearers, 2016

Figure 6. Haa Léelk'w Has Xus.eetí Aadéi Yaa Ntoo.át - Walking in the Footsteps of Our Grandparents

# Tsalxaan Mount Fairweather





Guide and sentinel, sacred and sentient, *Tsalxaan* and all the crags and slopes we call *Yéik Yi Aani*, Land of the Spirits, are treasures for the *T'akdeintaan* Clan, and indeed, for all Tlingit. She guides our canoes, foretells coastal weather, shelters our ancestors, transforms our shaman, and holds sacred space for living spirits. *Tsalxaan* demands and is granted respect; we do not climb her slopes or point in her direction; as "a high caste being" we visit her only symbolically through ceremony and song.



In the ancestral past, the great mountain protected those who sought refuge in rock nests atop her peak - *kées' kanadaayí* ("high tide all around") - when the Great Flood forced our ancestors to ascend her slopes. For centuries since, she has safely guided our seafaring hunters and fishermen to the productive waters we now call the Fairweather Grounds, a place alive with fish and sea otters. Our canoe captains triangulate directions using her crags as guideposts and differentiate calm from storm by reading her ever-changing emotions. So important to our survival, we capture both her anger and her peace in face paintings we wear to ceremony. We give thanks to the mountain when our catch is plentiful and feed her soul with snuff as our vessels pass in her shadow.



Tsalxaan cradles spirits and spirit helpers who guide the T'akdeintaan even today; the Mountain Tribe Women, the Mountain Tribe Dog, the One-Horned Mountain Goat, the drifting feather.... They inhabit the great mountain, welcoming us to join them during ceremony as we bring out our treasured at.óowu; Tsalxaantu Kwáan Shaawú S'áaxw - the Mount Tribe Woman's Hat, Shaatukwáan Keitli S'áaxw - the Mountain Tribe Dog Hat, and the Mountain Dog Shirt. We recount our history in songs: Trembling Mountain, a tale of *Tsalxaan* cracking open to reveal the *T'akdeintaan's* spiritual clan house and the women who live there; Wánde Nána Shú, an ode to the feather that guided our shaman, Gooxk'wsakw up the mountain in search of spirit helpers; and the Mountain Dog Song, recounting the travels of the spirit dog who led X'eichaak'w' down following his initiation. Our women dance the sway dance, yu hás kuwanáak, taught to them by the Mountain Tribe Women, and our orators call us back to her flanks with their poetry and metaphors. Always we are drawn back by our songs, our dances, our exquisite regalia.

Her English name, Mount Fairweather, reminds visitors that she reveals herself only on rare occasions. But for the *T'akdeintaan* and the Tlingit Nation, she is always within reach.

Figure 7. Cultural View of Mount Fairweather

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### CHAPTER 2: GENERAL MANAGEMENT DIRECTION

### INTRODUCTION - SHUX'ÁA AAYÍ (THE BEGINNING)

The park's general management plan provides high-level guidance on how the park will be managed. This chapter supplements the general management plan and lays out a vision and broad direction for backcountry and wilderness management and specific descriptions of wilderness management zones and associated desired conditions.

## Vision Statement – Daa Sáwé Tuwatéen Haa Léelk'w Hás Aaní? (What Do We See in the Future for Our Grandparents' Land?)

The backcountry of Glacier Bay National Park is an intact, dynamic wilderness where people immerse in, investigate, connect with, and preserve an ecologically and culturally significant landscape for current and future generations.

### BACKCOUNTRY AND WILDERNESS MANAGEMENT OBJECTIVES – DAAT SÁWÉ HAA TUWÁA SIGÓO AKÁATX? (WHAT DO WE WANT FROM IT?) AND DAA SÁYÁ ÁT GAXTOODLÁAK AKAADÁX (WHAT WILL WE GAIN FROM IT?)

The objectives of the plan are the specific outcomes that the National Park Service is seeking to achieve through consistent management action over time. Objectives can also be considered performance measures to guide decision-making as conditions change. The following objectives will guide future management of Glacier Bay National Park's wilderness lands and waters:

- Preserve wilderness character and mitigate impacts from visitors and other sources.
- Provide for the public use and enjoyment of the wilderness as intended by the Wilderness Act as modified under ANILCA, including essential services to the extent necessary to support wilderness experiences.
- As stewards of one of only a few marine wilderness areas in the world, apply to the marine environment the Wilderness Act statutory mandate to preserve wilderness character.
- Encourage research and scientific discovery that allow Glacier Bay National Park to continue serving as a living laboratory. Use research findings that acknowledge climate change and other anthropogenic factors to inform management decisions.
- Allow ecological processes to continue and consider restoring natural processes and conditions that have been disrupted by human-induced change whenever possible, recognizing that anthropogenic influences on climate are likely to continue.
- Foster understanding of indigenous Tlingit perceptions of Homeland and protect the enduring spiritual connection between future, living, and ancestral Tlingit in Glacier Bay Homeland in the backcountry.

- Provide a range of premium wilderness experiences where visitors spend time out of sight and sound of other people and have the freedom to experience risk, challenge, self-reliance, and spiritual connection with place.
- Concurrently balance such high-quality wilderness experiences with allowances for concentrated use at tidewater glaciers and hiking accessible glaciers.
- Sustain the premium national park experience of being surrounded by and deeply experiencing a wilderness landscape—even for park visitors who never set foot in the wilderness.
- Provide on-site and virtual visitors opportunities to learn about the natural, cultural, and wilderness resources of Glacier Bay National Park, including the connection between generations of Tlingit and Homeland, the opportunity for scientific discovery, and the dynamic glacial landscape.
- Support wilderness stewardship by embracing Leave No Trace outdoor ethics.

### WILDERNESS MANAGEMENT DIRECTION

### Nonhistoric Structures and Shelters – Yées Híti (New Houses)

National Park Service *Management Policies 2006* (section 8.1.2) provides guidance to parks on determining appropriate uses that emphasize suitable recreation consistent with the protection of the park. That guidance considers laws, executive orders, regulations and policy, existing planning guidance, impacts on park resources and values, cost to the National Park Service, and whether the public interest will be served. Based on that guidance, the National Park Service has determined that structures and shelters in the Glacier Bay Wilderness are not appropriate at this time (though they may be considered outside designated Wilderness areas). The Glacier Bay Wilderness has been intentionally managed to have exceptional wilderness character within the special provisions of ANILCA. Given the ever-developing world, experiencing shorelines without visible human structures is part of what makes the Glacier Bay experience feel extraordinary for many park users.

Similar facilities in comparable locations in Alaska (Kenai Fjords National Park and Tongass National Forest) have seen an occupancy rate of 20–60%, suggesting that construction of such structures may have a disproportionate impact to the visitor experience of viewing undeveloped shorelines, relative to the value of being able to stay in a cabin. Additionally, constructing a cabin on wilderness land may restrict visitor use of the cabin to that location. By not having cabins, Glacier Bay has been able to keep a more fluid response toward visitor use, considering retreating glaciers, shifting stream channels, and vegetation changes and preserve the wilderness character of primitive and unconfined recreation. Visitors who do not wish to camp can choose from a range of private and commercial vessels that provide a variety of opportunities to experience the backcountry, some providing overnight experiences.

Maintenance of any backcountry structures or shelters would require vessel access, making regular service difficult. In addition, while these facilities would be consistent with law and

policy (ANILCA 1315[d]), because of the remote location and environmental conditions in the Glacier Bay Wilderness, service and maintenance of these facilities would be operationally challenging and expensive. Last, backcountry users in a 2018 survey did not generally support the National Park Service providing amenities such as floating cabins/rafts, outhouses, designated campsites, designated facilities, and developed trails (Furr et al. 2021).

The National Park Service determined that backcountry cabins are not needed for public health and safety reasons under ANILCA 1315(d) at this time. Generally, most recreational users follow frequented coastal shorelines. In these locations, emergent health and safety situations (e.g., injury, hypothermia, gear failure, wildlife incidents) are best dealt with using modern emergency communication tools. Recreational users may also employ mayday calls, request for mutual aid from passing boats or other recreationalists, or rescue from NPS or Coast Guard vessels.

## Eligible Drop-off Locations for Day Tour Boat – Yaakw Yán Has Akooxu Yé (Where the Boat Comes to Shore)

The day tour boat uses designated drop-off locations to provide visitors access to wilderness in Glacier Bay. These drop-off/pick-up points would continue to be reviewed annually and listed in the annual wilderness operating plan. Access points are set to support visitor experiences in both arms of Glacier Bay and would be rotated as much as possible to reduce impacts from off-vessel activities, such as camping and informal trail creation at specific sites. The park currently uses established criteria for systematically evaluating the potential of day tour boat drop-off sites.

In the future, the National Park Service will also explore and consider implementing other operationally feasible drop-off service models to try to disperse visitors, reduce concentrated use and site damage, and enhance wilderness experiences by offering more flexible visitor access.

In the past, the drop-off/pick-up sites have been marked with stone cairns, a modern practice that is problematic because historically, the Huna Tlingit used similar cairns in their traditional Homeland. To replace these cairns, portable or moveable totems will be carved as a collaborative project with the Hoonah Indian Association to acknowledge Homeland values and serve as guidance for backcountry users that they are about to enter designated Wilderness. These totems are easily moved and replaced and will fit on uneven ground. The park will carefully site the totems to ensure the location is culturally and biologically appropriate. The totems may be placed in wilderness if they are determined to meet the minimum requirements for the administration of the area as wilderness. A minimum requirements analysis will be completed before a final decision is made regarding location.

## Regulations and Closures – A Káa Kuwdudziteeyí Yoo X'atánk (*The Things* [*Protocols*] *We Live By*)

Glacier Bay's environment is undergoing rapid natural change. Much of Glacier Bay's visitation takes place at sites where continual geologic changes occur, such as glacier outwash formation, slope wasting, ocean scouring, and high rates of isostatic rebound. These processes tend to obscure or mitigate long-term, localized recreational use impacts—for

example, intensively used shorelines may become covered with alder within a decade so use and subsequent vegetation impacts shift to the new shoreline. Similar use levels could not be sustained in more fragile areas such as in critical wildlife breeding, feeding, and resting habitat.

While varying degrees of protection continue to be needed to ensure that natural life processes prevail, years of resource data and management experience point to the importance of flexible, science-informed approaches given the park's dynamic post-glacial environment and even more dynamic species distributions. In most areas, instruction in minimum-impact camping practices and low-level dispersed visitor use should be sufficient, given typical campsite conditions and current visitation levels. For example, periodic campsite monitoring (NPS 2015a) and recent backcountry visitor social science (Furr et al. 2021) indicate limited evidence of human impacts in most wilderness settings.

Shoreline camping can take advantage of the nature of the marine ecosystem and make use of the intertidal zone to dispose of human waste. At the same time, some minimum impact camping practices, such as those currently pertaining to the preservation of natural and cultural resources, food storage, fires, sanitation and refuse, and pets, are mandatory and legally enforceable by inclusion in the Code of Federal Regulations or the park's annual compendium.

Long-term and temporary restrictions and closures also have been proven to protect sensitive wildlife from disturbance and/or minimize human-wildlife conflicts in Glacier Bay. In some areas, regulatory closures to restrict human use may be needed, particularly when sensitive species, such as concentrations of ground-nesting birds, harbor seals, or sea lions, are present. Recent research results have shown that certain levels of human use cause decreases in shoreline activity of bears, wolves, and moose, so limiting human use in important wildlife habitat may be warranted (Sytsma et al. 2022). Additionally, areas may be temporarily closed after human-wildlife conflicts to minimize safety risks to the public and/or wildlife.

The option to close areas and restrict visitor use will be exercised using regulations and closures procedures when necessary to ensure that the activity or area is being managed in a manner compatible with the purposes for which the park was established. Closures will occur under existing park service authorities (annual Superintendent's Compendium and under the requirements of 36 CFR section 13.50).

### Diversity of Park Experiences - Woosh Gunayáade Át (Different Activities)

In concert with the statutory requirements of the Wilderness Act, the National Park Service will use a variety of tools to connect diverse visitors to a range of high-quality wilderness opportunities and settings and to reduce conflicts between user types and groups in the wilderness. This includes continuing seasonal restrictions on the use of motorized boats and seaplanes within certain waters in response to visitor requests for nonmotorized wilderness settings (unlike wilderness in the contiguous United States, access by airplane and motorboat is allowed under ANILCA because Alaskan wilderness parks are so vast and remote, and access to and within them can be difficult). As a result, under 36 CFR 13.1180, "Closed waters, motor vessels and seaplanes," visitors enjoy enhanced opportunities for human-

powered recreation in immersive marine settings that emphasize human-powered recreation and the natural soundscapes of Glacier Bay.

### Guide Activity – Yaa Shandagoot Aa Hás (*Guide*)

Commercial guide services for sea kayaking, fishing, backpacking/hiking, mountaineering/ski touring, air taxi services, and vessel services for visitor drop off and pick up in the backcountry have been authorized by the park to provide necessary and appropriate visitor services in wilderness. Charter and tour vessels operate under concession contracts to navigate within the park; in addition, commercial operators may offer off-vessel activities including nonmotorized water-based and land-based activities. Recommendations and requirements in this plan apply to commercial operators as well as the public. Additional information on these services is covered in the extent necessary determination section (see appendix B), which provides direction on commercial services that are proper for realizing the recreational or other purposes of wilderness.

### Research - Sh tóo At Wudlitóow (S/he Studied It)

The Antiquities Act under which Glacier Bay National Monument was originally designated, the monument's enabling proclamation, ANILCA, and the biosphere reserve designation all recognize the importance of science in Glacier Bay National Park. Basic and applied research would be allowed to occur in all zones, subject to permitting review to determine whether the proposed research is consistent with the park's enabling purposes and to minimize adverse impacts to wilderness character through mitigations. Additionally, research in wilderness may involve prohibitions identified in section 4(c) of the Wilderness Act (16 USC 1133[c]). In accordance with the Wilderness Act, these activities and their potential impacts are evaluated through a minimum requirements analysis (including as a living laboratory for research) to determine if they are necessary for the administration of designated Wilderness and to analyze and select the minimum tool necessary.

## Resource Management – A Káx Yan Tudél Wé Tl'átgi <u>K</u>a At Wudikeen Áani Aat <u>K</u>a Éil (*We Are Stewards of the Land, the Air, and the Sea*)

The park has several documents that outline the resource management direction for the park. These documents stipulate the management priorities for natural and cultural resources parkwide and identify priority stewardship goals and projects. For additional information on resource management guidance, see:

- Resource stewardship strategy (2018)
- State of the parks (2018)
- Natural resource condition assessment (2017)
- Bear management plan (2013)
- Alaska Region Invasive Plant Management Plan (2009)

### Tlingit Homeland – Haa Aaní (Our Homeland)

The 1984 General Management Plan (NPS 1984) identified the need to collect archeological and ethnographic information for use by researchers and interpreters and spoke to the need to strengthen relationships in "neighboring communities with a significant population of native Americans." This plan provides more specific strategies to expand on the general management plan's limited direction for data collection and relationship building. Management direction for protecting Tlingit Homeland values focuses on strengthening government-to-government communication; continued efforts to document, protect, and share, as appropriate, ethnographic and archeological resources, including resources previously classified as historic structures that more appropriately would be reclassified as ethnographic resources; facilitating and encouraging ongoing connections with Homeland; and commemorating villages or other sacred sites in appropriate ways. Homeland concepts, including land acknowledgments, and tribal protocols for hosting and behaving respectfully in Homeland are embedded in all literature and orientation materials for backcountry users. Commercial service providers operating in the backcountry are notified annually of available tribally approved Homeland materials and authentic cultural guides as an added benefit for guests, and future contracts and permits require that all commercial advertisement and activity that address Tlingit history, tradition, practices, or Homeland values must be reviewed and approved by the associated tribe.

Tlingit Homeland connections are encouraged and supported in all management zones. Traditional activities occur in all zones. Evidence of both ancestral and current cultural practices within the wilderness, such as culturally modified trees, stone cairns, burial sites, pictographs, or house pits, may be visible or recognizable to visitors. Visitors may see modern cultural practices such as vegetation gathering, gull egg harvest, goat hair collection, or berry picking or evidence of these practices. These modern cultural practices are typically of short duration and do not leave an observable long-term impact on the wilderness landscape. Other Tlingit spiritual practices continue to occur in the wilderness without the practitioners' physical presence; these practices are outside the scope of park management.

The integrity of Homeland values is honored by enhancing relationships between the National Park Service and traditional people, collaborating on cultural and natural stewardship of wilderness lands and waters, facilitating tribal access to the park, and enhancing tribal members spiritual connections to traditional foods in the park.

# Management of Cultural Resources, including Historic Structures, Cemeteries, and Ethnographic and Archeological Resources – Haa Shagóonx'i Yáa Wtuwané (Respecting Our Ancestors)

The management objectives for cultural resources in the park's 1984 General Management Plan included locating, identifying, and cataloging significant cultural and ethnographic resources in the park to ensure compliance; preserving knowledge and/or physical remains of the area's cultural history to aid historians, archeologists, and interpretation; and managing the known sites as "discovery sites" for visitor education and enjoyment while the sites are slowly claimed by the landscape. Management objectives for individual cultural

resource types described below. Additional information on management strategies and actions related to these topics are in chapter 3.

Ethnographic resources/traditional cultural properties. Many potential traditional cultural properties and ethnographic resources exist in the Glacier Bay wilderness. Glacier Bay's current management policy is to record and nominate these places in the National Register of Historic Places in cooperation with the associated traditional populations.

Historic Structures. Historic structures that are analyzed as having high association with Homeland and a high historical significance would be reclassified as ethnographic resources associated with the Tlingit Homeland and managed according to the ethnographic resource section above.

Cemeteries. Although cemeteries within Glacier Bay are currently recorded in the List of Classified Structures and fall under the 1984 General Management Plan direction, the National Park Service is legally obligated to inventory and maintain cemeteries and burial sites through the American Indian Religious Freedom Act and the Native American Graves Protection and Repatriation Act.

Cultural landscapes. Cultural landscapes in Glacier Bay are managed according to the management policies of the individual sites contained in the general landscape document; for example, an archeological cultural landscape would be subject to the Archaeological Resources Protection Act and the National Historic Preservation Act.

## Visitor Orientation and Education – Áa Ashukajéis' Yé (*Teaching Others*) Has Du At Wuskú Ayís Áyá (*For Their Knowledge*)

As part of the backcountry camping permit process, visitors would be required to participate in an annual backcountry orientation. These orientations support visitor safety, mitigate risks, and share park-specific Leave No Trace outdoor ethics. Moving forward, orientations would also touch on key park values and concepts, including Tlingit Homeland, wilderness character, and Glacier Bay's active research and role as a living laboratory. Note that visitator education specific to acknowledging Homeland and protecting archeological sites is addressed previously.

Social science confirms that park orientations add to the wilderness experience (especially related to bears, food storage, and human waste), but also highlight the issue of visitors' disparate knowledge and experience levels relative to standardized content. For example, while 81% of visitors will visit Glacier Bay only once (the trip of a lifetime), others have a depth of local knowledge and experience. Also, while most visitors report extensive Leave No Trace experience, some are novices (Furr et al. 2021).

The park is committed to providing basic orientations and authoritative maps that respect this diversity of experience, supplemented by resources on targeted topics of interest to backcountry visitors new to Glacier Bay (such as tides), backcountry skills (Leave No Trace), and approved guide services. Importantly, this orientation would not be prescriptive or outline a specific itinerary for visitors for the following reasons:

- Wilderness visits are opportunities for discovery and exploration in undeveloped and remote places.
- Backcountry camper dispersal has an important role in preserving wilderness character (especially the qualities of solitude, unconfined recreation, and naturalness).
- The freedom to travel and camp at will enhances safety in such a dynamic and unforgiving physical environment and is a valued part of the Glacier Bay Wilderness experience.
- Backcountry visitors are ultimately responsible for accepting unknowns, determining their own course, using situational awareness to adapt as conditions change, and learning in advance what they need to know to be legal and safe.

### Group Size Limits – X'ooninax Sá (How Many in the Group?)

The group size for all use types (overnight and day visits) within wilderness would be limited to no more than 12 people (including guides), common to all zones year-round. Groups are considered separate when out of sight and sound of each other. Drop-off and pick-up locations may have more than 12 people if multiple groups arrive or depart simultaneously; however, these groups would then disperse.

Group size exceptions may be granted for educational, research, safety, traditional Tlingit Homeland activities, or administrative purposes. The waiver for groups of more than 12 people must be authorized by the superintendent. Guidelines for minimizing impacts from groups of more than 12 people are listed on the group size waiver.

Group size limits of 12 people are relatively standard across the national wilderness preservation system to preserve the characteristic qualities of wilderness, including across southeastern Alaska public lands proximate to Glacier Bay. The following social science data further suggests a group size of 12 is justifiable in the Glacier Bay Wilderness when accounting for these variables (Furr et al. 2021):

- Perceptions of crowding and coastal resource conditions in overnight settings indicate that group sizes of less than six people are preferred on beaches where kayaks and tents are visible.
- Smaller group sizes are currently the norm in Glacier Bay, with only 24% of visitors traveling in a group with more than five people (2017 visitor demographics).

### MANAGEMENT DIRECTION FOR BACKCOUNTRY AND WILDERNESS ZONES

This section describes the desired conditions for the wilderness lands and waters within the park. Desired conditions are defined as statements of aspiration that describe resource conditions, visitor experiences and opportunities, and facilities and services that an agency strives to achieve and maintain in a particular area. They help park managers answer the question, "What are we trying to achieve?" Desired conditions focus on fundamental

resources and values; the visitor experience opportunities associated with them; and the types and levels of management, development, and access that would be appropriate in a particular location. The desired conditions for this plan were informed by guidance from previous planning efforts and other NPS policies and guidance.

This plan carries forward the park management zones outlined in the 1984 General Management Plan, which include Nonwilderness Waters, Wilderness Lands, Wilderness Waters, Development, and Special Use Zones (see the general management plan, pages 59–61, for zone descriptions). The general management plan states that "any zone may be subdivided to meet management needs or to further delineate future resource areas" (page 61). To achieve desired conditions and acknowledge that visitor use type and frequency of use varies across the Wilderness Lands Zone and Wilderness Waters Zone, this plan has subdivided the vast Wilderness Lands and Waters Zones into five subcategories. The plan includes management direction for wilderness lands and waters within the park. The five zones would achieve the following:

- Effectively manage visitor use and experience.
- Ensure that the statutory mandates of the Wilderness Act as implemented by ANILCA, the park-enabling legislation, and other related mandates are aligned.
- Provide guidance inclusive of the connection to Tlingit Homeland.
- Provide guidance inclusive of research.
- Develop and achieve desired conditions for specific areas within the wilderness.

Compared with previous management approaches, this plan outlines a zoning concept that better reflects current park needs, including the dynamic landscapes of the Glacier Bay Wilderness and the likelihood of ecological and geological change over time; however, the park may designate smaller units for the purposes of monitoring and other administrative needs.

Although the zones are presented as exact distances and locations, those are based on the ecological knowledge at the time of publication of the plan. As successional landscapes change, the viewshed and experience would also change. Over time, the five zone boundaries may need to be modified due to climate change or other natural forces to meet the park's purpose and intent. Specifically, these adjustments would ensure the park is providing opportunities to access tidewater glaciers, per the park's enabling legislation and protecting resources and visitor experiences in alignment with the intent of the zoning descriptions below.

Within the zone descriptions, several terms are used to describe the level of development for trails and facilities. Within the context of this plan, the term "informal" is used to describe visitor-created trails and/or campsites. "Formal" is used to describe any planned trail or campsite. The term "primitive" or "semi-primitive" is used to describe the character of those planned trails or campsites.

The term primitive, as applied to a hiking trail, would be Trail Class 1 (minimally developed) trail. These trails may have indistinct tread, may require some route finding, and are constructed of predominantly native materials. Class 1 trails tend to be narrow, have frequent obstacles, and have minimal structures for drainage or water crossings. These trails are minimally signed but may include route markers when trail is not evident (USFS 2016).

The term semi-primitive, as applied to a hiking trail, would be a Trail Class 2 (moderately developed) trail. These trails may consist of tread that is narrow, rough, and only lightly discernable where route markers may be needed but may also incorporate constructed tread that is continuous and discernible. Class 2 trail tread and clearing widths tend to support single lane traffic with allowances for widened sections that enable passing. Class 2 trails are also constructed principally of native materials where feasible. Other trails may fall under different trail classes, as described in the US Forest Service publication, "Trail Fundamentals and Trail Management Objectives."

The term primitive, as applied to a campsite, describes a minimally developed site that may be delineated using natural materials (rocks, logs, some vegetation clearing). The site continues to blend with the natural environment and tends not to contain any structures, such as supporting/retaining walls or other hard delineation, beyond natural materials.

Zoning maps are shown below. Additional detail on the zoning maps can be found in a story map available online at <a href="https://nps.gov/glba/learn/management/backcountry">https://nps.gov/glba/learn/management/backcountry</a>.

Within the zoning descriptions, there will be general references to the "Outer Coast" of the park. For planning purposes this particular stretch of coastline is defined as the continuous marine shoreline between the Glacier Bay Preserve on the north and Cape Spencer to the south. The descriptions also refer to Cross Sound and Icy Strait shorelines. The Cross Sound coast is generally understood to extend from Cape Spencer on the west to Point Dundas (the eastern entrance to Dundas Bay) to the east. And the Icy Strait coast extends from there eastward to Excursion Inlet, not including Glacier Bay (coastlines north of an imaginary line between Point Gustavus and Point Carolus).

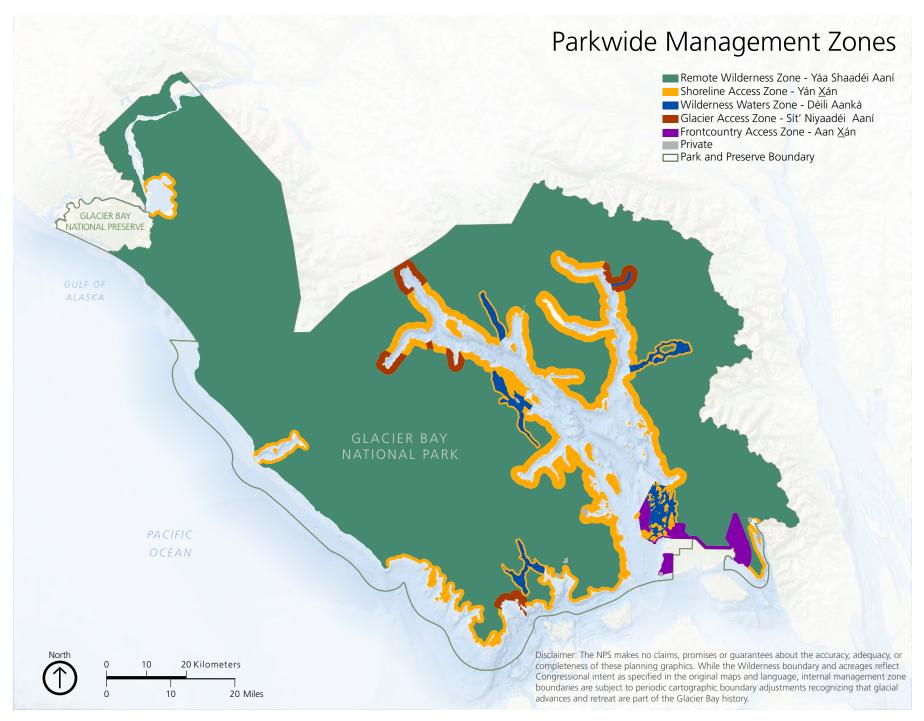


Figure 8. Parkwide Zoning Map of the Glacier Bay Wilderness

### Remote Wilderness Zone – Yáa Shaadéi Aaní (The Land Up by the Mountains)

The Remote Wilderness Zone consists of the following:

- primarily interior wilderness lands that are generally buffered from visitor use impacts.
- coastal lands of the Outer Coast between the preserve boundary and Icy Point, exclusive of Lituya Bay (figure 7).



- lands over 0.25 mile inland from wilderness waters (may vary slightly if needed to ensure zoning consistency on islands and peninsulas to protect resources and provide for high-quality visitor experiences).
- lands over 0.5 mile inland from the shores of Lituya Bay, Icy Point to Cape Spencer, continuing along the shores of Cross Sound and Icy Strait, and Excursion Inlet. The zone also consists of lands over 1 mile inland from the nonwilderness waters of Glacier Bay (may vary slightly if needed to ensure zoning consistency on islands and peninsulas to protect resources and provide for high-quality visitor experiences).
- the seaward boundary extends all the way to the designated Wilderness boundary, which is the mean high water line.

Lands excluded from the Remote Wilderness Zone include lands designated as Glacier Access Zone (see zone description below) and areas near the frontcountry designated as Frontcountry Access Zone.

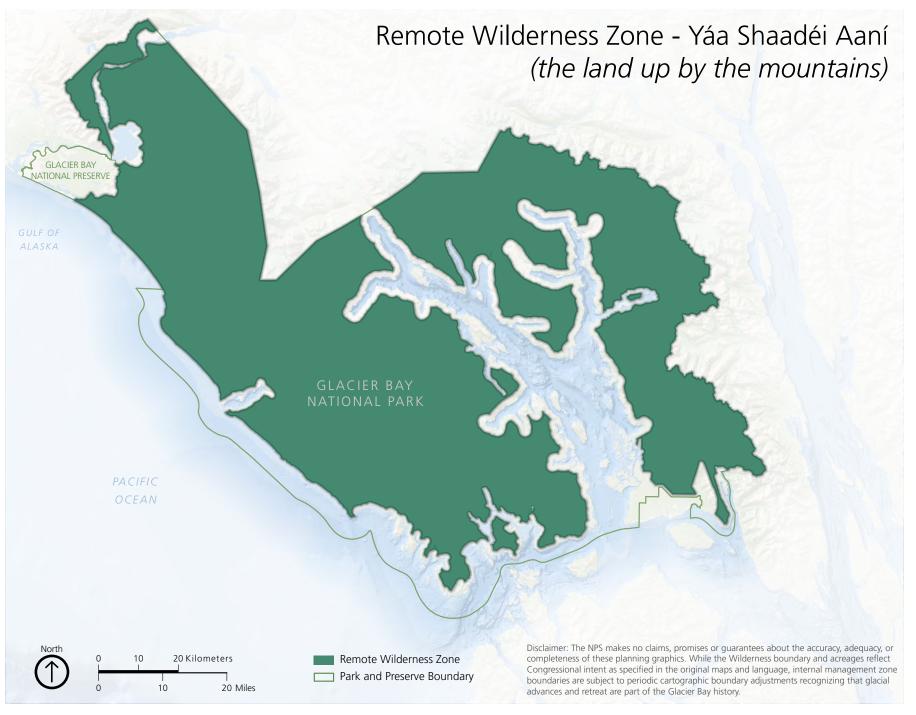


Figure 9. Remote Wilderness Zone

The zone is managed to promote intact ecosystems and high levels of self-reliance among visitors. The zone is essentially void of development, trails, or other facilities, except for the occasional research or communications installation. Visitors should expect a high degree of solitude and challenge within the zone.

Desired conditions for this zone are as follows:

Natural and cultural resources. The Remote Wilderness Zone provides for intact ecosystem processes. Natural light and sounds would predominate. Although wildlife may experience short-term, localized displacement because of small amounts of visitor or administrative uses, natural processes and patterns continue without intervention or alteration. Visitor use impacts to natural and cultural resources are unlikely to occur or to be visible.

The Tlingit are actively engaged in collaborative stewardship of natural and cultural resources through consultation, informal two-way communication, and partnership programs. They continue to engage in traditional activities, including permitted harvest activities, to connect with ancestral spirits, maintain and pass down intergenerational knowledge, and hold ceremony. Tlingit presence and interaction with Homeland are integral to an intact ecosystem, just as pristine ecosystems support the integrity of Homeland and a traditional sense of place.

Visitor experience. The Remote Wilderness Zone provides visitors with primitive experiences where a high degree of skill is required, and the potential exists for a significant amount of risk. Self-reliance is a key component of the visitor experience, as trip planning and safety information are only accessible before the experience. Visitors would experience a vast and wild landscape where natural sounds and natural light conditions prevail most of the time. Signs of other visitor use such as campsites and informal trails are unlikely to be visible, and the likelihood of encountering other visitors is low. Visitors may also encounter temporary infrastructure to support research and communications, as well as evidence of research activities or cultural practices. Visitor encounters with park staff would also be low because patrols would be infrequent, as would closures and restrictions. Low-impact recreational uses, such as mountaineering, climbing, ski-touring, hiking, and camping, are primary uses within the zone. To facilitate certain visitor experiences, very limited commercial services may occur in this zone.

Facilities and development. Development of hiking trails or campsites for visitor use would not be considered in the foreseeable future while park visitors are able to experience tidewater glaciers outside of this zone to meet enabling park purposes. As glaciers recede and marine access to tidewater glaciers becomes limited, the park will explore opportunities for visitors to hike to experience glaciers in a wilderness setting in this zone to meet enabling park purposes. There would be a focus on loop experiences with multiple glacier views rather than out-and-back trips to a dynamic glacier face. The park would use the minimum requirement concept to evaluate necessity and apply a minimum requirements analysis to any proposed or potential actions, such as defining routes, constructing sustainable trails, designating campsites, or the development of public use cabins or shelters, to support

multiday trips in more fragile alpine environments while minimizing physical impacts from concentrated human use.

Installations would be limited to those needed for communication and research purposes, and many may be temporary. Approved communication and research infrastructure would be carefully sited to minimize impacts to the resource and visitor experience. Motorized and mechanized use would be limited to only those allowed by the ANILCA, including private, administrative, park-permitted, commercial, charter fixed-wing aircraft landings, and other methods as approved by a minimum requirements analysis as required by the Wilderness Act. All installations and structures in wilderness would be subject to a minimum requirements analysis.

### Shoreline Access Zone – Yán Xán (The Land Near the Shoreline)

The Shoreline Access Zone is where most wilderness visits occur. The zone consists of the following (may vary slightly if needed to ensure zoning consistency on islands and peninsulas to protect resources and provide for high-quality visitor experiences):



- coastal lands within 1 mile from the mean high tide line adjoining nonwilderness waters within Glacier Bay and lands within 0.5 mile from the shore of Alsek Lake
- coastal lands within Lituya Bay (including all of Cenotaph Island) seaward of a line 0.5 mile above the mean high tide line; similarly, those coastal lands seaward of a line 0.5 mile above the mean high tide line along the Outer Coast from Icy Point to Cape Spencer and continuing eastward along the northern shore of Cross Sound and Icy Strait to the park boundary at the head of Excursion Inlet, exclusive of upper Dundas Bay, Glacier Bay and the Gustavus forelands between Pt. Gustavus and Kahtaheena Creek (Falls Creek) (see figure 8).
- lands within 0.25 mile of wilderness waters and the entirety of islands that are surrounded by wilderness waters
- lands within 0.25 mile of the wilderness waters shoreline for islands where only a portion of the land is adjacent to wilderness waters

Areas excluded from the Shoreline Access Zone include lands designated as Glacier Access Zone (see zone description below) and portions of the Beardslee Islands designated as Frontcountry Access Zone.

The Shoreline Access Zone is largely managed to encourage self-reliance and connection to wilderness character. Formal trails and/or campsites would only be considered in this zone to protect resources. Otherwise, this zone would be devoid of development except for communication and research installations.



Figure 10. Shoreline Access Zone

Desired conditions for this zone are as follows:

Natural and cultural resources. Within the Shoreline Access Zone, natural processes prevail. Occasional light and noise from vessels and campers may affect dark night skies and the natural soundscape, but impacts would be occasional and temporary. Because of the possibility of camping in this zone and a higher amount of visitor use than in the Remote Wilderness Zone, short-term displacement or temporary impacts to wildlife may occur. Also, because of more frequent visitor use, limited impacts may occur because of informal campsites and/or visitor created trails.

The Tlingit are actively engaged in the collaborative stewardship of natural and cultural resources through consultation, informal two-way communication, and partnership programs. They continue to engage in traditional activities, including permitted harvest activities, connecting with ancestral spirits, maintaining and passing down intergenerational knowledge, and holding ceremony. Tlingit presence and interaction with Homeland are integral to an intact ecosystem, just as pristine ecosystems support the integrity of Homeland and a traditional sense of place.

Visitor experience. Within this zone, a significant amount of self-reliance is expected. Visitor information is available before the experience or, if part of a guided experience, may be available during the activity. Visitors may encounter other visitors; however, encounter rates are likely to be low to moderate outside of drop-off points. Altered vegetation, presence of rock rings, and some visitor-created trails may be observable. Primary recreational activities include hiking along the shore, kayaker and park-permitted backcountry drop-off, wildlife watching, and dispersed camping. To facilitate some of these visitor experiences, limited commercial services would be likely to occur. Due to the proximity of this zone to nonwilderness waters, Park managers acknowledge the adjacent nonwilderness areas and provide holistic approaches to mitigate adverse impacts to wilderness character in the 2023 marine management planning and vessel operating requirement updates.

Facilities and development. This zone would be largely devoid of development. Development of hiking trails or campsites is unlikely. Development of primitive trails and campsites or designation of camping areas would be considered when needed for resource protection purposes or as glaciers recede and marine access to tidewater glaciers becomes limited, the park will explore opportunities for visitors to hike to experience glaciers in a wilderness setting in this zone to meet enabling park purposes. The park would use the minimum requirement concept to evaluate necessity and apply a minimum requirements analysis to any proposed or potential actions, such as defining routes, constructing sustainable trails, or designating campsites. Other installations would be limited to those needed for communication and/or research purposes or moveable totems carved as a collaborative project with the Hoonah Indian Association to mark dayboat drop-off sites that acknowledge Homeland values and serve as guidance for backcountry users that they are entering designated Wilderness. All installations and structures in wilderness would be subject to a minimum requirements analysis.

### Wilderness Waters Zone – Déili Aanká (Land of the Sheltered Area)

The Wilderness Waters Zone currently<sup>2</sup> consists of around 53,000 acres of designated Wilderness marine waters, including the following:

- waters of McBride Inlet
- the majority of the wilderness waters surrounding the Beardslee Islands, including Secret Bay and Hutchins Bay



• waters of Adams Inlet, Rendu Inlet, Hugh Miller Inlet, Scidmore Bay, Charpentier Inlet, and Upper Dundas Bay

The Wilderness Waters Zone is managed to provide opportunities for solitude and primitive and unconfined recreation and to maintain its undeveloped character. Visitors to this zone would have the opportunity to experience natural marine ecosystems. Human influence on the ecosystem is extremely rare compared to other marine areas, and special management considerations to protect wilderness character exist within these waters.

Waters not included in the Wilderness Waters Zone include wilderness waters that are proximate to the Frontcountry Zone (2019 frontcountry management plan) and waters between Strawberry and Young Islands and Sitakaday Narrows, which are included in the Frontcountry Access Zone.

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<sup>2.</sup> While the wilderness boundary and acreages reflect congressional intent, as specified in the original maps and language, internal management zone boundaries are subject to periodic cartographic boundary adjustments, recognizing that glacial advances and retreat are part of Glacier Bay history.

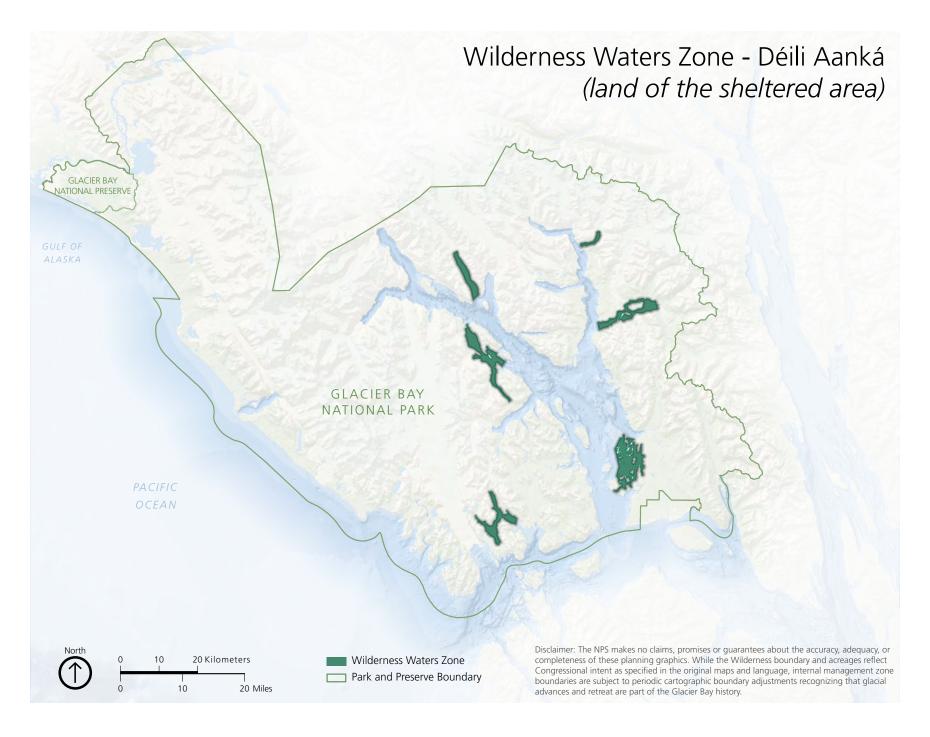


Figure 11. Wilderness Waters Zone

Desired conditions for this zone are as follows:

Natural and cultural resources. Occasional light and noise from vessels outside this zone and shore-based camping may affect dark night skies and the natural soundscape, but impacts would be occasional and temporary. Maintaining the quality of the underwater soundscape is prioritized. Natural processes within the marine ecosystem continue with minimal human influence. Impacts to natural resources from visitor use are temporary, and short-term displacement or temporary impacts to wildlife would be minimized to the extent possible.

The Tlingit are actively engaged in collaborative stewardship of natural and cultural resources through consultation, informal two-way communication, and partnership programs. They continue to engage in traditional activities, including permitted harvest activities, to connect with ancestral spirits, maintain and pass down intergenerational knowledge, and hold ceremony. Tlingit presence and interaction with Homeland are integral to an intact ecosystem, just as pristine ecosystems support the integrity of Homeland and a traditional sense of place.

Visitor experience. Visitors have the opportunity to experience solitude, challenge, and self-reliance in this zone. Although visitors may see or hear other vessels within this zone, close contact with other vessels would be rare. During certain times of year for specific locations, close contact with motorized craft would be absent because of periods regulated for nonmotorized use. Encounters with other visitors and groups are infrequent, and evidence of visitor-caused impacts is minimal. This zone allows visitors to experience remote wilderness waters in areas that are less impacted by visitor use than many of the main travel routes. Access is provided by small craft (kayaks and other small boats). To facilitate remote and wild experiences, commercial services are limited.

Facilities development. This zone is largely devoid of development. Floating structures or permanent structures (e.g., docks, signs, navigational aids) are not present in this zone. Other facilities or installations are limited to those needed for communication and research purposes. All installations and structures in wilderness would be

subject to a minimum requirements analysis.

## Glacier Access Zone- Sít' Niyaadéi Aaní (Land Traveling to the Glacier)

The Glacier Access Zone includes areas where glaciers are more accessible by ordinary means of travel, including by foot, vessel, plane, or other methods. This includes areas in the vicinity of tidewater glaciers that are easily accessible for vessels to offload visitors and have the terrain suitable for hiking experiences. The Glacier Access Zone consists of the following:

 lands within 1 mile of the mean high tide line surrounding Reid, Tarr, McBride, and Johns Hopkins Inlets, Lamplugh and Riggs Glaciers, Taylor Bay, and the high tide line on the north side of the Brady Icefield Glacial areas excluded from this list (such as La Perouse and Grand Plateau) are not considered "more accessible to ordinary travel," even through float plane access is allowed under ANILCA. The Glacier Access Zone experiences some of the most concentrated use in the park, with visitors arriving primarily by boat at specific drop-off locations close to tidewater glaciers. Areas within the Glacier Access Zone would have safe marine vessel approaches and provide access to glacial features. The zone provides for overnight use and access to glaciers with greater allowances for commercially guided group excursions within sight and sound of other parties. Visitors should expect to encounter others within this zone. The Glacier Access Zone is managed to support a range of high-quality immersion experiences in a dynamic landscape, and to protect wilderness character while also providing access to the glacial environment, as specified in the park's enabling proclamation.

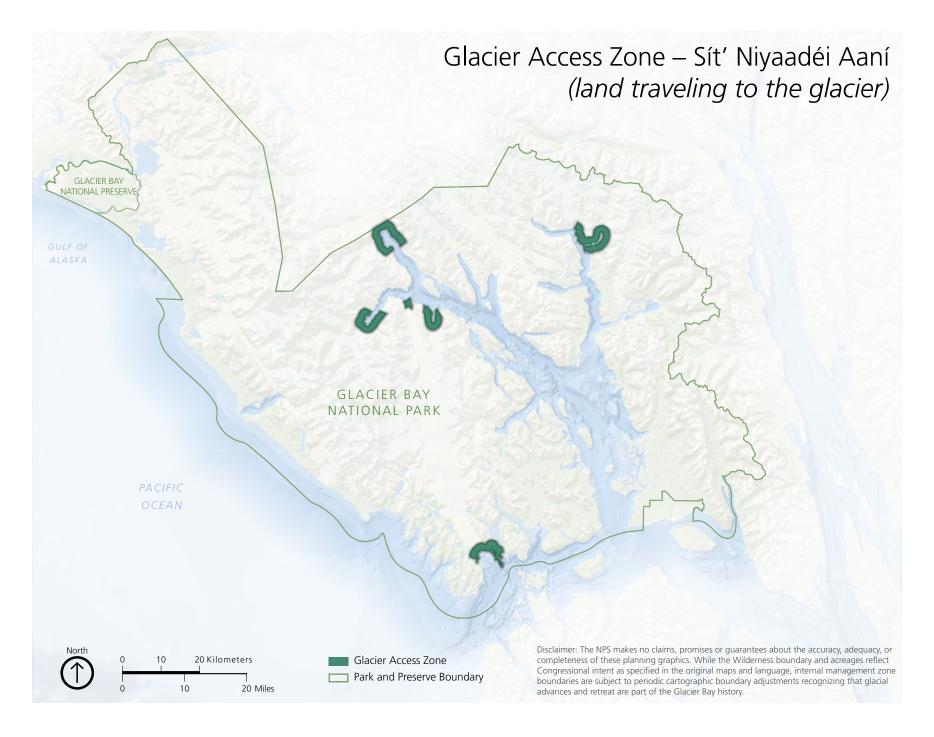


Figure 12. Glacier Access Zone

Desired conditions for this zone are as follows:

Natural and cultural resources. Light and soundscapes may be occasionally impacted by visitor use, including vessels and campers. Resource impacts from trails and campsites are likely; however, these impacts would remain proximal to areas of high use. Impacts to natural resources from visitor use are temporary, and short-term displacement or temporary impacts to wildlife would be minimized to the extent possible.

The Tlingit are actively engaged in collaborative stewardship of natural and cultural resources through consultation, informal two-way communication, and partnership programs. They continue to engage in traditional activities, including permitted harvest activities, to connect with ancestral spirits, maintain and pass down intergenerational knowledge, and hold ceremony. Tlingit presence and interaction with Homeland are integral to an intact ecosystem, just as pristine ecosystems support the integrity of Homeland and a traditional sense of place.

Visitor experience. Visitors should expect to find some elements that indicate a higher-use area, such as social trails. Areas in this zone are remote. To facilitate access to glaciers, commercial services are accommodated at greater levels so that visitors can experience the shoreline on guided excursions. Visitors should expect to see the implementation of a variety of management tools to ensure high-quality visitor experiences and resource protection. Kayaker or backpacker drop off could occur in this zone if conditions were favorable. Encounter rates with other visitors would likely be high, especially during drop off and pick-up times. Visitors may also see and hear more boats than in the other zones in addition to the presence of more formal and informal trails and campsites. Visitor information could be available both before and during the visitor experience (e.g., experiencing the park with a guide or having information provided on board a vessel). Management actions that concentrate people to reduce resource impacts will be considered. Park staff actively manages impacts from visitors in this zone and issues guidance as needed to protect critical resources. Primary activities in this zone include hiking, camping, and kayaker or backpacker drop off.

Facilities and development. Because of relatively high visitor use levels, the development of primitive campsites and hiking trails or designation of camping areas could be considered for resource protection purposes, should informal campsites and trails begin to cause resource damage or begin to negatively impact desired conditions. Trails could also be considered to facilitate access to glaciers to meet the park's purpose and intent if access is constrained due to climate change or other events like a glacial surge. The park would use the minimum requirement concept to evaluate necessity and apply a minimum requirements analysis to any proposed or potential actions, such as defining routes, constructing sustainable trails, or designating campsites. Other facilities would be limited to those needed for communication and research purposes. All installations and structures in wilderness would be subject to a minimum requirements analysis.

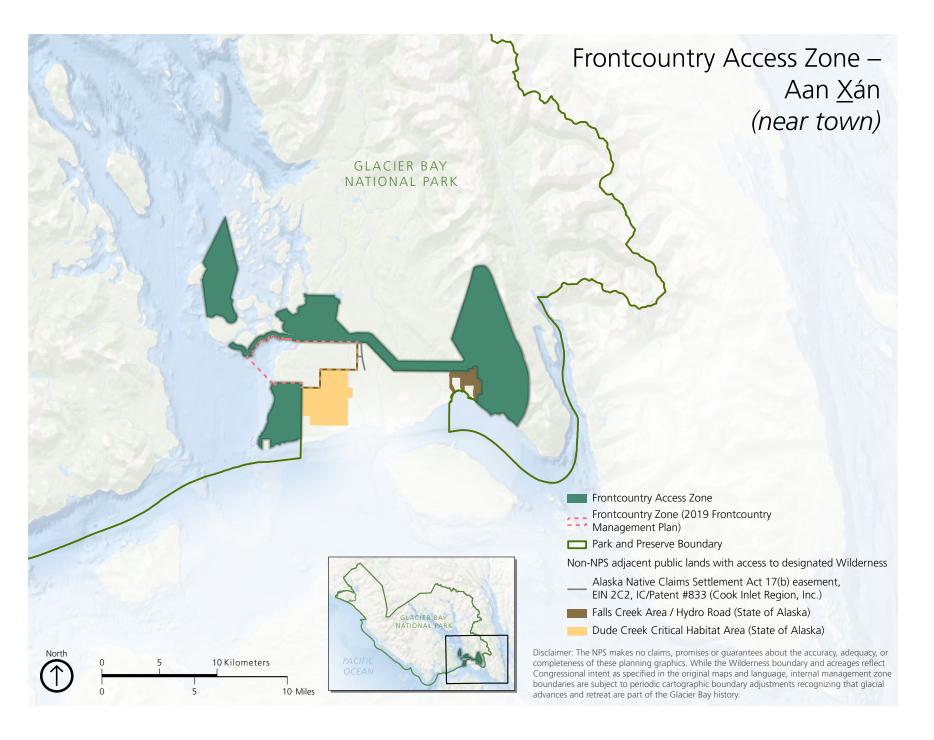
### Frontcountry Access Zone– Aan Xán (Near Town)

The Frontcountry Access Zone includes lands and waters that are proximate to the Frontcountry Zone (NPS 2019b) and originating from road-accessible trailheads in the Bartlett Cove and Gustavus area. The Frontcountry Access Zone consists of the following:



- waters east of Strawberry Island and North of Young Island and the waters of the Beardslee cut that connect Bartlett Cove with the southeastern portion of the Beardslee Islands. These waters have been zoned as part of the backcountry and wilderness management plan's Frontcountry Access Zone to acknowledge and manage for higher levels of use and a different type of wilderness experience in areas near the frontcountry.
- lands from the frontcountry boundary into the Bartlett Lake area and the Bartlett River corridor
- the Point Gustavus area outside the frontcountry area within the park
- an approximately 2.5-mile-wide area along the park boundary north of the frontcountry area east to the Towers Trail area
- an approximately 0.5-mile-wide area along the park boundary that extends east from the frontcountry area to the Falls Creek and Excursion Ridge area
- the Falls Creek and Excursion Ridge area

Commercial services are limited in this zone because of frontcountry proximity. Informal, visitor-created trails and/or campsites may be visible because of higher levels of use within this zone. Intentionally developed trails or routes would be considered to facilitate wilderness access.



**Figure 13. Frontcountry Access** 

Desired conditions for this zone are as follows:

Natural and cultural resources. Desired conditions for natural and cultural resources would largely be the same as the Shoreline Access Zone. Limited resource impacts from informal or visitor-created campsites and both informal (visitor created) and formal trails may occur due to higher levels of visitor use. Portions of this area may have developed Class 2 and Class 3 trails. Impacts to natural resources from visitor use are temporary, and short-term displacement or temporary impacts to wildlife would be minimized to the extent possible.

The Tlingit are actively engaged in collaborative stewardship of natural and cultural resources through consultation, informal two-way communication, and partnership programs. They continue to engage in traditional activities, including permitted harvest activities, to connect with ancestral spirits, maintain and pass down intergenerational knowledge, and hold ceremony. Tlingit presence and interaction with Homeland are integral to an intact ecosystem, just as pristine ecosystems support the integrity of Homeland and a traditional sense of place.

Visitor experience. This zone would be managed as a gateway to wilderness experiences and may include formal and informal trails that provide access to wilderness and hike-in camping opportunities. The zone would be available to both day use and overnight park visitors who may not have wilderness experience opportunities through commercial means. Because of the proximity to the Frontcountry Zone (NPS 2019b), commercial services would be infrequent. Encounters with other visitors are likely. While trail development could fall into one of several trail classes, any constructed features are designed to provide an authentic place-based experience at the lower intensity end of the recreational opportunity spectrum. As such, trail design emphasizes nature "as it is," with the least modification to support use, and user self-sufficiency due to the lack of amenities.

Facilities and development. Within this zone, recreational experiences would be supported by routes and intentionally developed trails that provide access to the wilderness while protecting critical resources. These facilities provide high-quality wilderness experiences for visitors originating from the Frontcountry Zone (as defined in the frontcountry management plan) and from road-accessible trailheads and reserved public rights-of-way in the Gustavus area.

Trail development could fall into one of several trail classes; however, semi-primitive and primitive trails or routes would be used where the terrain can accommodate use levels without resource damage and while requiring minimal annual and cyclic maintenance. Overnight use through dispersed camping is permitted; designated campsites would only be considered for the protection of natural and cultural resources. The park would use the minimum requirement concept to evaluate necessity and apply a minimum requirements analysis to any proposed or potential actions, such as defining routes, constructing sustainable trails, or designating campsites.

Route markers or other navigational aids may support recreational uses; however, the park would seek to locate signage and any user amenities outside of designated Wilderness. Other installations would be limited to those needed for communication and research purposes. All installations and structures in wilderness would be subject to a minimum requirements analysis.

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### **CHAPTER 3: MANAGEMENT STRATEGIES AND ACTIONS**

#### INTRODUCTION

This chapter identifies management strategies and actions that will be used to achieve and maintain the desired conditions related to the preservation of wilderness character and the associated visitor uses in wilderness. A strategy is a general direction or course, and the actions are the specific steps that may be taken to move the strategy forward.

This chapter will also suggest management strategies that resolve issues described in chapter 1. The strategies and actions are organized by topic area. The strategies and actions in this section apply to the Wilderness Lands and Wilderness Waters Zones from the general management plan (see the general management plan for zone descriptions). This plan further refines those two zones into smaller management zones within the wilderness lands and waters zones as described in chapter 2.

These strategies and actions will provide for the protection of vast wilderness lands and waters while placing an emphasis on exploration, challenge, and self-reliance. All the strategies and actions in this section will be used to achieve and maintain desired conditions related to wilderness, natural and cultural resource conditions, facilities and communication infrastructure, and the visitor experience.

In some cases, "corrective actions" have been identified. These actions are included to provide management guidance for what actions could be taken if desired conditions and wilderness values are not being maintained.

#### **DESCRIPTION OF MANAGEMENT ACTIONS BY ZONE**

### **Management Actions Common to All Zones**

Focused messaging. Visitor information and education (including as part of the visitor orientation described in chapter 2) will emphasize wilderness, natural and cultural resource protection, themes associated with Tlingit Homeland, the harmful effects of rock cairns, Leave No Trace, bear safety, backcountry human waste management (including intertidal strategies that effectively flush waste), and the significance of interstadial wood and avoiding its burning.

**Backcountry permitting system.** A backcountry camping permit will be required on a year-round basis for all commercial and noncommercial camping in the wilderness and backcountry. Permits are a means of conveying information about park rules, conditions, and safety information. Over time, the permit system will provide the park with better information on the types, amounts, and locations of backcountry camping use.

To reduce the burden of this requirement on visitors, the park will take the following administrative approach:

- Permits will be issued per party rather than to each individual visitor.
- Permits will be available in person or online and could be acquired in advance of the trip or the day of departure.
- Permits will collect information, including group size, an emergency contact, length of stay, type of recreational use, mode of transportation, and a general itinerary (general camp locations and entry/exit points).
- If a group needed to adjust their itinerary while in the backcountry, the group will report any changes to the park upon return from the backcountry.
- Consistent with the guidance in ANILCA, there will be no fees associated with the permit.
- This permit system will not involve a lottery or quota unless otherwise established in commercial operating contracts.

Commercial services in designated Wilderness. The National Park Service will continue to apply law and policy to analyze the appropriate role of specific guided commercial services in Glacier Bay National Park designated Wilderness, recognizing that the 1964 Wilderness Act, section 4(c) prohibits commercial services in designated Wilderness, except commercial services under section 4(d)(6) that:

- are proper for realizing the recreational or wilderness purposes of the area
- are compatible with the designated Wilderness (including unit purposes, law, and policy)
- necessitate commercial support (but only to the degree required)

This analysis (known as an extent necessary determination and provided in appendix B) specifies

- where commercial service providers have an important role in enabling wildernessdependent experiences, and
- conversely, where self-guided opportunities preserve the characteristic qualities of the wilderness visitor experience that emphasize solitude, challenge, self-reliance, and opportunities for discovery and exploration in untracked and remote places.

Commercially guided mountaineering. An allocation of six commercial groups per year in the Fairweather Range will be allowed and administered as part of the park's commercial management program, reversing its prohibition in the 1984 General Management Plan (but aligning with its objective to encourage commercial services for the least-accessible areas of the park). For all commercial mountaineering in the park, including outside the Fairweather Range, simultaneous trips within the same area will be prohibited to preserve opportunities for solitude and a remote experience in wilderness (private groups, however, will continue to

have the freedom to go where they want and when they want, with the trade-off being that there may be other parties in their vicinity). Additional operating conditions and mitigations associated with commercially guided mountaineering will be applied to ensure that wilderness character is maintained and resources are preserved, including the protection of the living ethnographic resources associated with Tlingit sacred sites Tsalxaan (Mount Fairweather, figure 7) and Yéik Yi Aaní (Mount Fairweather Range, figure 7).

Evolve national wilderness stewardship conversations. The park collaborates with tribes to develop appropriate tribal welcome and land acknowledgment materials specific to designated Wilderness, as well as other educational materials/orientations outlining indigenous concepts of Homeland, hosting, and culturally appropriate and respectful visitor behavior. Park managers acknowledge the ecological role of traditional indigenous communities in in designated Wilderness and work with tribes to evolve broader wilderness stewardship conversations about role and how cultural values align and contrast with the Wilderness Act. Traditional ecological knowledge informs key wilderness stewardship and management decisions, remains vital to a wide range of park research, and supports ongoing relationships between tribal scientists, culture bearers, and park researchers.

Tlingit Homeland, Haa Aaní. Tlingit Homeland connections will be encouraged and supported in all management zones. Traditional activities occur in all zones and are valued as adding to wilderness character. Other Tlingit spiritual practices continue to occur in designated Wilderness without the practitioners' physical presence; these practices are outside the scope of park management. Further management direction for protecting Tlingit Homeland values specific to designated Wilderness focuses on strengthening government-to-government communication, commemorating village or other sacred sites in appropriate ways, and a collaborative project of portable or moveable totems in partnership with the Hoonah Indian Association to acknowledge Homeland values and serve as guidance for backcountry users that they are about to enter designated Wilderness.

Traditional Glaucous-winged gull egg harvest. Through a jointly prepared Annual Harvest Plan, the National Park Service will continue to collaborate with the Hoonah Indian Association on the cultural harvest of glaucous-winged gull eggs as provided for by the Huna Tlingit Traditional Gull Egg Use Act, Public Law 113–142).

**Traditional plant gathering.** The National Park Service will continue to collaborate with tribes on the traditional gathering of plants for cultural uses, including implementing protocols for spruce root harvest for non-commercial traditional handicrafts.

**Traditional cultural fishery.** The park will collaborate with the Hoonah Indian Association to explore options for noncommercial cultural fisheries in park waters following the shared NPS-tribal stewardship model of the glaucous-winged gull egg harvest (see Huna Tlingit Traditional Gull Egg Use Act, Public Law 113–142), including specific to tribal uses associated with Chookanhéení/Berg Bay reserved rights. This action will require further NEPA compliance and may require regulatory or legislative changes to implement.

**Traditional tribal ceremonial mountain goat hunt.** The park and tribe will explore options for implementing a tribal ceremonial mountain goat hunt, potentially combining it with research designed to enhance understandings of goat population status and dynamics. This action will

require further NEPA compliance and may require regulatory or legislative changes to implement.

Historic structures associated with Homeland values. Previous planning documents applied National Register of Historic Places criteria, which prioritize location, design, setting, materials, and workmanship for the integrity of historic structures. A high percentage of cultural resources recorded as distinct historic structures in Glacier Bay National Park were built and or used by Tlingit, and these structures continue to have inherent value by retaining connections to Homeland and ancestors, despite the misconceptions that these historic structures were European American settler cabins due to the style of their construction. As a result of this misconception, historic structures associated with the Tlingit, which are relatively common as a subcategory of historic structures within Glacier Bay, were previously determined as having "low historical significance" and were not identified as having significant feeling and association with descendant communities and Tlingit populations. To correct these misconceptions and previous determinations, historic structures associated with the Tlingit in the park should be included in a cultural landscape inventory because they are eligible for the national register under criterion A and criterion D. The park will review currently recorded historic structures for intact and significant value to Tlingit Homeland. The structures not associated with Homeland values and having a low historical significance will remain managed by benign neglect. Structures found to have a high association with Homeland and a high historical significance will be reclassified as ethnographic resources associated with Tlingit Homeland and managed according to the ethnographic resource section.

Several structures associated with Tlingit Homeland values were inadequately evaluated for historical significance during the general management plan process and require reassessment in light of updates to cultural resource management guidance and practice. Following reevaluation, these structures may not be appropriate for benign neglect (as described in the general management plan) and may qualify as ethnographic resources. Structures not associated with Tlingit Homeland values and included in the List of Classified Structures for management under a benign neglect policy are noted as not having a formal determination of eligibility for the national register. Therefore, to define "low historic significance," the park will define historic significance in consultation with the state historic preservation officer before continuing to manage historic structures through a benign neglect policy. Structures that are assessed as having high association with Homeland and a high historical significance will be reclassified as ethnographic resources associated with Tlingit Homeland and managed according to the ethnographic resource section.

Ethnographic resources and traditional cultural properties. In addition to recording and nominating traditional cultural properties and other ethnographic resources within the park, ethnographic resources will be entered into the Cultural Resource Inventory System – Ethnographic Resources (CRIS-ER) database or equivalent future database. Further, structures, archeological sites, non-altered geographic features, commemorative sites (noncemetery), and other features that are part of traditional cultural properties or themselves eligible as ethnographic resources will be managed as ethnographic resources, even if they are previously recorded in the List of Classified Structures. Existing cultural landscape

inventories that extend into designated Wilderness, such as those for Dundas Bay and Bartlett Cove, will be updated. Site-level management recommendations, including types of potential actions and priorities of the action alternatives, will be determined and entered into the CRIS-ER database for future management decisions at the time the resource is entered.

Cemeteries. The park will develop a cemetery management plan to meet the legal obligations as stated in the American Indian Religious Freedom Act and the Native American Graves Protection and Repatriation Act. This legal obligation can be met through the cooperative development of management guidance for cemeteries within Glacier Bay. This action will allow consultation on the proper path forward for these cemeteries, which was not undertaken in 1984, and propose specific management strategies most suited to each individual cemetery considering its location and significance.

Conservation buy-out. The National Park Service explores a conservation easement or buyout of the mineral interests associated with the Brady Icefield copper-nickel deposit. If mine development is proposed, the National Park Service protects park resources and visitor experiences by managing the scale and intensity of marine transportation-related access and facilities consistent with ANILCA section 1110, special access and access to inholdings.

Communications upgrades to include very high frequency radio and automatic identification site transponder sites. As described and analyzed in the marine management plan, the National Park Service will upgrade existing and deploy new communications infrastructure within the next one to three years. New installations in designated Wilderness will be considered only when co-location with existing infrastructure is not feasible and it is determined to be the minimum tool necessary to support park goals, including associated with safety, emergency and oil spill response, and marine concessions contract oversight. This may include up to one park very high frequency (VHF) installation, and up to eight automatic identification system (AIS) installations, subject to a future minimum requirements analysis, further cultural resource and wetland site compliance as appropriate and applying the mitigation measures and best management practices in appendix D. The National Park Service anticipates that these upgrades will meet all parkwide communication requirements over the life of this plan and further commits to considering new and emerging technologies that fully meet communication needs and allow for the removal of installations from designated Wilderness.

# **Corrective Management Actions Common to All Zones**

# **Management Action Progressions**

The National Park Service is committed to providing visitors to the park with reasonable access for wilderness recreational activities and for other purposes, as described in previous chapters. The National Park Service will generally allow independent travel by any legal means and will encourage access to the park by means of facilities (e.g., trails and marked routes) and services (e.g., commercial air taxi and guide services) as described in desired conditions for zones (chapter 2), the actions below, and in "Appendix B: Extent Necessary Determination."

If it becomes necessary to proactively manage travel in any area to achieve desired future resource and social conditions for an area, to reduce visitor conflict, or to protect visitor safety, the National Park Service will generally start with the least restrictive mechanism or "tool" necessary to accomplish the goal. The National Park Service need not wait for conditions to match or exceed standards before taking management action; an expectation that conditions would exceed standards is sufficient to mandate a response. Restrictions and closures will be accomplished consistent with the process outlined in 36 CFR 13.50 and/or other relevant regulations. Below is a list of tools that may be used to manage access, when necessary, arranged in rough order from the least restrictive to the most restrictive. The park superintendent is free to pick whichever tool is required, generally applying the "least restrictive" approach. There is no implication that the tools must be tried in the listed order and a failure elicited before trying the next one. Some tools are included in other actions outlined in more detail further in this chapter.

**Education.** The National Park Service will provide printed material, public presentations, targeted presentations to user groups, and Internet-based programs with the goal of actively involving visitors in helping the park achieve the standards for all management areas. Tribes will provide similar educational materials specific to protecting cultural resources and values and educating visitors about traditional protocols for visiting Homeland.

**Increased enforcement of existing regulations.** The National Park Service will prioritize resources to increase enforcement efforts for existing regulations to assist in achieving standards for management areas.

Voluntary measures. The National Park Service will ask visitors to restrict their use voluntarily in areas where limits are not already in place. Examples of such measures could include voluntary registration, use of low-impact equipment, and avoidance of certain areas of the park or avoidance of areas during particular seasons or times of day. Voluntary registration could be accomplished by phone or radio call-in, a digitally based system, or a trailhead/parking area logbook.

Required registration. Registration is a means to gather information about visitor use levels and to ensure visitors receive necessary resource protection and safety information. The National Park Service may require visitors to register in areas where permits are not already required. Upon registration, visitors will be provided with information about park rules and conditions for use necessary to protect park resources. Registration conditions could include minimum-impact travel, recreational use, and resource protection requirements; however, a registration process will not limit the type or amount of access.

Requirements governing means of access. To achieve management area standards, the National Park Service will place requirements on the means of access, potentially including designated routes to concentrate use impacts, the use of specific technologies or access modes to mitigate impacts, and strategies to stagger or disperse access to help achieve desired conditions and complete compliance as needed.

Management of commercial activity. If use levels approach the identified visitor capacity or when conditions are trending away from desired conditions, the National Park Service will adjust commercial authorizations, as necessary, to achieve management area standards and

complete compliance as needed. This strategy may include a change in the level of authorized commercial activity or set limitations on specific locations, seasons, or times of day within commercial services permits, operating conditions, business opportunities, and contracts.

**Regulate numbers of visitors.** The National Park Service will establish quotas for visitor numbers in areas of the park when the volume of use is high enough that other mechanisms are unlikely to achieve desired conditions and complete compliance as needed. Visitors will be required to obtain a permit, and the number of available permits may be limited.

**Temporal restrictions.** Using the appropriate authorities, the National Park Service may restrict access to times of day, days of the week, or other unit of time, or the duration of access could be limited.

Temporary and long-term closures. Using the appropriate authorities, the National Park Service may implement temporary or long-term closures for areas of the park to all types of visitor use or to specific modes of access. Restrictions and closures will be accomplished consistent with the process outlined in 36 CFR section 13.50 and/or other relevant regulations.

In addition, the following specific actions will be considered if monitoring indicates that desired conditions are not being achieved or maintained. These actions will also be implemented in descending order if determined to be necessary:

- Concessioners will be given more stringent requirements regarding where, when, and
  how they manage activities in the park. These requirements may include prescriptive
  approaches to managing human waste, food, site, and vegetation impacts from camping
  and mitigating impacts to other visitors by concentrating access to one route and
  establishing camps.
- Employ additional camper drop-off locations to protect resources. To achieve desired resource protection, the park will move towards a dedicated camper boat that can access additional drop-off locations.
- Group size could be reduced from the current limit of 12. This requirement will be in effect as needed and only when monitoring indicates that it is necessary for resource protection with compliance completed as needed.
- Consider designating day use-only areas. If desired conditions are not being met, day
  use areas may be designated with compliance completed as needed. Alternately, if day
  use is negatively affecting desired conditions, locations, and intensities of commercial
  day use may be adjusted. Both strategies will be considered as part of a management
  progression to achieve and maintain desired conditions.

Additional corrective actions may be required to address specific situations and conditions not previously addressed.

# **Management Actions by Zone**

# Remote Wilderness Zone - Yáa Shaadéi Aaní

This zone primarily includes the most remote interior of the park. No actions are being proposed in this zone beyond those common to all zones.

#### Shoreline Access Zone - Yán XNáxn

This zone includes shoreline access within most of Glacier Bay, as well as along the shores of Icy Strait, Cross Sound, lower Dundas Bay, the southern outer coast to Palma Bay, and the shores of Lituya Bay. Only a corrective management action is proposed within this zone.

# Corrective Management Action

New trail and campsite development. Within this zone, the park will consider the development of primitive trails and designated primitive campsites or areas if needed for resource protection purposes.

#### Wilderness Waters Zone – Déili Aanká

This zone includes most wilderness waters within the park. The following action will continue to maintain solitude.

# **Management Action**

Application of nonmotorized waters. ANILCA authorizes the use of certain motorized transportation modes in Alaska designated Wilderness. The park will continue the management practice of seasonal designations of periods of nonmotorized use within certain waters in this zone (as outlined in park regulations) to provide for a diversity of high-quality visitor experiences. See the park marine management plan for further details and for additional provisions specific to motorized and nonmotorized vessels and marine stewardship that apply in this zone.

#### Glacier Access - Sít' Niyaadéi Aaní

The Glacier Access Zone includes areas that accommodate intense pulses of visitor use and, at times, high-use levels. The following management strategies have been identified to maintain desired conditions.

#### Management Action

**Focused use areas.** The park will identify and manage two or three locations proximal to glaciers as focused use areas (formerly referred to as heavy use areas).

# Corrective Management Actions

The following actions will be considered if monitoring indicates that desired conditions are not being achieved or maintained. These actions will be implemented in descending order if determined to be necessary:

- New trail and campsite development. Because of relatively high visitor use levels, the development of primitive campsites and trails or designation of camping areas could be considered for resource protection purposes, should informal campsites and social trails begin to cause resource damage or begin to negatively impact desired conditions. Trails could also be considered to facilitate access to glaciers to meet the park's purpose and intent if access is constrained due to foreseeable climate change or other unforeseeable events like a glacial surge.
- Access to proglacial areas. Routes or trails will be designated on proglacial areas. These areas include transitory and temporary sites that present visitors with the opportunity to access tidewater glaciers, per the park's enabling legislation. These are early successional areas and are very dynamic.

#### Frontcountry Access Zone - Aan Xán

The Frontcountry Access Zone is managed to provide for a range of wilderness visitor experiences proximal to the park's 7,120-acre Frontcountry Zone and originating from road-accessible trailheads in the Bartlett Cove and Gustavus area. The following management strategies have been identified to provide high-quality wilderness experiences and preserve wilderness character within this zone.

# Management Actions

Application of nonmotorized waters. ANILCA authorizes the use of certain motorized transportation modes in Alaska designated Wilderness. The park will continue the management practice of seasonal designations of periods of nonmotorized use within certain waters in this zone (as outlined in park regulations) to provide for a diversity of high-quality visitor experiences. See the park marine management plan for further details and for additional provisions specific to motorized and nonmotorized vessels and marine stewardship that apply in this zone.

Bartlett Lake/Towers Trail. The park will address the transportation and parking issues associated with public use of this trail, which provides access to the wilderness and Bartlett Lake from the edge of the community of Gustavus. Options being considered include trailhead parking on NPS land through a wilderness boundary adjustment, trailhead parking on NPS land acquired through purchase or gift, or trailhead parking within the road right of way. The Towers Trail portion of the facility will be maintained as a Class 4 trail with physical reminders of its development history (e.g., wide tread, obvious ditching, and remnant cement foundations). These aspects of the trail character visibly tell the story from a period of significance (1941 to 1958) about Civilian Aeronautics Administration decisions and actions that today enable visitors to arrive at the Gustavus Airport to visit Glacier Bay National Park. While maintenance of this historic road will support ongoing trail use (e.g., maintaining clearing widths, allowing successional vegetation changes (from alder to spruce), and tread repair using gravel), the park will avoid reconstruction actions that detract from its character as a contributing feature of the Gustavus Airport Historic District or alter its eligibility as a National Historic Landmark (ADOT PF 2011). Beyond the historic district, the trail connection to Bartlett Lake will be maintained as a Class 3 trail, where maintenance to

support use will apply park-specific trails best practices to reduce life-cycle maintenance costs in a dynamic successional landscape.

Bartlett Lake Trail. The trail from Bartlett Cove to Bartlett Lake will be maintained to provide for more primitive experiences as a less-developed travel route in lieu of the maintained Class 1 and 2 trail described in the frontcountry management plan. Routes are minimally maintained and involve some navigation. The route will be marked with small blazing markers in keeping with a wilderness experience and enabling use of the route throughout the year even with tree fall or snow. The forest successional processes at this time with even-aged dense trees and muskeg formation will result in a constantly changing landscape, which is more conducive to a route rather than developed trail. In the medium or longer term, explore extending the Bartlett River trail upstream with a connection to Bartlett Lake, if this is feasible, as a sustainable trail in the succession landscape and given trail management capacity (funding and in-house expertise).

Trails from the frontcountry management plan. The development of the Point Gustavus Route and the reroute of the Bartlett River Trail were included in the selected action of the 2019 frontcountry management plan to achieve a premium and sustainable trail network that connects frontcountry visitors with fundamental park resources and values, including designated Wilderness. This action will result in approximately 4.4 miles of new trail, trail improvements, and installations within the Frontcountry Access Zone. The Point Gustavus hike along the shoreline will maintain its rugged feel, only being marked by a few well-placed stones or small modifications to aid stream crossing. The Bartlett River Trail will include 1 mile of new route built on the shoreline and along the tidal cut (some portions in designated Wilderness) as a class 3 Architectural Barriers Act Accessibility Standards and narrower rustic boardwalk (up to 36 inches wide) on helical piers or other elevated structures that can be periodically shifted toward the water to maintain the shoreline experience as isostatic rebound occurs. A full discussion and analysis of this decision can be found in the frontcountry management plan.



CLASS 3

Tread 12-18"

Tread 18-24"

Figure 14. Frontcountry Access Zone, Backcountry Trail Network

Tread 0-12"

CLASS 2

CLASS 1

Hiker-Pedestrian Trail Class Standards

CLASS 4

Sources:

Tread 24-60'



Figure 15. Frontcountry Access Zone, Falls Creek, and Excursion Ridge Trail Project Area

The Excursion Ridge trail. Under the selected alternative, the National Park Service will develop up to 10 miles of new trail from the Falls Creek area of Gustavus up Excursion Ridge through designated Wilderness. Excursion Ridge's west-facing slopes and the Falls Creek area largely comprise unstable sedimentary deposit, which may not support maintainable trails and regular foot traffic. Further surveying, investigation, and cost-benefit analysis is needed to determine if the construction and maintenance of this trail is feasible. Therefore, this action will require future compliance.

This trail is referred to as the Excursion Ridge trail in the environmental assessment. The purpose of the trail is to provide access through dense forested slopes to the ridge above tree line. The trail will likely be used for day trips and provide access to untracked wilderness for cross-country, multiday excursions in the alpine tundra. Visitors will have the opportunity to experience distinct ecological communities, including wetlands, forests, and alpine, as well as exceptional scenic views once on Excursion Ridge.

Design goals for this trail will include the following:

- The use of Trail Class 2 (USFS 2016) design parameters will be prioritized where the terrain can accommodate use levels without resource damage and requiring only minimized annual and cyclic maintenance. As described in the US Forest Service publication, "Trail Fundamentals and Trail Management Objectives," these trails have a tread that is continuous and discernable but narrow and rough and are constructed of typically native materials. Design tread width would be 12–18 inches. Some sections of Trail Class 3 may be needed for trail sections with challenging soil, slope, or other environmental conditions that require more substantial design elements to accommodate use. Trail Class 3 has continuous and obvious tread and a tread width of 12–24 inches, except along steep side slopes where the tread width needs to be higher for slope stability. Trail sections through the steepest slopes may require considerable engineering and a wider native ground footprint.
- The trail will be designed for the anticipated level and intensity of use.
- The trail will have 10% grade or less (90% of the time) with integrated grade reversals (drainage features incorporated into the trail alignment). Stacking switchbacks will be avoided to protect slope stability.
- Approximately 10 miles of trail may be needed to meet grade goals between the road and the alpine environment. As feasible, the trail will be routed by scenic points of interest that could also function as rest areas and turn-around points.
- Where necessary, boardwalks, small crossing features, or raised tread will be used to protect wetland function.
- The trail will have the lowest-impact bridge possible to safely move humans across Falls Creek.

Development of new trails. Extensions to the trail network in this zone may be proposed in the future to support the zone's desired future conditions. Trails may fall into one of several trail classes; however, primitive trails will be prioritized wherever possible. These trails were not analyzed in this environmental assessment and will require additional compliance and consultation when specific proposed actions are developed.

**Sustainable trails.** The park will use applicable frontcountry management plan trail best practices that consider the dynamic successional landscape and apply park-specific guidance on sustainable trail methods that integrate drainage features into trail alignments and design for localized slope and soil conditions to optimize tread durability and reduce soil erosion (NPS 2019; Shields 2022a, 2022b, 2022c).

Trail connectors and parking. The park will collaborate with landowners, the City of Gustavus, and stakeholders to establish trail connectors and parking that support appropriate public access to NPS backcountry trails, using clearly defined trail class and management objectives, screening for impacts to sensitive resources, and applying sustainable trails development methods.

Day and overnight use. Through the development of trails and routes described previously, the park will provide additional hiking and overnight opportunities for visitors.

Corrective Management Action

Consider designating day use-only areas if desired conditions are not being met.

# ACTIONS AND STRATEGIES CONSIDERED BUT DISMISSED FROM INCLUSION IN THIS PLAN

New strategic stream crossings to facilitate beach hiking. Maintained stream crossings would require significant construction and maintenance. That level of maintenance would be difficult to commit to except for the crossings on the Point Gustavus route, which would have primitive, natural aids to crossing, as described in the frontcountry management plan.

**Beach biking routes.** Designating beach biking routes could impact the wilderness quality of unconfined recreation and would not contribute to the desired condition of maintaining a sense of self-reliance and challenge.

**Designating water routes**. Designating water routes could impact the wilderness quality of unconfined recreation and would not contribute to the desired condition of maintaining a sense of self-reliance and challenge.

Cabins and shelters. While ANILCA allows public use cabins and shelters in designated Wilderness, Glacier Bay has no history of them. Recent social science indicates that visitors prefer no developed amenities in park wilderness (Furr et al. 2021). Data also show low utilization rates for many southeast public cabins and shelters (USFS 2020). Vessel use provides opportunities for visitors to stay overnight in many of the protected bays and inlets within Glacier Bay and along its outer coast. Because primary travel in Glacier Bay is via vessel within the bay, these vessels provide opportunities for overnight stays, either through private vessel or commercial or chartered vessels. Other considerations involved in not

pursuing cabins and shelters in the backcountry include the dynamic marine setting (i.e., steep costs and operational demands relative to public benefit) and the Glacier Bay-specific marine conditions where emergency assistance is typically offered by passing boats, US Coast Guard helicopters, or park vessels. Further explanation is in chapter 2 in the nonhistoric structures and shelters section. The National Park Service will reevaluate if or when there is a substantial glacial retreat in areas that would require significant overland travel or other means necessary to access glaciers and glacial features.

Banning campfires along shoreline. Burning interstadial wood is already prohibited under 36 CFR section 13.1110, and banning campfires would impact the wilderness quality of unconfined recreation. The park would provide education on the ecological importance of interstadial wood, the impacts of burning it, and other regulations regarding campfires as part of camping orientation to minimize adverse impacts to interstadial wood.

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# **CHAPTER 4: WILDERNESS CHARACTER MONITORING**

Monitoring changes and trends in wilderness character is important for several reasons:

- to comply with the statutory mandate of the Wilderness Act to preserve wilderness character,
- to fulfill agency policy (NPS *Management Policies 2006*; Director's Order 41: *Wilderness Stewardship*, section 6.2), and
- to improve wilderness stewardship.

The Wilderness Act states that wilderness areas "shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character . . .." NPS *Management Policies 2006* states, "Management will include the protection of these (wilderness) areas, for the preservation of their wilderness character . . ." (NPS 2006a). Because the majority of the park is federally designated Wilderness, monitoring wilderness character is essential to protect the properties that make Glacier Bay National Park unique.

Wilderness character is defined as the combination of biophysical, experiential, and symbolic ideals that distinguishes wilderness from other lands. The five qualities of wilderness character include untrammeled, undeveloped, natural, solitude or a primitive and unconfined type of recreation, and other features of value. Together, the five qualities compose an integrated ecological and social system of wilderness at Glacier Bay National Park (see "Wilderness Character Narratives for Glacier Bay Wilderness" for a description of the five tangible and measurable qualities of wilderness character in the Glacier Bay Wilderness).

The five qualities of wilderness character capture the intent Congress put forth in the Wilderness Act as well as the guidance in NPS *Management Policies* 2006. Both point to monitoring conditions and long-term trends in wilderness character. *Keeping It Wild 2: An Updated Interagency Strategy to Monitor Trends in Wilderness Character Across the National Wilderness Preservation System* (Landres et al. 2015) provides managers with a tool to assess how wilderness character is changing over time. Monitoring wilderness character is integral to meeting the goals and objectives of this plan.

The overall approach of this monitoring framework is to

- 1. choose a set of measures that are relevant, cost-effective, and tied to preserving wilderness character;
- 2. periodically collect data to assess trends in these measures; and
- 3. use these trends to assess and report on the overall trend in wilderness character.

This national monitoring framework offers a means for documenting the status and trends in wilderness character and guiding wilderness management within a wilderness area. Under

this monitoring strategy, trends in wilderness character are classified as upward (positive), downward (negative), or stable. These trends are both nationally consistent and independent of the unique aspects specific to any given wilderness; therefore, trends in wilderness character can be compared between wilderness areas or across regions.

Glacier Bay National Park is developing a park-specific wilderness character baseline assessment that staff will refine and test as this plan is implemented. Initial monitoring will determine if the measures accurately measure the conditions of concern. Park staff may decide to modify the measures and revise the monitoring program if better ways are found to measure changes in wilderness character. Most of these types of changes should be made within the first several years of initiating monitoring. After this initial testing period, adjustments would be less likely to occur. Finally, if conditions change appreciably, park staff may need to identify new measures to ensure that wilderness character desired conditions are achieved and maintained. The finished wilderness character baseline assessment will be incorporated as a supporting appendix of this document and shared with the public.





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 historic 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.

# Revised Backcountry and Wilderness Management Plan Environmental Assessment Finding of No Significant Impact

Glacier Bay National Park and Preserve P.O. Box 140, Gustavus Alaska 99826

Produced by the National Park Service

