APPENDICES

Photograph courtesy of USGS Alaska Science Center.

Glaucous-winged gull.

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Appendix 1: Glacier Bay National Resource Management Act

Public Law 106–455
106th Congress

An Act

To address resource management issues in Glacier Bay National Park, Alaska.

Nov. 7, 2000
[S. 501]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Glacier Bay National Park Resource Management Act of 2000.
16 USC 410hh–4 note.

SECTION 1. SHORT TITLE.

This Act may be cited as the "Glacier Bay National Park Resource Management Act of 2000".

16 USC 410hh–4 note.

SEC. 2. DEFINITIONS.

As used in this Act—

(1) the term "local residents" means those persons living within the vicinity of Glacier Bay National Park and Preserve, including but not limited to the residents of Hoonah, Alaska, who are descendants of those who had an historic and cultural tradition of sea gull egg gathering within the boundary of what is now Glacier Bay National Park and Preserve;

(2) the term "outer waters" means all of the marine waters within the park outside of Glacier Bay proper;

(3) the term "park" means Glacier Bay National Park;

(4) the term "Secretary" means the Secretary of the Interior; and

(5) the term "State" means the State of Alaska.

16 USC 410hh–4 note.

SEC. 3. COMMERCIAL FISHING.

(a) IN GENERAL.—The Secretary shall allow for commercial fishing in the outer waters of the park in accordance with the management plan referred to in subsection (b) in a manner that provides for the protection of park resources and values.

(b) MANAGEMENT PLAN.—The Secretary and the State shall cooperate in the development of a management plan for the regulation of commercial fisheries in the outer waters of the park in accordance with existing Federal and State laws and any applicable international conservation and management treaties.

(c) SAVINGS.—(1) Nothing in this Act shall alter or affect the provisions of section 123 of the Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1999 (Public Law 105–277), as amended by section 501 of the 1999 Emergency Supplemental Appropriations Act (Public Law 106–31).

(2) Nothing in this Act shall enlarge or diminish Federal or State title, jurisdiction, or authority with respect to the waters of the State of Alaska, the waters within Glacier Bay National Park and Preserve, or tidal or submerged lands.

(d) STUDY.—(1) Not later than one year after the date funds are made available, the Secretary, in consultation with the State,

the National Marine Fisheries Service, the International Pacific Halibut Commission, and other affected agencies shall develop a plan for a comprehensive multi-agency research and monitoring program to evaluate the health of fisheries resources in the park's marine waters, to determine the effect, if any, of commercial fishing on—

(A) the productivity, diversity, and sustainability of fishery resources in such waters; and

(B) park resources and values.

(2) The Secretary shall promptly notify the Committee on Energy and Natural Resources of the United States Senate and the Committee on Resources of the United States House of Representatives upon the completion of the plan.

Deadline.

(3) The Secretary shall complete the program set forth in the plan not later than seven years after the date the congressional committees are notified pursuant to paragraph (2), and shall transmit the results of the program to such committees on a biennial basis.

16 USC 410hh–4 note.

SEC. 4. SEA GULL EGG COLLECTION STUDY.

(a) STUDY.—The Secretary, in consultation with local residents, shall undertake a study of sea gulls living within the park to assess whether sea gull eggs can be collected on a limited basis without impairing the biological sustainability of the sea gull population in the park. The study shall be completed no later than two years after the date funds are made available.

(b) RECOMMENDATIONS.—If the study referred to in subsection (a) determines that the limited collection of sea gull eggs can occur without impairing the biological sustainability of the sea gull population in the park, the Secretary shall submit recommendations for legislation to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Resources of the United States House of Representatives.

16 USC 410hh–4 note.

SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated such sums as are necessary to carry out this Act.

Approved November 7, 2000.

LEGISLATIVE HISTORY—S. 501:

SENATE REPORTS: No. 106–128 (Comm. on Energy and Natural Resources).
CONGRESSIONAL RECORD:
Vol. 145 (1999): Nov. 19, considered and passed Senate.
Vol. 146 (2000): Oct. 23, considered and passed House.

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Appendix 2: Historical information on seabirds breeding on South and North Marble Island, Glacier Bay.

Table 1. Historical information on seabirds breeding on South Marble Island

Year	Date	Number	Comments	Source
Pelagic Cormorants				
1907	?	250-300	100 breeding, 150-200 non-breeding	Grinnell 1909
1970	May 17	200	Flew off island	Ranger logs
	July 8	175	No details	Ranger logs
1972	June 13	80	Unidentified cormorants	Ranger logs
1973	?	200	Data from S. Patten	Sowls et al. 1978
1975	July 29	50	Unidentified cormorants	Ranger logs
1976	May 26	~150	Unidentified cormorants	Ranger logs
1999	June 7	201	Maximum count	Zador 2002
Glaucous-winged Gulls				
1941	July 14	200	With eggs and young	Jewett 1942
1973	?	550	Data from S. Patten?	Sowls et al. 1978
1975	?	?	~1000 nests on N and S Marble Is, breeding failure	Ranger logs
1999	May 24	829	Maximum count	Zador 2002
Black-legged Kittiwakes				
1989	?	6	First time nests built, no young	G. Streveler, unpubl. data
1991	?	0	None nesting in 1991	Climo and Duncan 1991
	June	+	Present on cliffs	
1994	July 6	24	10 nests, ≥ 2 chicks	E. Hooge, unpubl. data
1995	June	~70	~30 nests	R. Yerxa, unpubl. data
1996	July 2	199	135 nests	E. Hooge, unpubl. data
1996	July 17	135	97 nests. North colony appears.	E. Hooge, unpubl. data
1997	June 25	171	96 nests	E. Hooge, unpubl. data
1998	June 19	261	131 nests	M. Kralovec, unpubl. data
1999	May 24	159	July 24: 76 chicks at southern colony, 0 chicks at northern colony	Zador 2002
Common Murres				
1978	July 2	15	-	Ranger logs
1991	June	+	Present on cliffs	J. Piatt, pers. obs.
1999	May-July	29	Max. count: 12 on cliff, 17 on water	Zador 2002
Pigeon Guillemots				
1907	?	+	Breeding	Grinnell 1909
1970	May 20	150	NW end of island	Ranger logs
1973	?	100	S. Patten data?	Sowls et al. 1978
1975	July 29	27	No details	Ranger logs
1999	May 24	171	Maximum count, whole island	Zador 2002
Tufted Puffins				
1920	?	+	100+ around “Marble”, Drake, and Willoughby Islands	Bailey 1927
1970	July 17	50	“off S. Marble”	Ranger logs
1971	July 24	40	No details	Ranger logs
1972	Sept 1	23	No details	Ranger logs
1973	?	40	Data from S. Patten?	Sowls et al. 1978
1975	July 29	17	No details	Ranger logs
1979	June 7	30	No details	Ranger logs
1999	May-July	18	Maximum on the water	Zador 2002
Horned Puffins				
1907	?	2+	Nesting, 2 adults collected	Grinnell 1909
1969	June 9	3	2 in crevice	Ranger logs
1970	July16	6	On island, maximum summer count	Ranger logs
1972	Aug 17	11	Maximum summer count	Ranger logs
1972	Summer	6	Breeding population	Patten 1974
1973	Summer	6	Breeding population	Patten 1974
1975	July 29	5	No details	Ranger logs
1985	July 30	1	No details	Ranger logs
1999	July 19	1	Flying around island	Zador 2002

Table 2. Historical information on seabirds breeding on North Marble Island

Year	Date	Number	Comments	Source
Pelagic Cormorants				
1969	July 18	+	"Numerous", 4 nests with 3,3,4,5 eggs	Ranger logs
1970	July 27	150	Survey of all seabirds	Ranger logs
1972	Sept 14	47	No details	Ranger logs
1972	Summer	6	Breeding population	Patten 1974
1973	Summer	60	Breeding population	Patten 1974
1999	May 24	0	Entire island surveyed from water	Zador 2002
Glaucous-winged Gulls				
1941	July 14	200	"100 pairs" with eggs and young	Jewett 1942
1972	Summer	1000	Breeding population estimate	Patten 1974
1973	Summer	1000	Breeding population estimate	Patten 1974
1975	?	+	~1000 nests on N and S Marble Is, breeding failure	Ranger logs
1999	May 24	25	On grassy slope on sw corner	Zador 2002
Common Murres				
1967	?	20	"Breeding confirmed"	Wik and Streveler 1968
1969	July 22	33	3 breeding ledges with 20, 5, and 8.	Ranger logs
	Aug 1	15	On ledges, eggs observed	Ranger logs
1970	May 29	120	Off island in 2 flocks	Ranger logs
	July 14	25	6 on ledge, 19 in water	Ranger logs
1971	June 15	46	Summer max count, 14 on ledges	Ranger logs
1972	June 12	61	Summer max count, on 3 ledges	Ranger logs
1972	Summer	16	Breeding population	Patten 1974
1973	Summer	36	Breeding population	Patten 1974
1975	July 29	12	No details	Ranger logs
1999	May 24	0	Entire island surveyed from water	Zador 2002
Pigeon Guillemots				
1970	July 27	350	Summer max count	Ranger logs
1971	June 15	200	No details	Ranger logs
1972	Summer	100	Breeding population	Patten 1974
1973	Summer	120	Breeding population	Patten 1974
1975	July 23	50	No details	Ranger logs
1999	May 24	127	Many in caves on west side	Zador 2002
1999	July 24	115	Surveyed east side only	Zador 2002
Tufted Puffins				
1920	?	+	100+ around "Marble", Drake, and Willoughby Islands	Bailey 1927
1970	July 26	75	East side of island	Ranger logs
1971	July 24	56	Summer max count	Ranger logs
1972	June 21	19	No details	Ranger logs
1972	Summer	50	Breeding population	Patten 1974
1973	Summer	60	Breeding population	Patten 1974
1975	July 23	30	No details	Ranger logs
1999	May 24	0	Entire island surveyed from water	Zador 2002
Horned Puffins				
1970	Aug 19	1	No details	Ranger logs
1973	Summer	2	Breeding population	Patten 1974
1975	July 29	2	No details	Ranger logs
1999	May 24	0	Entire island surveyed from water	Zador 2002
1999	July 24	4	Surveyed east side only	Zador 2002

Appendix 3: Wilderness Minimum Requirements Decision Guide

ARTHUR CARHART NATIONAL WILDERNESS TRAINING CENTER

MINIMUM REQUIREMENTS DECISION GUIDE
Huna Tlingit Gull Egg Collection WORKSHEETS

". . . except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act..."

– the Wilderness Act, 1964

Please refer to the accompanying MRDG *Instructions* for filling out this guide.

The spaces in the worksheets will expand as necessary as you enter your response.

Step 1: Determine if any administrative action is necessary.

Description: **Briefly describe the situation that may prompt action.**

The accompanying Legislative Environmental Impact Statement (LEIS) describes a range of alternatives and analyzes the environmental consequences of authorizing traditional glaucous-winged gull egg harvest within Glacier Bay National Park by the Huna Tlingit people. Legislation enacted in 2000 directs NPS to determine whether egg harvest could be authorized in the park which is the traditional homeland of the Huna Tlingit. NPS regulations and the Migratory Bird Treaty Act of 1916 prohibited gull egg collection.

In 1980 ANILCA designated all lands and 5 marine water areas within the park as wilderness. There are several established glaucous-winged gull nesting colonies within park wilderness being considered as egg collection sites.

To determine if administrative action is necessary, answer the questions listed in A - F on the following pages.

A. Describe Options Outside of Wilderness

Is action necessary within wilderness?

Yes

Explain: Public Law 106-455 enacted in 2000 directs NPS to analyze the effects of egg harvest within Glacier Bay National Park specifically. Several gull colonies considered for harvest activities occur within designated wilderness.

B. Describe Valid Existing Rights or Special Provisions of Wilderness Legislation

Is action necessary to satisfy valid existing rights or a special provision in wilderness legislation (the Wilderness Act of 1964 or subsequent wilderness laws) that allows consideration of the Section 4(c) prohibited uses? Cite law and section.

Not Applicable

C. Describe Requirements of Other Legislation

Is action necessary to meet the requirements of other laws?

Yes

Explain: Pubic Law 106-455 directs the NPS to make recommendations to Congress for legislation if it is determined that collection of gull eggs by the Hoonah Tlingit within Glacier Bay National Park can take place without impairing the biological sustainability of glaucous-winged gulls in the park.

D. Describe Other Guidance

Is action necessary to conform to direction contained in agency policy, unit and wilderness management plans, species recovery plans, or agreements with tribal, state and local governments or other federal agencies?

Yes

Explain: A memorandum of understanding (MOU) between the NPS and the Hoonah Indian Association was signed in September 1995 and reauthorized in 2000 and 2005. The MOU outlines the framework of a working relationship between the two entities designed to foster and encourage the protection and enhancement of the Huna Tlingit culture. An amendment to the 2000 MOU, developed to formally establish a management program for providing access into Glacier Bay National Park to tribal members of the Hoonah Indian Association was signed in 2003.

E. Wilderness Character

Is action necessary to preserve one or more of the qualities of wilderness character including: untrammeled, undeveloped, natural, outstanding opportunities for solitude or a primitive and unconfined type of recreation, or unique components that reflect the character of this wilderness area?

Untrammeled: **No**

Explain: The untrammeled quality of wilderness character would not be affected by the proposed action. Two days of egg collection activity would occur each year at selected nesting colonies. No manipulation or alteration of habitat or wildlife would occur. Disturbance to wildlife would be transitory.

Undeveloped: **No**

Explain: No structures, instruments, equipment, or other facilities would be developed at egg collection sites.

Natural: **No**

Explain: No alteration of habitat at collection sites would occur. Egg collectors would only work in areas accessible on foot, make one pass through the colony on both trips, and leave the area once the pass is complete to minimize the impacts to gulls and other nesting birds.

Outstanding opportunities for solitude or a primitive and unconfined type of recreation: **No**

Explain: Egg collection would not diminish opportunities for recreation as the nesting colonies considered for harvest are currently closed to recreational foot traffic. Harvest activity would be limited to 2 single day visits during the year and trip participants would access the collection sites from outside designated wilderness (motor vessel from non-wilderness waters).

Other unique components that reflect the character of this wilderness: Yes

Explain: The Glacier Bay National Park wilderness is part of the traditional homeland of the Huna Tlingit people. Activities such as egg collection and consumption are an integral part of their culture and one means by which they maintain ties to their ancestral homeland.

F. Describe Effects to the Public Purposes of Wilderness

Is action necessary to support one or more of the public purposes for wilderness (as stated in Section 4(b) of the Wilderness Act) of recreation, scenic, scientific, education, conservation, and historical use?

Recreation: **No**

Explain: There would be no effects to the recreational purposes of the Glacier Bay National Park wilderness. Gull nesting colonies are closed to other recreational use so the proposed activity would not alter the opportunities for other park visitors.

Scenic: **No**

Explain: There would be no effects to the scenic qualities of wilderness resulting from this activity. Egg collection activity would not be generally noticeable to other park visitors nor would there be lingering evidence of it.

Scientific: **No**

Explain: There may be beneficial effects to the scientific purposes of the Glacier Bay National Park wilderness. One of the requirements for continued gull egg harvest over time would be annual monitoring of the glaucous-winged gull population; data that has not been available on such a regular basis. Increased understanding of gull populations will benefit management and protection of this resource.

Education: **No**

Explain: Reconnecting Hoonah Indian Association members with their ancestral homeland will improve appreciation and understanding of the Glacier Bay wilderness in the present day and for the future. Demonstrating traditional Huna Tlingit lifeways to other park visitors will expand their understanding of the significance of park resources historically and in the future.

Conservation: **No**

Explain: Improved relations between NPS and Hoonah tribal members will also improve NPS ability to protect park resources. Information gathered during annual gull population monitoring (both of glaucous-winged gulls and other species using the colony sites) will help the NPS protect the resources over time.

Historical use: **No**

Explain: Collection and consumption of gull eggs was a traditional practice prior to the 1960's. The current MOU between NPS and Hoonah Indian Association established a working relationship between the two entities designed to foster and encourage the protection and enhancement of the Huna Tlingit culture. An amendment to the 2000 MOU, developed to formally establish a management program for providing access into Glacier Bay National Park to tribal members of the Hoonah Indian Association was signed in 2003.

Step 1 Decision: **Is any administrative action <u>necessary</u> in wilderness?**

No

Explain: No action is necessary. Impacts to Glacier Bay National Park wilderness values and purposes would be largely positive.

Record and report any authorizations of Wilderness Act Section 4(c) uses according to agency procedures.

Approval	Signature	Name	Position	Date
Prepared by:				
Recommended:				
Recommended:				
Approved:				

Appendix 4: ANILCA Section 810(a) Subsistence Evaluation

SUMMARY OF EVALUATION AND FINDING

I. Introduction

This evaluation and finding were prepared to comply with Title VIII, Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). It summarizes the evaluation of potential restrictions to Title VIII of ANILCA subsistence activities which could result should the National Park Service (NPS) propose legislation to authorize the Hoonah Indian Association (HIA) to collect glaucous-winged gull (*Larus glaucenscens*) eggs in Glacier Bay National Park. The collection of gull eggs in Glacier Bay National Park is currently prohibited by Federal statute. In 1918, the Migratory Bird Treaty Act prohibited the collection of gull eggs throughout the United States. In 2005, Federal regulations were amended (50 CFR, Part 92) to authorize Hoonah residents to collect glaucous-winged gull eggs on National Forest Service lands in Icy Strait and Cross Sound.

II. The Evaluation Process

Section 810(a) of ANILCA states:

> *"In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands . . . the head of the Federal agency . . . over such lands . . . shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for]-subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be affected until the head of such Federal agency:*
>
> - *gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805;*
> - *gives notice of, and holds, a hearing in the vicinity of the area involved; and*
> - *determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity would involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps would be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions."*

Presidential proclamations of 1925 and 1939 established and expanded Glacier Bay National Monument. In 1980, Title II of ANILCA provided the specific statutory requirements for management of Glacier Bay National Park and Preserve. Glacier Bay National Monument was expanded by the addition of an area containing approximately 523,000 acres of federal land. The

monument was re-designated as "Glacier Bay National Park." Approximately 57,000 acres of additional public land was established as Glacier Bay National Preserve.

ANILCA Section 202(1), created Glacier Bay National Park and Preserve for the following purposes:

> *"To protect a segment of the Alsek River, fish and wildlife habitats and migration routes and a portion of the Fairweather Range including the northwest slope of Mount Fairweather. Lands, waters, and interests therein within the boundary of the park and preserve which were within the boundary of any national forest are hereby excluded from such national forest and the boundary of such national forest is hereby revised accordingly."*

Federal law and regulation prohibit ANILCA Title VIII subsistence uses in Glacier Bay National Park however, subsistence uses by local rural residents are allowed in Glacier Bay National Preserve.

ANILCA 816 (a) states:

> *" All national parks and park monuments in Alaska shall be closed to the taking of wildlife except for subsistence uses to the extent specifically permitted by this Act. Subsistence uses and sport fishing shall be authorized in such areas by the Secretary and carried out in accordance with the requirements of this title and other applicable laws of the United States and the State of Alaska."*

With regards to Glacier Bay National Preserve, Section 1313 of ANILCA states:

> *"A National Preserve in Alaska shall be administered and managed as a unit of the National Park System in the same manner as a national park except as otherwise provided in this Act and except that the taking of fish and wildlife for sport purposes and subsistence uses, and trapping shall be allowed in a national preserve under applicable State and Federal law and regulation. Consistent with the provisions of Section 816, within national preserves the Secretary may designate zones where and periods when no hunting, fishing, trapping, or entry may be permitted for reasons of public safety, administration, floral and faunal protection, or public use and enjoyment. Except in emergencies, any regulations prescribing such restrictions relating to hunting, fishing, or trapping shall be put into effect only after consultation with the appropriate State agency having responsibility over hunting, fishing, and trapping activities."*

ANILCA Sections 1314 (c) states:

> *"The taking of fish and wildlife in all conservation system units; and in national conservation areas, national recreation areas, and national forests, shall be carried out in accordance with the provisions of this Act and other applicable State and*

Federal law. Those areas designated as national parks or national park system monuments in the State shall be closed to the taking of fish and wildlife, except that-- (1) notwithstanding any other provision of this Act, the Secretary shall administer those units of the National Park System and those additions to existing units, established by this Act and which permit subsistence uses, to provide an opportunity for the continuance of such uses by local rural residents; and (2) fishing shall be permitted by the Secretary in accordance with the provisions of this Act and other applicable State and Federal law."

The potential for significant restriction must be evaluated for the proposed action's effect on… *"subsistence uses and needs, the availability of other lands for the purposes sought to be achieved and other alternatives that would reduced or eliminate the use."*

III. Proposed Action on Federal Lands

The following is a brief summary of the proposed alternatives considered in the Legislative Environmental Impact Statement (LEIS):

Alternative 1: No Action

Under the Alternative 1 (No Action), the collection of glaucous-winged gull eggs in Glacier Bay National Park would not be authorized. This alternative provides a baseline for evaluating the impacts to park resources that would result from the action alternatives.

Alternative 2: One Annual Harvest Trip to Two Locations

Alternative 2 would propose legislation to authorize the collection of glaucous-winged gull eggs at up to two designated locations on a single pre-selected date on or before June 9.

The NPS and the HIA would prepare an annual harvest plan by May 1 of each year. The harvest plan would list all suitable harvest locations based on annual monitoring and harvest history and would identify up to two sites from which the HIA could harvest eggs.

Alternative 3: Two Annual Trips to Several Locations

Alternative 3 would propose legislation to authorize the collection of glaucous-winged gull eggs at several designated locations in Glacier Bay National Park on two separate dates. The NPS and the HIA would prepare an annual harvest plan by May 1 of each year. The harvest plan would list all suitable harvest locations based on annual monitoring and harvest history and would identify sites from which the HIA could harvest eggs. The HIA would be authorized to collect eggs from one or more sites on a single day on or before June 9 and from one or more sites on a second day within nine days of the first harvest. The logistics of vessel transportation would limit the number of sites that could be visited in a given day.

IV. Affected Environment

Subsistence uses, as defined by ANILCA, Section 810, means 'the customary and traditional use by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of non-edible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade." Subsistence activities include hunting, fishing, trapping, and collecting berries, edible plants, and wood or other materials.

Other important subsistence use areas within the region include Icy Strait, Excursion Inlet, Cross Sound, Port Frederick, and Tongass National Forest. Most of the rural communities of southeastern Alaska rely on renewable natural resources for at least a portion of their subsistence needs. About one-third of the rural communities of the region take at least half of their meat and fish by hunting and fishing (Holleman and Kruse, 1992).

Residents of such communities as Gustavus (429), Hoonah (860), Elfin Cove (32), Pelican (163), Excursion Inlet (10), Sitka (8,835) and Yakutat (680) engage in subsistence uses near the boundaries of Glacier Bay National Park. (U.S. Census Bureau 2000). Community subsistence resource activities include hunting; fishing; and gathering gull eggs, shellfish, firewood, wild plants and berries. Historical resource utilization patterns, such as gull egg gathering, fish camps or communal marine mammal and deer hunts, are linked to traditional social and subsistence use patterns. Sharing of resource occurs between communities, as well as within communities throughout the region.

Some of the major resources used for subsistence in these communities are black bear, deer, goat, moose, furbearers, spruce grouse, ptarmigan, waterfowl, marine mammals, salmon, trout, halibut, crab, clams, berries and other edible plants (such as wild celery, ferns, and kelp), alder, spruce, and other wood resources (Kruse and Muth 1990).

Figure 1. Hoonah Egging Area

ANILCA and NPS regulations authorize subsistence use of resources in Glacier Bay National Preserve and prohibit subsistence uses in Glacier Bay National Park (Codified in 36 CFR, part 13). Current US Fish and Wildlife Service regulations allow residents of Hoonah to gather glaucous winged gull eggs on National Forest lands in Icy Strait and Cross Sound, including Middle Pass Rock near the Inian Islands, Table Rock in Cross Sound, and other traditional locations on the coast of Yakobi Island between May 15 and June 30. The land and waters of Glacier Bay National Park remain closed to all subsistence harvesting [50 CFR Part 100.3].

The following documents contain additional descriptions of subsistence uses within Glacier Bay National Park and Preserve:

Comprehensive historic descriptions of the affected environment within Glacier Bay National Park and Preserve can be found in:

- General Management Plan/Land Protection Plan, Glacier Bay National Park and Preserve NPS Alaska Region, 1986.
- Glacier Bay National Park and Preserve Final Environmental Impact Statement, Wilderness Recommendation, NPS Alaska Region, 1988.
- Glacier Bay National Park and Preserve Alaska Vessel Quotas and Operating Requirements Final Environmental Impact Statement, 2003.
- Glacier Bay National Preserve Off-Road Vehicle Use Plan Environmental Assessment, 2007.
- NPS "General Management and Land Protection Plans" (http:// ww.nps.gov).
- Alaska Department of Fish and Game General and Subsistence Harvest Information and Publications (http://www.state.ak.us/adfg).
- Federal Subsistence Management Regulations, Office of Subsistence Management, FWS, (http://alaska.fws.gov/asm/home.html).
- National Park Service Management Policies, NPS, 2006. Information and Publications (http:// ww.nps.gov/policy).
- Alaska Subsistence, NPS Management History, NPS 2002.

The NPS recognizes that patterns of subsistence use vary from time to time and from place to place depending on the availability of wildlife and other renewable natural resources. A subsistence harvest in a given year may vary considerable from previous years due to weather conditions, migration patterns, and natural population cycles.

V. Subsistence Uses and Needs Evaluation

Potential Impacts on Subsistence Users

To determine the potential impacts on existing subsistence activities for the preferred action as outlined in the LEIS three evaluation criteria were analyzed relative to existing subsistence resources:

- the potential to reduce important subsistence fish and wildlife populations by (a) reductions in number, (b) redistribution of subsistence resources, or (c) habitat losses;
- what effect the action might have on subsistence fisherman or hunter access;
- the potential for the action to increase fisherman or hunter competition for subsistence resources.

1. The potential to reduce populations:

(a) Reduction in Numbers:

The proposed actions are not expected to cause a significant decline of wildlife species in the affected areas.

(b) Redistribution of Resources:

The proposed actions are not expected to cause a significant displacement of subsistence resources in the affected areas.

(c) Habitat Loss:

The proposed actions are not expected to cause significant impact or loss to wildlife habitat within the affected areas.

2. Restriction of Access:
The proposed actions are not expected to restrict current ANILCA Title VIII subsistence use patterns on Federal Public lands within the region. Glacier Bay National Park is closed to ANILCA Title VIII subsistence uses.

3. Increase in Competition:
The proposed actions are not expected to significantly restrict or increase competition for ANILCA Title VIII subsistence resources on Federal public lands within the region.

VI. Availability of Other Lands

Glaucous-winged gull egg collection is allowed pursuant to Federal regulations on adjacent National Forest Service lands.

VII. Alternatives Considered

The evaluation has described three alternatives. No other alternatives were considered that would eliminate subsistence use of lands within Glacier Bay National Park.

VIII. Findings

This analysis concludes that the proposed actions will not result in a significant restriction of ANILCA Title VIII subsistence uses.

Appendix 5: Endangered Species Act Section 7 Consultation

United States Department of the Interior
NATIONAL PARK SERVICE
Glacier Bay National Park and Preserve
P.O. Box 140
Gustavus, Alaska 99826-0140

Tel: 907-697-2230 · Fax: 907-697-2654

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IN REPLY REFER TO:
D18

NOV 23 2009

Ms. Kaja Brix, Asst. Regional
Administrator
Protected Resources Division
Alaska Region National Marine Fisheries Service
P.O. Box 21668
Juneau, AK 99802

Dear Ms. Brix:

The National Park Service (NPS) has completed a final legislative environmental impact statement (FLEIS) which analyzes three alternatives for authorizing a limited harvest of glaucous-winged gull eggs in Glacier Bay National Park by the Huna Tlingit. We expect the LEIS to be released for public review in sometime this winter. Your office received the draft LEIS; the final includes a slightly revised preferred alternative.

This letter serves to initiate formal consultation with the National Marine Fisheries Service (NMFS) regarding threatened and endangered marine species in compliance with Section 7 of the Endangered Species Act. Although action alternatives would include vessel access into Glacier Bay National Park by Hoonah Indian Association tribal members, such vessel entries have already been fully analyzed in the environmental impact statement on Vessel Quotas and Operating Requirements for Glacier Bay National Park and Preserve published in 2003. For this reason, we determined - and you concurred during informal discussions which occurred during preparation of the draft LEIS - that none of the alternatives outlined would affect the endangered humpback whale. The enclosed biological assessment analyzes the potential effects of the three alternatives (a No Action and two action alternatives including the agency's preferred alternative) on the threatened and endangered Steller sea lion. Our assessment determined that the alternatives,

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including the agency's preferred alternative (Alternative 3) are not likely to adversely affect the Steller sea lion.

I understand that your staff will develop a biological opinion in response to our assessment. The project lead, Mary Beth Moss, will be contacting you in the next week to discuss NMFS's timeline for response. Should you have any questions or concerns, please feel free to contact Ms. Moss (907-945-3545) or myself (907-697-2230).

Sincerely,

FOR Cherry Payne
Superintendent

BIOLOGICAL ASSESSMENT OF THE EFFECTS OF HARVESTING GLAUCOUS-WINGED GULL EGGS IN GLACIER BAY NATIONAL PARK ON THE STELLER SEA LION

The National Park Service (NPS) proposes to authorize the limited collection of glaucous-winged gull eggs in Glacier Bay National Park by Huna Tlingit tribal members. A Legislative Environmental Impact Statement (LEIS) was prepared as required by the National Environmental Policy Act (NEPA) of 1969 and regulations of the Council of Environmental Quality (CEQ; 40 Code of Federal Regulations [CFR] 1500). It describes a reasonable range of alternatives, the existing conditions, and contains a detailed analysis of environmental consequences of the alternatives.

PURPOSE AND NEED FOR ACTION

Glacier Bay National Park is the traditional homeland of the Huna Tlingit people who traditionally harvested eggs at gull rookeries in Glacier Bay prior to, and following, park establishment in 1925. Egg collection was curtailed in Glacier Bay in the 1960s as both the Migratory Bird Treaty Act and NPS regulations prohibited the activity. The loss of legal access to gull eggs in Glacier Bay has negatively affected the physical, cultural and spiritual well being of the Huna Tlingit.

In the late 1990s, the NPS agreed to explore ways to authorize the traditional collection of gull eggs within Glacier Bay. Legislation enacted in 2000 (P.L. 106-455; Appendix I) further directed the NPS to determine whether customary egg harvest practices could be authorized in Glacier Bay National Park. The purpose of this LEIS is to respond to Section 4 of P.L. 106-455 and to propose a traditional harvest strategy, cooperatively produced by the NPS and the Hoonah Indian Association (HIA).

THE ALTERNATIVES

The NPS is considering three alternatives designed to achieve the objectives and needs described in the previous section, a No-Action Alternative and two alternatives which would authorize limited traditional harvest of glaucous-winged gull eggs. Alternative 3 is the NPS Preferred Alternative.

Alternative 1: No Action

Under Alternative 1 (No-Action), the harvest of glaucous-winged gull eggs in Glacier Bay National Park would not be authorized. The No-Action Alternative provides a baseline for evaluating the impacts to park resources that would result from the action alternatives.

Alternative 2 (One Annual Harvest Visit to Two Locations)

Alternative 2 would propose legislation to authorize the annual harvest of glaucous-winged gull eggs at up to two designated locations on a single pre-selected date on or before June 9.

The NPS and the HIA would prepare an annual harvest plan each year which would identify up to two sites open to harvest based on annual monitoring and harvest history. One harvest visit to these sites would be authorized to occur on or before June 9th of that year. If inclement weather, logistics or other issues prevented a harvest on or before June 9, no harvest would be authorized in that year.

Alternative 3: Two Annual Visits to Up to Five Locations (NPS Preferred Alternative)

Alternative 3 would propose legislation to authorize the annual harvest of glaucous-winged gull eggs at up to five designated locations in Glacier Bay National Park on two separate dates.

The NPS and the HIA would prepare an annual harvest plan which would identify those sites open to harvest based on annual monitoring and harvest history. A first harvest visit would be authorized to occur at each of the open sites on or before the 5th day following onset of laying as determined by NPS staff monitoring a reference site at South Marble Island. A second harvest at the same sites would be authorized to occur within nine days of the first harvest. If inclement weather, logistics or other issues prevented a first harvest visit within 5 days of onset of laying, only one harvest would be authorized in that year. No harvest visits would occur after June 15 of any year. Although site selection would occur each year during the preparation of the annual harvest plan, it is likely that harvest would occur at most at the 5 most productive sites.

Actions Common to all Action Alternatives

Harvest locations, method of harvesting, group size, and monitoring activities would be similar for both alternatives.

Harvest Location: The Superintendent could identify any of the following sites for harvest: Boulder Island, Flapjack Island, Lone Island, Geikie Rock, Graves Island (Outer Coast), Hugh Miller islet, Margerie Glacier, Mt. Wright, Muir Inlet cliffs, Muir Inlet shoreline (between Riggs and Muir glaciers), Sealers Island, Sebree Island, South Marble Island, Sturgess Island, and Tlingit Point islet. The list above may be added to as information on new colonies becomes available. If vegetational succession in nesting areas diminishes nesting populations, the Superintendent could remove such sites from the list of potential harvest locations.

In general, harvest sites would be selected based on:

1. Size of colony: Larger colonies are preferred both in terms of maximizing potential harvest as well as in terms of maintaining gull reproductive biology.
2. Gull population parameters: Data on these parameters would be acquired through the annual monitoring program.

- Productivity: Sites with high productivity (producing, on average, more than 2 eggs per nest) are preferred.
- Gull population status: Sites with larger gull populations are preferred.
- Recent egg harvest or disturbance: Sites that have not been harvested from or disturbed recently are preferred.
- Age of colony: Older colonies are preferred; egg laying must be documented for at least 6 years prior to a colony being opened to harvest.

3. Other species present, potential for disturbance: Sites that support no, or few other nesting birds and/or do not serve as marine mammal haul outs are preferred.
4. Distance from Hoonah: Sites closer to Hoonah are preferred.
5. Accessibility by vessel: Sites that can be easily and safely accessed by vessel without disturbing other wildlife are preferred.
6. Safety: Sites that are less steep and provide easier foot access are preferred.

Visitor use: Sites with lower levels of visitor use are preferred

Annual Harvest Plan, Harvest Methods, Group Composition and Size: Each year, the NPS and the HIA would jointly prepare a harvest plan. The plan would identify suitable harvest sites and would include, at a minimum, the proposed date(s) of harvest, vessel(s) to be used to access harvest sites, tentative itinerary for harvest date(s), harvest locations, and names of harvesters. Information in this plan would be used to prepare any necessary park permits including regulatory exemptions to CFR 36 13.1178.

The HIA would assign harvesters to search sections in each colony open to harvest. Harvest locations and access pathways would be delineated to minimize contact with other bird colonies and to ensure that harvesters moving through a colony would not disturb hauled out marine mammals. Harvesters would be authorized to collect eggs from nests with one, two, three or four eggs; however, harvesters could choose to not harvest from nests with three or four eggs according to their families tradition. Regardless of the clutch size or harvest strategy selected, harvesters would be required to remove all eggs from harvested nests. Harvesters would tally the number of nests located and harvested from (the number of nests with zero, one, two, three or four eggs). No eggs would be taken from nests with pipping or star-fractured eggs. Harvesters would make only one pass through each colony and would move steadily through nesting areas to reduce disturbance. No time limit in the colony would be imposed on harvesters. Resting, eating, etc., would take place on beaches or outside nesting areas to reduce disturbance.

Each harvest group would include up to twelve tribal members identified by the HIA. In addition, one official representative (from the NPS and/or the HIA) would accompany the group to collect data. This individual would serve as the logistics coordinator, maintaining contact as necessary with harvesters. The Superintendent may authorize additional participants/observers to join the group, but these individuals would remain on the beach and/or on the vessel(s) to minimize disturbance in the breeding colonies. Harvesters would abide by the requirements of the Wilderness Visitor Use Management Plan as well as the Park's annual compendium.

Monitoring: Monitoring protocols would be established to help the NPS determine population and harvest trends and identify impacts to park resources. Monitoring would occur before, during and after harvest activities. On-site activities would be documented in an annual report prepared by the HIA and submitted to the Superintendent following the close of the harvest season. The annual report would include:

- Date of site visits, harvest locations, and number of harvesters/site
- Number of eggs taken from nests with one, two, three and four eggs as well as number of nests with no eggs located at each site per visit
- Number of pipped, star-fractured, or predated eggs and number of hatched chicks in nests located at each site per visit
- Number of marine mammals hauled out at harvest location; number of animals leaving the haul out and entering the water before, during or immediately after harvest activities; behavioral changes including increased alertness or increased aggressive interactions at each site per visit
- Other species present at each site per visit
- Visitor interactions at each site per visit

In addition to monitoring that would take place during the harvest, annual monitoring would assist the Superintendent in making annual decisions regarding harvest locations and would ensure that harvest activities are not impacting park purposes and values. The monitoring plan would include, but not be limited to:

- Glaucous-winged gulls:
    1. Identify onset of laying as determined by monitoring a reference site at South Marble Island
    2. Conduct a mid season adult count by circumnavigating harvested nesting islands at high tide during acceptable weather.
    3. Conduct nest counts of nests with 0, 1, 2, 3, 4 eggs during harvest.
    4. Conduct a complete survey just before hatch of all harvested islands.

- Sea lions and harbor seals: Conduct visual counts of the number of marine mammals hauled out at South Marble Island and other potential egg harvest sites.
- All avian species: Prior to harvest, conduct a vessel-based survey of potential egg harvest sites to tally numbers of all bird species seen.
- Visitor Experience: Monitor the number of positive and negative comments to NPS staff about egg harvest activities.
- Cultural: Monitor the number of individuals participating in egg harvest and how eggs are used (consumed at home, at celebrations, distributed in community, distributed outside of community).

In addition to annual monitoring, a three-year study is highly recommended following the first year of harvest to identify potential causes of change in park glaucous-winged gull population

levels. The study would include an assessment of egg laying phenology, predation pressure, and reproductive success in a subset of the South Marble Island colony (or other location). This would be accomplished by stationing a biologist(s) on South Marble Island for one to two weeks in mid- to late May to follow study protocols described in Zador (2001) or modified as new protocols are developed. This study would assist NPS in comparing the effects of harvest and environmental factors on glaucous-winged gull populations.

STELLER SEA LION

Population Status, Distribution and Demographics

Steller sea lions (*Eumetopias jubatus*), also known as northern sea lions, are the largest member of the Family Otariidae and range throughout the North Pacific rim from California to Japan (Loughlin et al. 1984). The population of Steller sea lions was divided into two stocks based primarily on mitochondrial DNA sequence distribution (Bickham et al. 1996) and also on differences in population trajectories (York et al. 1996). The division between the eastern and western stock occurs at Cape Suckling (144º W longitude) in the north central Gulf of Alaska between Prince William Sound and Icy Bay, which is approximately 495 km west of Gustavus, Alaska (Loughlin 1997). More recent mitochondrial DNA analysis supports the recognition of three stocks including an Asian stock, the western stock, and the eastern stock with moderate rates of migration estimated among stocks (Baker et al. 2005).

In 1990, Steller sea lions were declared "threatened" throughout their range under the U.S. Endangered Species Act. In 1997, the western stock was listed as "endangered" (Loughlin et al.1992, 62 FR 30772) as a result of the precipitous decline in the Alaskan population from 140,000 in 1956 to 60,000-68,000 sea lions in 1985 (Merrick et al. 1987). Worldwide, the population dropped from 240,000-300,000 to 116,000 sea lions (Loughlin et al. 1992) during a 30-year period. Overall, the western stock declined by approximately 85% between the early 1970s and 2001 (Sease et al. 2001) with some breeding rookeries in the Aleutians declining as much as 87% between 1960 and 1989 (Loughlin et al. 1992). In contrast to the western stock, the overall abundance of the eastern stock has increased at a rate of 3.1%/year since the 1970's (Calkins et al. 1999; Sease et al. 2001; Pitcher et al. 2007). In Southeast Alaska, counts of non-pups at trend sites increased by 56% (from 6,376 to 9,951 with no correction factor applied) from 1979-2002 (Merrick et al. 1992, Sease et al. 2001). Specifically in Southeast Alaska, sea lion numbers have increased by an average of 5.9% per year between 1979 and 1997 based on counts of pups at rookeries. However pup numbers increased at a slower rate (1.7% per year) between 1989 and 1997 (Calkins et al. 1999). Approximately two-thirds of the pups produced in the eastern stock are born in Southeast Alaska (Calkins et al. 1999). In contrast to the western population, the abundance of the eastern population has increased at an average annual rate of 3.1% since the 1970s (Pitcher et al. 2007). In addition, during the last 80 years there has been a northward shift in distribution of both rookeries and animals in the eastern population (Pitcher et al. 2007). The minimum population estimate for the eastern U.S. stock of Steller sea lions is 43,728 (not corrected for the numbers of animals which were at sea; Angliss and Outlaw 2005). Although Kruse et al. (2001) reported that abundance of the eastern stock may be the highest ever recorded and that reevaluation of the threatened listing is warranted, the eastern stock is still listed as threatened (Angliss et al. 2001).

Glacier Bay National Park Population

Steller sea lions use several terrestrial sites in Glacier Bay National Park and Preserve including South Marble Island, Graves Rocks, Point Carolus, Tarr Inlet, and areas in the Alsek River (Figure 3-1; Womble et al. 2005, Womble et al.2009). South Marble Island, Point Carolus, Tarr Inlet and islets in the Alsek River are haul out sites, whereas Graves Rocks is a rookery. Some terrestrial sites, such as South Marble Island, are used year round whereas other sites are used only seasonally for brief periods (Womble et al. 2009).

Trends in the numbers of sea lions counted in the Glacier Bay/Icy Strait region have increased by 9.4%/year from 1976 to 2006. At South Marble Island, the primary sea lion haulout site in Glacier Bay, the number of sea lions counted has increased by 22.9%/year from 1991-2004 (G. Pendleton, pers. commun.). South Marble Island is used by all sex and age classes of Steller sea lions including pups, juveniles, adults, and lactating females. Newborn pups have been observed on the island during the breeding season, suggesting that birthing occasionally occurs at this site (J. Womble, pers. comm.).

Sea lions were not observed using the South Marble Island haul out prior to the early 1980's; however by 1988, 250 sea lions were reported from an aerial observation (Streveler 1989). Opportunistic visual estimates from a boat by NPS staff from May to September 1993 were highly variable and ranged from 1-200 sea lions (Mathews 1993). In 1998, NPS staff observed high counts of 270 animals in July and more than 500 sea lions in August, compared to fewer than 100 animals in 1988 and 1989 (NPS unpubl. data).

Systematic monthly aerial surveys conducted from March 2001 to May 2004 indicate that South Marble Island is currently occupied year round by sea lions (Womble et al. 2009) with up to 791 sea lions documented at South Marble Island in October 2002 (Womble et al. 2005). The abundance of sea lions oscillates seasonally with peaks in abundance of sea lions occurring typically in spring and fall (Womble et al. 2009). Seasonal changes in the abundance of sea lions may be influenced by various factors including the presence of seasonal aggregations of energy-rich prey species, such as eulachon (*Thaleichthys pacificus*), herring (*Clupea pallasii*), and salmon (*Oncorhynchus* sp.) (Womble et al. 2005, Womble et al. 2006, Womble et al. 2009) as well as seasonal movements to rookeries located along the outer coast of southeastern Alaska.

Steller sea lions may travel great distances from rookeries (Raum-Suryan et al. 2002). Branded juveniles have been sighted up to 1,785 km from natal rookeries; however, pups (<1 year old) typically remain within 500 km of their natal rookery (Raum-Suryan et al. 2002). Sea lions from both the eastern and western U.S. stock have been observed in Glacier Bay at Graves Rocks and at South Marble Island (Jemison 2006, Gelatt et al. 2007). Sites in Glacier Bay have the greatest diversity of brands sighted compared to other areas and include individual sea lions from Marmot Island, Sugarloaf Island, and Seal Rocks from the western stock and sea lions from rookeries throughout southeastern Alaska, Rogue Reef (Oregon), and Shilshole Bay (Washington) from the eastern stock. (Jemison 2006). More western-stock branded sea lions have been seen within Glacier Bay than in any other area in the eastern stock (Gelett et al. 2007).

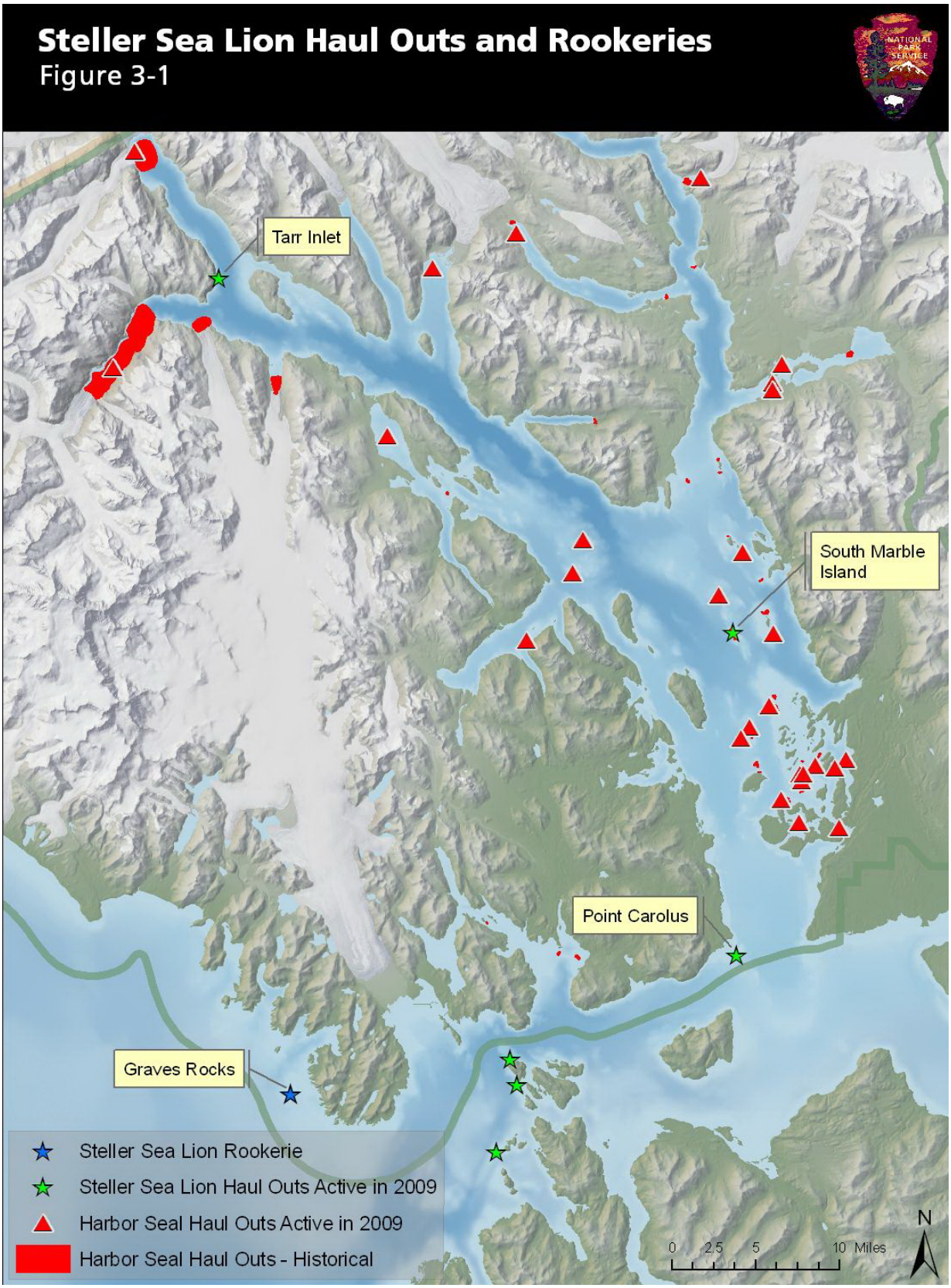

Figure 3-1. Steller sea lion and harbor seal haul outs in Glacier Bay National Park.

Steller sea lions branded at rookeries in Southeast Alaska have been resighted in Glacier Bay. Pups from Forrester (Lowrie) Island have been observed at South Marble Island (Mathews 1996, Raum-Suryan 2001), a distance of more than 322 km. A juvenile female Steller sea lion branded as a pup in 2000 at Sugarloaf Island in the western stock was resighted at South Marble Island in 2001, a straight-line distance of 923 km. Sea lions branded outside of Southeast Alaska at Sugarloaf Island and Marmot Island (near Kodiak), Seal Rocks and Fish Island (near Prince William Sound), and St. George Reef in California have also been resighted at South Marble Island and Graves Rocks in Glacier Bay (ADF&G, unpubl. data).

Recent genetic evidence collected from sea lion pups at the Graves Rocks rookery in Glacier Bay suggests that the rookery was established in part by females from the western sea lion stock (Gelatt et al. 2007). The presence of these "western stock" haplotypes in newborn animals and the age of the rookeries suggest that Graves Rocks was founded by females from both the eastern and western stocks after the designation of the original population subdivisions which created the stock boundary. Furthermore, the number of pups observed at Graves Rocks has increased since they were first observed there in 1998 to 91 pups counted at Graves Rocks on July 11, 2005 and 155 pups counted on July 19, 2006 (Jemison 2006).

Potential Direct, Indirect and Cumulative Effects of Alternatives on the Steller Sea Lion

The analysis of effects of alternatives on Steller sea lions includes discussions of the effects of harvest-related vessel and foot traffic on sea lions hauled out near harvest locations. In order to evaluate the effects of the proposed action on the Steller sea lion population, we:

- Identified the proposed activities that could affect the Steller sea lion population.
- Determined how those activities would affect sea lions (e.g. behavioral changes, changes in mortality, changes in reproduction, changes in habitat use).
- Determined the level of effect of those activities and whether the effects are adverse or beneficial.
- Determined the significance of those effects in terms of the resource.

To determine the significance of effects on Steller sea lions the impacts were compared against the threshold criteria in Table 4-4.

Table 1-1. Threshold Criteria for the Effects Analysis on Endangered and Threatened Steller Sea Lion Population.

Negligible	Little or no change in the behavior, abundance, or distribution of Steller sea lions. Any changes would not reduce individual survival or reproduction.
Minor	Small, temporary change in the behavior, abundance, or distribution of Steller sea lions. These temporary changes would have little or no effect on individual survival or reproduction.

Moderate	The behavior, abundance, or distribution of Steller sea lions would change for a period longer than the summer season, but less than one year. Individuals could experience sublethal effects that lead to reductions in long-term survival or reproduction. Population-level distribution, abundance, survival, or reproduction would remain unchanged.
Major	The behavior, abundance, distribution, or mortality of Steller sea lions would permanently change, resulting in reduced individual survival or reproduction sufficient to change population-level distribution and abundance, jeopardizing the continued existence of these species in Glacier Bay.

Assumptions

The analysis assumes that the number of Steller sea lions hauling out at South Marble Island and elsewhere would remain constant over time. The analysis also assumes that the existing vessel approach distances mandated by the Glacier Bay National Park Vessel Quota and Operating Restrictions of 100 yards would remain in place, precluding human disturbance to hauled-out marine mammals.

Alternative 1 (No-Action) – Effects on the Steller Sea Lion Population

Direct and Indirect Effects: Because Alternative 1 (No Action) would not authorize gull egg harvest in Glacier Bay National Park, Steller sea lions would not be affected by activities associated with harvest practices. Sea lions hauling out on South Marble Island and elsewhere would continue to be protected by the ESA, the Marine Mammal Protection Act, and NPS regulations which prohibit vessel or human approaches within 100 yards (90 meters) of hauled out sea lions.

Cumulative Effects: In the absence of egg harvest, Steller sea lion populations would be affected most by natural phenomena and limited human disturbance associated with inappropriate close vessel approaches. Although the Steller sea lion is a listed species, natural phenomena appear to be favoring the eastern stock of sea lions as population numbers have been increasing in Southeast Alaska, and in particular, in Glacier Bay.

Numerous vessels including tour boats, charter boats and private vessels approach South Marble Island daily during the visitor use season to view colonial nesting birds and Steller sea lions. Although vessels are required to remain at least 100 yards from hauled out sea lions, research indicates that not all vessels do so (Mathews 2000) and some animals are likely disturbed throughout the season. This occasional disturbance does not appear to affect the Steller sea lion population at South Marble Island as the haul out continues to be heavily used and surveys indicate that sea lion numbers are increasing at that site.

Conclusion: Because Alternative 1 (No Action) would not authorize gull egg harvest in Glacier Bay National Park, Steller sea lions would not be affected and the alternative would not contribute to cumulative effects on the species.

Alternative 2 (One Harvest Visit to Two Locations) - Effects on the Steller Sea Lion Population

Direct and Indirect Effects: Steller sea lions are susceptible to human disturbance associated with foot and vessel traffic. Sea lions react to direct human approach by increasing vocalizations and agitated head movements, shifting positions on the haul out, and fleeing into the water. In the short-term, human disturbance can disrupt daily activities and redistribute animals within and among haul out sites. Severe, consistent disturbance could result in reduced reproductive success and increased stress and vigilance levels (Engelhard et al. 2002). The type, intensity and duration of the disturbance as well as the frequency of disturbance events all affect how animals respond (Born et al. 1999, Suryan and Harvey 1999, Henry and Hammill 2001).

In a study of various types of human disturbance, Kucey (2005) noted that sea lions reacted strongly to direct boat approaches, particularly if the vessel did not slow down as it approached the haul out. However, when vessels made slow, parallel passes they were able to approach quite closely to haul outs without animals entering the water. Kucey (2005) also noted that sea lions at haul outs that are frequently visited by tourists on vessels may become habituated to vessel approach and presence. However, these animals may still experience physiological stress not apparent to the observer (Fowler 1999).

Mathews (2000) studied the effects of vessel approaches on sea lions hauled out at South Marble Island. Mathews noted increased disturbance (as measured by changes from resting to non-resting behavior and abandoning the haul out for water) as vessels approached between 42 and 345 yards with a mean distance of 152 yards. Kayaks as well as powered vessels were noted to cause disturbance at these distances.

Sea lions haul out at several sites throughout Glacier Bay National Park (Figure 3-1); two sites, Graves Rocks and South Marble Island, also support nesting glaucous-winged gulls. In this alternative, harvest is likely to occur at South Marble Island for the foreseeable future. If South Marble Island is selected as a harvest location, a vessel would approach and off-load passengers at one or more of five beaches on a single day between late May and mid- June. Sea lions use haul outs near several of these landing sites (Figure 2-1). The vessel would land at a site only if the landing could be made while remaining 100 yards or farther from hauled out animals. Harvest locations and access pathways would be delineated such that harvesters moving through a colony would not disturb sea lions hauled out. Such practices would cause little or no change in sea lion behavior or survival.

Sea lions may temporarily become more alert as the vessel approaches the haul out but are not expected to leave the haul out and enter the water. Limited disturbance may result as harvesters move into colonies. The effects of this alternative on Steller sea lions are expected to be negligible.

Cumulative Effects: In addition to the effects described above**,** Steller sea lion populations would be affected most by natural phenomena and limited human disturbance associated with inappropriate close vessel approaches. Natural phenomena appear to favor Southeast Alaskan populations of Steller sea lions and inappropriate vessel approaches are thought to be uncommon

in Glacier Bay. This alternative is not expected to contribute towards cumulative effects on Steller sea lion populations.

Conclusion: Behavioral disturbance to Steller sea lions would be limited because vessels associated with harvest activities would not be permitted to approach hauled out marine mammals closer than 100 yards. In addition, disturbance by harvester contact with sea lions would be minimized by requiring that harvesters remain out of view of hauled out animals while on the islands. The direct, indirect and cumulative effects of this alternative on Steller sea lions would be negligible.

Alternative 3 (Two Harvest Visits at Up to Five Locations): NPS Preferred Alternative - Effects on the Steller Sea Lion Population

Direct and Indirect Effects: In this alternative, harvest is likely to occur at South Marble Island for the foreseeable future. If South Marble Island is selected as a harvest location, a vessel would approach and off load passengers at one or more of five beaches on two days in late May to mid June. Sea lions use haul outs near several of these landing sites (Figure 2-1). The vessel would land at a site only if the landing could be made while remaining 100 yards or farther from hauled out animals. Harvest locations and access pathways would be delineated such that harvesters moving through a colony would not disturb sea lions hauled out. Such practices would cause little or no change in sea lion behavior or survival.

Sea lions may temporarily become more alert as the vessel approaches the haul out but are not expected to leave the haul out and enter the water as vessels would remain more than 100 yards away from haul outs. The effects of this alternative on Steller sea lions would be negligible.

Cumulative Effects: In addition to effects associated with harvest activities described above, Steller sea lion populations would be affected most by natural phenomena and limited human disturbance associated with inappropriate close vessel approaches. Natural phenomena appear to favor Southeast Alaskan populations of Steller sea lions and inappropriate vessel approaches are thought to be uncommon in Glacier Bay. This alternative is not expected to contribute towards cumulative effects on Steller sea lion populations.

Conclusion: Behavioral disturbance to Steller sea lions would be limited because vessels associated with harvest activities would not be permitted to approach hauled out marine mammals closer than 100 yards. In addition, disturbance by harvester contact with sea lions would be minimized by delineating pathways that reduce disturbance to hauled out animals while on the islands. The direct, indirect, and cumulative effects of this alternative on Steller sea lions would be negligible.

Summary

In summary, the National Park Service concludes that none of the alternatives, including the agency's preferred alternative (Alternative 3) are likely to adversely effect the Steller sea lion.

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

February 3, 2010

Cherry Payne, Superintendent
Glacier Bay National Park and Preserve
P.O. Box 140
Gustavus, Alaska 99826-0140

Dear Ms Payne:

The National Marine Fisheries Service (NMFS) has reviewed the Biological Assessment (BA) on the Effects of Harvesting Glaucous-winged Gull Eggs in Glacier Bay National Park on the Steller Sea Lion, dated November 23, 2009. In your letter to NMFS, you requested concurrence with your determination that the proposed action "may affect, but is not likely to adversely affect", Steller sea lions within the project area. An agency action is considered not likely to adversely affect listed species or designated critical habitat when its effects are expected to be completely beneficial, discountable, or insignificant. Beneficial effects are synchronous positive effects without any adverse effects to the species or critical habitat. Discountable effects are those extremely unlikely to occur. Insignificant effects relate to the size of the impact and may not reach the scale where take occurs. Based on best judgment, a person would not expect discountable effects to occur; or be able to meaningfully measure, detect or evaluate insignificant effects. Please be advised that, although your letter described the consultation as formal, a "not likely to adversely affect" determination is considered part of the informal consultation process. Because both the conclusion stated in your letter and the contents of the BA support a "not likely to adversely affect" conclusion, NMFS is considering agency consultation on this project as informal.

Summary of BA

The proposed project concerns the limited harvest of glaucous-winged gull eggs in Glacier Bay National Park by Huna Tlingit tribal members. The BA describes three alternatives and respective potential effects on Steller sea lions:

- Alternative 1 – no action
- Alternative 2 – the authorization of a single harvest at up to two designated locations on or before June 9
- Alternative 3(preferred) – the authorization of up to five designated locations on two separate dates between late May and mid-June

Alternative 1 is considered as having no impact on Steller sea lions. Alternatives 2 and 3 have the potential to impact sea lions in the area because harvest may occur on South Marble Island, which is a heavily used haul-out in Glacier Bay National Park. Both alternatives involve vessels possibly approaching and off-loading passengers at one or more of five beaches on South Marble Island for one or two days. However, because

landing sites are required to be at least 100 yards from hauled out sea lions and because harvest locations and pathways would be specifically chosen so as not to disturb the animals, the effects of both Alternatives 2 and 3 were considered to be negligible, defined as little or no change in behavior, abundance, or distribution of Steller sea lions. The BA concluded with a final determination that none of the alternatives of the proposed project, including the preferred alternative, are likely to adversely affect Steller sea lions.

Discussion

NMFS recognizes two distinct populations segments (DPS) of Steller sea lion (*Eumetopias jubatus*) in Alaska. Sea lions in southeast Alaska, including Glacier Bay National Park, are predominantly members of the eastern DPS, listed as threatened under the Endangered Species Act (ESA). Steller sea lion habitat encompasses both marine and terrestrial areas. Terrestrial areas include rookeries, where breeding occurs, and haulouts, where animals congregate and rest while foraging or in transit. Both rookeries and haulouts tend to be consistent from year to year. The action area for this project includes marine transportation routes as well as the Marble Island landing zone and terrestrial access route created from the landing zone to the egg collection site. Although there are no rookeries within the action area, there is a significant year-round haulout on Marble Island. Direct effects of the project on Steller sea lions within the action area may include an increased risk of boat strikes, in-water acoustic disturbance, disruption of foraging along boating routes as well as disruption of animals actively using the haulout. The probability of these events depends upon the local distribution of the sea lions as well as the frequency, speed and route of marine transportation and terrestrial activity. Although sea lions use the Marble Island haulout throughout the year, the project is designated to occur between late May and mid-June, which is not within the spring and fall period of peak use. With respect to marine traffic, this project will not significantly increase the volume of boat traffic in the area as a maximum of two harvest visits will be allowed. Furthermore, vessels are required to comply with the Marine Mammal Protection Act, Endangered Species Act and National Park regulations regarding speed and approach distances. With respect to terrestrial disturbance, boat landing sites are required to maintain a distance of at least 100 yards from the haulout and terrestrial access pathways will be specifically and judiciously determined to avoid disturbance of the hauled out animals. Consequently, disruption of Steller sea lion presence and activity within both the marine and terrestrial components of the action area is likely to be insignificant.

Conclusion

NMFS concurs in your agency's determination that the planned action "may affect, but is not likely to adversely affect" Steller sea lions within the action area. Given the limited scope and duration of the project as well as the required protections in place regarding marine and terrestrial activities, NMFS concludes that this action will, at most, have an insignificant effect on Steller sea lions in the area.

Re-initiation of consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) take of a listed species occurs, (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered, (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered, or (4) a new species is listed or critical habitat designated that may be affected by the action. Should you have further questions or concerns, please contact Kate Savage at (907)957-2230 or at *Kate.Savage@noaa.gov*.

Sincerely,

Robert D. Mecum
Acting Administrator, Alaska Region